

Policy Imperatives for a Competitive and Resilient Nature-Positive Economy

Independent Expert Report



Policy imperatives for a competitive and resilient nature-positive economy

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Policy Imperatives for a Competitive and Resilient Nature-Positive Economy

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Foreword

Nature is the foundation of our societies and economies. It provides us with clean air and water, fertile soils, food security, pollination, protection from disasters, and countless other benefits. Yet biodiversity is disappearing faster than at any point in human history, and one million species now face extinction. This is not only a crisis for ecosystems, but also a direct threat to our prosperity, competitiveness, and resilience.

Our economies and financial systems are deeply intertwined with nature and the services it provides. The loss of biodiversity therefore threatens the stability of businesses, communities, and entire regions. If this decline continues unchecked, Europe risks undermining its long-term competitiveness and prosperity.

For this reason, the European Commission has made nature recovery a priority through the European Green Deal, the EU Biodiversity Strategy for 2030, the Nature Restoration Regulation, and our commitment to the Kunming–Montreal Global Biodiversity Framework. Achieving these goals requires rethinking our economy so that growth and wellbeing are no longer at odds with the health of all ecosystems we depend on.

This publication, based on 44 EU-funded Research and Innovation projects, makes an important contribution to that debate. It shows that the green transition must go beyond decarbonisation alone. To succeed, it must also address the drivers of biodiversity loss, reform economic and financial frameworks, and scale up investment in Nature-based Solutions and Nature-based Enterprises. These are not niche ideas: they are powerful tools for innovation, competitiveness, and prosperity in a nature positive future.

The transition to a Nature Positive Economy is now both urgent and achievable. It is an opportunity to align prosperity with planetary boundaries, and to position Europe at the forefront of global leadership on sustainability. I hope this report will inspire policymakers, businesses, researchers, and citizens to accelerate this transformation. For people, for nature, and for Europe's future.

Philippe Tulkens, 'Climate & Planetary Boundaries' Head of Unit, DG Research & Innovation, European Commission.

Industry and nature are inherently linked. The EU Biodiversity Strategy states that over half of global GDP, €40 trillion, depends on nature. The transition to a Nature-Positive Economy is not merely an environmental imperative; it is also an economic and societal must. In addition, the transition to a Nature-Positive Economy can be an important opportunity for innovation, competitiveness and inclusive growth. At the heart of this transformation lie businesses, whose ingenuity, ambition, and investment will determine the success of Europe's vision to combine competitiveness and sustainability. Given the calls for deepening the Single Market and the need to ensure Europe's sustainable prosperity, we should work on creating a truly enabling environment - one that encourages and rewards business models that deliver a net-positive impact on the European public interest.

This study underscores the pivotal role of businesses in driving the systemic shift toward a regenerative economy. It shows that nature-based solutions (NbS) present immense business opportunities, both by creating new markets and by providing services to mitigate negative impacts created by existing ones. In this regard, businesses aiming to make a significant and measurable net-positive impact with their core business activities - among them are nature-based enterprises - are particularly well-positioned.

Innovation is central to this journey. The European Commission's flagship initiatives - such as the Start-up and Scale-up Strategy and the Single Market Strategy - are designed to catalyze the growth of innovative businesses, such as impact-driven businesses and nature-based enterprises that aim to address societal challenges while generating economic value.

The potential of impact-driven innovation remains relatively underexplored. This study illustrates how tailored financial instruments, capacity-building, and policy alignment can help to scale the various kinds of impact business models. It also shows that a nature-positive economy is achievable, with businesses that are active partners in this transition.

Amaryllis Verhoeven, 'Responsible Business Conduct' Head of Unit, DG Internal Market, Industry, Entrepreneurship and SMEs, European Commission.

Executive Summary

Developed under the NetworkNature [NbS Task Force 3 on Finance and Business Models \(for NbS\) in a Nature-Positive Economy](#), and coordinated by the [Invest4Nature](#) project, this publication draws on research and innovation from 45 EU-funded R&I projects to set out policy imperatives and recommendations for action towards a competitive and resilient Nature-Positive Economy (NPE).

A NPE means that the net result of all economic activities combined leads to an absolute increase in nature to the point of full recovery, and prosperity for all of society. A NPE aligns economic, environmental and societal goals.

The authors welcome feedback, questions and case studies via TF3@networknature.eu to help enrich future updates of this publication.

Economic Policy Imperatives for Prioritising Nature

1. Nature loss is not only an ecological crisis but a systemic economic and financial risk.

Over half of global GDP - around \$58 trillion - is moderately or highly dependent on nature ([PwC, 2023](#)). In Europe, the economy is even more vulnerable to nature degradation, with two thirds of EU Gross Value Added (GVA) estimated to have a high or medium dependency on nature ([EC JRC, 2025](#)).

This dependency directly translates into financial risk. In the euro area, approximately 75% of all bank loans (to more than three million companies) are granted to companies having high dependency on at least one ecosystem service ([ECB, 2023](#)).

The business and financial communities are increasingly aware of these risks and dependencies. The World Economic Forum (WEF) annual Global Risks Report shows that the perception of such risks has shifted from being a long-term concern to a more urgent reality. In 2025, biodiversity loss and ecosystem collapse ranked second only to extreme weather events, in a list of over 33 risks expected to deteriorate significantly over a 10-year horizon ([WEF, 2025](#)).

2. Conversely, restoration of nature presents significant economic opportunities.

On a more positive note, transitioning towards a nature-positive economy presents opportunities for innovation and job creation. WEF estimates that \$10 trillion worth of annual business opportunities and 395 million potential jobs can be created by 2030 through 15 systemic transitions generating benefits for businesses such as increased supply chain resilience, and stronger social licence to operate.

These transitions require up to \$2.7 trillion in annual investment, opening significant lending and investment opportunities for financial institutions ([WEF, 2024](#)).

3. Current economic systems and policies are not adequately addressing nature-related dependencies, risks and opportunities.

While nature is foundational to economic prosperity, our current economic systems are accelerating its decline - a paradox that threatens both ecological and economic stability ([IPBES, 2024](#)).

Transformative change of our economic systems is essential to address the root causes of nature degradation, but such transformation is challenging in the face of multiple short-term political and economic crises. Despite clear scientific evidence that the cost of inaction far exceeds the cost of action, recent policy directions suggest that nature restoration is slipping down the political agenda. Existing EU policy tools include promising elements but often lack binding obligations, adequate funding, and coherence. Recent high-level strategies, such as the EU Competitiveness Compass, do not clearly address nature-related risks and dependencies or prioritise economic opportunities that have a positive impact on nature.

The negotiation of the Multiannual Financial Framework (MFF), Europe's long-term budget for the period 2028-2034, presents a timely opportunity to critically reflect on how nature should be integrated across policy and budgetary frameworks. Without specific safeguards, nature is at risk of being deprioritised amidst competing funding demands, generating further risks for the European economy. To mitigate against such risks, biodiversity targets must be protected within evolving economic, fiscal, industrial, and competitiveness policies.

4. Decarbonisation is essential to address the climate crisis, but it will not on its own halt nature loss.

The continued prioritisation of decarbonisation on the EU policy agenda is welcome and an imperative to address the climate crisis. Investment in nature restoration is one of the most powerful and cost-effective solutions for decarbonisation. Around one-third of the mitigation required over the next decade could come from conserving and restoring nature while generating multiple other benefits for society and the economy when managed carefully ([UNEP, 2021](#)).

However, it is important to recognise that decarbonisation will not, on its own, reverse nature and biodiversity loss. While the climate crisis is one of the drivers of nature loss, there are multiple other drivers and causes of nature decline including land and sea use change, unsustainable patterns of production and consumption, pollution, invasive alien species and others. Tackling the multiple drivers of nature loss requires targeted policy action in parallel with emissions reduction policies.

Recommendation: Embed the principles of a Nature-Positive Economy across all EU policy domains

- 1. Recognise that the EU economy is structurally dependent on healthy ecosystems and operationalise NPE principles in concrete policy tools.**
 - Transitioning to a NPE requires actions to reduce harm, increase nature restoration and drive long-term systems transformation. These three types of actions must be legally mandated across policy domains and across policy scales to drive full ecological recovery.
 - While the focus of this publication is on embedding NPE principles in economic policy, societal transition is an equally important policy imperative. Prosperity for all of society is a key outcome of the NPE. Achieving societal transformation requires integrating NPE principles into education, governance reform, and cultural change.
- 2. Embed NPE principles in economic decision-making.** Priorities include:

- Aligning competitiveness strategies with nature goals: the EU Competitiveness Compass should be leveraged to boost nature-positive economic activity and provide targeted support for the development and testing of nature-positive business and financing models, especially in high-dependency and high-impact sectors.
 - Nature restoration targets must be protected and funding ringfenced in the shaping of the Multiannual Financial Framework (MFF) to avoid the risk of nature being deprioritised amidst competing funding demands. Safeguards need to be embedded in economic and social policy to ensure that addressing immediate economic priorities do not result in negative long-term trade-offs and unintended consequences for nature and biodiversity.
 - Addressing the nature crisis should be elevated to the same priority level as addressing the climate crisis, recognising that both are intertwined, that nature restoration is an effective instrument to tackle climate change, but that decarbonisation alone will not halt biodiversity loss. Specific targets and instruments must be created within economic policy to address nature degradation and ecosystem collapse. Economic reforms are needed to simultaneously deliver climate and biodiversity goals, with separate tracking and safeguards. The focus of current environment and climate action funds, such as the Just Transition Fund and the Innovation Fund, on climate neutrality and net-zero technologies should be expanded to include an equal prioritisation of nature restoration solutions and technologies.
 - Mandate integration of nature-related risks and dependencies into sectoral policy planning, recognising that while all sectors depend on nature, transition to nature-positive economic activities should be prioritised in industry sectors with the highest impacts, dependencies and exposure to risk from nature loss. In Europe these include agriculture, forestry, fisheries and aquaculture, mining and metals, construction, water utilities and healthcare delivery (JRC, 2025).
3. **Existing EU policy instruments need to be strengthened to ensure nature-positive outcomes.** This means replacing voluntary compliance with binding obligations (including but not limited to those in the Nature Restoration Regulation). Address policy incoherence by reducing and phasing out harmful subsidies in line with long-term, agreed transition pathways, redirecting funds toward nature-positive economic activities.
 4. **Integrated policy approaches must be prioritised.** Calls for a cross-silo approach to address environmental crises (climate, nature and pollution) in parallel with social and economic crises are not new, but have yet to be effectively operationalised, at all levels of government. Inter-ministerial and cross-sectoral platforms must be created to coordinate nature-positive strategies at EU, national, and local levels. Climate and biodiversity policies must work in tandem, with economic strategies explicitly designed to restore ecosystems and reverse nature loss. Binding biodiversity investment targets should be included across broader funding envelopes (e.g. cohesion, innovation, agriculture).
 5. **Strengthen nature-related reporting requirements for public and private actors, ensuring clarity, comparability, and alignment across EU and international frameworks.** Expand use of ecosystem service accounting (e.g. System of Environmental-Economic Accounting, SEEA) across all EU Member States and institutions. Safeguard and enhance key elements of the EU's sustainable finance architecture, alongside other fiscal and policy instruments, in a coherent approach to achieving the EU's wider sustainability, competitiveness, and resilience ambitions.

Research Gaps & Capacity Building

Research on the nature-positive economy (NPE) is still emerging. While initial studies explore how EU and sectoral policies support or hinder NPE, more detailed work is needed to guide transition pathways and bridge policy silos. Key directions include:

- **Embedding NPE principles across policies:** Further research is needed (i) to model NPE impacts on competitiveness (e.g. costs, productivity, resilience) at EU, sector, and local scales; (ii) to model the economic impact of NPE transition for natural resource and environmental policies (e.g. agriculture, maritime, climate, Just Transition); and (iii) to evaluate cross-policy effects on Single Market, Innovation/Digital, Cohesion, Security, and External Action.
- **Digital Transformation:** Further research is needed to explore how digital tools can help address the nature crisis, particularly cost-effective MRV to support novel financing approaches, and to address persistent challenges of data costs and access.
- **Infrastructure & Nature Risks:** Further research is needed to assess how NPE intersects with energy, transport, water, and digital infrastructure, ensuring planning both reflects dependencies and opportunities related to nature and biodiversity. Improved alignment with EU funding facilities like Connecting Europe.
- **Knowledge Platforms:** Develop a coherent EU nature knowledge hub, expanding efforts like NetworkNature to bridge research across ecosystems, social and health domains, backed by political, institutional, and private support.
- **Metrics & Reporting:** Extend “Beyond GDP” work to track drivers of nature degradation and systemic economic shifts. Strengthen nature-related reporting, aligned with EU and global frameworks, within a coherent sustainable finance architecture.
- **Capacity Building:** Provide targeted incentives, training, and tools to local/regional authorities and policymakers to translate research results into on-the-ground NPE implementation.

For further detail on policy analysis and imperatives, please see chapter 2.

NbS as Pathways for Transformation to a Nature-Positive Economy

1. An integrated portfolio of systemic change actions is needed to achieve a Nature-Positive Economy

Nature underpins economies and societies yet its benefits are systematically undervalued due to market failures, weak property rights, and the subsequent under-provision of environmental public goods ([Dasputa, 2021](#)). Many vital ecosystem services, such as carbon sequestration, pollination and flood protection, are non-rivalrous and non-excludable making them prone to free-riding and underinvestment. Current market prices fail to reflect the true social costs of environmental degradation, resulting in overconsumption of ecologically damaging goods. Internalising these externalities would align market prices with their accounting (social) value.

Achieving a Nature-Positive Economy requires nothing less than transformative change in the way Europe’s economies and societies operate. This transformation requires urgent action to avoid the rising costs of inaction and to initiate structural shifts in how economies, societies and ecosystems interact. It also requires coordinated action across multiple

interconnected domains, including biodiversity protection, conservation, restoration, sustainable use and regulation, as well as the integration of climate, energy, food, water, health and equity goals. At its core, this means a fundamental reorientation of economic systems to move beyond short-term profit towards long-term ecological health, justice, equity and societal wellbeing. Delivering such change calls for inclusive and accountable governance, the integration of diverse knowledge systems, and shifts in societal values and behaviours that recognise humanity's interdependence with nature. An enabling environment is also needed, with regulatory and fiscal reforms, robust disclosure and accounting standards, and the integration of nature-positive objectives across EU economic, investment, enterprise, cohesion and climate frameworks. These wider dimensions of systemic change are examined in more detail in Chapter 6.

Within this wider portfolio of systemic change actions, several complementary levers of transformation can drive progress towards a Nature-Positive Economy. These include regulatory and fiscal reforms, the phasing out of harmful subsidies, rights-based approaches to land and resource governance, shifts in cultural norms and societal values, and innovations in business and finance models. Within this mix, NbS and NbEs represent particularly powerful vehicles of change. When embedded in coherent policies, financing mechanisms and governance models, they can align ecological, economic and social goals. Positioning NbS within this broader systemic change agenda ensures they are understood not as stand-alone environmental interventions, but as integral drivers of long-term European competitiveness and societal resilience.

2. Nature-based Solutions (NbS) and Nature-based Enterprises (NbEs) present an important pathway towards a Nature-Positive Economy

NbS harness the power of nature to tackle social, economic and environmental challenges. Examples include restoration of peatlands, wetlands, coastlines and natural forests as well as agro-ecological farming practices and greening of urban buildings and environments. These are practical vehicles for delivering nature-positive outcomes and providing a pathway for shifting economic activities from nature-negative to nature-positive.

NbEs are companies in the private sector who work with and for nature through the design, delivery, monitoring and maintenance of NbS on the ground. They generate innovation and jobs in nature-positive economic activities and are therefore key actors in the transition to a NPE.

The integration of NbS and NbEs into economic policies presents a critical pathway towards the NPE.

3. There is limited awareness of the importance of NbS for economic policy. This report synthesises the economic benefits of investing in nature for households, governments and businesses.

NbS have conventionally been perceived as environmental policy interventions. While there is strong evidence of their benefits for the environment, health and society, their economic contribution has been less visible. Until recently, the link between NbS and economic policy has been seen as ambiguous. This report presents clear and unambiguous evidence of the economic benefits of NbS.

Directly, NbS create jobs and generate revenue in nature-dependent sectors such as agriculture, forestry, construction, and tourism. They enhance the resilience of natural capital, securing future livelihoods and long-term economic stability. Indirectly, NbS improve environmental quality, reduce pollution, and support public health and wellbeing

- translating into cost savings and enhanced human capital, which are beneficial for businesses, households and society at large.

More recently, strong evidence has emerged on the risk reduction and insurance value of NbS. With climate change making some risks unmanageable through traditional measures, NbS can significantly reduce disaster risk by buffering against floods, droughts, wildfires, and other climate-related hazards, and generating co-benefits. This "insurance value" translates into avoided damages, reduced insured losses, and lower premium volatility. As a result, the insurance sector is increasingly integrating NbS into underwriting and investment strategies - offering financial incentives for resilient landscapes and nature-positive projects. This can contribute to mitigating the growing climate insurance protection gap.

4. Innovative business models are essential

Effective NbS business models - including impact-driven approaches and those structured for blended public-private collaboration - must be underpinned by robust business planning to facilitate collaboration across diverse sectors. These models should adopt a landscape-level perspective, aligning multifunctional socio-ecological benefits (environmental, economic, social, and cultural) while transparently managing trade-offs among different stakeholder interests.

5. Unlocking investment in NbS is a major challenge

Over 80% of NbS are financed through public or blended sources ([UNEP 2024](#), [EIB 2023](#)). While NbS can cost more to implement than grey infrastructure, their total economic value - including welfare and avoided costs - consistently delivers higher net returns. They are therefore viable public investments with strong payoffs in resilience, risk reduction, and long-term savings.

Investment is held back by difficulties in valuing co-benefits and institutional barriers such as procurement rules, policy inconsistencies, and harmful subsidies. Increasing private financing has long been a priority, with public funds used for guarantees, co-investment, and de-risking. Yet free-rider issues persist due to the public goods nature of many NbS. Scaling requires blended finance, outcome-based contracts, and tailored instruments such as restoration bonds or revolving funds, aligned with project phases from early-stage grants to long-term revenue models.

Financing approaches must be sector-specific, as bankability, risks, and models differ across infrastructure, agriculture, forestry, tourism, and the blue economy. Tools gaining traction include Payments for Ecosystem Services, PPPs, and outcome-based financing. Some actors are piloting nature credits, but lessons from carbon markets underline the need for strict safeguards to ensure credibility and avoid greenwashing. Voluntary markets for nature credits will remain limited, especially for small landowners. More promising pathways lie in blended finance, green and resilience bonds, and corporate stewardship models linking NbS investment to long-term business and community benefits.

Recommendation: Increase investment in NbS as a pathway to the NPE

1. Improved Economic Assessment of NbS

To fully unlock the investment potential and policy mainstreaming of NbS, it is essential to adopt a more rigorous and actionable approach to economic assessment of NbS. This means:

- integrating advanced frameworks that capture **natural capital and socio-economic interdependencies**, quantifying both monetary and non-monetary benefits of ecosystem services, and systematically addressing valuation uncertainties;
- Placing a stronger emphasis on assessing the '**cost of inaction**', closing evidence gaps across geographies and governance contexts, and ensuring existing evidence is accessible and relevant to both public and private stakeholders;
- **Mandating robust monitoring and long-term impact assessments** for publicly funded initiatives, with evaluation frameworks shifting from short-term outputs to long-term resilience and ecosystem regeneration; and
- **Mainstreaming NbS valuation** into planning, procurement, and financing will require enhanced modelling tools, improved value transfer methods, and the institutionalisation of social cost-benefit analyses in demonstration projects to build a credible foundation for scaling.

2. Strengthen Business Models for NbS

Attracting sustainable investment in NbS requires robust, scalable business models aligned with current regulatory and economic contexts, while enabling long-term transformation toward climate and ecological goals. For this:

- These models must effectively mobilise **blended finance, impact capital, and public-private partnerships**;
- Value propositions need to be **aligned with stakeholder priorities** and adopting co-ownership and **collaborative governance structures** will strengthen buy-in and long-term support;
- **Landscape-scale planning** is needed to enable the valuation of ecosystem services and inform strategic investment;
- Financing strategies should **optimise the multifunctionality of NbS** to deliver cross-sectoral co-benefits; and
- **Effective governance frameworks** are essential to coordinate actors, reduce transaction costs, and scale innovative financial instruments such as restoration bonds and outcome-based contracts

3. Create an enabling environment to unlock investment in NbS

A supportive enabling environment is crucial to unlocking appropriate and resilient public and private investment into NbS. Activities that could help create this environment, and increase the flow of finance and funding to NbS include:

- Examining **tax and subsidy structures** to change the flow of funding and finance away from activities that are 'nature negative' and towards activities that support a nature positive economy, like NbS;
- Ensuring relevant **safeguards** are embedded within policy, that trade-offs are acknowledged and considered, and that multiple monetary and non-monetary costs and benefits are integrated into decision making so unintended consequences are avoided;
- Reviewing the wider policy environment for NbS to **remove unintended barriers** to both public and private investment and **integrate mechanisms that support scaling up**. These should focus on de-risking investments and aligning incentives with stated goals;
- Ensuring transparent and robust data on **monetary and non-monetary costs and benefits** are used to stimulate financial engagement and inform public and private financial decision making; and

- Requiring consideration of NbS as an **alternative or complementary approach in public procurement** and exploring opportunities to **expand public private partnerships** to share expertise, experience and risk, and increase the flow of finance for NbS (also see Business Models section).

Research Gaps & Capacity Building

- **Limited recognition of the economic (monetary and non-monetary) value of NbS among policymakers and investors.** The full potential of NbS remains underappreciated in mainstream economic planning and investment decision-making. Many financial actors lack a clear understanding of how NbS can contribute to risk mitigation, long-term value creation, and portfolio diversification. Targeted research is needed to improve cost-benefit analysis methodologies, develop robust performance metrics for ecosystem services, and demonstrate the financial case for NbS across sectors in both the long and short term alongside awareness-raising and capacity-building to embed NbS into macroeconomic frameworks, fiscal policy, and investment risk assessments.
- **Insufficient business modelling and business planning capabilities for NbS.**
There is a critical need to strengthen the technical and institutional capacity to design and implement viable business models for NbS. Existing models often fail to address the time lag in nature-based returns, the multifunctionality of ecological assets, or the complexities of blended finance and outcome-based contracts. Research is needed to develop adaptable, scalable models that reflect diverse investor requirements and can operate across varying regulatory environments. Training and guidance must also focus on aligning business plans with stakeholder priorities, integrating co-ownership governance structures, and leveraging emerging financial instruments such as restoration bonds, biodiversity credits, and revolving funds.
- **Lack of data and valuation tools to quantify the systemic value of ecosystem services at scale.** Current investment planning often overlooks the systemic, landscape-level benefits and co-benefits of NbS. Further research is required to improve ecosystem service valuation tools that can integrate monetary and non-monetary costs and benefits of NbS and support performance-based investment models. In particular, methods are needed to quantify non-market values, assess trade-offs, and inform strategic planning across land uses and governance levels. Better data will also help align incentives and enable transparent reporting for investors and policymakers.
- **Need for greater integration of governance and financial innovation.** There is limited understanding of how institutional arrangements and financial mechanisms interact to influence NbS outcomes. Research should explore the role of integrated governance structures in reducing transaction costs, enabling cross-sector coordination, and scaling investment. In parallel, capacity-building efforts must focus on embedding innovative financial tools - such as outcome-based financing, PPPs, and hybrid investment vehicles - within accountable, transparent governance frameworks.

Please see Chapter 3 for further detail on the economic benefit, business models and challenges of NbS financing.

Rationale and Roadblocks for Business Transition towards Nature-Positive

1. From Risk Assessment to Action

All businesses, to varying degrees, have dependencies and impacts on nature, which give rise to both risks and opportunities (TNFD).

The emphasis of awareness actions to date has largely been placed on assessing business risks and dependencies related to nature loss but less so on the business models and financing of practical solutions to address such risk through interventions such as NbS.

The transition towards nature-positive economic activities may present opportunities for businesses but they face many uncertainties and barriers, both within their internal organisational environment and in the wider external environment.

2. Leadership and strategy gaps

Despite increased concerns over the risk of nature loss, many companies have yet to integrate such risks into boardroom discussions, strategies and business models. Only 5% of companies have carried out an assessment of the impact of their operations on nature ([WBA, 2024](#)). Focus remains skewed toward climate, with less awareness and knowledge on how to address nature-related dependencies, impacts, risks, and opportunities.

Businesses face ongoing challenges balancing environmental concerns with investor returns. They lack knowledge on how to integrate nature-positive actions such as NbS into their business models and strategies to remain competitive while transitioning to nature-positive practices throughout their value chains.

Strategies to engage with local communities and indigenous people have been identified as essential to ensure the equitable transition to nature-positive business activities throughout global value chains. However, businesses may have limited capacity and experience in collaborating with community actors and vice-versa, thus hindering equitable and effective cooperation.

3. Reporting complexity, data challenges and policy inconsistency

The original broad scope of the Corporate Sustainability Reporting Directive (CSRD) in Europe led to many companies investing in nature-related reporting and disclosure approaches. A proliferation of guidance and tools to support reporting and disclosure aimed to provide business with detailed guidance on how to assess nature-related impacts and dependencies. Concerns emerged over complexity of reporting, feasibility of data collection and cost burdens.

Businesses faced practical challenges as they struggled to measure and address nature impacts and dependencies across complex, global supply chains with varying levels of influence beyond their immediate operations. Industry wide approaches are needed with support from regulators, policy makers, financial institutions and society as a whole.

The subsequent simplification of CSRD requirements in Europe in 2025 has removed circa 80% of companies from its scope. While welcomed by some, other businesses point to the risk of creating an uneven playing field from the now limited application. Concerns have been raised about the impact on hampering nature-related reporting and

accountability overall. Financial institutions and businesses have emphasised that sustainability rules are essential for European competitiveness and called for preserving the core of the EU sustainable finance framework ([Joint Statement, 2025](#)).

4. Small and Medium-sized Enterprises (SMEs) and Nature-based Enterprises (NbEs) present specific challenges and opportunities

SMEs: While the simplification of CSRD requirements removed many Small and Medium-sized Enterprises (SMEs) from direct reporting obligations, many SMEs are part of the value chains of larger companies who still face such obligations. Such SMEs may now face indirect reporting requirements. Other SMEs have already started to invest in nature-related reporting as part of their commitment to sustainability. Overall, SMEs face unique constraints with nature-related reporting and transition towards nature-positive economic activities including limited resources, lack of tailored guidance, and unclear expectations. To support SMEs with reporting, voluntary sustainability reporting standards for SMEs were published in 2025. It is not clear as yet how widely taken up such standards will be in practice and how effective they will be in supporting SMEs to transition to nature-positive practices. Another important challenge is the lack of research on business models, and lack of availability of financing, to support SME transition from conventional to nature-positive economic activities e.g. from conventional farming to agro-ecology practices.

NbEs: As NbEs deliver NbS on the ground thus contributing positively to nature restoration, it may be expected that they would benefit from nature-related reporting and disclosure. They have previously called for improved standards relating to NbS implementation to prevent greenwashing and improve industry standards. However, while this may be the case, NbEs face many of the same challenges as other small businesses, lacking tailored guidance, access to data and resources to accurately report on their impact and dependency on nature.

As the core mission of NbEs is working with and for nature, rather than just profit, NbEs also face specific challenges such as a mismatch with existing business support and mainstream financing instruments. Procurement is a major challenge linked to a lack of awareness and valuation of the co-benefits of nature in mainstream policy. Notwithstanding these challenges, NbEs are experiencing high market demand and are presented with significant opportunities for scaling as part of a transition to a Nature-Positive Economy. Overall, clear policy signals, awareness raising and capacity support, increased investment, and coordinated stakeholder action are essential to unlock the potential of all businesses to align with and benefit from nature-positive transformation.

Recommendation: Address Roadblocks hindering Business Transition towards Nature-Positive

Recommendations to support corporate (large company) transition to nature-positive:

- Ensure a balanced approach is taken to proposed simplification amendments to the CSRD and CSDDD that retains the benefits of sustainability reporting whilst ensuring that requirements are proportionate.
- Steer more funding and resources towards data accessibility and standardisation, as well as incentives and capacity building initiatives needed for high-quality nature-based assessments and reporting in companies.
- Direct funding, subsidies and tax incentives towards broader business adoption of nature-positive initiatives, as well as funding for capacity building in this space.

- Cultivate industry wide shifts towards a nature-positive economy through partnership work with stakeholders and address the systemic roadblocks to adoption of nature-positive business opportunities (e.g., subsidising “business-as-usual”).
- Tackle supply chain opacity through increased incentivising uptake of voluntary reporting and funding of research into new technologies/sector level initiatives on supply chain transparency, whilst also increasing regulation of those sectors that contribute most to unsustainable production.
- Reduce, eliminate and repurpose nature harmful subsidies, establish clear standards and regulations for NbS to stimulate private sector investment.
- Foster communication and collaboration between local communities, indigenous peoples and other affected stakeholders and business community on transition to a nature-positive economy. Support capacity building and cross-stakeholder networking initiatives.

Recommendations to support SMEs transition to nature-positive:

- Stimulate voluntary reporting among SMEs through capacity building and incentives to support awareness and uptake. e.g. the updated voluntary reporting standard for SME (VSME 2025)
- Provide clear guidance, simplified reporting requirements, incentives and support to SMEs in developing data measurement capabilities in order to meet requests from larger clients for sustainability data.
- Ensure that reduced reporting obligations do not trigger trade-offs or unintended consequences for SMEs where they could become overlooked for sustainable investment.
- Funnel resources, funding and research towards removing systemic roadblocks to nature-positive action in SMEs and to stimulate capacity building among SMEs to supply NbS.

Recommendations to support NbEs as vital actors in the transition to a nature-positive economy:

- Address capacity gaps in NbEs through strengthening the educational pipeline of NbS practitioners and ensuring greater provision of capacity building, education and training programmes for NbEs.
- Enhance recognition and awareness of NbEs/NbS among policymakers, public authorities, investors, civil society and other stakeholders.
- Foster an environment of nature-based entrepreneurship and introduce policies that support the establishment and development of the industry e.g. invest in tools/technologies for impact measurement and valuation of NbS, introduce new financial instruments piloted at NbEs, tax and other incentives to encourage investment in innovation and scaling of NbEs for increased nature-positive impact.
- Drive policy change and support for the development and scaling up of NbS sectors, including efforts to tackle systemic roadblocks (e.g., challenges to procurement, barriers to private sector investment, time and labour demands for grant applications).

Research Gaps & Capacity Building

- **Further research needed on the business model for nature-positive transformation.**
Build upon existing work (e.g., A-Track) to develop, test and innovate with nature-positive aligned business models. Research should be carried out to further investigate the feasibility, scalability and investability of nature-positive business models, as well as strategies needed to enhance their wider adoption

across businesses and sectors. Capacity building and guidance should be provided for businesses that either innovate with established business models or develop new business models based on nature-positive principles.

- **Shed light on internal business challenges to nature-positive transformation.**

There are many internal roadblocks to a company's nature-positive journey including resistance to nature-positive action and lack of organisational awareness and/or buy-in. Organisational research is needed to better understand the causal factors and the strategies/tools needed to address these internal organisational challenges to a nature-positive transformation.

- Further research needed into policy and non-policy drivers of nature positive business transformation. Research is required on the optimal measures (policy and non-policy) required to support the transformation of EU businesses, in particular SMEs, towards nature-positive. Capacity building is required for banks, investors, funders and other decision makers who should be equipped with the knowledge and awareness of NbS and Nature-based Enterprises, including of their unique characteristics (e.g. economic and non-economic goals).

- **Address limited NbS supply and skill gaps among Nature-based Enterprises.**

There is a requirement to address capacity gaps among NbEs and bolster the educational pipeline of NbS suppliers in areas where demand exceeds supply. Career guidance and awareness of NbS at third level should be leveraged to alleviate the current dearth of qualified NbS practitioners. Research should build upon prior work (e.g., NBS EduWORLD) to enhance understanding of the pathways and barriers to entry for NbS careers, as well as the current provision and standard of NbS educational offerings at third level institutions across the EU.

Research and support measures should be developed with practitioners and industry associations to support the development of industry standards and certifications.

Chapter 4 develops these findings further and provides differentiated recommendations for corporates, SMEs, and NbEs

Policy Imperatives for Industry Sector Transformation

The NPE prioritises systemic change in sectors with the highest impacts and dependencies from nature loss. In this publication, we focus on four key sectors – Agri-food, Built Environment, Blue Economy and Forestry. These four sectors are amongst those recognised by IPBES (2024a) as having the most responsibility for nature's decline. The exclusion of other highly impactful sectors, such as mining and fossil fuels, resulted from the limited number of Horizon Europe funded projects undertaking research in those sectors. This is a direction for future research.

Roadblocks identified at sectoral level:

1. Agri-food: For large companies in agri-food, a major roadblock to their nature-positive transition emerges from the lack of data availability/traceability in assessing and reporting on impacts and dependencies, as most have complex supply chains and often do not manage or operate farms. Small players in the supply chain (e.g., small holdings, small farms, growers and producers) face

barriers with regard to accessing finance for NbS, navigating the trade-offs associated with NbS, and the continuation of harmful subsidies that incentivise business as usual.

2. **Blue Economy:** For companies in the Blue Economy, there can be a range of technical, financial and governance barriers to marine and coastal restoration. Achieving financial viability by pursuing opportunities to scale, whilst producing enough to meet market demand, is an issue for those operating in the regenerative seaweed farming space.
3. **Forestry:** Capital and operating costs, as well as trade-offs from forestry NbS (e.g., lower timber yields), can deter forestry companies from pursuing NbS as a pathway to a nature-positive transition. Smaller businesses and entrepreneurs may face roadblocks with regard to securing funding and space, navigating regulations, and ensuring long-term maintenance of forestry NbS.
4. **Built Environment:** For large companies operating in the built environment sector, a major roadblock to their nature-positive transition emerges from the challenge in accessing data and tools for assessing and reporting on impacts and dependencies, as well as timing for when a materiality assessment can/should be conducted in an ongoing infrastructure project. Roadblocks to green buildings and urban NbS result from bureaucratic obstacles, like building codes and official permissions, as well as the dearth of knowledge around NbS and its ongoing maintenance.

Recommendation: Transformative change must be anchored in the sectors that most directly shape land use, resource flows and ecosystem health

Agri-food

- Reorient agricultural subsidies under the Common Agricultural Policy (CAP) to reward delivery of biodiversity outcomes and ecosystem services, not merely compliance or productivity.
- Establish binding biodiversity performance indicators and integrate them into CAP conditionality, eco-schemes and agri-environment-climate measures.
- Support investment in nature-based enterprises and sustainable farm transitions, including targeted financial instruments for smallholders and marginalised groups.
- Mainstream payment for ecosystem services schemes and make biodiversity restoration a core criterion for rural development and resilience strategies.
- Ensure coherence across CAP, the EU Biodiversity Strategy and the Nature Restoration Regulation so that restoration in agricultural landscapes is reinforced.

Blue Economy

- Embed biodiversity-positive incentives in maritime policies and funding instruments, aligning the Marine Strategy Framework Directive, the EU Biodiversity Strategy and the Ocean Pact with restoration targets.
- Prioritise ecosystem-based marine spatial planning and ensure the EU Nature Restoration Regulation and upcoming Marine Spatial Planning Directive integrate blue economy restoration goals.
- Incentivise ESG-aligned blue finance through instruments such as blue bonds, blended finance and Taxonomy-aligned investment tools.
- Support small and medium coastal and marine enterprises through simplified access to funding and streamlined licensing pathways.

- Mainstream biodiversity performance indicators in fisheries, maritime transport, port operations and aquaculture permit systems.

Forestry

- Reallocate public funding streams to prioritise integrated forest management that combines production, restoration and biodiversity outcomes, harmonising the EU Forest Strategy, the Nature Restoration Regulation and the EU Biodiversity Strategy.
- Support the adoption of close-to-nature forest management through targeted subsidies, rural development programmes and ecosystem service valuation mechanisms.
- Stimulate biodiversity-aligned investment through market-based tools such as carbon credits, biodiversity credits and payments for ecosystem services, ensuring strict ecological integrity.
- Integrate biodiversity performance criteria into public procurement, investment screening and certification schemes to reward businesses that contribute to nature recovery.
- Enhance data transparency, supply-chain traceability and community rights through instruments such as the EU Forest Observatory and the EU Deforestation Regulation.
- Support science-based monitoring, reporting and verification systems for carbon and biodiversity to avoid double counting and align with the emerging EU Carbon Removal Certification Framework.

Built Environment

- Integrate biodiversity net gain requirements into spatial planning, environmental policy and building regulations so that urban infrastructure supports ecosystem health.
- Include nature-based solution criteria in public procurement and financing programmes to prioritise ecological design in construction.
- Align public investment instruments with nature-based urban solutions and strengthen long-term funding for maintenance.
- Support the use of circular, low-carbon and locally sourced materials across planning and renovation schemes.
- Promote strategic Urban Nature Plans, including municipal green space metrics, microclimate modelling and community co-design frameworks.

Research Gaps & Capacity Building

- **Quantifying the economic costs and benefits of nature-positive transitions for all actors along sector-specific industry value chains.** Research has shown potential for nature restoration from the transition of mainstream business models towards nature-positive, underpinned by the reform of harmful subsidies to incentivise this transition, e.g. integration of agro-ecological practices throughout the value chain of the agro-food industry. Further research is needed to quantify the economic costs and benefits of such transitions for all actors along the value chains, including end-consumers, and the optimal policy measures required to support such a systemic transition. Accompanying research on trade-offs and the potential to scale alternative and community-led socio-economic models for industry transition are also required.
- **Industry sector-specific transformations:** further research and piloting of measures (both policy and non-policy) to align NPE principles with sector-specific transition pathways. Research should prioritise those sectors with the highest nature-related impacts, dependencies, risks and opportunities for transition i.e. agriculture, forestry, fisheries and aquaculture, mining and metals, construction, water utilities and healthcare delivery. Transition pathways should be piloted at different scales from landscape to EU,

employing a whole-of-society approach. Sector specific-research directions include:

- **Agri-food:** Research regenerative system performance; create tools/metrics for biodiversity; build skills in landscape management, true-cost accounting, finance and cooperative models; develop tailored financial instruments.
- **Blue Economy:** Improve methods/data on marine impacts; build capacity for large-scale restoration; train in blue carbon credits/natural capital accounting; study equitable governance in coastal communities.
- **Forestry:** Value ecosystem services, model management options; expand research on resilient silviculture; build governance/land tenure skills; train in biodiversity credits/carbon payments; design policies for nature-positive forestry.
- **Built Environment:** Strengthen evidence on cost-effectiveness of nature-based infrastructure; support local biodiversity accounting; train in digital twins and nature indicators; build capacity for financing/scaling nature-positive urban design.
- **Extending research on nature positive transitions to other industry sectors:** This publication captures research findings from EU Horizon Europe-funded projects on nature-positive transitions in four industry sectors - agriculture, forestry, fisheries and aquaculture and construction. Further research is needed on these sectors and in other sectors with a high impact and dependency on nature such as mining and metals, water utilities and healthcare delivery.

Chapter 5 develops these findings further with sector-specific opportunities in Agri-food, Built Environment, Blue Economy and Forestry.

Systemic Transformation for People, Planet, and Prosperity

Achieving a Nature-Positive Economy (NPE) requires urgent, systemic transformation across economic, governance, and social systems. Biodiversity loss is accelerating, and delayed action poses escalating ecological, financial, and societal risks. The transition to a nature-positive future must be underpinned by early investment, structural reforms, inclusive governance, and the integration of ecological health into economic planning and decision-making. Key recommendations relating to systemic transformation are as follows:

Mandate early investment and align finance with nature goals: Policymakers must embed natural capital accounting into economic frameworks and redirect public finance toward ecosystem restoration through green bonds, tax incentives, and biodiversity-linked funds. Fiscal policies should de-risk private investment and support innovation in Nature-based Solutions (NbS) and Nature-based Enterprises (NbEs). Proactive investment now will avert far greater ecological and financial losses in the future.

Reform harmful subsidies and strengthen implementation: Environmentally harmful subsidies should be phased out and redirected to support regenerative practices and nature-based solutions. Binding targets, such as those in the EU Nature Restoration Regulation (NRR), must be fully implemented and enforced across all governance levels, with a focus on high-impact sectors like agriculture, forestry, fisheries, the built environment, mining and fossil fuels. Trade-offs must be considered with sectors such as renewable energy which is a high-impact sector due to intensive land-use.

Embed equity, justice, and local leadership: A just transition requires meaningful inclusion of Indigenous Peoples, local communities, and marginalised groups in decision-making. Co-designed nature-positive initiatives, fair compensation, and participatory planning tools are essential to avoid top-down impositions and to build legitimacy and impact.

Scale local capacity and multi-level alignment: The transition depends on strengthening local government and enterprise capacity to design, deliver, and monitor key transition actions such as NbS. Reformed procurement standards, long-term funding, and strategic roadmaps linking local innovation to national and global biodiversity targets are vital. Policy coherence, shared metrics, and cross-sectoral governance platforms will help scale solutions and reduce fragmentation.

Transform economic paradigms and cultural norms: Nature must be viewed not as a passive input but as a foundation of prosperity and resilience. Reforming GDP-centric metrics, reshaping societal values, and integrating ecological integrity into national performance indicators are foundational. Public procurement, fiscal instruments, and infrastructure investment must favour nature-positive outcomes.

Systemic Recommendations for Policy Makers

- **Embed nature at the core of economic governance:** Introduce legally binding restoration targets, integrate biodiversity criteria into budgets and public procurement, and redirect subsidies and fiscal flows toward regenerative practices.
- **Reconfigure sectoral governance and incentives:** Align mandates, planning rules and market signals in agriculture, forestry, the blue economy, built infrastructure and tourism with ecological goals. Scale up instruments such as performance-based budgeting, payments for ecosystem services and blended finance.
- **Strengthen business engagement for systemic change:** Support nature based enterprises and broader private sector action by creating clear regulatory standards, disclosure requirements and incentives for regenerative business models.
- **Advance inclusive and adaptive governance:** Ensure participation of Indigenous Peoples, local communities and civil society. Promote co creation, multi scale collaboration and rights-based approaches to secure legitimacy and long-term resilience.
- **Foster a whole of government and society approach:** Integrate biodiversity objectives across ministries and agencies, coordinate funding streams and strengthen policy coherence through national and EU level roadmaps.

Systemic Research Gaps and Capacity Building

- **Knowledge integration and governance innovation:** Deepen research on combining Indigenous, local and scientific knowledge in policy design, and test new governance models that enable co creation and iterative learning.
- **Economic evidence and valuation:** Further quantify costs, benefits and trade-offs of nature positive transitions across value chains and consumer markets to strengthen the economic case for policy and investment.

- **Sector specific transition pathways:** Pilot and assess measures to align nature-positive economy principles with high impact sectors such as agriculture, forestry, fisheries, construction and tourism.
- **Monitoring and metrics:** Develop harmonised indicators and long-term monitoring systems for biodiversity outcomes, ecosystem services and NbS performance to underpin fiscal and investment reforms.
- **Skills and institutional capacity:** Expand training and education in NbS design, ecological engineering, participatory governance and blended finance. Address shortages of qualified practitioners and local technical expertise.

Conclusion

This publication synthesises evidence from EU projects to show that a Nature-Positive Economy requires systemic change across policy, finance and practice, with NbS and NbEs acting as important levers within a wider portfolio of actions. Priorities emerging from the analysis include embedding NPE principles across EU economic and budget frameworks, strengthening enabling conditions through coherent regulation and valuation standards, phasing out harmful subsidies, and scaling public investment with targeted blended finance to crowd in private capital. Sectoral pathways in agri-food, the built environment, the blue economy and forestry should be accelerated, with clear performance metrics and robust MRV. Supporting business transition, especially for SMEs and NbEs, and building local capacity to design, deliver and maintain solutions are essential to achieve durable outcomes. These steps together can reduce risk, improve resilience and align competitiveness with the recovery of nature.

Glossary

Term	Definition
C-Suite	C-suite or C-level is a widely used vernacular that describes the upper echelons of a corporation’s senior executives and managers. C-suite gets its name from the titles of top senior executives which tend to start with the letter C, for “chief.” They include the chief executive officer (CEO) , chief financial officer (CFO) , chief operating officer (COO) , and chief information officer (CIO) (Investopedia, 2024)
Ecosystem Services (ESs)	‘The direct and indirect contributions of ecosystems to human well-being’ (TEEB, 2010). The United Nations developed the SEEA (System of Environmental-Economic Accounting) ecosystem service classification in 2021. Their goal was to create a practical and globally accepted classification system, mainly focused on ecosystem accounting. This classification is organized into three main categories: services that provide resources, e.g. food and water provision, services that regulate and maintain ecosystems, e.g. air quality and climate regulation, and services that have cultural value e.g. recreation and tourism.
Global Biodiversity Framework (GBF)	The Kunming-Montreal Global Biodiversity Framework (GBF) adopted by 196 Parties (195 UN member states plus the European Union) at the 15th Conference of the Parties (COP15) in December 2022. The GBF aims to halt and reverse biodiversity loss by 2030, and achieve recovery of ecosystems by 2050, ensuring nature’s contributions to people are valued, conserved, restored, and sustainably used.
Gross Value Added (GVA)	Gross value added (GVA) is defined as output (at basic prices) minus intermediate consumption (at purchaser prices); it is the balancing item of the national accounts' production account . GVA can be broken down by industry and institutional sector. The sum of GVA over all industries or sectors plus taxes on products minus subsidies on products gives gross domestic product . (Eurostat)
Nature-based Enterprise (NbE)	“An enterprise, engaged in economic activity, that uses nature sustainably as a core element of their product/service offering. Here, nature may be engaged directly by growing, harnessing, harvesting, or sustainably restoring natural ecosystems, and/or indirectly by contributing to the planning, delivery or stewardship of nature-based solutions. A nature-based enterprise must contribute positively to biodiversity and ecosystem services” (McQuaid et al., 2021 , p.1; Kooijman et al., 2021).
Nature-based Solutions (NbS)	“Actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and

	marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits.” (UNEA, 2022).
Nature-positive Economy (NPE)	A Nature-Positive Economy means that the net result of all economic activities combined leads to an absolute increase in nature, to the point of full recovery, and prosperity for all of society (Koh et al., 2025).
Nature positive aligned Business Model	Nature positive aligned business models are defined as “a financially viable business entity whose value proposition and rationale are centred around nature positive principles” (CISL et al., 2024, p.8).
Payment for Ecosystem Services (PES)	“Payments for Ecosystem Services is the name given to a variety of arrangements through which the beneficiaries of environmental services, from watershed protection and forest conservation to carbon sequestration and landscape beauty, reward those whose lands provide these services with subsidies or market payments.” (WWF, n.d.)
Small- and Medium-sized Enterprise (SME)	The EC defines small and medium-sized enterprises (SMEs) as companies whose staff numbers and economic weight fall below certain limits. <ul style="list-style-type: none"> • A medium-sized company has up to 250 employees, a turnover of up to €50million and a balance sheet total of up to €43 million; • A small company has up to 50 employees and a turnover or balance sheet total of up to €10 million; • A micro-company has up to 10 employees and a turnover or balance sheet total of up to €2million.
Transition	Transition has been mainly employed to analyse changes in societal sub-subsystems (e.g. energy, mobility, cities), focusing on social, technological and institutional interactions (Loorbach et al., 2017) cited by Holscher et al. (2018)
Transformation	Transformation is more commonly applied to refer to large-scale changes in whole societies, which can be global, national or local, and involve interacting human and biophysical system components (Brand, 2014 , Folke et al., 2010) cited by Holscher et al. (2018)
Urban Heat Island (UHI) Effects	“An ‘urban heat island (UHI)’ is an urban area that is significantly warmer than its rural surroundings due to artificial infrastructure and human activities” (Copernicus).

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16. REGREEN; Grant Agreement No. 821016 <https://www.regreen-project.eu/>
17. PHUSICOS; Grant Agreement No. 776681 <https://www.phusicos.eu/>
18. C-FAARER; Grant Agreement No. 101112729 <https://www.c-faarer.eu/>
19. HYDROUSA; Grant Agreement No. 776643 <https://www.hydrousa.org/>
20. SUPERB; Grant Agreement No. 101036849 <https://forest-restoration.eu/>
21. ALIGN; <https://capitalscoalition.org/project/atrack-project/>
22. MERLIN; Grant Agreement No. 101036337 <https://project-merlin.eu/>
23. GreenScape; <https://www.interreg-central.eu/projects/greenscape-ce/>
24. JUSTNature; Grant Agreement No. 101003757 <https://justnatureproject.eu/>
25. Varcities; Grant Agreement No. 869505 <https://varcities.eu/>
26. RESONATE; Grant Agreement No. 10063874 <https://resonate-horizon.eu/>
27. Nature4Cities; Grant Agreement No. 730468 <https://www.nature4cities.eu/>
28. GrowGreen; Grant Agreement No. 730283 <https://cordis.europa.eu/project/id/730283>
29. FutureMARES; Grant Agreement No. 869300 <https://www.futuremares.eu/>
30. URBAN GreenUP; Grant Agreement No. 730426 <https://cordis.europa.eu/project/id/730426>
31. ProGleg; Grant Agreement No. 776528 <https://progireg.eu/>
32. Naturvation; Grant Agreement No. 730243 <https://www.naturvation.eu/>
33. WaterLANDS; Grant Agreement No. 101036484 <https://waterlands.eu/>
34. COEVOLVERS; Grant Agreement No. 101084220 <https://co-evolvers.eu/>
35. CONEXUS; Grant Agreement No. 867564 <https://www.conexusnbs.com/>
36. INTERLACE; Grant Agreement No. 869324 <https://interlace-project.eu/index.html>
37. CLEVER Cities; Grant Agreement No. 776604 <https://cordis.europa.eu/project/id/776604/results>
38. UNaLab; Grant Agreement No. 730052 <https://unalab.eu/en>
39. NAIAD; Grant Agreement No. 730497 <https://cordis.europa.eu/project/id/730497>
40. Green-Win; Grant Agreement No. 642018 <https://green-win-project.eu/>
41. Trans-Lighthouses; Grant Agreement No.101084628 <https://trans-lighthouses.eu/>
42. eNaBLS; Grant Agreement No. 101135035 <https://enabls.eu/>
43. Naturescapes; Grant Agreement No. 101084341 <https://www.naturescapes-project.com/>
44. NATALIE; Grant Agreement No. 101112859 <https://www.natalieproject.eu/>
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1. Introduction

1.1. Context

“After years of economic openness, politics is increasingly shaping economics. But politics has become much more short term. And we are increasingly living in a political world of populism, of polarisation and of post-truth. We are seeing a reappraisal of transatlantic relations and the global order as we know it. These developments will have major implications for trade, for stability, and for growth. And this is before we consider the multiple short- and long-term spending and investment demands which face us, including the green and digital transitions, defence, security and ageing.”

Paschal Donohoe, President of the Eurogroup of Finance ministers of the Eurozone (2025)

Policymakers today face a multiplicity of complex challenges from global environmental crises to multi-faceted social and economic challenges. Developing equitable economic and financial policy in such a context is a formidable task, requiring a holistic, cross-siloed approach to tackle interacting crises. In this context, a recent review of economic approaches for transforming economics in a time of global crises reminds policy-makers “that economies are embedded within societies and ecosystems and that the basic purpose of economics is to support human and planetary well-being.” ([Kenter et al., 2025](#), p.838).

The widely accepted planetary boundaries framework identifies nine processes that are critical for maintaining the stability and resilience of earth systems as a whole ([Richardson et al., 2023](#)). Data has tracked over time the evolution of these processes. The latest data for 2023 shows that we have crossed the safe operating space for humanity for six out of these nine critical processes (Figure 1.1). Exceeding these boundaries raises the likelihood of triggering large, sudden, or irreversible environmental shifts. While the effects may not be instant, these boundaries collectively represent a crucial tipping point for potential harm to both human societies and the broader biosphere. Figure 1.1 also shows that with concerted and collective efforts, we can, and have in the past, successfully addressed some of these planetary boundaries such as ozone depletion and atmospheric aerosol loading.

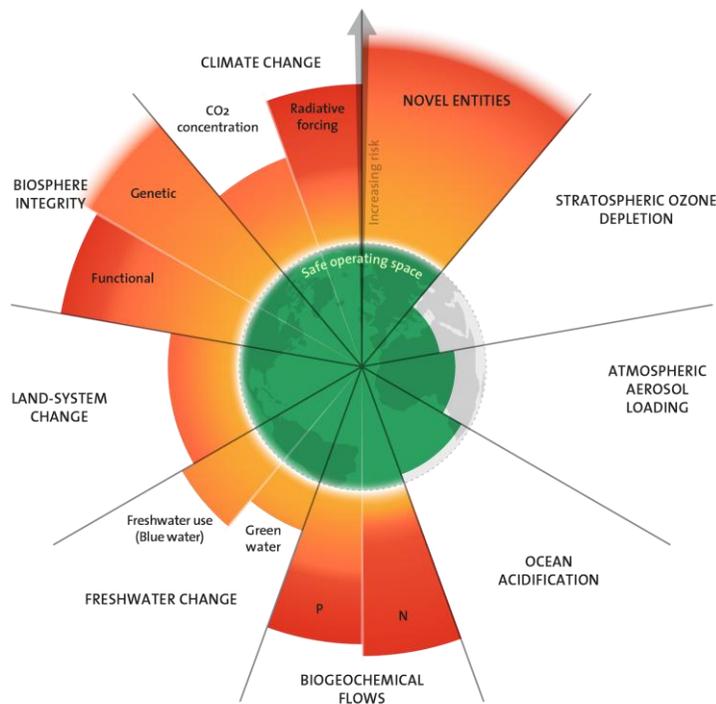


Figure 1.1. Status of the nine planetary boundaries Source: [Azote for Stockholm Resilience Centre, based on analysis in Richardson et al. \(2023\)](#)

While many policy makers and businesses are acutely aware of the high costs and impacts of exceeding the planetary boundary for climate change as shown in Figure 1.1, there is less awareness of the somewhat more silent threats posed by passing other boundaries such as biosphere integrity, novel entities modifying the genetics of living organisms, freshwater change, land-system change and biogeochemical flows (nutrient elements like nitrogen and phosphorus). A review of influential businesses shows that while 50% of businesses have set net zero emissions targets, only 5% of companies have carried out an assessment of the impact of their operations on nature ([WBA, 2024](#)). The analysis of recent and forthcoming EU policy in Chapter 2 of this publication shows a similar focus on de-carbonisation and a commensurate lack of recognition of the importance of tackling biosphere integrity and other key processes crucial for planetary health with the same level of urgency and investment.

The current focus on decarbonisation is understandable given the immediate and high impact of climate change on the economy. A recent report highlighted that many gaps remain to support economic and financial policy makers with macroeconomic analysis and modelling tools for climate action ([Coalition of Finance Ministers for Climate Action, 2025](#)). However, even less data and modelling has been done to gauge the impact of biodiversity loss on the economy. One scientific paper suggests combining the EU Pollutant Release and Transfer Register (EPRTR) and the Natura 2000 dataset of the European Environment Agency to assess risks from proximity of industrial activities to protected areas ([Erhart et al., 2025](#)). Further research and data on this and other approaches is needed to help policy makers and businesses better quantify the impact of economic activity on nature across landscapes and scales from local to global.

Box 1.1. Nature, Biodiversity and Climate

Nature = Life systems and ecosystems

Climate = Atmospheric conditions and global temperature trends

Nature refers to the natural world, with a focus on living components ([IPBES, 2019](#)). In Western science, it includes biodiversity, ecosystems and their functions, evolution, the biosphere, humanity's evolutionary heritage, and biocultural diversity. In broader interpretations, it can also encompass everything governed by natural laws, including humans. Other knowledge systems, such as Indigenous worldviews, see nature as inseparable from humans, often described as Mother Earth or systems of life. Nature also covers the benefits and contributions it provides to people ([IPBES, 2022](#); [Koh et al. 2025](#)).

Nature is different from Climate which in a narrow sense is defined as “average weather” and in a wider sense is defined as the state of the climate system which consists of five major components: the atmosphere, the hydrosphere, the cryosphere, the land surface, and the biosphere, and the interactions between them ([IPCC, 2018](#)). Climate Change is defined as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods ([UNFCCC, 1992](#)).

Nature and Climate are connected as a healthy biosphere supports climate regulation (e.g. forests absorb CO₂ and climate change impacts nature (e.g. leading to species extinction and habitat loss).

This publication focuses on nature and biodiversity, which include interconnections with climate change, but extends beyond recognising nature as the source of all life and economic activity on our planet.

Economic dependency on nature

A frequently cited statistic states that half of global GDP—around \$58 trillion—is moderately or highly dependent on nature ([PwC, 2023](#)). Recent research from the JRC shines much-needed light on the extent of EU dependency on nature (Figure 1.2). This research found that:

- between 19% and 36% of the EU's Gross Value Added (GVA) is highly dependent on ecosystem services and is generated by sectors that are at particular risk of being adversely affected by nature degradation.
- 65% of the EU's GVA is estimated to have a high or medium dependency on nature when including both direct and indirect links.
- the entire economy is to some extent susceptible to nature degradation, since all sectors are interconnected through their supply and value chains, although the different sectors' dependencies on nature vary ([Hirschbuehl et al., 2025](#)).

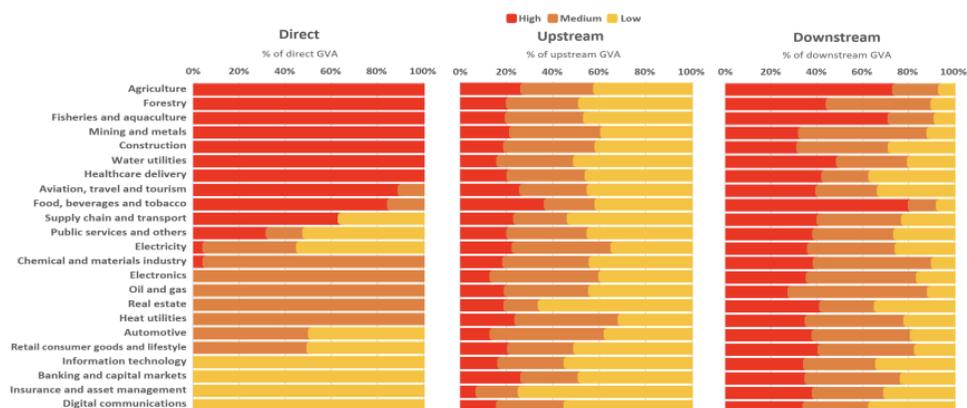


Figure 1.2. The EU economy's dependency on nature (excl. the contributions of a sector to itself)
 Source: ENCORE 2024, EXIOBASE 2022, JRC calculations ([Hirschbuehl et al., 2025](#))

While decarbonisation efforts will help to address some aspects of biodiversity loss, they will not address alone the underlying causes of biodiversity loss which require fundamental changes in economic systems ([IPBES, 2024a](#)). This publication sets out the policy imperative and pathways for transition to a nature-positive economy which is fully aligned and an important pathway towards a net-zero economy. European Climate Law recognises the clear role of natural sinks in achieving net-zero GHG emissions 2030 and 2050 ambitions and the contribution of ecosystem restoration to maintaining and enhancing carbon sinks. Further, the NPE recognises the importance of an interlinked approach to sustainability, simultaneously addressing biodiversity, water, food, health and climate change challenges ([IPBES, 2024c](#)) through interdisciplinary collaboration.

In this report, we show how investment in nature-positive economic policies not only addresses the fundamental threats to our economy and society from nature loss, the NPE complements and builds upon many existing sustainability concepts such as net-zero, the circular economy and the bioeconomy. We look at priority actions in the transition to a nature-positive economy and zoom in on nature-based solutions (NbS) as a proven action to increase nature-positive outcomes. We present new research showing the potential for innovation and job creation in nature-based enterprises (NbEs), delivering nature-based solutions such as agro-ecology and green buildings. This report makes the case that a nature-positive economy is integral to a prosperous and competitive Europe.

1.2. Objectives and Intended Audience

The overarching objectives of this publication is to present the economic policy imperatives for accelerated action and investment in a competitive and resilient nature-positive economy.

Over the last 15 years, the European Commission DG for Research and Innovation has invested significantly in over 100 EU-funded research and innovation projects exploring the potential of Nature-based Solutions (NbS) to tackle the climate and biodiversity crises. While this research has produced clear and measurable evidence of the multiple environmental and social benefits of NbS, less research has been undertaken on the economic costs and benefits.

The specific aims of this publication are to:

- clarify the concept of a nature-positive economy, how it is positioned against other economic policy contexts and the critical role of Nature-based Solutions and Nature-based Enterprises in operationalising this approach;

- identify the most important international and European policies for a nature-positive economy and assess strengths and limitations of such policies, paying particular attention to current EC priorities, the report is also informed by lessons learnt from the MFF 2021-2027 and the debate on the MFF 2028-2034;
- set out the rationale for accelerating investment in nature-based solutions (NbS) as a pathway to the nature-positive economy while recognising that NbS are part of a wider portfolio of actions needed for a Nature-Positive Economy;
- clarify the business rationale for transitioning to a nature-positive economy for corporates, Small and Medium-sized Enterprises (SMEs) and Nature-based Enterprises (NbEs);
- present the rationale and roadblocks to transition in four industry sectors - agri-food, blue economy, forestry and the built environment;
- put forward short-term policy measures and long-term policy pathways needed for transformative change towards a nature-positive economy; and
- identify research, knowledge and skills gaps that need to be addressed to accelerate a transition to the nature-positive economy.

Building on this research, a series of recommendations are proposed at the end of each chapter and summarised in the executive summary.

Who should read this publication?

In chapter 2 of this publication, three major groups of actors are identified that share responsibility for a paradigm shift towards the nature-positive economy. These actors are the primary target audience for this publication and include:

1. **Business leaders**, including those in Small and Medium sized-Enterprises and Nature-based Enterprises. This publication aims to provide businesses with an understanding of the potential of the nature-positive economy and their important role in engaging with policy-makers, financial institutions and other actors to create the conditions and incentives needed for change.
2. **Policy-makers, governments, finance and investors, standards bodies and Nature**: this publication aims to provide policy makers, politicians and administrations in particular those influencing economic and financial policy across all levels of government from local to global with an understanding of the rationale for accelerating investment in the nature-positive economy and the important role of finance and investors, standards bodies and Nature in shaping the economy.
3. **Non-governmental organisations, researchers and education providers, citizens and civil society groups including youth, Indigenous Peoples and Local Communities**: these organisations have a key role in influencing public opinion, political shifts and consumer behaviour in favour of a nature-positive economy.

1.3. Structure and Chapter Summary

This publication is structured into the following chapters:

Chapter 1 introduces the context and scope of this publication. We set out the objectives, intended audience and methodology for development of this publication.

Chapter 2 explains the concept of a nature-positive economy and clarifies the policy context, with a specific focus on current and forthcoming EU policy frameworks, and recommendations for a nature-positive Multiannual Financial Framework (MFF). We consider how the concept of a nature-positive economy relates to, and adds value

relative to, other mainstream sustainability concepts in EU policies such as net-zero, circular, and bioeconomy. In the second section, the international and EU policy context is explained with a specific focus on the strengths and limitations of existing policy frameworks and recommendations in relation to the MFF. In the third section, we dive into more detail on key elements of the nature-positive economy including priority actions to achieve the nature-positive economy, the vital role of nature-based solutions and nature-based enterprises, the type of actors to be involved, the scales and sectors to be addressed. We set out the NPE position on growth and reiterate the central importance of social well-being and equity. The chapter concludes with a consideration of the metrics needed to measure progress towards a nature-positive economy building on existing frameworks such as SEEA and the work from organisations such as the TNFD, SBTN and others.

Chapter 3 sets out the economic rationale for Nature-based Solutions (NbS) uptake as a pathway to the nature-positive economy. This section of the publication is divided into three main sections, supported by evidence-based case studies throughout.

- In the first section, the economic & financial (net) benefits from investing in NbS are described in economic terms under the following non-exclusive categories: i) cost-savings and welfare economic gains, ii) direct immediate economic and financial gains, including job creation, iii) indirect economic and financial gains, and iv) insurance-based gains. These benefits have direct implications for the financial stability and resilience of governments, private sector and households.
- In the second section, evidence-based business models for accelerating NbS uptake are presented across different sectors and stakeholders. These business models contribute to the realisation of different categories of environmental, economic and socio-cultural benefits of NbS simultaneously.
- In the third section, the current financing landscape of NbS in Europe is mapped. This section seeks to provide guidance to investors on the landscape of financing mechanisms and approaches for NbS given the different types of economic and financial benefits arising from NbS investment and the different ways of designing efficient business models.

Chapter 4 sets out the business rationale for transitioning to a nature-positive economy. Businesses are identified as key actors in transformative change towards a nature-positive economy. They stand to gain most from the opportunities created by transformative change and lose most from inaction. This section of the publication is divided into three sections, supported by case studies from business.

- In the first section, we present the overall business rationale for transformative change, drawing extensively on the work of the Taskforce for Nature-related Financial Disclosures (TNFD) to identify the key dependencies and impacts of businesses on nature, the increasing risks to business from the continued decline of nature and the opportunities for businesses to reduce these risks and dependencies. We identify some key roadblocks to transformative change, differentiating between the challenges faced by three types of company (i.e. Corporate, SME and Nature-based Enterprise).
- In the second section, we highlight new opportunities for growth within planetary boundaries, drawing attention to new research on the increasing market demand experienced by nature-based enterprises (NbEs) which deliver nature-based solutions such as ecosystem restoration, natural water management systems, green infrastructure in urban environments and agro-ecological farming practices.
- In the fourth section, we extend recommendations for the removal of roadblocks to transformative change across the three types of company (i.e. Corporate, SME and Nature-based Enterprise).

Chapter 5 zooms in on four key sectors that contribute significantly to biodiversity loss and nature's decline ([IPBES, 2024a](#)). These are Agri-food, Built Environment, Blue Economy and Forestry. We contextualise the specific dependencies, impacts, risks and opportunities (DIROs) in each sector, highlighting key barriers to transformation and consider the potential for cross-sector collaboration. Each sector concludes with policy recommendations and an identification of research and capacity building needs to drive transition towards nature-positive.

Chapter 6 sets out policy pathways for transformative change toward a nature-positive economy. This chapter draws on the evidence presented in chapters 2-4 to provide strategic guidance for policymakers seeking to align economic development with nature conservation and regeneration. It builds upon the Key Messages of the [IPBES Transformative Change Assessment](#), translating them into concrete, actionable pathways for policy design and implementation which address the rationale and roadblocks to transformative change identified in the previous sections.

- Correcting harmful subsidies and incentives.
- Redirecting finance toward regenerative practices.
- Mainstreaming biodiversity into sectoral planning and performance metrics.
- Promoting inclusive governance and participation.
- Supporting innovation and long-term systemic resilience.

The key messages from each chapter are synthesised in the Executive Summary, Key Messages and Recommendations at the start of this publication.

1.4. Methodology

This publication, coordinated by the Invest4Nature project, draws extensively on new scientific data, evidence and case studies from 45 EU Horizon Europe research and innovation projects on NbS and biodiversity topics, bringing together over two years of multiple collaborations between research institutes, governments and NGOs across Europe. This publication synthesises knowledge from these research projects and is a key output of [NbS Task Force 3 \(Financing & Business Models for NbS in a Nature-Positive Economy\)](#) convened by NetworkNature. The first publication ([EC, 2022](#)), released in 2022, explored both the potential and challenges in developing a nature-positive economy. This second publication updates this knowledge, assessing progress in overcoming barriers, identifying new challenges, and outlining opportunities for transformation. Through a thorough review of emerging research, this publication provides evidence-based recommendations to address barriers, accelerate economic transformation, and highlight remaining research and knowledge gaps. A detailed description of the methodology is provided in [Appendix II](#).

2. The Nature-Positive Economy: Concepts and Policy Context

Lead authors Chapter 2: Siobhan McQuaid (Horizon Nua & Trinity College Dublin/ Invest4Nature, GoNaturePositive! NetworkNature, UNP+, NBS EduWORLD, Connecting Nature); Niak Sian Koh (University of Oxford/ GoNaturePositive!); Daniela Rizzi and Paola Lepori (ICLEI Europe/ NetworkNature, GoNaturePositive!, NATURANCE, UNP+), Benjamin Kupilas (Ecologic/ GoNaturePositive!, Interlace)

Contributors chapter 2: Ela Callorda (TransLightHouse), Mieke Siebers (Foundation for Sustainable Development), Catherine Farrell (Trinity College Dublin)

Reviewers: Michael Jones (SLU, eNABLS), Rob McDonald (The Nature Conservancy, NatureScapes)

Chapter Summary: This chapter explains the concept of a nature-positive economy and clarifies the policy context, with a specific focus on current and forthcoming EU policy frameworks, and recommendations for a nature-positive Multiannual Financial Framework (MFF). The first section defines what is meant by a nature-positive economy and positions nature-based solutions (NbS) and Nature-based Enterprise (NbEs) as key enablers. Then we consider how the concept of a nature-positive economy relates to, and adds value relative to, other mainstream sustainability concepts in EU policies such as the net-zero, circular, and bioeconomy. In the second section, the international and EU policy context is explained with a specific focus on the strengths and limitations of existing policy frameworks and recommendations in relation to the MFF. In the third section, we dive into more detail on key elements of the nature-positive economy including priority actions, actors, scales and sectors. We set out the NPE position on growth and reiterate the central importance of social well-being and equity. The chapter concludes with a consideration of the metrics needed to measure progress towards a nature-positive economy building on existing frameworks such as SEEA and the work from organisations such as the TNFD, SBTN and others.

2.1. Introduction to contextualisation and operationalisation of the Nature-Positive Economy

“Nature is our home. Good economics demands we manage it better.”

– Partha Dasgupta, *The Economics of Biodiversity: [The Dasgupta Review \(2021\)](#)*

2.1.1. Definition of a nature-positive economy

A Nature-Positive Economy means that:

“the net result of all economic activities combined leads to an absolute increase in nature, to the point of full recovery, and prosperity for all of society” ([Koh et al., 2025](#)).

This definition of a nature-positive economy emerged from an extensive consultation process involving more than 750 stakeholders from more than 50 countries, and a literature review of policy documents and scientific articles undertaken in the [GoNaturePositive!](#) Horizon Europe project.

A nature-positive economy recognises the dependency of the economy and society on the natural world and the need for transition over time towards economic activities that support nature and society. Figure 2.1 shows that the NPE is envisioned as a process aimed at halting and reversing biodiversity loss by 2030 and achieving full recovery by 2050.

Its ultimate goal is a global economy with no net negative impact on a fully restored natural world.

Progression of economic activities towards a Nature-Positive Economy

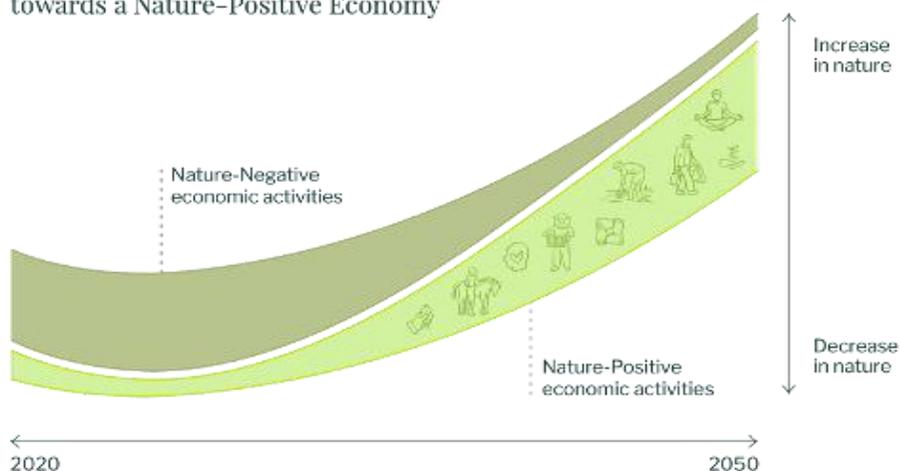


Figure 2.1. A Nature-Positive Economy means that the economy undergoes a transition over time away from nature-negative activities towards more nature-positive activities. Source: [Koh et al. \(2025\)](#).

The NPE is a transitional process (see Figure 2.1). It requires the delivery of net positive outcomes for nature until critical ecological recovery milestones, such as the Global Biodiversity Framework targets, are met.

After reaching this milestone, the NPE vision is that the economy stabilises in harmony with nature, functioning within planetary boundaries. During this transition, some nature-negative activities may persist, provided the overall impact remains positive for nature. In a NPE, economic growth may occur in industry sectors and activities that are well aligned with planetary boundaries.

Operationalising the NPE requires a ‘whole-of-society’ approach. This means multiple actors work together to take action across scales, from local to global, and across a range of industry sectors, to contribute to the transition towards full nature recovery. A NPE recognises that nature recovery and shared prosperity go hand-in-hand with this transition grounded in social well-being and equity (see section 2.3).

The concept of a nature-positive economy is already being taken up in different contexts globally (see Table 2.1).

Table 2.1. International Leadership on Nature-Positive Economy

Japan is leading the G7 on strategies to implement the nature-positive economy, with four ministries coming together to publish Transition Strategies toward the Nature-Positive Economy in March 2024 ([Government of Japan, 2024](#)). The Ministry of the Environment, the Ministry of Agriculture, Forestry and Fisheries, the Ministry of Economy, Trade and Industry, and the Ministry of Land, Infrastructure, Transport and Tourism jointly formulated these transition strategies recognising the necessity of a transition to nature positive management (business management to position the concept of nature preservation as materiality in individual companies' value creation processes), compiles elements that companies should take into account upon transition and concrete examples of possible new business opportunities, and materializes the national government's measures to support the transition to nature positive management.

[Château Mercian Mariko](#), a vineyard and winery, located near Ueda in central Japan, provides an example of how businesses in Japan are following international frameworks to transition towards nature-positive, combining circular economy practices with the

Table 2.1. International Leadership on Nature-Positive Economy

regeneration of natural habitats to reduce their risks from nature loss and water degradation.

Australia is another G20 country taking the nature-positive economy seriously. EY research ([EY, 2023](#)) showed that more than 80% of Australia's exports rely on natural resources with industries such as agriculture, mining, energy, construction, and real estate accounting for roughly one-third of the Australian workforce. Transitioning to a nature-positive economy could add an estimated AU\$47 billion to the nation's income by 2050. In October 2024, the Government of Australia and the Government of New South Wales hosted the first [Global Nature Positive Summit in Sydney](#) recognising that nature needs to be factored into economic and business decisions. The Nature Finance Council was set up to provide expert advice to the Australian government on how to increase private sector investment in nature. At this conference, eight other countries issued statements outlining national interests, actions and ambitions for a nature positive future.

Beyond the G7 and G20, many **developing countries** have called for concrete actions towards a nature-positive economy. At the [Stockholm+50 event](#) in June 2025, Minister Ikeazor of Nigeria stressed the need to address the systemic economic drivers of nature loss, and that this had to be a collective effort given that one country cannot act alone in a globalised economy. Minister Correa of Colombia welcomed proposals to develop a politically mandated, inclusive process to develop a Roadmap to a Nature-Positive Economy.

In the EU, **Finland** is a leading advocate for the nature-positive economy. At the Global Nature Positive Summit in Sydney, Finland issued a statement underlining the importance of Nature-based Solutions to conserve, restore and sustainably use and manage our ecosystems and species and calling for more sustainable patterns of production and consumption. At Stockholm+50, Minister Kari of Finland emphasised the need to integrate nature into economic policy.

In **Scotland**, the government has pledged to restore nature and end Scotland's contribution to climate change by 2045, helping to secure the wellbeing of its people and planet for generations to come ([Martino et al., 2023](#)). The [Environment Strategy for Scotland](#) informs their transition to a nature-positive economy, based on principles of stewardship of the whole, co-creating collective value, governance through cosmopolitan-localism, generativity, reciprocity, and circularity, relationality and connectedness, equitable markets and trade.

2.1.2. Positioning the nature-positive economy within existing policy frameworks

The concept of a nature-positive economy aligns with and distinguishes itself from a spectrum of established and emerging economic paradigms ([Koh et al., 2025](#)). While concepts such as the circular economy, bioeconomy, and green economy have long informed EU sustainability strategies, the NPE places explicit emphasis on full nature recovery, biodiversity integrity, and the integration of multiple knowledge systems, including Indigenous and local perspectives.

The GoNaturePositive! project has contributed to this framing by examining how the NPE expands on existing approaches through a stronger emphasis on ecological regeneration and inclusive governance (see Figure 2.2). It reinforces that the NPE not only builds upon, but also advances beyond, traditional models by embedding biodiversity outcomes and equity considerations at the core of economic transformation. This includes recognising nature as a foundational asset, promoting the active restoration of ecosystems, and

advocating for governance systems that reflect diverse cultural, social, and ecological values.

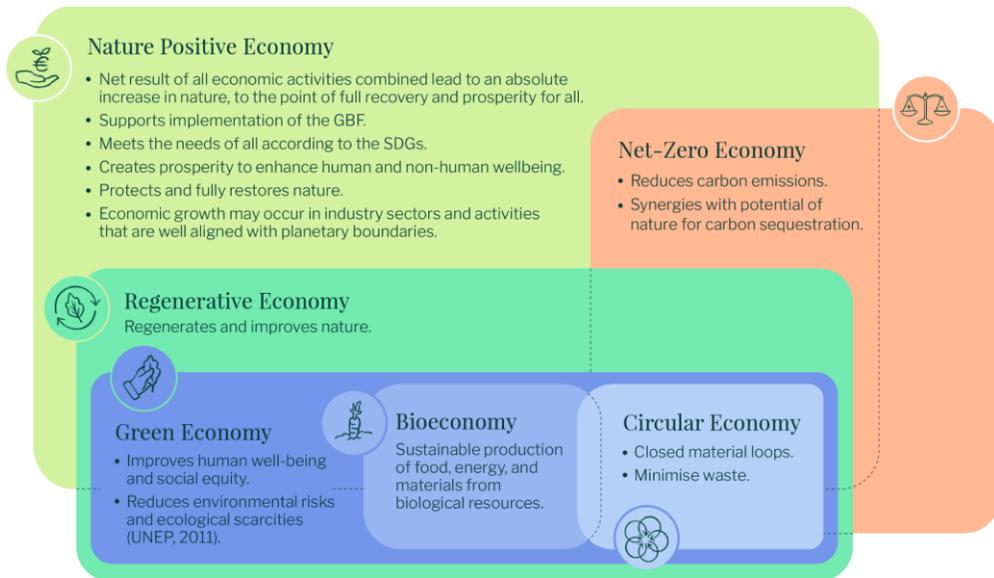


Figure 2.2. The Nature-Positive Economy in relation to other economic concepts.

The complementarities and differentiating features between the nature-positive economy and other economic concepts have been summarised as follows (Koh et al. 2025):

1. **The Net-Zero Economy**
Tackles climate change by supporting the transition of the economy to net-zero greenhouse gas emissions. It promotes economic growth through climate-neutral activities that are low-carbon and efficient in energy and resource use. This approach offers potential synergies with a Nature-Positive Economy (NPE), as nature-positive practices can also help reduce carbon emissions through a coordinated transition strategy.
2. **Bioeconomy**
Utilises biological resources—including ecosystem services—through sustainable, circular, and equitable approaches. While historically rooted in resource extraction and biotechnology, it now incorporates societal values and inclusion, especially in alignment with [G20 principles](#). However, its more utilitarian view of nature differs from the NPE’s emphasis on nature’s intrinsic value, ecosystem resilience and full recovery.
3. **Circular Economy**
Focuses on resource efficiency and waste minimisation through closed material loops inspired by natural systems. The circular economy is well aligned with the NPE and plays a key supporting role, especially in industrial and urban contexts. However, the NPE goes further than the circular economy with a clear focus on full ecological recovery.
4. **Green Economy**
Promotes low-carbon, resource-efficient, and inclusive development. Green economy concepts (while varied) generally align well with NPE objectives but do not explicitly target full nature restoration as the NPE does.
5. **Doughnut Economics / Regenerative Economy**
These models seek to balance social foundations (human rights) with ecological ceilings (planetary boundaries). They view the economy as embedded within society and the biosphere, resonating strongly with the NPE.

However, while Doughnut Economics offers a long-term steady-state vision, the NPE is framed as a transitional model toward nature regeneration.

6. Degrowth, Post-Growth & Steady-State Economies

These models call for reduced material throughput and question endless GDP growth. A NPE does not reject growth outright specifying that growth may occur in industry sectors and activities that are well aligned with planetary boundaries. The NPE promotes a shift to nature-aligned economic activities.

A NPE goes beyond existing economic models as it explicitly aims for full nature recovery and subsequent maintenance of a global net nature-neutral economy, while ensuring prosperity for all of society. In summary, the NPE integrates ecological regeneration, social justice, and sustainable economic practices. While it overlaps with many alternative economic frameworks (bioeconomy, circular, green, doughnut, wellbeing), it uniquely:

- Prioritises full nature recovery.
- Supports growth only in sectors and economic activities aligned within planetary limits.
- Serves as a transitional model bridging today's extractive economy with a regenerative future.

2.2. Policy context

2.2.1. International Policy

Economic policy

Given the high level of dependency of global GDP on ecosystem services such as pollination, water purification, fisheries, and forests ([PWC, 2023](#)), the World Bank warns that collapse of ecosystem services could shave USD 2.7 trillion from global GDP per year by 2030, with developing regions (e.g. Sub-Saharan Africa, South Asia) losing 6–9.7% of GDP annually ([World Bank, 2021](#)). They advocate for “nature-smart” development, including subsidy reform, sustainable land use and natural capital accounting, as both economically and environmentally prudent interventions. Further, they maintain that natural capital has the potential to improve human capital in the long term ([Damania et al. 2023](#)). Several publications have pointed to the potential of nature transitions to generate new economic opportunities and millions of new jobs ([WEF, 2022](#)).

Through publications such as '[Biodiversity, Natural Capital and the Economy \(OECD, 2021\)](#)' and topics such as '[Finance and Investment for Biodiversity](#)', the OECD provides actionable guidance for finance and environment ministers. They stress that biodiversity considerations must be embedded into national and sectoral strategies—including agriculture, fisheries, infrastructure, trade, and public budgeting—for effective alignment with sustainable development goals and nature-related frameworks. The OECD estimates global biodiversity-related finance at approximately USD 78–91 billion per year—far below the USD 200 billion annually needed by 2030 per the Kunming-Montreal Global Biodiversity Framework (GBF) ([OECD, 2020](#)).

The OECD advocates using a range of policy instruments to address biodiversity loss including:

- Regulatory measures such as protected areas and environmental standards
- Economic instruments like biodiversity taxes/fees, subsidies, tradable permits, and payments for ecosystem services

- Information-based tools such as eco-labelling and corporate disclosure standards

In response to economic and financial data and policy guidance, the G20 repeatedly re-affirm that investing in and restoring ecosystems is essential for economic stability, resilience, and sustainable development, especially in emerging economies. Through its Leaders' Declarations ([G20 New Delhi Leaders' Declaration, 2023](#); [G20 Rio de Janeiro, 2024](#)), the G20 has formally committed to implementing the Kunming-Montreal Global Biodiversity Framework, aiming to halt and reverse biodiversity loss by 2030 and mobilize finance accordingly.

Environmental policy

The EU response to nature and biodiversity loss is situated within the 'Rio Trio' i.e. the UN Conventions on Biological Diversity, Climate Change, and Desertification. These three UN conventions are increasingly working together to foster collaboration and accelerate progress to address the interconnected challenges of climate change, biodiversity loss, and desertification. Across the EU and internationally, a range of frameworks and strategies are already responding to the risks of nature and biodiversity loss. The most significant international agreement relating to biodiversity is the Kunming-Montreal Global Biodiversity Framework (GBF) adopted by 196 Parties (195 UN member states plus the European Union) at the 15th Conference of the Parties (COP15) in December 2022. The GBF aims to halt and reverse biodiversity loss by 2030, and achieve recovery of ecosystems by 2050, ensuring nature's contributions to people are valued, conserved, restored, and sustainably used. The main recommendations of the Kunming-Montreal Global Biodiversity Framework (GBF) include:

- Protecting at least 30% of the world's land, inland waters, coastal areas, and oceans by 2030 (commonly referred to as "30x30").
- Restoring at least 30% of degraded terrestrial, inland water, coastal, and marine ecosystems.
- Reducing the extinction rate and risk of all species tenfold, and preserving genetic diversity of wild and domesticated species.
- Ensuring the sustainable use of biodiversity in sectors like agriculture, forestry, fisheries, and tourism.
- Reducing Pollution and Overexploitation (cutting nutrient pollution by 50%, pesticide risks by 50%, and addressing plastic pollution by 2030).
- Eliminating or reforming harmful subsidies worth at least USD 500 billion per year.
- Mobilising Nature-Positive Finance: at least USD 200 billion per year in biodiversity-related funding by 2030.
- Increasing international financial flows to developing countries to at least USD 20 billion/year by 2025, rising to USD 30 billion/year by 2030.
- Increasing engagement with the business and financial Sector: supporting large businesses and financial institutions to assess, disclose, and reduce biodiversity-related risks and impacts.
- Promoting nature-positive business models and reporting in line with frameworks like TNFD.
- Recognizing and respecting the rights, knowledge, and roles of Indigenous Peoples and local communities in biodiversity protection.
- Mainstreaming biodiversity into all policies, regulations, planning, and decision-making across all sectors, from public budgets to corporate strategy.
- Monitoring implementation of the GBF via National Biodiversity Strategies and Action Plans (NBSAPs).

The GBF was informed by the [IPBES Global Assessment Report \(2019\)](#), a landmark evaluation of biodiversity, ecosystem health, and the consequences of nature loss ([IPBES, 2019](#)). IPBES continues to inform global biodiversity policy through further valuable assessments, such as:

- The IPBES Nexus Assessment ([IPBES, 2024c](#)) which identifies 10 broad categories of action with the potential to simultaneously address biodiversity, water, food, health and climate change challenges. Interdisciplinary collaboration is required to integrate these actions into economic policy.
- The IPBES Transformative Change Assessment ([2024a](#)) which defines transformative change as a fundamental system-wide reorganisation across technology, economics, and society- including shifts in values, goals, and worldviews- to address the root causes of biodiversity loss. This assessment argues that failure to implement transformative change risks irreversible ecological decline and greater long-term costs compared to immediate collective action (see Chapter 5).

Building on existing momentum

A growing number of cooperative initiatives are catalysing voluntary action and financial innovation to address nature loss. Among these are the [Science Based Targets Network \(SBTN\)](#), [the Finance for Biodiversity Pledge](#), [UNEP Finance Initiative \(UNEP-FI\)](#), [the Nature Positive Initiative \(NPI\)](#), and [the Global Biodiversity Framework Fund under the Global Environment Facility \(GEF\)](#). These initiatives signal a growing convergence between policy and finance communities in supporting systemic change. A full mapping of 19 of the most important global initiatives was undertaken in the GoNaturePositive! research project ([GoNaturePositive D3.1](#)).

2.2.2. EU Policy context

Economic policy

The overarching context for economic policy in Europe is the EU Strategic Agenda agreed between EU leaders and the European Parliament every 5 years. This agenda guides the priorities of the EC. The EU Strategic Agenda for 2024-2029 is structured around three key pillars: a free and democratic Europe; a strong and secure Europe; and a prosperous and competitive Europe.

This report is primarily concerned with the last pillar and aims to show how a nature-positive economy is integral to a prosperous and competitive Europe. This third pillar aims to improve citizens' economic and social well-being within the context of long-term, sustainable competitiveness. Priorities under this pillar of particular relevance to this publication are highlighted in Table 2.2 below.

Table 2.2. EU Strategic Agenda Priorities and the NPE

EU Priorities for a prosperous and competitive Europe	How the Nature-Positive Economy (NPE) can support, and be supported by, this priority:
A deeper single market, notably for energy, finance and telecommunications.	<p>A NPE supports a just transition to a deeper single market for energy which safeguards nature and societal wellbeing.</p> <p>A deeper single market for financing will help to unlock finance for scaling and investment of NbS. Nature is essential to the resilience and competitiveness of Europe's single market. In energy, a Nature-Positive Economy supports a just</p>

	<p>transition by safeguarding ecosystems and communities. NbS reduce climate-related infrastructure risks, lowering insurance costs and protecting investments. In finance, a deeper single market can unlock capital for NbS and other nature-positive actions, with restored landscapes and sustainable forestry emerging as investable asset classes. Integrating biodiversity into risk assessment de-risks portfolios and attracts private finance. In telecommunications, digital ecosystem monitoring through AI, IoT and satellite tools drives innovation. Strengthening these links makes investing in nature a strategic driver of resilience and growth.</p> <p>A deeper single market for nature strengthens Europe's single market by lowering climate risks, unlocking green investment, and driving digital innovation. Restored ecosystems protect infrastructure, reduce insurance costs, and deliver carbon savings. Nature-positive assets are emerging investment classes, while digital tools for ecosystem monitoring fuel demand for AI and IoT. Investing in nature is a smart move for economic resilience and competitiveness.</p>
<p>Significant collective investment efforts, mobilising both public and private funding, including through the European Investment Bank and integrated European capital markets.</p>	<p>The NPE prioritises mobilisation of private sector investment into nature-positive actions such as nature-based solutions (see Section 3.3 of this publication).</p>
<p>An ambitious, robust, open and sustainable trade policy, reduced harmful dependencies, and diversified and secure strategic supply chains.</p>	<p>The NPE strengthens supply chain resilience and security in key industry sectors by strengthening EU capacity in nature-positive economic activities and boosting shorter, intra-EU supply chains (see Section 4.2).</p>
<p>Improved capacity in key future technologies such as artificial intelligence, net-zero technologies and semi-conductors.</p>	<p>The NPE positions innovative nature-based enterprise activity, contributing to net-zero goals, as a key future technology with high potential for investment and scaling (see Chapter 4).</p>
<p>The green and digital transitions, including a genuine energy union and investment in</p>	<p>The NPE directly contributes to the green transition, specifically the goal to “protect nature and reverse the degradation of</p>

game-changing digital technologies in Europe.	ecosystems, including oceans”.
A sustainable and resilient agricultural sector.	The NPE directly contributes to a sustainable and resilient agricultural sector and the goal to “champion vibrant rural communities and strengthen the position of farmers in the food supply chain”.
The promotion of an environment conducive to innovation and business.	The NPE stimulates increased innovation and business development in nature-positive economic activities, supporting sustainable economic growth while restoring and protecting biodiversity.
Strengthened health cooperation at European and international level.	The NPE strengthens the scientifically proven contribution of nature-based economic activity to health.
Investment in skills, training and education.	Actions to address this priority are of high relevance to the NPE, given evidence of gaps in the skills, training and education required to realise the transition to a NPE.

These political priorities have been taken up by the EC in their priorities for the period 2024-2029, specifically a new plan for Europe’s sustainable prosperity and competitiveness building on the [Draghi report \(2024\)](#). The first major initiative of this plan is the [EU Competitiveness Compass \(European Commission, 2025a\)](#).



Figure 2.4. The three pillars and five enablers of the EU Competitiveness Compass (source: ERRIN, 2025)

As shown in Figure 2.3, the EU Competitiveness Compass is structured around three transformational pillars to boost competitiveness and five underpinning enablers. In Table 2.4, we identify how the nature-positive economy can both support, and be supported by, this plan. We also point out potential risks and safeguards which need to be put in place to ensure these priorities do not generate negative trade-offs and unintended consequences for nature restoration.

Table 2.3. The EU Competitiveness Compass and the NPE

Priorities of EU plan for sustainable prosperity and competitiveness	How the Nature-Positive Economy (NPE) can support, and be supported by, this priority:
<p>Closing the innovation gap by:</p> <ul style="list-style-type: none"> • Facilitating the establishment of start-ups and conditions for scaling up. • Creating a deeper and efficient venture capital market. • Easing mobility and retention of talent • Investing in state-of-the-art infrastructures. • Boost innovation and research. 	<p>Supporting the start-up and scaling of innovative nature-based enterprises (NbEs) is at the heart of the transition towards a Nature-Positive Economy. Including measures to address the specific financing challenges faced by NbEs (see section 4.1.4) under this pillar is critically important to retain the highly motivated entrepreneurs in this field.</p> <p>Safeguards need to be put in place to ensure growth is prioritised in sectors aligned with NPE principles.</p>
<p>High priority flagship actions to close the innovation gap towards a nature-positive economy: Start-up and Scale-up Strategy, European Innovation Act, European Biotech Act, Bioeconomy Strategy and Life Sciences Strategy.</p>	
<p>A joint roadmap for decarbonisation and competitiveness:</p> <ul style="list-style-type: none"> • Integrate decarbonisation policies with industrial, economic, and trade policies. • Facilitate access to affordable energy. • Strengthen the business case for a clean transition. • Promote competitiveness of clean tech manufacturers. 	<p>Nature restoration is recognised as a high impact, cost-effective solution for decarbonisation. The EU recognises that “Nature acts as the Earth’s carbon sinks, absorbing CO2 from the atmosphere and keeping it safely stored”. Integrating nature with decarbonisation into industrial, economic, and trade policies is an incremental change that makes economic sense.</p> <p>More needs to be done to strengthen the business case for investment in nature and to support businesses in transitioning to nature-positive across their value chains.</p>
<p>High priority flagship actions to support decarbonisation and competitiveness: Inclusion of nature-based solutions/enterprises as part of the Clean Industrial Deal and Industrial Decarbonisation Accelerator Act recognising their role in decarbonisation and circularity; Circular Economy Act, Vision for Agriculture and Food, Oceans Pack and</p>	

Amendment of the Climate Law

Reducing excessive dependencies and increasing security by:

- Developing policies, partnerships, and investments to ensure economic security, resilience, and strategic interests.
- Strengthening defence industrial capabilities and support by pan-European cooperation.
- Improving preparedness.

Climate change and extreme events combined with Covid and the Ukraine crisis, have exposed vulnerabilities in European supply chains, not least in agri-food. The NPE strengthens supply chain resilience and security in key industry sectors by strengthening EU capacity in nature-positive economic activities and boosting shorter, intra-EU supply chains (see Section 4.2).

High priority flagship actions to reduce dependencies and increase security: revision of directives on public procurement, Preparedness Union Strategy, European Climate Adaptation Plan and Water Resilience Strategy

Horizontal enablers:

1. Simplification.
2. Removing barriers in the Single Market.
3. Financing.
4. Skills and quality jobs.
5. Better coordination.

Actions to address these enablers should consider the specific financing and skills gaps faced by nature-based enterprises. Trade-offs between simplification and reduced investment in sustainability measures to build the resilience of EU businesses to climate change and nature loss should be measured.

Box 2.2. ECB estimates 72% of Euro-zone companies highly dependent on nature

In 2023, the European Central Bank (ECB) started looking at the dependence on nature of more than 4.2 million individual companies accounting for over €4.2 trillion in corporate loans. The ECB's preliminary analysis shows that 72% of euro area companies—about three million companies—are highly dependent on ecosystem services, either directly or through their supply chains. Sectors most exposed include agriculture, manufacturing, wholesale, and retail. This widespread dependency implies that continued environmental degradation could trigger supply chain disruptions, price instability, lower revenues, and loan defaults, potentially escalating into systemic financial risks.

They identified two key channels through which biodiversity loss impacts the financial sector:

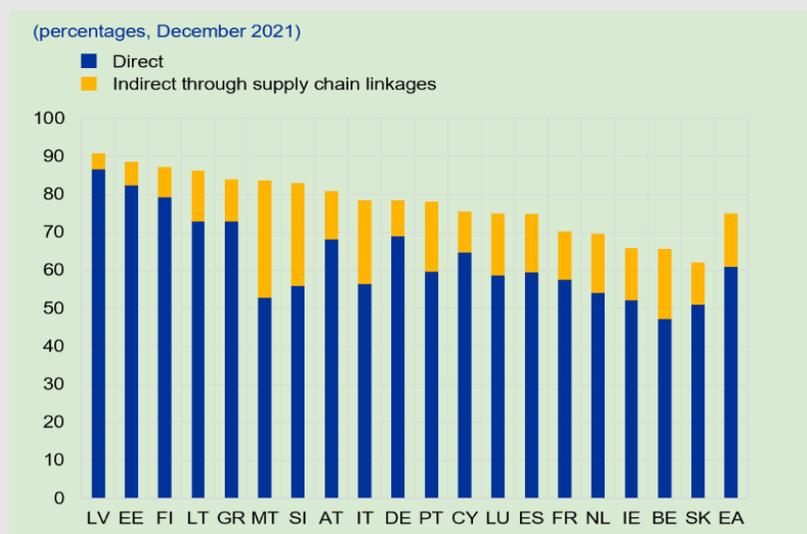
- **Physical Risks** – Resulting from direct harm to ecosystems, such as reduced crop yields due to pollinator decline, or water shortages affecting manufacturing and tourism.
- **Transition Risks** – Arising from policy changes, like stricter conservation regulations (e.g. the UN target to protect 30% of natural areas by 2030), evolving technologies, shifts in consumer preferences, or investors divesting from unsustainable businesses. These transitions could render certain business models obsolete or unprofitable.

This ECB report cited the examples of Dutch banks which face €510 billion in biodiversity-related exposures, and 42% of securities held by French institutions are tied to companies reliant on ecosystem services.

Box 2.2. ECB estimates 72% of Euro-zone companies highly dependent on nature

The Network for Greening the Financial System (NGFS) has recognised that nature-related risks fall within the mandate of central banks and financial regulators. The NGFS has launched a dedicated task force on biodiversity and nature-related risks to help develop frameworks and harmonize global responses.

Figure. Exposure of euro area banks' loan portfolios to nature-related risk.



Sources: EXIOBASE, ENCORE, AnaCredit and ECB calculations.

Notes: Share of corporate loans from banks to companies with a high dependency score (greater than 0.7) for at least one ecosystem service. Loans are allocated to the country where the headquarter of the bank is located.

Share of loans with a high dependency score (greater than 0.7) for at least one ecosystem service. A loan is labelled as highly dependent when the borrowing company has a sufficiently high direct dependency score (blue bar) or sufficiently high dependency when also taking into account possible supply chain linkages (yellow bar).

The ECB concludes that the economy depends on nature. Damaging ecosystems undermines economic foundations. While it is up to governments to create nature policies, the ECB must factor in nature-related risks, and socio-economic priorities of the EC, into its mandate and decisions. Source: [ECB \(2023\)](#)

The priorities of a Nature-Positive Economy (NPE) are shared prosperity, restoring ecosystems, and integrating diverse values of nature into decision-making. These priorities align well with the other stated priorities of the EC for the 2024-2029 period:

Table 2.4. EC priorities for the period 2024-2029

Socio-economic priorities of the EC	Relevance of Nature-Positive Economy
Sustaining our quality of life: Food security, water and nature: Building a	The Nature-Positive Economy contributes to the EU vision for agriculture and food to

Table 2.4. EC priorities for the period 2024-2029

Socio-economic priorities of the EC	Relevance of Nature-Positive Economy
<p>competitive and resilient agriculture and food system, safeguarding biodiversity, and preparing for a changing climate.</p> <p>With 9 million farms in the EU and more than 17 million people working in agriculture in the EU, €900 billion in added value was generated by the EU agri-food system in 2022 creating about 30 million jobs in the entire agri-food sector (source: EU).</p> <p>Natural hazards cost the sector €650 billion from 1980 to 2022 (of which around 16% in 2021-22).</p> <p>Young people are leaving the sector threatening long term food security with only 12% of farmers under 40 years old (source: EU).</p>	<p>ensure the long-term competitiveness and sustainability of the farming sector and to support family farms.</p> <p>The NPE is fully aligned with the goal of rewarding farmers who work with nature, preserve biodiversity and natural ecosystems, and help to decarbonise our economy. These actions are aligned with international biodiversity commitments, such as those taken in the Kunming Montreal Agreement. The NPE calls for more incentives for nature positive actions and private investments in nature, including but not limited to developing nature credits.</p> <p>The NPE supports efforts to secure farmers' futures to make agriculture financially viable and fight back against unfair practices, attract incomes from multiple sources, foster a fairer position in the food chain to enable farmers to thrive and earn a fair revenue and attract more young people into this sector.</p> <p>The NPE supports nature-based enterprises deploying nature-based water management solutions in urban and rural areas, thus contributing to European water resilience.</p> <p>The NPE also supports regenerative ocean farmers and other NbEs engaged in the sustainable development of the blue economy.</p>
<p>Supporting people, strengthening our societies and our social model: Promoting social fairness, increasing solidarity in our society, and ensuring equal opportunities for all.</p>	<p>The nature-positive economy contributes to improved social well-being and equity. We apply four core principles to guide transformative change and tackle the root causes of biodiversity loss in line with IPBES (2024). These are:</p> <ol style="list-style-type: none"> 1. Equity and justice, fairly sharing benefits and responsibilities while addressing historical and structural inequalities; 2. Pluralism and inclusion: Recognising diverse worldviews, knowledge systems, and ensuring broad participation in decision-making.

Table 2.4. EC priorities for the period 2024-2029

Socio-economic priorities of the EC	Relevance of Nature-Positive Economy
	<p>3. Respectful human–nature relationships: Promoting stewardship and mutual care between people and the natural world.</p> <p>4. Adaptive learning and action: Remaining flexible, learning from experience, and adapting strategies as circumstances change.</p> <p>This transition requires a whole-of-society approach. Social inclusion plays a critical role, calling for greater citizen engagement and dialogue to build consensus for change.</p>
<p>A global Europe: Leveraging our power and partnerships: Focusing on our wider neighbourhood to tackle global challenges and promote peace, partnerships, and economic stability.</p>	<p>The concept of a nature-positive economy is global. Our economy is embedded within society and planetary ecosystems. The nature-positive economy recognises and addresses the underlying causes of nature loss which include historic and sustained inequitable exploitation of resources between the EU and the global majority. The NPE prioritises equity and shared prosperity recognising different values placed on nature in many parts of the world.</p>

2.2.3. EU Environmental policy

Successive European Environmental Action Programmes (EAPs) dating from the 1970s to the eighth EAP covering the period up to 2030 have seen environmental policy move from an idealistic start to the fulcrum of European policy under the previous European Commission (2019-2024). However while the cross-cutting EU Green Deal ([Von der Leyen, 2019](#), [Burns, 2021](#)) was the centrepiece of the previous Commission, culminating in the passing of landmark legislation such as the Nature Restoration Regulation, cracks were already beginning to appear with increased political polarisation leading to highly divisive political and public discourse on key legislation ([Arndt et al., 2023](#)). This led to a perceived watering down of the final Nature Restoration Regulation (NRR) e.g., a temporary suspension of agricultural restoration measures for up to 12 months, with the possibility of extension ([Kupilas et al., 2025, GoNaturePositive!](#)).

While ‘the green transition’ remains a stated priority for the EC, the EU Strategic Agenda from 2024-2029 and early legislation such as the EU Competitiveness Compass (2025), suggest that this priority is one of many in a much changed political and economic environment. While climate change and decarbonisation remain relatively high on the political agenda, nature restoration has almost completely slipped off. The EU Competitiveness Compass (see Table 2.4) does not identify priority actions for nature restoration or biodiversity making the implementation of the NRR and its restoration targets more challenging ([Kupilas et al., 2025, GoNaturePositive!](#)). Further as part of their efforts to stimulate competitiveness and growth, the EC introduced the Omnibus Package in February 2025, which included significant amendments to [Corporate Sustainability](#)

[Reporting Directive \(CSRD\)](#) and the [Corporate Sustainability Due Diligence Directive \(CSDDD\)](#), and was accompanied by a draft Taxonomy Delegated Act. These changes had the effect of removing around 80% of companies from the scope of the CSRD.

Concerns, however, have been raised in relation to these changes. The European Central Bank warns about the possible unintended outcomes from an 80% reduction in undertakings subject to sustainability reporting requirements under the proposed amendments ([ECB, 2025a](#)). These unwanted outcomes may materialise in the reduction in “the overall availability of sustainability-related information, including information on GHG emissions produced by undertakings” ([ECB, 2025a, p.7](#)). A subsequent letter from the ECB President, Christine Lagarde, ([ECB, 2025b](#)) highlighted the need to strike a balance between retaining the benefits of sustainability reporting for the European economy and financial system whilst ensuring that requirements were proportionate ([ECB, 2025b](#)).

These concerns have been echoed by many in the wider investment and business community. On 1st August 2025, over 300 investors, financial institutions, companies and other supporting organisations came together in response to the Omnibus simplifications to issue a [joint statement](#) emphasising:

“The importance of preserving the core of the EU sustainable finance framework. Rules on sustainability reporting, transition plans, climate targets and corporate due diligence are a key foundation for achieving the EU’s economic and sustainability goals. Improving their implementation is a priority. By promoting transparency and responsible business conduct, these rules are conducive to competitiveness and growth, as well as long-term value creation and subsequent returns for investors” ([Joint Omnibus Statement, 2025, p.1](#)).

Tables 2.5 and 2.6 below summarise the ambitions and limitations of key EU legislation from the perspective of the nature-positive economy.

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
EU Green Deal	Provides an overarching growth strategy for the EU that integrates climate neutrality, biodiversity protection, and resource efficiency. Establishes a cross-sectoral policy framework linking energy, transport, agriculture, and industry to environmental objectives. Includes major initiatives such as the Biodiversity Strategy for 2030, the Farm to Fork Strategy, and the Circular Economy Action Plan, which together create opportunities to embed NPE principles. Positions the EU as a global leader on climate and environmental	While nature is referenced across several pillars, biodiversity objectives are less prominent than climate targets, creating a risk that nature outcomes are deprioritised in implementation. Trade-offs between short-term competitiveness priorities and long-term ecological resilience remain unresolved. Funding allocations are not always sufficient or ring-fenced for biodiversity-positive measures. Policy coherence challenges persist across sectors, and some economic recovery or industrial measures may conflict with NPE goals (e.g. continued subsidies

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

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EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
	<p>policy, which can help attract green investment and drive innovation in nature-positive activities.</p>	<p>for intensive agriculture or fossil fuel use).</p> <p>While building on the climate ambitions set by the Green Deal, the EU Clean Industrial Deal marks a shift in narrative, with a stronger emphasis on industrial competitiveness and less visibility granted to nature and biodiversity as underpinning not only climate action but also Europe’s growth prospects.</p>
<p>EU Biodiversity Strategy for 2030</p>	<p>Sets ambitious targets to protect at least 30% of EU land and sea areas, with one-third under strict protection. Commits to legally binding EU nature restoration targets through the Nature Restoration Regulation and to planting at least 3 billion trees by 2030. Integrates biodiversity considerations into sectoral policies such as agriculture, fisheries, adaptation, and urban planning. Recognises the link between biodiversity, climate resilience, and human well-being, creating alignment opportunities with NPE objectives. Aims to ensure that all initiatives prevent significant environmental damage.</p>	<p>Implementation depends heavily on Member State commitment, governance capacity, and adequate funding. Many targets remain voluntary or lack clear enforcement mechanisms. Potential trade-offs exist between biodiversity protection and competing land-use demands, particularly in agriculture, forestry, and infrastructure development. Policy coherence challenges persist where other EU strategies (e.g., industrial, energy, agriculture, or trade policies) may inadvertently undermine biodiversity goals.</p>
<p>EU Nature Restoration Regulation (NRR)</p>	<p>Sets legally binding targets to restore at least 20% of the EU’s land and sea areas by 2030 and all ecosystems requiring restoration by 2050.</p> <p>Implementation is phased over the coming decades, starting with drafting the first National Restoration Plans (NRPs) by Autumn 2026 with</p>	<p>Funding sources and mechanisms remain unclear and administrative capacities at the local level may be insufficient.</p> <p>The reliance on voluntary measures to achieve binding targets raises concerns about effectiveness.</p> <p>Mixed policy messages in the context of competitiveness strategies, where restoration</p>

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
	<p>milestone targets set for 2030, 2040, and 2050.</p>	<p>measures could be seen as limiting land-use options or reducing agricultural profitability rather than supporting resilience and long-term competitiveness. As a result, land-use conflicts may emerge between economic actors and restoration goals.</p>
<p>European Climate Law (EUCL)</p>	<p>Sets a binding target of net-zero GHG emissions by 2050 and an intermediate target of at least a 55% reduction by 2030 compared to 1990 levels.</p> <p>EUCL points out a clear role for natural sinks in achieving its 2030 and 2050 ambitions. By explicitly recognising the contribution of ecosystem restoration to maintaining and enhancing carbon sinks, the policy encourages nature-positive actions, although these provisions are non-binding.</p>	<p>Lacks a stronger focus on biodiversity restoration and ecosystem health. No binding targets are set for restoring carbon-rich ecosystems such as forests and wetlands, and the requirement to consider NbS applies only to national adaptation strategies, not mitigation efforts.</p> <p>Does not address the need to phase out nature-harmful subsidies.</p> <p>Does not directly foresee funding for biodiversity or ecosystem restoration, relying instead on other policies.</p> <p>Lack of clarity on the role of nature-based carbon removals after 2030. Expanding natural carbon sinks could lead to biodiversity trade-offs, such as afforestation efforts that prioritise carbon storage over ecological integrity, if robust planning is not ensured.</p> <p>The large-scale deployment of renewable energy sources may create land-use conflicts, potentially undermining restoration goals and leading to unintended environmental consequences.</p>

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
<p>EU Strategy on Adaptation to Climate Change</p>	<p>The Strategy emphasises smarter, more systemic, and faster adaptation, with increased ambitions for international climate resilience. It aligns with core NPE elements by focusing on improving knowledge of nature’s impacts and enhancing cross-sectoral transformative potential.</p> <p>Emphasises nature-based solutions and related financial aspects, identifying the restoration of wetlands, peatlands, and coastal and marine ecosystems as cost-effective approaches for adaptation.</p> <p>Aims to increase and share knowledge on climate adaptation and support a just transition.</p>	<p>The Strategy lacks binding commitments, specific targets, timelines, and a monitoring and evaluation framework to ensure effective implementation and its nature-positive provisions, in particular.</p> <p>Focuses on identifying climate change impacts and benefits from nature-based solutions but does not provide sufficient incentives for their practical application which limits contribution to the NPE transition.</p> <p>Weak alignment with the EU Biodiversity Strategy and absence of biodiversity-positive targets.</p>
<p>Land Use Land-use Change and Forestry Regulation (LULUCF)</p>	<p>It sets a binding 2030 target for net GHG removals in the sector, aiming for 310 million tonnes of CO₂eq while establishing specific emission reduction and removal targets for Member States. In this way, it encourages nature-positive activities such as natural carbon sinks enhancement and reduction of negative impacts on ecosystems.</p> <p>Requires more comprehensive, detailed, and accurate information on the state of monitored and reported ecosystems, with further advancements expected over time. This is expected to attract greater political attention to these</p>	<p>Potential to support the NPE transition exists, but poor implementation could harm nature (e.g., through low-biodiversity plantations).</p> <p>Misses opportunities for strong nature-positive action and lacks comprehensive ecosystem coverage (e.g., coastal wetlands). It lacks specific emission reduction or removal sub-targets for different land-use categories, granting Member States considerable flexibility in meeting their national targets.</p> <p>Does not provide guidance for balancing climate mitigation and nature-positive outcomes. Its post-2030 framework is also unclear, raising concerns about</p>

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
	<p>ecosystems, thereby encouraging nature-positive actions.</p> <p>Incorporates social justice, stakeholder engagement, while considering long-term climate goals.</p>	<p>long-term contributions to climate neutrality and NPE goals.</p>
<p>EU Bioeconomy Strategy (2018)</p> <p><i>(Note: an updated strategy is expected by the end of 2025)</i></p>	<p>The Bioeconomy Strategy establishes objectives focusing on nature restoration, sustainable resource management and enhancement of ecosystem services, directly linking to the NPE concept.</p> <p>Its promotion of circular bioeconomy principles strengthens its alignment with the goals of reducing environmental pressures and responsible resource use, while funding from programmes like Horizon Europe and the European Circular Bioeconomy Fund supports sustainable bioeconomy innovations.</p> <p>It has the potential to expand knowledge about the bioeconomy’s impacts on nature by introducing actions on “understanding the ecological boundaries of the bioeconomy” (potentially taking up elements of EU Biodiversity Strategy linked to soil health, carbon farming and/or food production).</p>	<p>Lacks binding commitments and enforceable measures for biodiversity protection, relying instead on voluntary guidelines.</p> <p>Risks include land use pressure, overconsumption, and limited societal inclusion (e.g., gender equality, public participation), which is rather addressed by the Strategy implementation instruments, namely the Horizon Europe Programme.</p> <p>Stronger regulatory measures, clear sustainability safeguards, and better integration of environmental and social priorities are essential for full alignment with the NPE.</p>
<p>Corporate Sustainability Reporting Directive (CSRD)</p>	<p>Expands the scope and standardises sustainability reporting across large companies and listed SMEs in the EU, increasing transparency on biodiversity impacts, dependencies, and risks. Aligns with the</p>	<p>Weakened by Omnibus amendments taking 80% of companies out of mandatory reporting requirements.</p> <p>Signals a rollback of EU commitments to sustainability</p>

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
	<p>European Sustainability Reporting Standards (ESRS), which integrate nature-related disclosures and can support alignment with NPE objectives. Provides investors, regulators, and consumers with more comparable and reliable data, enabling better integration of nature into financial decision-making.</p> <p>Potential to be aligned with SEEA Ecosystem Accounting and targets relating to intertwined environmental topics (climate, water, pollution, biodiversity and ecosystems, and circular economy).</p>	<p>reporting. Risk that reduced coverage and voluntary reporting for some metrics will limit the completeness of biodiversity data across value chains. Without strong capacity building and enforcement, the quality and consistency of reported nature-related information may vary widely.</p>
<p>EU Circular Economy Action Plan</p>	<p>Introduces 35 measures to enhance circularity, support climate neutrality by 2050. Goals include doubling EU’s circular material use rate in the coming decade and reducing resource consumption, thus indirectly supporting nature recovery.</p> <p>Promotes sustainable products, waste prevention, setting the target to halve municipal waste by 2030, and resource-efficient production, especially in high-impact sectors.</p> <p>Supports nature-positive outcomes by reducing pressures on ecosystems, enabling indirect restoration opportunities.</p> <p>Linked to the Clean Industrial Deal, updated Bioeconomy Strategy, and upcoming EU Circular Economy Act, creating synergies across</p>	<p>Limited impact due to its non-binding nature, reliance on voluntary initiatives, informational tools, and private standards rather than strict regulations.</p> <p>The CEAP focuses on resource efficiency and waste reduction but does not directly finance or mandate ecosystem restoration.</p> <p>The extent of its nature-positive outcomes highly depends on the proper and timely adoption and implementation of legal and policy instruments proposed under the CEAP.</p> <p>High dependence on market-driven measures can favour economic competitiveness over explicit nature-positive outcomes.</p> <p>Risk of trade-offs if circular initiatives focus on carbon and energy efficiency without biodiversity safeguards.</p>

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
	<p>policies and funding mechanisms.</p>	<p>Overall, CEAP reduces harmful activities and supports NPE indirectly, but cannot by itself deliver large-scale ecosystem recovery.</p>
<p>InvestEU</p>	<p>Provides a market-based, demand-driven investment tool supporting EU policy goals including competitiveness, green transition, and social resilience.</p> <p>Has a €26.2 billion budget guarantee, with at least 60% of the Sustainable Infrastructure Window contributing to EU climate and environmental targets, including nature restoration and green infrastructure projects.</p> <p>Promotes nature-positive investments through green and blue infrastructure and ecosystem enhancement, supported by sustainability proofing, risk screening, and the DNSH principle.</p> <p>Facilitates knowledge-sharing and transparency via the InvestEU Portal and Advisory Hub, plus Green Assist to develop high-impact green projects.</p>	<p>No dedicated earmarking for nature restoration, meaning support for biodiversity and NbS is indirect within the broader sustainable infrastructure objectives</p> <p>The market-based, demand-driven approach may result in low uptake for nature restoration due to lower bankability compared to energy or mobility projects.</p> <p>Sustainability proofing is complex, potentially burdening beneficiaries and reducing efficiency.</p> <p>Intervention fields are broad and open to interpretation, creating legal uncertainty for implementing partners and limited guarantee on nature-positive outcomes.</p> <p>Certain eligible activities, such as natural gas distribution or waste-to-energy projects, could undermine nature-positive outcomes.</p>
<p>LIFE Fund</p>	<p>Provides dedicated EU funding for environment, climate, and biodiversity with a €5.4 billion budget for 2021–2027, including €2.7 billion for biodiversity-focused projects.</p> <p>Can support the implementation of the EU Biodiversity Strategy 2030, Nature Restoration</p>	<p>Funding is limited relative to EU restoration and biodiversity targets, creating dependency on additional EU sources.</p> <p>Continuation beyond 2027 is uncertain due to the MFF priorities outlined in the European Commission proposal for the MFF 2028-2034 shifting toward decarbonisation,</p>

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
	<p>Regulation, Birds & Habitats Directives, and Natura 2000.</p> <p>Also finances circular economy initiatives, energy efficiency projects, and climate adaptation measures addressing droughts, wildfires, and floods.</p> <p>Fosters cross-border cooperation, innovation, and knowledge-building including for nature-based solutions and ecosystem restoration.</p>	<p>innovation, and defence; likely to be absorbed into other funds.</p> <p>Co-funding requirements and complex application procedures pose barriers for financially weak or small local actors.</p>
<p>EU Economic Accounts Regulation (EEEE)</p>	<p>Establishes a common statistical framework integrating environmental and economic data across all EU Member States.</p> <p>Mandatory reporting will provide consistent, comparable, and standardised data on ecosystem extent, condition, and services.</p> <p>The proposed Ecosystem Accounts Module aligns with the United Nations System of Environmental-Economic Accounting – Ecosystem Accounting (UN SEEA-EA) framework, supporting international comparability.</p> <p>Creates a robust evidence base for integrating nature into economic planning, policy evaluation, and monitoring of the nature-positive economy.</p> <p>Supports better tracking of nature’s contributions to the economy, including pollination, carbon sequestration, and water filtration.</p>	<p>Implementation depends on Member State capacity and expertise in ecosystem accounting, which may be uneven across the EU (see Box 2.5).</p> <p>Time lag between data collection, reporting, and policy integration could delay responsiveness to emerging ecological risks.</p> <p>The framework focuses on measurement and reporting; translating data into actionable policy will require additional governance mechanisms.</p> <p>Potential risk of underutilisation if ecosystem accounting results are not systematically embedded into fiscal, industrial, and competitiveness policy decisions.</p>

Table 2.5. Strengths and Limitations of overarching EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3, and “High-Integrity Nature Markets for Cities: Unlocking Private Sector Finance for Urban Nature and a Healthy, Resilient, Competitive Europe”, upcoming output, GoNaturePositive!.

EU instrument	Strengths	Weaknesses & trade-offs from a NPE perspective
	Potential to be aligned with CSRD reporting to link business targets with national / EU nature targets.	
EU Roadmap towards Nature Credits	Seeks to mobilise private capital for nature restoration by creating market-based incentives and certified biodiversity outcomes usable by businesses, investors, and public authorities. It complements public finance, helping to address the €19 billion annual NbS funding gap, and positions nature as a strategic economic asset. The approach supports local and regional aggregation of small-scale projects, enabling place-based investment, and can align with other EU frameworks to strengthen market integrity, comparability, and scalability.	As a voluntary instrument, its impact may be limited without strong regulation and alignment with existing policy frameworks. Challenges include standardising biodiversity metrics, ensuring genuine and lasting impact, and avoiding pitfalls seen in carbon markets. Unresolved design choices, such as whether credits can offset harm, will affect credibility, equity, and environmental integrity, with risks of greenwashing or exclusion of smaller actors.
EU Carbon Removals and Carbon Farming Certification (CRCF) Regulation	First EU-wide voluntary framework for certifying carbon credits - how to standardise and remove, carbon farming and carbon storage in products water quality co-benefits. No across Europe. By establishing rewarding of pre-existing carbon EU quality criteria and laying storage / carbon sinks on farms. In down monitoring and reporting development. processes, aims to facilitate investment in innovative carbon removal technologies, as well as sustainable carbon farming solutions, while addressing greenwashing.	Challenges similar to Nature and integrate other biodiversity and quality co-benefits. No development.

Table 2.6. Strengths and Limitations of sector-specific EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3.

Key instruments reviewed & key findings

EU instrument	Strengths	Weaknesses & Tradeoffs from a NPE perspective
<p>Common Agricultural Policy (CAP)</p>	<p>The CAP sets out 10 specific objectives, five of which are identified as being the most relevant for the NPE transition: support viable farm income (Objective 1), improve competitiveness (Objective 2), promote climate mitigation and adaptation (Objective 4), enhance sustainability and the efficient management of natural resources (Objective 5), and contribute to reversing biodiversity loss and preserving habitats (Objective 6).</p> <p>Introduces dedicated networks to support a successful implementation of the CAP and peer-to-peer learning and to encourage knowledge exchange and collaboration among stakeholders.</p> <p>With a €387 billion budget for 2021–2027, the CAP operates through the EAGF and EAFRD, providing payments conditional on compliance with environmental standards (GAECs and SMRs).</p> <p>Emphasises innovation and social inclusion, fostering systemic change in rural areas.</p>	<p>Gives Member States significant flexibility in implementing the policy and assessments of the first CAP Strategic Plans.</p> <p>Economic growth goals tied to an unsustainable use of biomass risk exacerbating resource competition and ecological degradation.</p> <p>Binding measures are often lacking (e.g., for increasing women’s participation in farming) or diluted by exemptions (e.g., for GAEC 2 implementation), limiting their impact.</p> <p>As a result, although the CAP provides tools for potentially supporting an NPE, conflicting interests and an insufficient focus on restoration hinder its transformative potential.</p>
<p>Action Plan for the Development of Organic Production</p>	<p>Sets out 23 actions aimed at achieving 25% of agricultural land under organic farming across the EU by 2030, along with a significant increase in organic aquaculture.</p> <p>Key actions include promoting organic farming per se, reducing environmental and climate footprints, supporting circular and sustainable management practices, and fostering knowledge exchange and transparency through platforms like the EU CAP network.</p>	<p>There is a lack of explicit measures for biodiversity restoration and specific actions targeting vulnerable groups.</p> <p>Fails to identify new funding sources and largely lists actions that are already promoted under existing policies.</p> <p>Lacks clear governance mechanisms, aside from a few networking and information dissemination platforms. A long-term vision is not strongly embedded, with only two references to the EU 2050</p>

Table 2.6. Strengths and Limitations of sector-specific EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3.

Key instruments reviewed & key findings

EU instrument	Strengths	Weaknesses & Tradeoffs from a NPE perspective
	<p>Under Axis 2 of the Action Plan, the goal of encouraging conversion, investment, and the exchange of best practices is intended to facilitate the transition from industrial agriculture to organic farming, potentially reducing the agricultural sector's environmental impact.</p> <p>Emphasises knowledge exchange and the sharing of best practices in organic farming. Measures include gathering and disseminating data on the benefits of organic farming, organising awareness events, and utilising digital tools like AI and blockchain to enhance supply chain transparency.</p> <p>Proposes actions aimed at protecting the rights and interests of farmers, fostering fair trading practices; supports measures promoting gender equality and youth employment in rural areas.</p>	<p>ambitions, both included in descriptive sections.</p> <p>Potential biodiversity trade-offs in preparing organic farming land are not addressed.</p>
<p>Marine Strategy Framework Directive</p>	<p>Legally establishes the ecosystem-based approach (EBA) for managing marine economic activities.</p> <p>Has strong focus on reducing harmful activities and protecting the marine environment, directly linking protection and preservation measures to biodiversity benefits.</p>	<p>Establishes procedural obligations rather than prescribing specific measures for marine management.</p> <p>Focus on minimising the collective negative effects of economic activities prevails, with significantly less emphasis made on restoration.</p> <p>The absence of binding restoration obligations or strict compliance measures limits its potential to drive an NPE transition effectively.</p> <p>The MSFD's approach to social aspects is broad, lacking concrete measures to address issues such as indigenous rights and the role of local coastal communities.</p>

Table 2.6. Strengths and Limitations of sector-specific EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3.

Key instruments reviewed & key findings

EU instrument	Strengths	Weaknesses & Tradeoffs from a NPE perspective
		<p>Legal ambiguity and lack of clarity in defining GES, the relationship with other legislative instruments, and coordination with regional conventions remain key weaknesses. Transparency is limited, most of the data produced and reported is not publicly accessible, with only summaries of marine strategy elements being published.</p> <p>Overall, the MSFD is seen as lacking the necessary incentives and clarity to fully facilitate the NPE transition.</p>
<p>Common Fisheries Policy</p>	<p>Applies an EBA to minimise the negative impacts of fishing on marine ecosystems and prevent environmental degradation caused by fisheries and aquaculture activities.</p> <p>The adoption of multiannual plans with conservation measures aims to restore and maintain fish stocks at MSY levels, while regulating fleet capacity to prevent overfishing.</p> <p>Aims to contribute to the collection and management of scientific data on fisheries, requiring gathering biological, environmental, technical, and socio-economic data for fisheries management, making this information available to designated bodies.</p>	<p>Systematic performance tracking is not mandatory, so the effectiveness of multiannual plans in achieving long-term sustainability is uncertain.</p> <p>The CFP mainly emphasises mitigation rather than restoration, which could substantially limit its contribution to an NPE transition due to insufficient incentives or requirements for actively creating additional nature within the marine sector.</p> <p>Some measures and funding allocations supported under the CFP and EMFAF could unintentionally increase pressures on marine biodiversity and ecosystems.</p> <p>No explicit inclusion of vulnerable groups, indigenous knowledge, or local community participation, no integration of diversity or equity principles.</p> <p>Weak governance structures, ineffective enforcement mechanisms, and the absence of a clear timeline for achieving nature-positive fisheries</p>

Table 2.6. Strengths and Limitations of sector-specific EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3.

Key instruments reviewed & key findings

EU instrument	Strengths	Weaknesses & Tradeoffs from a NPE perspective
<p>EU Deforestation Regulation (EUDR)</p>	<p>Establishes a legally binding framework to prevent the import and trade of commodities linked to deforestation and forest degradation.</p> <p>Targets key high-risk products (e.g., soy, beef, palm oil, wood, cocoa, coffee) and their derivatives, aiming to reduce the EU's global deforestation footprint.</p> <p>Supports nature positive and climate objectives by addressing embedded land-use change impacts, promoting sustainable, deforestation-free supply chains, and imposing corporate due diligence obligations.</p> <p>Creates traceability requirements and risk-based controls, encouraging greater transparency and accountability in commodity trade.</p>	<p>management further limit the CFP's support for the NPE transition.</p> <p>The risks from this legislation centre around enforcement and verification systems e.g. false claims of origin of commodities coming into the EU, the trade-offs it may create in terms of delayed sourcing and increased costs and a shift to exploitation of commodities not covered by the regulation.</p>
<p>New European Bauhaus</p>	<p>Promotes a systemic transition toward sustainability by integrating nature-based solutions (NbS), circular economy principles, and social inclusion into the built environment.</p> <p>Fosters biodiversity-friendly design, energy efficiency, and regenerative practices, helping balance human activity and nature.</p> <p>Encourages participatory planning and community engagement supporting a just transition. By linking architecture, design, science, and policymaking it can foster</p>	<p>Lacks clear accountability and robust implementation mechanisms, risking that its principles remain aspirational or superficially adopted.</p> <p>Costs and affordability constraints for sustainable materials and technologies can slow adoption or lead to economic vs. environmental trade-offs.</p> <p>New construction may generate additional environmental pressures (e.g., energy demand, land-use conflicts).</p> <p>Rapid deployment of affordable housing and infrastructure can risk prioritising short-term needs</p>

Table 2.6. Strengths and Limitations of sector-specific EU policies for the NPE

Source: Kupilas et al, 2025, GoNaturePositive! D1.3.

Key instruments reviewed & key findings

EU instrument	Strengths	Weaknesses & Tradeoffs from a NPE perspective
	<p>innovative and climate-resilient urban and rural spaces.</p> <p>Intends to mobilise EU funding via Horizon Europe and LIFE for projects aligned with NEB principles.</p> <p>Connects urban transformation with green and blue infrastructure concepts like 15-minute cities.</p>	<p>over long-term sustainability, unless carefully aligned with nature-positive principles.</p>
<p>Green Infrastructure Strategy</p>	<p>Establishes a framework for preserving, restoring, and enhancing green infrastructure (GI) across the EU.</p> <p>Promotes strategically planned networks of natural and semi-natural areas to strengthen biodiversity, ecosystem services, and ecological connectivity.</p> <p>Promotes the integration of GI into climate adaptation, agriculture, forestry, and disaster risk management to ensure ecological connectivity and sustainable land use. In cityscapes, it encourages nature-based solutions such as green roofs, urban parks, and floodplain restoration.</p>	<p>Lacks concrete implementation mechanisms.</p> <p>Financial allocations are unclear, and access to dedicated GI funding remains limited, creating barriers to scaling nature-positive projects.</p> <p>Potential trade-offs can arise from the absence of safeguards against competing land uses, such as agriculture, urban expansion, or grey infrastructure.</p>
<p>European Agenda for Tourism 2030</p>	<p>Provides a framework to guide the sustainable, digital, and resilient transition in the tourism sector by 2030.</p> <p>Integrates circular economy principles, climate neutrality goals, and eco-friendly practices and emphasizes sustainable, resource-efficient, climate-friendly, nature-based tourism models.</p> <p>Encourages the use of indicators and metrics to measure tourism's environmental performance and inform decision-making,</p>	<p>The non-binding nature of the agenda relies on voluntary action.</p> <p>Prioritising economic recovery and competitiveness over sustainability may create trade-offs with environmental protection if nature-positive practices are not sufficiently considered.</p> <p>Potential conflicts with high-intensity tourism activities in sensitive areas if sustainability measures are not fully enforced.</p>

Table 2.6. Strengths and Limitations of sector-specific EU policies for the NPE**Source:** Kupilas et al, 2025, GoNaturePositive! D1.3.

Key instruments reviewed & key findings

EU instrument	Strengths	Weaknesses & Tradeoffs from a NPE perspective
	acknowledging the complexity of the EU's tourism value chain. Commits to creating sustainable jobs, preserving cultural heritage, and supporting local economies.	

2.2.4. EU Multiannual Financial Framework (MFF)

The EU Multiannual Financial Framework (MFF)

The Multiannual Financial Framework (MFF) is the EU's long-term budget, defining financial priorities and spending limits for various programmes and policies. For the period 2021-2027, it allocated a total of €1,074 billion (in 2018 prices) across seven key areas, including natural resources and environment, which received €356.4 billion. As part of the EU's commitment to biodiversity, the MFF 2021-2027 earmarked €112 billion for biodiversity-related financing. Additionally, the MFF set a progressive biodiversity spending target: 7.5% of annual spending in 2024, increasing to 10% in 2026 and 2027. However, recent European Commission estimates indicate that these targets might not be reached, with projected spending reaching only 7.8% in 2026 and 7.9% in 2027 ([Kupilas et al, 2025, GoNaturePositive!](#)).

At the time of publication (October 2025), the European Union is shaping the MFF for the period from 2028 to 2034, as it faces a convergence of fast-evolving and often unpredictable environmental, economic and demographic pressures. These intersecting challenges are accelerating the loss of biodiversity and climate stability while also deepening existing inequalities in health, wellbeing and access to nature across European regions.

Both the lessons learnt from the MFF 2021-2027 and the debate around the shaping of the MFF 2028-2034 offer an opportunity to reflect on how the EU budget can be shaped to underpin the transition toward a nature-positive economy. How do we position nature as a strategic investment priority and align EU funding with biodiversity goals while at the same time designing an EU budget that enhances the EU's competitiveness and its ability to respond to emerging challenges? One key risk inherent in having to juggle shifting political priorities and challenges while building an agile and fit-for-purpose EU budget is the sidelining of biodiversity. In the following section, we set out key recommendations to be addressed for a nature-positive MFL:

In order to reach EU and global goals, biodiversity needs dedicated spending targets (Key Recommendation 1 - KR1), and an improved spending tracking mechanism that can more accurately account for biodiversity contributions, no matter their size (KR2).

Conditionality mechanisms that require compliance with EU environmental legislation as a prerequisite for access to EU funding need to be enforced consistently and across the board (KR3). The EU budget must also support capacity-building, in the public and private sector, including technical and financial expertise to deliver measurable biodiversity outcomes (KR4).

Robust financial mechanisms are essential to support stakeholder commitment to a NPE transition ([Kupilas et al, 2025, GoNaturePositive!](#)), but innovative financing instruments

such as nature credits should be framed as complementary to direct public investment (KR5). At the same time, public funding should be leveraged to attract private capital through blended instruments (KR6).

Last but not least, recognising the key role of local and regional governments in driving the transition toward a nature-positive economy through place-based approaches, multilevel governance should be mainstreamed across all EU instruments, thus empowering local actors to lead implementation on the ground (KR7). These are key conditions for a future-proof, democratic, and inclusive EU budget ([The Local Alliance, 2025](#)).

A nature-positive, inclusive and resilient future for Europe requires a financial framework that safeguards dedicated biodiversity funding, prioritises nature as a pillar of economic competitiveness and territorial cohesion, and supports local action. This is not only about restoring nature; it is also about laying the foundation for long term economic stability, prosperity and resilience across Europe.

Box 2.3. Summary of Key Recommendations (KR) for a nature-positive MFF

- 1. Link funding to biodiversity targets**
Introduce a binding mechanism that links EU budget disbursements directly to agreed biodiversity targets, ensuring financial alignment with the EU's environmental commitments.
- 2. Tracking and introduction of new biodiversity co-efficient**
Under the MFF 2021-2027, the spending target for biodiversity is generally lower compared to that for climate, while the system of three possible coefficients (0%, 40% or 100%), based on the Rio Markers, may overlook projects that provide a relatively low contribution to biodiversity. Considering the introduction of a coefficient for smaller contributions (e.g. 10%) might better reflect actual biodiversity contributions of projects that have their core objectives in other areas.
- 3. Enforce horizontal access conditions**
Enforce conditionality mechanisms that require compliance with core EU environmental legislation (e.g. Birds & Habitats Directives, Nature Restoration Regulation) as a condition for accessing EU funding.
- 4. Build capacity at all levels**
Invest in strengthening operational capacity, in the public and private sector, especially at regional and local levels, including technical and financial expertise to deploy nature-based solutions and scale nature-based enterprises as a key pathway to deliver measurable biodiversity outcomes.
- 5. Complementary instruments and safeguards**
Ensure that innovative financing instruments such as Nature Credits complement, not replace, direct public investment. This is particularly relevant in the absence of biodiversity earmarking, when maintaining strong grants and public support is vital.
- 6. Promote blended finance & public-private coordination**
Leverage public funding to attract private capital through blended instruments to scale nature-positive actions such as nature-based solutions.
- 7. Champion multilevel governance**
Embed multilevel governance across all EU instruments. Strengthen mechanisms that allow cities, regions, and local authorities to co-design, co-manage, and benefit from EU-funded projects.

See [Appendix III](#) for further comment on the current version of MFF at time of publication.

2.3. Principles of the Nature-Positive Economy

2.3.1. Priority Actions

Operationalising the Nature-Positive Economy requires three types of action ([Koh et al., 2025, GoNaturePositive!](#)) (Figure 2.5):

A Nature-Positive Economy

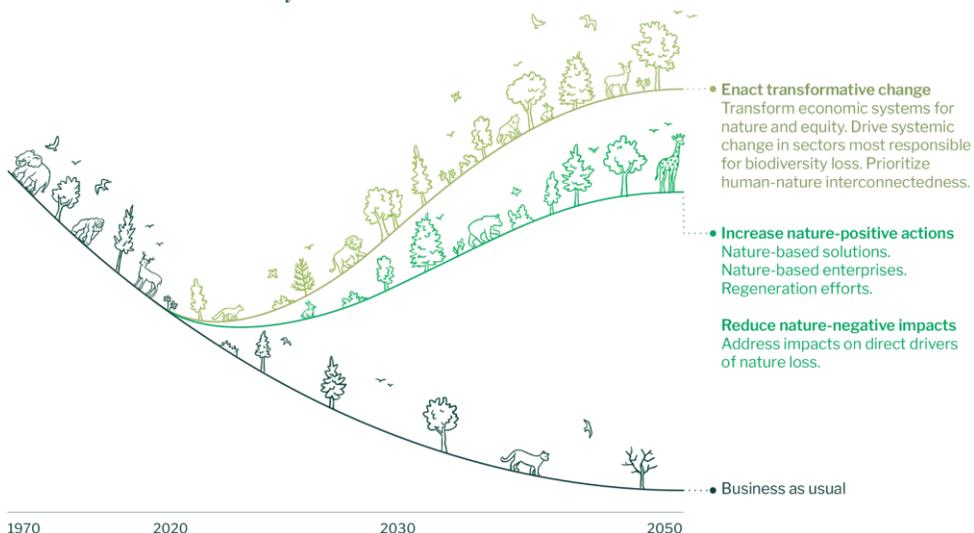


Figure 2.5. The nature-positive economy entails a transition away from a nature-negative economy towards an economy that is in harmony with nature and within planetary boundaries. Source: GoNP! adapted from [Leclère et al. \(2020\)](#).

1. Actions to reduce negative impacts on nature.

The first step to reducing negative impacts is assessing where those impacts occur and then taking steps to reduce them. By using internationally recognized frameworks and guidance such as TNFD, SBTN, GRI and CSRD, businesses can evaluate nature-related impacts, dependencies, risks, and opportunities across their value chains. Actions to reduce negative impacts, in compliance with the principle of 'Do No Significant Harm', may vary across industry sectors. A useful starting point is often industry guidance for sustainable use of resources e.g., introducing circular economy practices to reduce use of water and materials. The need to apply double materiality is stressed by all leading reporting standards and frameworks. Double materiality assesses and measures impacts on nature, from both the outside-in perspective (that of key external stakeholders, including nature and communities), and the inside-out perspective (that of internal stakeholders, such as management and investors). Double-materiality assessments help to avoid negative trade-offs and prioritise mitigation actions.

2. Actions to increase positive impacts on nature.

Going beyond actions to reduce negative impact on nature, many businesses are increasingly taking affirmative action to increase their positive impact on nature, recognizing that in doing so they are building their own resilience and reducing

future risks from nature loss. Actions to increase positive action on nature can take many forms. Nature-based solutions (NbS) are identified as one of the most powerful actions to increase positive impacts on nature (Koh et al. 2025).

Other positive actions may address both climate and biodiversity goals simultaneously. In Wales, the government and researchers have co-created nature-positive and climate-neutral pathways for land use systems that include shifting food consumption patterns, planting trees, establishing new protected areas and Other Effective area-based Conservation Measures (OECMs), restoring peatlands, and reducing food waste (Jones et al., 2023 cited in Koh et al. 2025).

2. Enacting transformative change towards full nature recovery.

Transformative change in our economic systems, including our patterns of production and consumption, is required to address the underlying drivers and root causes of nature loss ([IPBES Transformative Change Assessment \(2024a\)](#)). [Chapter 5](#) considers in detail the policy changes required for transformative change. These are summarised as follows:

- Reforming subsidies and incentives to reduce the profitability of harmful sectors, for instance by phasing out environmentally damaging subsidies and promoting investments in sustainable practices.
- Investing significantly in industry transition and support for scaling up of nature-positive actions such as nature-based solutions and nature-based enterprises as a key pathway to systemic change.
- Recognising and embedding the multiple values of nature—instrumental, intrinsic, and relational—into policy and decision-making through diverse valuation methods and indicators (biophysical, socio-cultural, monetary)
- Adopting progress metrics that capture social, cultural, and environmental dimensions, beyond traditional economic output.

2.3.2. Positioning Nature-based Solutions and Nature-based Enterprises in the Nature-Positive Economy

Nature-based solutions (NbS) play a vital role in the transition to a nature-positive economy. They can help to reduce negative impacts on nature, increase positive impacts and achieve transformative systemic change towards a nature-positive economy ([Koh et al., 2025](#)). NbS have high potential to simultaneously strengthen climate resilience, enhance biodiversity, improve social well-being, and generate sustainable economic activity.

In Chapter 3, the economic benefits of deploying NbS as part of the transition to a nature-positive economy are developed in detail. In summary, NbS help businesses reduce risks from nature loss while restoring ecosystems and creating jobs. Integrating NbS—like regenerative agriculture and natural water management—into existing business operations reduces risks and supports resilience.

In Chapter 4, the role of Nature-based Enterprises (NbEs) in the nature-positive economy is developed in detail. NbEs, such as agro-ecological farmers and green infrastructure providers, deliver nature-based solutions. They are already experiencing growing demand but lack the investment and business support structures to realise their economic potential. Economic policy makers can support the scaling of NbEs to drive job creation (up to 32 million potentially by 2030 according to [ILO, UNEP & IUCN, 2024](#)), and support a just transition to a nature-positive economy.

In Chapter 5, the potential of NbS to contribute to transformative change has been highlighted in the key messages of the IPBES Transformative Change Assessment.

2.3.3. Shared responsibility for change

GoNaturePositive! identifies three major groups of actors in the economy that are responsible for a paradigm shift towards the nature-positive economy, with many actors playing multiple roles ([Koh et al., 2025](#)):

1. Actors who have a high **impact and dependency** on nature and who are most exposed to **risk** from biodiversity loss: businesses including small and medium sized-businesses and nature-based enterprises;
2. Actors who **shape the economy**: policy-makers and governments, finance and investors, standards bodies, Nature; and
3. Actors who **encourage accountability**: non-governmental organisations, researchers and education providers, citizens and civil society groups including youth, Indigenous Peoples and Local Communities.

Figure 2.6 shows that while businesses have the most direct impacts and dependencies on nature, they are part of a wider ecosystem of actors each with their own role to play for systemic change.

Actors who shape the economy, like political leaders, policy-makers, the financial community and standards bodies, have the tools to influence business decisions away from practices negatively impacting on nature and towards practices restoring nature. The voice of nature must also be recognised and indicators of nature loss be better heard. Failing harvests, depleting stocks of natural assets and extreme weather events send a clear message to businesses, policy makers and all other actors that we are exiting the safe operating zone of a functioning society and economy.

Business, political leaders and financial institutions are in turn influenced by public opinion. IPBES explicitly recognises that to drive transformative change, much more effort needs to be invested in education, at all levels of the education system, on both the drivers of biodiversity loss and solutions such as nature-based solutions and ecosystem-based approaches ([IPBES, 2024a](#)).

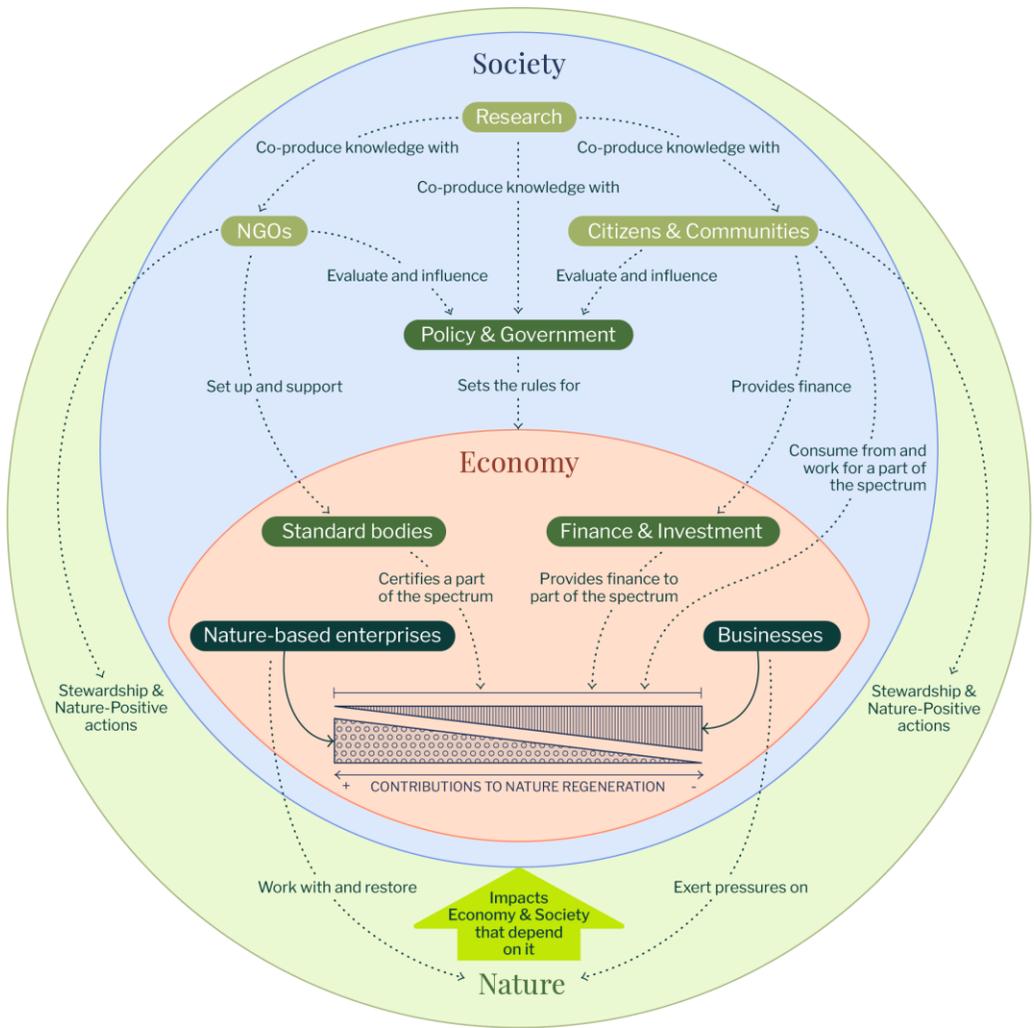


Figure 2.6. Actors and their interactions in a Nature-Positive Economy.

The concept of a nature-positive economy as set out by GoNaturePositive! requires explicit recognition to be given to the important role of indigenous and local communities as stewards of nature.

Box 2.4. Re-balancing Human-Nature Relations

Research from Trans-Lighthouse argues that human-nature relations are in crisis. Our dominant culture of 'extractivism' i.e. exploitation of natural resources for economic gain prioritises short-term economic benefits over long-term environmental sustainability (Umantseva et al., 2024) This has contributed to the environmental degradation and the disruption of ecological systems with a particularly negative impact in the Global South. To rebalance the relationship between humans and nature, Trans-Lighthouse argues that we need to look more closely at regenerative practices which have been operating at the margins of Western and industrial society. They acknowledge that such approaches may be challenging, raising uncomfortable questions about the balance between human well-being and the health of nature. This research echoes a key message of the IPBES Transformative Change Assessment which finds that the three key underlying causes of biodiversity loss are “a) disconnection from and domination over nature and people; b) concentration of power and wealth; and c) prioritisation of short-term, individual and material gains” (IPBES 2024a, p. 12). This IPBES assessment also points towards the alternative views, structures and practices of many Indigenous People and local communities which are more aligned with achieving this balance between the well-being of humans and the planet on which we live. They call for more discourse, education and learning on the weaving together of alternative and mainstream world views and values.

Source: [Umantseva et al. \(2024\), TransLighthouse - Towards Reciprocal Human-Nature Relationships in Nature Based Solutions?](#)

2.3.4. Scale of the Nature-Positive Economy

Actions within a nature-positive economy operate across multiple spatial scales—from local landscapes to the global level—and over timeframes ranging from immediate to long-term (Koh et al., 2025, [GoNaturePositive!](#)). At the global level, achieving a nature-positive economy may require fair allocation of responsibilities among countries based on their ecosystem conditions. For example, nations needing restoration might aim for Net Gain, while those with extensive intact ecosystems and stronger social priorities may adopt Managed Net Loss.

At national and regional scales, holistic planning is essential. Governments can design economic policies using instruments aligned with nature-positive economy principles, such as “Do No Harm,” creating additional nature through restoration, and requiring disclosure of non-financial performance. At the landscape level, integrated approaches help break down sectoral silos and address competing land uses—such as housing, infrastructure, food security, and conservation—by incorporating diverse sectors, supply chains, and stakeholder interests across landscapes or seascapes. At the local scale, tools like environmental impact assessments form the basis for evaluating nature-related impacts.

On the temporal dimension, actions are needed in the short, medium, and long term. Immediate steps up to 2030 align with the Global Biodiversity Framework targets, requiring all actors to reduce nature-negative impacts and increase positive ones. Medium-term priorities include embedding industry guidelines into national policy, transforming harmful sectors, and guiding businesses toward nature-positive models. These efforts also create opportunities to align climate and biodiversity goals, particularly by integrating nature into net-zero transitions. In the long term—through 2050 and beyond—achieving nature-positive outcomes will depend on systemic shifts in global economic models toward ecological recovery and social well-being. Planning for this transformation demands urgent action today.

2.3.5. Priority sectors of the Nature-Positive Economy

The Nature-Positive Economy prioritises systemic change in the sectors which have the highest dependency and risk related to biodiversity and nature loss, and which are simultaneously doing most harm. In [Section 4.2](#), we look at four sectors identified by IPBES (agriculture and livestock, fisheries, forestry and infrastructure) as a priority for systemic change. We identify how biodiversity loss in these sectors is leading to significant risks for businesses dependent on healthy ecosystems and we look at opportunities for systemic change towards nature-based solutions and business practices to mitigate risks and generate new growth opportunities aligned with planetary boundaries.

Systemic change at an industry level requires significant shifts in economic policy views, structures and practices to support businesses in the transition towards nature-positive. Clear targets and timelines are needed to reduce negative impacts and enhance positive ones, transforming economic systems to support both nature and equity. Strong and consistent policy efforts are required to realign incentives by reducing the profitability of harmful sectors, for example by removing damaging subsidies and promoting investment in sustainable practices. Several global initiatives are developing detailed sector-specific guidance for this transition (see Figure 2.7).

PATHWAY TO NATURE POSITIVE: AGRICULTURE

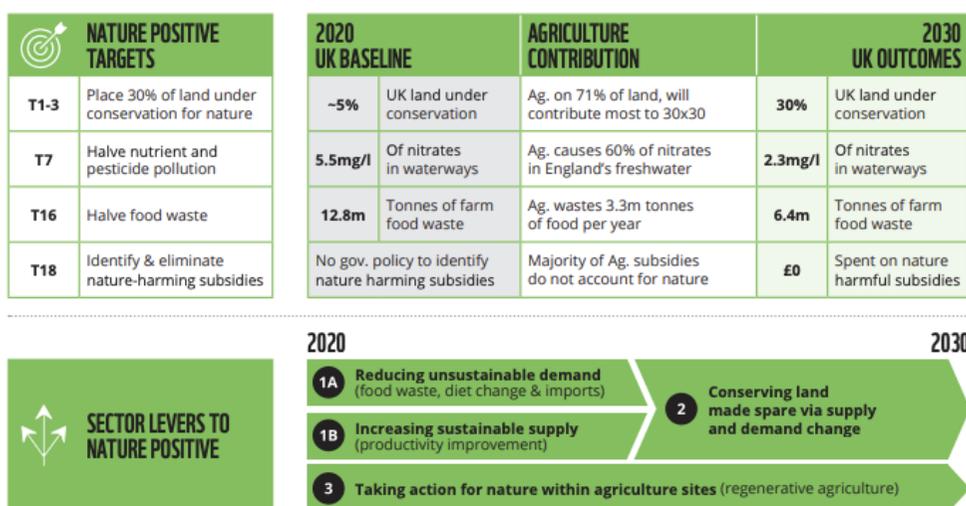


Figure 2.7. Illustrative agriculture sector pathway for the UK, showing the sector's potential contribution to the economy-wide GBF targets. Source: Aviva & WWF UK (2024).

Notwithstanding the need to prioritise efforts in those sectors with the highest negative impacts, the definition of the nature-positive economy recognises that some sectors might need to transition more slowly than others ([Koh et al., 2025](#)). GoNaturePositive! proposes a holistic approach to economic policy, ensuring that all activities combined result in an overall increase in nature. A coordinated approach across sectors and regions—such as national pathways or city-level transitions—can provide a shared vision and guide action at local, regional, and landscape levels.

2.3.6. Opportunities for growth

The Nature-Positive Economy (NPE) prioritises economic growth in industry sectors and activities that are well aligned with planetary boundaries (Koh et al., 2025). The nature-positive economy recognises that the global economy exists within and depends on nature (Dasgupta, 2021). Science-based frameworks like Planetary Boundaries define the ecological limits within which economic activity must stay to ensure a safe operating space (Richardson et al., 2023). In a nature-positive economy, the core priorities are ecosystem restoration, human well-being, and shared prosperity. The nature-positive economy acts as a driver for regenerating the natural systems that sustain it. Its focus includes improving ecological health, enhancing human welfare, and embedding diverse values of nature into decision-making. Economic growth can still occur, but within the limits of planetary boundaries. Increased investment and growth in economic activities related to the deployment of nature-based solutions, aligned with international quality standards is an example of economic activities aligned with nature restoration.

Figure 2.8 from the EIB shows potential opportunities for NbS growth aligned with a NPE.

High opportunity for NBS growth	Urban	Forestry	Agriculture
	<ul style="list-style-type: none"> Many policy instruments are readily available for urban nature-based solutions (e.g. use of building codes to encourage/require green roofs) High population density results in a greater number of people deriving benefits from nature-based solutions, which in turn can enhance demand Examples: urban heat and flood mitigation, aesthetic greening 	<ul style="list-style-type: none"> Strong potential for revenue streams through carbon credits and ecotourism revenues Poorly managed commercial forests provide a significant opportunity for nature-based solutions, through the potential for enhanced carbon sequestration and for nature-based actions to achieve policy goals (such as the EU Nature Restoration Law targets) Key challenge: risk profile of long-term maturity rates linked to the slow growth rates of plantings 	<ul style="list-style-type: none"> Significant potential for NBS funding through the common agricultural policy (CAP) Such funding could be directed towards current NBS instruments under the CAP that are underused, or additional nature-based solutions through CAP reform CAP reform can also reduce negative incentives that undermine nature-based solutions
	Rivers and lakes	Wetlands	
Medium opportunity for NBS growth	<ul style="list-style-type: none"> Lack of incentives for private investment due to the public good nature of benefits derived from these ecosystems (biodiversity improvements are difficult to finance privately) However, the water management sector can invest in nature-based solutions to meet regulatory requirements and recoup costs from customers 	<ul style="list-style-type: none"> Peatland and wetland areas have significant carbon storage potential Such ecosystems often overlap with agricultural landscapes, and their absolute area is relatively small due to historic land take actions 	
Low opportunity for NBS growth	Marine and coastal		
	<ul style="list-style-type: none"> Very few privately owned sites hinders the opportunity and incentive for private investment Significant knowledge gaps mean that identifying areas in poor condition (and thus likely to be subject to demand for nature-based solutions) is challenging A key driver for future nature-based solutions is public investment in risk reduction measures (flood risk, coastal erosion) Restoring seagrass, kelp forests and coastal wetland areas for carbon sequestration and biodiversity are potential areas of growth 		

Figure 2.8. Summary of the potential for upscaling nature-based solutions (NBS) through leveraging private sector finance (SourEIB, 2023)

2.3.7. The importance of social well-being and equity

A nature-positive economy must be built on social well-being and equity. The impact of transition on the most vulnerable in society must be carefully considered. Perceptions of higher costs and burdens of environmental legislation or concerns around loss of jobs and income can lead to widespread citizen resistance such as those seen in France with the 'Gilets Jaunes' protests, and those of farmers opposing the nature restoration law throughout Europe. Combined with misinformation and dis-information, genuine concerns may be channelled towards weakened support for environmental policy and decreased confidence in environmental science and data.

The IPBES Transformative Change Assessment identifies four core principles to guide this shift: equity and justice, pluralism and inclusion, respectful human–nature relationships, and adaptive learning and action. These principles call for fair sharing of benefits and responsibilities, recognition of diverse worldviews and knowledge systems, stewardship-based relationships with nature, and flexibility in responding to change. They also demand a whole-of-society approach rooted in respect for human rights, aligned with the Universal Declaration of Human Rights, where citizen engagement and dialogue build the legitimacy and consensus needed for lasting transformation.

The **GoNaturePositive!** project emphasises that these principles are not optional; they are fundamental to securing public legitimacy and ensuring that economic transformation delivers benefits for all. This means embedding justice and inclusion into governance, and recognising the social dimensions of nature policy, that environmental measures inevitably affect livelihoods, health, cultural identity, and access to resources. By explicitly considering who benefits, who bears the costs, and whether cultural ties and equitable access to nature are respected, policies can avoid exacerbating inequalities and instead strengthen community resilience.

As discussed in [Chapter 5](#), inclusive governance, community participation, and equitable access to nature are not “add-ons” but core policy pathways for transformative change. This approach is directly aligned with the Kunming–Montreal Global Biodiversity Framework, which calls for equitable governance, the fair sharing of benefits from biodiversity, and the protection of the rights of Indigenous Peoples and local communities. By placing social justice at the heart of economic and environmental policy, a nature-positive economy can align ecological restoration with improved quality of life, resilience, and fairness.

2.3.8. Measurement of progress towards a Nature-Positive Economy

“Nature needs to enter economic and finance decision-making in the same way buildings, machines, roads and skills do. To do so ultimately requires changing our measures of economic success. As a measure of economic activity, Gross Domestic Product (GDP) is needed for short-run macroeconomic analysis and management. However, GDP does not account for the depreciation of assets, including the natural environment. As our primary measure of economic success, it therefore encourages us to pursue unsustainable economic growth and development.” ([Dasgupta, 2021, p.4](#))

It is imperative to put in place the structures and tools to measure progress toward a nature-positive economy.

While GDP is the standard measure of economic performance at a national level, it is widely recognised that GDP does not capture all aspects of societal and environmental well-being or trade-offs between them. The European Commission is working on

developing sustainable and inclusive wellbeing metrics to progressively complement the use of GDP with wellbeing indicators in EU policymaking ([EC, 2023a](#)).

Much work has already been done in the field of nature metrics. For large businesses required to disclose their impact on nature, the work of the Taskforce on Nature-related Financial Disclosures (TNFD), Science Based Targets for Nature (SBTN), the Nature Positive Initiative (NPI), UNEP-WCMC amongst others provides extensive guidance on how a business can measure their impact on nature.

Similarly in the public sector, frameworks like the UN-backed System of Environmental-Economic Accounting (SEEA) provide comprehensive guidance on how natural capital, such as nature and the ecosystem services it provides, can be considered in public sector accounting systems. As many of these frameworks are in the early stages of development and testing, further refinement can be expected, particularly in improving data availability and simplifying use for end-users. The recently adopted amendment to [Regulation \(EU\) No 691/2011](#) introduces three new modules to the European environmental economic accounts: forest accounts, ecosystem accounts (covering the extent, condition, and services of ecosystems to society and the economy), and environmental subsidies ([Koh et al., 2025](#)).

However, while such frameworks and metrics effectively capture the steady decline of nature, they fail to capture changes in the underlying reasons for this decline. GoNaturePositive! proposes to capture changes in the root-causes of this decline through a systemic approach which recognises the influence of key actors like policy makers, financial institutions and standards bodies on business behaviour and motivations (see Figure 2.6). In turn, these actors are influenced by wider societal attitudes towards the environment.

GoNaturePositive! is testing this holistic approach in five industry sectors (agri-food and apiculture, blue economy, tourism, forestry and built environment) in collaboration with pilot partners in Europe and Colombia. Business, policy and societal actors use existing metrics or data to identify the impact of their activities on nature at different scales from local to global. They then assess the most important underlying factors influencing this impact on nature and agree on the priorities to tackle within a short, medium and long-term roadmap trajectory. Together, they identify what additional metrics are needed to measure changes in underlying drivers. For example, in the blue economy, existing metrics can be used to measure the impact of businesses on nature but underlying factors driving negative impact may be policies or consumer behaviour. Pilots will assess what additional metrics are needed to capture changes in policies or consumer behaviour towards the nature-positive transition.

Box 2.5. Case Study: Challenges applying Natural Capital Accounting in the Netherlands

“The primary challenge in the Netherlands with regard to Natural Capital Accounts (NCA) is their significant underutilization. Policymakers at the municipal, provincial, and national levels are largely unaware of their existence. For example, in a project conducted with the municipality of Eindhoven, we attempted to apply the NCA in collaboration with Statistics Netherlands (CBS), the institution responsible for developing and maintaining the accounts. The process proved to be highly complex. CBS, as a public body, is mandated to publish its analyses, whereas the municipality was reluctant to proceed without first knowing the outcomes of the analysis. This tension highlights a critical barrier to the effective implementation and practical use of the accounts.

Box 2.5. Case Study: Challenges applying Natural Capital Accounting in the Netherlands

Our analysis further revealed that, although the Netherlands possesses a substantial volume of data in this domain, significant gaps remain. In particular, data were unavailable for specific regions, ecosystems, and services. The overall level of granularity was insufficient.

More broadly, the SEEA EA framework does not adequately incorporate cultural and habitat services. These services are of particular importance, as they represent key transformative elements in the transition toward a nature-positive economy. In addition, there are persistent challenges related to the rigid approach of statisticians in determining which ecosystem services can be expressed in monetary terms. This has resulted in analyses where only a limited number of services are quantified monetarily, while the remainder are represented through symbolic indicators (e.g., “+” or “++”). Such representations do not provide a sufficiently robust economic language to support decision-making.”

Source: Mieke Siebers, Foundation for Sustainable Development (2025)

2.4. Key Messages and Recommendations

Key Messages and Recommendations

1. Recognise that the EU economy is structurally dependent on healthy ecosystems and operationalise NPE principles in concrete policy tools.

- Transitioning to a NPE requires actions to reduce harm, increase nature restoration and drive long-term systems transformation. These three types of actions must be legally mandated across policy domains and across policy scales to drive full ecological recovery.
- While the focus of this publication is on embedding NPE principles in economic policy, societal transition is an equally important policy imperative. Prosperity for all of society is a key outcome of the NPE. Achieving societal transformation requires integrating NPE principles into education, governance reform, and cultural change.

2. Embed NPE principles in economic decision-making.

Priorities include:

- Aligning competitiveness strategies with nature goals: the EU Competitiveness Compass should be leveraged to boost nature-positive economic activity and provide targeted support for the development and testing of nature-positive business and financing models, especially in high-dependency and high-impact sectors.
- Nature restoration targets must be protected and funding ringfenced in the shaping of the Multiannual Financial Framework (MFF) to avoid the risk of nature being deprioritised amidst competing funding demands. Safeguards need to be embedded in economic and social policy to ensure that addressing immediate economic priorities do not result in negative long-term trade-offs and unintended consequences for nature and biodiversity.
- Addressing the nature crisis should be elevated to the same priority level as addressing the climate crisis, recognising that both are intertwined, that nature restoration is an effective instrument to tackle climate change but that decarbonisation alone will not halt biodiversity loss. Specific targets and instruments must be created within economic policy to address nature degradation and ecosystem collapse. Economic reforms are needed to simultaneously deliver climate and biodiversity goals, with separate tracking and

safeguards. The focus of current environment and climate action funds, such as the Just Transition Fund and the Innovation Fund, on climate neutrality and net-zero technologies should be expanded to include an equal prioritisation of nature restoration solutions and technologies.

- Mandate integration of nature-related risks and dependencies into sectoral policy planning, recognising that while all sectors depend on nature, transition to nature-positive economic activities should be prioritised in industry sectors with the highest impacts, dependencies and exposure to risk from nature loss. In Europe these include agriculture, forestry, fisheries and aquaculture, mining and metals, construction, water utilities and healthcare delivery (JRC, 2025)

3. Existing EU policy instruments need to be strengthened to ensure nature-positive outcomes.

This means replacing voluntary compliance with binding obligations (including but not limited to those in the Nature Restoration Regulation). Address policy incoherence by reducing and phasing out harmful subsidies in line with long-term, agreed transition pathways, redirecting funds toward nature-positive economic activities.

4. Integrated policy approaches must be prioritised.

Calls for a cross-silo approach to address environmental crises (climate, nature and pollution) in parallel with social and economic crises are not new, but have yet to be effectively operationalised, at all levels of government. Inter-ministerial and cross-sectoral platforms must be created to coordinate nature-positive strategies at EU, national, and local levels. Climate and biodiversity policies must work in tandem, with economic strategies explicitly designed to restore ecosystems and reverse nature loss. Binding biodiversity investment targets should be included across broader funding envelopes (e.g. cohesion, innovation, agriculture).

5. Strengthen nature-related reporting requirements for public and private actors, ensuring clarity, comparability, and alignment across EU and international frameworks.

Expand use of ecosystem service accounting (e.g. System of Environmental-Economic Accounting, SEEA) across all EU Member States and institutions. Safeguard and enhance key elements of the EU's sustainable finance architecture, alongside other fiscal and policy instruments, in a coherent approach to achieving the EU's wider sustainability, competitiveness, and resilience ambitions.

Develop and Align Nature-Positive Metrics: Extend existing work on 'Beyond GDP' metrics to include relevant metrics on nature. Build on existing metrics capturing indicators of nature loss, to develop and test new indicators that capture changes in the underlying drivers of nature degradation. These include changes in economic systems towards nature-positive economic principles.

Research Gaps & Capacity Building

Research into the nature-positive economy is emergent. While initial research has considered to what extent overarching EU policies and sector-specific policies enable or hinder the nature-positive economy, furthermore detailed research is needed to support transition pathways and bridge policy silos across multiple domains. Future research directions include:

1. Embedding nature-positive economy principles across policy domains:

- a. The NPE & European Competitiveness: further research is required to model the impact of NPE transformation on costs, productivity, resilience

and other elements of competitiveness, at different scales from EU to local and with a specific focus on industry sector-specific impacts.

- b. The NPE & Natural Resources and Environment Policy: further research is required to model the economic impact of NPE transformation in overarching natural resources and environment policy with a specific focus on agriculture & maritime policy, climate action and Just Transition policies.
 - c. The NPE & other EU strategies: further research is required to explore the potential cross-policy impacts of NPE transformation on other key EU policies (Single Market, Innovation and Digital; Cohesion and Values, Migration & Security and External Action)
2. **Digital Transformation:** the potential of digital transformation to exacerbate or address the nature crisis is an underdeveloped area of research. For example, the potential of cost-effective monitoring, reporting and verification (MRV) technologies to underpin emerging financial instruments. The costs of MRV and challenges around data collection and access to data remain a consistently cited challenge to unlocking investment in nature restoration. Alignment with and uptake of research in the Digital Europe Programme.
 3. **Nature-related risks and opportunities in key infrastructures.** More systematic research is needed into how nature-related risks and opportunities intersect with Europe's critical infrastructures such as energy, transport, water and digital. This includes assessing how infrastructure planning, investment and design can be made more resilient to biodiversity loss and ecosystem degradation, and how infrastructure projects can actively contribute to nature-positive outcomes (for example, through ecological corridors, multifunctional land use, and NbS). Greater alignment with and uptake of research in relevant EU funding instruments like the Connecting Europe facility, could help ensure that infrastructure planning not only reflects nature-related dependencies and impacts, but also actively contributes to the nature-positive economy.
 4. **A coherent nature knowledge platform** similar to Climate-Adapt would help to bridge dispersed research across different ecosystems, societal challenges and sectors (for example, across the current soil, ocean and climate adaptation missions). Such a platform should incorporate social and health policy domains. Current efforts in that sense, notably NetworkNature, already provide a strong and credible basis and should receive continued endorsement and support. This support should include political recognition, institutional partnerships, integration into EU policy frameworks, and facilitate private and philanthropic investment that underpins its role as a central hub for nature-positive research and capacity-building.
 5. **Measuring progress towards a NPE:** Extend existing work on 'Beyond GDP' metrics to include relevant metrics on nature. Build on existing metrics capturing indicators of nature loss, to develop and test new indicators that capture changes in the underlying drivers of nature degradation. These include changes in economic systems towards nature-positive economic principles.

Strengthen nature-related reporting requirements for public and private actors, ensuring clarity, comparability, and alignment across EU and international frameworks. Safeguard and enhance key elements of the EU's sustainable finance architecture, alongside other fiscal and policy instruments, as part of a coherent approach to achieving the EU's wider sustainability, competitiveness, and resilience ambitions.

6. **Capacity Building:** Targeted capacity building resources are required to translate scientific research into actionable insights to meet the needs of economic and policy makers. Local and regional authorities with funding, training, and decision-making tools to lead NPE implementation on the ground.

3. The vital role of Nature-based Solutions in a Nature-Positive Economy

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Chapter Summary: This chapter sets out the economic rationale for nature-based solutions (NbS) uptake as a pathway to the nature-positive economy. This chapter of the publication is divided into four main sections, supported by evidence-based case studies throughout.

The first section outlines the failure of our economic system to account for the full value of Nature's goods and services and introduces NbS as a priority pathway towards a Nature Positive Economy that regenerates Nature's capital to full recovery. In the second section, the economic & financial (net) benefits from investing in NbS are described in economic terms under the following non-exclusive categories: i) cost-savings and welfare economic gains, ii) direct immediate economic and financial gains, including job creation, iii) indirect economic and financial gains, and iv) insurance-based gains. These benefits have direct implications for the financial stability and resilience of governments, private sector and households.

In the third section, evidence-based business models for accelerating NbS uptake are presented across different sectors and stakeholders. These innovative business models allow for the simultaneous delivery of multifunctional NbS, in terms of environmental, economic and socio-cultural value, to multiple-stakeholders.

In the final and fourth section, the current financing landscape of NbS in Europe is mapped. This section seeks to provide guidance to investors on the landscape of financing mechanisms and approaches for NbS given the different types of economic and financial benefits arising from NbS investment and the different ways of designing efficient business models. The chapter will end with key messages and recommendations.

3.1. Economic (net) benefits of Nature's services

Nature underpins our economy, society, and our very existence, but market and institutional failures to properly value nature have led to its overexploitation and pollution, imposing high social and economic costs. Too often, nature is only valued in financial terms for its offsetting potential for carbon sequestration and storage while negative externalities on nature from economic activities are left out. Many kinds of natural capital do not have market prices, but are free to the user such as carbon sequestration from forests and oceans, benefiting everyone globally; pollination at landscape level, benefitting all growers in the region; or flood regulation by wetlands, protecting entire communities. These so-called public goods and services of Nature are non-rivalrous - one person's use does not reduce availability - and non-excludable - other people can't easily be excluded

from utilising the goods and services. Free-rider problems occur when households, businesses or states benefit from free public goods without contributing to the protection or provision because they cannot be excluded from enjoying it. As a result, environmental public goods are inherently underprovisioned with insufficient levels of investment in nature-based solutions (NbS) for nature restoration, conservation and regenerative management practices. Likewise, the lack of adequately enforced property rights or weakly defined property rights (private, community and state) give rise to externalities - un-accounted for consequences - from human activities ([Dasgupta, 2021](#)). For businesses harvesting and exporting primary resources, such as timber, local communities experiencing negative impacts such as increased flood risks downstream or loss of habitats for non-forest timber products are not compensated and the final product is subsequently prone to be underpriced, in turn leading to more consumption of ecologically damaging goods. Internalising potential externalities would mean that market prices correspond to accounting prices - the true value to society of any good, service or asset - where people pay the social cost of the resources they use ([Dasgupta, 2021](#)). Before our society and economic system manages to move towards accounting prices instead of market prices for the use of Nature's goods and services, businesses, households and government at local, regional and national level would benefit significantly from investing in nature-based solutions (NbS) both directly and indirectly.

In this chapter, we focus on NbS as a priority pathway towards a nature-positive economy that regenerates Nature's capital to full recovery. However, we recognise that the potential for deployment of NbS in nature-positive transition pathways is limited for some sectors and industries within their supply chain, which may be the subject of other publications. Further we recognise that NbS are part of a wider portfolio of complementary measures, which together can achieve systemic change.

3.1.1. What are Nature-based Solutions (NbS)?

The term nature-based solutions has gained widespread recognition among policymakers and practitioners since it was first introduced by the World Bank and the International Union for Conservation of Nature (IUCN) in the late 2000s. Building on well-established definitions from the International Union for Conservation of Nature, IUCN, (Cohen-Shacham et al., 2016) and [the European Commission](#), in 2022, [UNEA \(2022, p.2\)](#) formally adopted a multilaterally agreed definition endorsed by 193 Member States of NbS as *'actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits.'*

Despite the relatively recent recognition in science and policy, the concept of NbS is not new in practice. Indigenous and local communities have long understood and practiced approaches that recognise nature's essential role in human well-being. The [UNEA 5 Resolution on Nature-based Solutions](#) for Supporting Sustainable Development calls on UNEP to support the implementation of NbS, which safeguard the rights of communities and indigenous peoples.

NbS can vary significantly in scale across a range of ecosystem types, in all cases providing mutual benefits for people and the environment (see Table 3.1):

Table 3.1. Ecosystem Type

	<p>Forestry: Forest ecosystems—encompassing natural forests, managed woodlands, agroforestry systems, and forests in urban or peri-urban areas— deliver essential ecosystem services that benefit people and biodiversity, including regulating functions like carbon storage and air purification, as well as recreational opportunities (Salvatori & Pallante, 2022).</p>
	<p>Agriculture: Nature-based solutions applied to agriculture include a range of practices (agro-ecology, cover crops, intercropping, agro-forestry and wetland restoration). These NbS help improve the quality and availability of water, restore ecosystems and soil, enhance biodiversity and mitigate climate change effects, while generating returns for farmers and investors (NetworkNature).</p>
	<p>Rivers, lakes and wetlands: Nature-based solutions for water management can be more cost-effective than engineered (grey) infrastructure in reducing the impact of flooding and drought. Natural river flows can help to slow and spread flood water while wetlands and peatlands can help with water retention during heavy rain periods and release in dry periods. NbS for river and wetland restoration supports ecological recovery and the revival of natural hydromorphological processes.</p>
	<p>Marine and coastal ecosystems: Nature-based solutions applied to marine and coastal ecosystems can include protection, management, conservation, and restoration of mangroves, coral reefs, and seagrass beds, effective management of marine protected areas, and the implementation of green infrastructure in coastal cities to provide natural coastal protection (UNEP FI, 2023).</p>
	<p>Urban: Urban nature-based solutions vary significantly in scale from small-scale community gardens, pocket parks and tree-planting schemes to large-scale blue-green infrastructure projects incorporating NbS such as sustainable urban drainage systems (SUDS), green roofs and walls to large scale urban parks and forests. Urban NbS can prove effective in addressing biodiversity loss and climate-related challenges including high temperatures, flooding, water & food security and disaster risk. Further, urban NbS can lead to multiple benefits to society and the economy, including in relation to health and well-being, increased social cohesion and tourism revenues, increasing the livability and resilience of cities (NetworkNature).</p>
	<p>Across multiple ecosystem types, nature-based solutions can help communities prepare for, cope with, and recover from disasters, in particular for sectors that depend on ecosystems and natural resources. Nature can offer a cost-effective solution to reducing risks from disasters, increase the resilience of exposed communities, and reduce vulnerabilities to future events (NetworkNature, n.d.).</p>

Nature-based solutions play an important role in maintaining the stocks and flows of natural capital which generate value for business and society (see Figure 3.1).

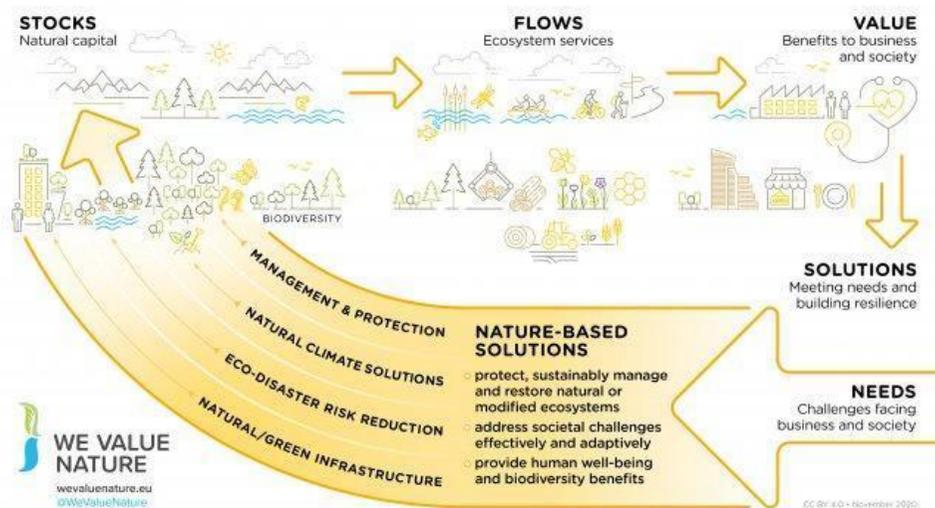


Figure 3.1 The interactions between nature-based solutions and natural capital, where the stock of natural capital provides a flow of ecosystem services that create value for business and society. Nature-based solutions increase the stock of natural capital by creating or enhancing the condition of ecosystems and biodiversity, which in turn increases the flow of ecosystem services and the value that helps to meet the societal challenges. Source: [WeValueNature](https://wevaluenature.eu)

NbS provide a holistic approach that takes account of the multiple values of nature's contribution to society at large, businesses and people. It represents a regenerative way of managing ecosystems and restoring biodiversity. Accelerating the uptake of NbS as actions to protect, conserve, restore, sustainably use and manage ecosystems across sectors and land- and seascapes is necessary if our society is to sustain itself and avoid catastrophic social and earth system tipping points. In light of this, NbS have gained prominence on both global and European Union agendas as vital tools for addressing the interconnected challenges of climate change, land degradation and biodiversity loss. However, a significant gap persists between current and required investment in NbS.

This chapter presents an overview and evidence from over 20 EU-funded research projects of the rationale for investing in nature, the business models needed to foster more investments and the current overview of the funding landscape for nature restoration in Europe.

There is robust evidence that investing in NbS is often more cost-effective than grey, engineered solutions such as in stormwater management ([Le Coent et al., 2021](#)). When accounting for multiple benefits generated from actions to protect, conserve, restore, sustainably use and manage ecosystems, NbS tend more often than not to provide net economic benefits, regardless of the landscape and context. This is the case even for those NbS investments that do not assess the full range of benefits ([Chelli et al., 2025](#); [Zandersen et al., 2025a](#)). NbS are multifunctional and provide multiple ecosystem services for society at large, ranging from regulating risks by providing flood protection, heat mitigation, erosion control and carbon sequestration to welfare-economic benefits of increased physical activity, mental restitution, and reinforcing community bonds and sense of belonging. NbS also directly positively impact on the stability of supply chains and on the resource basis of businesses dependent on nature. NbS also offer a significant potential for generating new and varied jobs in Nature-Based Enterprises (NbEs), those businesses dedicated to implementing and managing NbS, while helping to solve the large socio-economic challenges of today.

In brief, investing in NbS can provide:

- direct economic gains and value creation;
- indirect economic gains;
- cost savings and welfare economic gains; and
- insurance-based gains and disaster related costs savings.

Table 3.2 provides an overview of these different types of benefits from NbS for governments, the private sector and households.

Table 3.2. Overview of types of economic benefits of investing in nature for different stakeholders			
Benefit	Government	Private sector	Households
Direct economic gains			
Revenue generation	- Improve tax-basis from more robust businesses, and increased property values.	- Immediate/short term increase in turnover (e.g. tourism). - Long-term resilience of resource base sustains future revenue streams (e.g. forestry, agriculture, fisheries, soil, hydrology).	- Increases job opportunities, stable job possibilities. - Supports stable food prices and production of high-quality food.
Property generation value	- Immediate one-time increase in public property value.	- Immediate one-time increase in private sector property value. - Price premiums for developments close to green areas.	- Immediate one-time increase in home-owner property value.
Job creation	- Additional job creation opportunities. - Inclusion for people who are typically excluded from the labour market.	- Nature-based Enterprise (NbE) growth and job creation, requiring both specialised and low-skilled people.	- New opportunities for jobs, also for those outside the labour market.
Indirect economic gains [knock-on effects]			

Table 3.2. Overview of types of economic benefits of investing in nature for different stakeholders

Benefit	Government	Private sector	Households
Community and local economic development	- Boosted wider local economic activity e.g. through enhanced investment, as an improved urban environment encourages new development, regeneration and business investment.	- Reduced regulatory risks and improved relations with regulators or communities through proactive environmental stewardship.	- Community improves social capital with NbS providing spaces for social interaction, meetings and events.
Awareness, knowledge & innovation	- Generation of scientific and practical knowledge related to the performance of interventions and ecosystem functioning. This concerns both technical knowledge (such as the functioning of different techniques) as well as specific ecological knowledge (i.e. the monitoring of species and evolution over time).	<p>Increased knowledge, awareness and innovation (testing new measures for implementing and upscaling) in NbS generates reputation and new business & job creation opportunities.</p> <p>- Construction companies are especially increasing capacity and knowledge from working on NbS projects. With the increasing interest in NbS this aims to create a leading knowledge sector, create economic value and jobs.</p>	- Increased awareness & knowledge of NbS among the public and especially among the local population. It leads to a better acceptance and demand for sustainable and resilient measures, enabling related political decisions and actions that have nature-positive economic impacts.
Cost savings and welfare economic gains			
Improved physical & mental health	- Reduces costs for health care and	- Reduces sick leave rates.	- Reduces risks of mental and physical illness and

Table 3.2. Overview of types of economic benefits of investing in nature for different stakeholders

Benefit	Government	Private sector	Households
	<p>sick leave pay-outs.</p> <ul style="list-style-type: none"> - Reduces welfare economic costs of morbidity and premature mortality. 	<ul style="list-style-type: none"> - Maintains or improves employee productivity. - Lower absenteeism due to improved work environments. - Increases resilience in the workforce. 	<p>ultimately lowers costs for health care expenditures.</p> <ul style="list-style-type: none"> - Secures salary levels & social inclusion through connection to the job market. - Children's cognitive development & learning benefits with long-term economic implications. - Reduced local crime rates.
Recreation amenity values &	<ul style="list-style-type: none"> - Improves liveability and attractiveness locally/regionally, increasing wellbeing and attractiveness of a region or local area. 	<ul style="list-style-type: none"> - Improves branding that leads to increased customer loyalty and market shares. - Improves the attractiveness of workplaces and retention capacity of employees by enhancing the working environment. 	<ul style="list-style-type: none"> - Enhances opportunities for recreation and improved amenity values.
Pollution prevention & high environmental quality	<ul style="list-style-type: none"> - Reduces pollution (including carbon). - Restores and protects natural assets against pollution, hence saving costs to maintain regulatory requirements of environmental quality (e.g. drinking water, soil, air quality, erosion control). 	<ul style="list-style-type: none"> - Reduces water treatment costs in production. - Reduces storm water utility charges. - Lower claim payouts (insurance). - Reduced costs to environmental treatment. 	<ul style="list-style-type: none"> - Improves surface water quality, drinking water quality, air quality, reduced urban heat and improved social connections. - Reduces cooling costs at home. - Reduces costs of water utility bills.

Table 3.2. Overview of types of economic benefits of investing in nature for different stakeholders

Benefit	Government	Private sector	Households
	<ul style="list-style-type: none"> - Provides a high-quality environment through ecosystem restoration. 	<ul style="list-style-type: none"> - Reduced costs for office cooling. 	
Insurance-based gains and disaster related costs savings			
Improved ecosystem and societal resilience & lower risks	<ul style="list-style-type: none"> - Optimised grey public infrastructure with NbS to mitigate extreme weather impacts. - Reduced long-term fiscal burden. - Reduced risks to infrastructure and economic assets, lowering disaster response costs and infrastructure repair costs from e.g. flood mitigation or heatwave buffering. - Natural assets are also exposed to hazards, including floods, droughts, sea level rise and temperature changes. The NbS interventions lead to improving the ecosystem quality (condition) and extent. The natural assets are better protected, and so are the services that they deliver. 	<ul style="list-style-type: none"> - Sectors dependent on nature are more resilient towards risks of production failure, supply chain disruptions and resource scarcity. - Infrastructure sector reduces risk of wildfire and storm-related infrastructure damages. - Business are charged lower insurance premiums due to reduced underlying risk - Insurance sector lowers claim payouts & maintains insurability of assets. 	<ul style="list-style-type: none"> - Avoided home-damage during extreme weather events and insurance claims, lower insurance premiums. - Avoided health-related sickness and stress.

3.1.2. Direct economic gains and value creation from NbS

Ecosystem services from NbS can lead to *direct value creation* for private developers and property owners. For instance, the combination of photovoltaic and green roofs can

increase the efficiency of electricity generation, providing net benefits ([Cruz Torres et al., 2023](#)). Green roofs, green walls and the introduction of new or regenerated nearby blue and green infrastructure can increase the attractiveness of buildings and neighbourhoods (e.g. [Zandersen et al., 2025a](#)). NbS, when implemented at scale, can positively influence the value added of a sector such as the tourism sector and increase the resilience in primary production sectors against drought, flooding, pests and unsustainable management practices. Evidence, research and innovation contribute to an enhanced understanding of NbS, better approaches to valuing the multiple benefits of NbS, greater demonstrations of the cost-effectiveness of NbS, and improved and more robust indicators for measuring quantifiable impacts. A compelling evidence base can help to influence decision making in favour of NbS and drive the transformation from our current nature-negative economy to a nature-positive economy.

For households, well-maintained natural spaces — like parks, greenways, wetlands, and green roofs — often raise property values and make neighbourhoods more desirable places to live. Households may be motivated to support or invest in local restoration efforts when they see that nature-based amenities can boost their home's worth, improve safety from environmental hazards, and enhance the social fabric of the community. **INVEST4NATURE** (Box 3.5) provides evidence of enhanced property value in the vicinity to a nature restoration project. Here, an estimated 7,000 residential buildings would experience a one-time value increase of close to 490,000 EUR. It is important always to caveat the economic benefit of an increase in property value with a consideration of the potential trade-offs and unintended consequences related to gentrification and a consequent increase in social equity ([Toxoepus et al., 2020](#)).

In relation to NbS and green buildings, **Nature4Cities** analysed Photo-voltaic Green roof Energy Communities (PGECs) through a combination of scenario-analysis and probabilistic cost-benefit analyses in a case study from Luxemburg. From a societal perspective, PGECs were found to be economically beneficial for any cost, benefit, and discount rate. From a private perspective, PGECs remain convenient in 62% of the scenarios, with green roofs' installation cost and electricity generation benefit playing pivotal roles ([Cruz Torres et al., 2023](#)). The study also contains a review of life-cycle costs and benefits of photovoltaic-green roofs and value ranges.

NbS offer an overlooked opportunity for resource efficiency and cost savings for governments and the private sector, decreasing the need for virgin material and offering potential for new product development. In **proGREG**, a case from Turin, Italy, demonstrates the cost savings and benefits of reutilising inert construction soil combined with compost as a substrate for urban forest, improving soil fertility on brown field sites (See Box 3.1). **REST-COAST** found that the restoration of seagrass could trap sediment and reduce dredging costs of municipalities by restoring sediment depositional natural zones. Further, reusing sediment on site for an NbS saves the costs of transporting and dumping it. In the **REST-COAST** case of the Eems-Dollard, the port authorities paid €14,000,000 towards the NbS in saved dredging costs ([Johannessen et al., 2024](#)).

Box 3.1. Use of regenerated soils 'New Soil' in urban forestry

Project: ProGREG - Grant no. 776528

Sources: [Ascione et al. \(2021\)](#); [ProGREG website](#); [Rugani et al. \(2024\)](#).

Location: Turin, Italy (GPS coordinates: 45.009040, 7.641200).



Box 3.1. Use of regenerated soils 'New Soil' in urban forestry

Project: ProGInreg - Grant no. 776528

In Turin, an urban forest of 1,200 m² along the Sangone river was established using regenerated soil from construction sites, enriched with compost and zeolite. An integrated life cycle assessment (LCA) and business model canvas (BMC) analysis found that reusing inert soil and compost could avoid around 270 t CO₂-eq per hectare compared to using virgin agricultural soil, while improving fertility in brownfield sites. The business model informed multiple reuse scenarios for biomass, though financial feasibility and valuation of ecosystem services, like recreation and pollution removal, remain to be addressed for a complete cost–benefit profile.

Ecotourism is a key opportunity for direct economic gains for private sector actors. The potential of ecotourism as one of the main value capture mechanisms for upscaling coastal restoration, identified in the context of the **REST-COAST** Venice Lagoon salt marshes restoration pilot (Pernice et al., 2024), may transform the overexploitation of tourism in Venice into a NbS-driven tourism offer. This sustainable approach considers how to manage the social–ecological system in a way that the flow of multiple Ecosystem Services is provided without eroding the capacity of said Ecosystem Services (Rova et al., 2022). This approach also raises the possibility of delivering value in a synergistic manner to multiple sectors under the umbrella of bio-economy and circular economy. Part of the revenues generated by ecotourism can be channeled directly back into conserving the ecosystem, and can be a vital tool to make sure these protected areas receive the funds they need (Stronza et al., 2022). However, it is crucial not to exceed the carrying capacity, and utilise breaks and/or off-seasons, since overcrowding negatively impacts ecosystem services and biodiversity that people pay to see ([Suana et al., 2020](#)). Eco-tourism stands out as a notable potential revenue source across several pilots in the **REST-COAST** project. The restoration activity often takes place in an area where tourism is an important socio-economic sector, which is maintained or improved by nature restoration. It remains, however, difficult to capture specifically the value of the added tourism by the NbS. Earmarked tourist taxes or tourism user fees can provide an opportunity for supporting restoration activities or, for example, their maintenance. However, this often requires legislative changes and governance models to enable the effective implementation of such revenue generating mechanisms.

The REST-COAST project highlights that nature-based solutions (NbS) not only deliver long-term ecological and climate resilience but also generate immediate financial benefits. These include increased property values due to enhanced amenity values in areas where NbS are implemented, as well as boosts in local tourism and job creation. For example, projects like the Marker Wadden in the Netherlands demonstrate how ecological restoration can attract visitors, stimulate local economies, and create employment opportunities, all while contributing to biodiversity recovery and climate adaptation. These co-benefits underscore the importance of integrating NbS into mainstream investment and planning frameworks, not just for their environmental value but also for their socio-economic returns.

3.1.3. Indirect economic gains and value creation from NbS

Nature-based solutions (NbS) support community and local economic development by enhancing urban environments, which attracts investment, stimulates regeneration, and reduces regulatory risks through proactive environmental stewardship. They also strengthen social capital, offering spaces for community interaction and cohesion ([Collier et al., 2022](#)).

Beyond physical transformation, NbS drive knowledge creation, skills development, innovation and business opportunities. They generate both technical and ecological expertise, benefiting sectors such as construction, where firms gain specialised capabilities that can position them in a growing green economy.

Increased public awareness and understanding of the ecological functioning of NbS foster acceptance of sustainable measures, enabling supportive policy decisions and expanding markets for nature-positive solutions. Collectively, these effects contribute to a knowledge-driven green economy, creating new business opportunities and high-quality jobs.

3.1.4. Cost savings and welfare economic gains from NbS

Improved physical & mental health

NbS can protect or promote human health and well-being either directly or indirectly ([WHO, 2025](#)). Flood retention areas, natural coastal defences or urban parks and tree canopy cover are examples of nature that can reduce potential life threatening extreme weather events, save lives, livelihoods and make a society generally more resilient to adverse events. Extreme heat, for instance, contributes to excess deaths, especially in urban areas with poor adaptation strategies and can lead to heat related illnesses such as heat exhaustion and heatstroke, especially for people working outdoors, and vulnerable populations (elderly, children and people with pre-existing health conditions), and aggravate chronic diseases, worsening cardiovascular, respiratory and kidney diseases.

Nature-based Therapies (NbT) explicitly use the availability of high quality natural environments for therapeutic purposes to improve mental, physical and social health with a growing body of evidence. ([White et al., 2023](#); [Busk et al., 2022](#); [Mammadova et al., 2021](#)). NbTs range from structured clinical interventions such as horticultural therapy, care farming, and equine therapy to more experiential practices such as forest bathing, wilderness therapy and blue care.

A systematic literature review in **INVEST4NATURE** ([Chen et al., 2025](#)) examined the evidence for how NbS across different landscapes in Europe affect mental and physical health. Most studies to date have investigated NbS impacts on health in an urban setting and few in forest, coastal, and freshwater landscapes. Many studies demonstrate positive effects on both mental and physical health, but also reveal potential adverse effects for specific subpopulations with pre-existing conditions, such as asthma and allergies. Examples of mental and physical health improvements include:

Mental health improvements: local populations often experience improved mental health after direct contact with NbS such as parks, blue and green spaces ([Völker & Kistemann, 2015](#); [Pasanen et al., 2019](#)) and forests (Aerts et al., 2022). The mental health effects are primarily channelled through the relaxing effects of being in contact with nature, which in turn reduces stress and anxiety ([Bielinis et al., 2019](#)), balances moods, and promotes feelings of happiness. Green spaces, for example, also provide a place where local people can gather and participate in social activities together, which increases social cohesion, a sense of community, and inclusion ([Harris, 2017](#); [Mourão et al., 2019](#); [MacBride-Stewart, 2019](#)).

Physical health improvements: many NbS projects are associated with improved physical health for local populations, mainly through increased physical activity, which in turn helps an individual to maintain a healthy weight ([Hunter et al., 2021](#)), lower blood pressure and improve cardiovascular health ([Tamosiunas et al., 2014](#)). Physical health improvement is also facilitated through the environmental benefits of NbS, such as reducing heat island effects and improving water and air quality, thereby reducing environmental-related illnesses and mortality rates (See Box 3.2).

In summary, NbS and the use of NbT offer four specific prevention levels ([WHO, 2025](#)):

1. Protect the basic facets necessary for health and well-being of an entire population (Primordial)
2. Prevent disease amongst otherwise healthy populations (Primary)
3. Reduce risks for exposed people or communities (Secondary)
4. Treat existing health conditions and prevent exacerbation (Tertiary)

For *governments, locally, regionally or nationally*, NbS and NbT can contribute to reducing health care costs, sick leave and unemployment benefit pay-outs due to poor health. **RESONATE** analyses the potential market for NbT and public cost savings in health spending. Public health expenditure in Europe amounts to 7.7 % of GDP (€1,221 billion) in 2022 ([Eurostat, 2025](#); [EIB, 2023](#)) and continues to grow due to pandemic recovery, rising demand for preventive care, non-communicable diseases (NCDs), and mental health support - areas where NbTs could play a role. Current health care budgets remain focused on conventional, reactive treatments, but NbTs offer preventive and cost-effective alternatives. The global value of nature via healthcare savings is estimated at US\$2.1 trillion annually ([Buckley & Chauvenet, 2022](#)), with studies showing NbT can reduce costs, particularly in preventive care ([Buckley & Chauvenet, 2022](#); [Masters et al., 2017](#)).

The burden of NCDs is particularly evident in the EU, where they account for 70–80% of healthcare costs and cause productivity losses through absenteeism and early retirement ([EC Newsletter 169](#)). Preventive and wellness programmes show strong returns, with €1 invested generating up to €14 ([Masters et al., 2017](#)). Mental health issues alone cost the EU €92 billion annually in lost productivity ([Kärkkäinen & Olisa, 2020](#); [GAMIAN-Europe](#)). An aging population is expected to further raise healthcare and pension costs to 12% of GDP by 2070. Without reforms and greater emphasis on prevention, escalating NCD-related expenses risk overwhelming EU public health budgets.

The *private sector* benefits from enhanced workforce productivity and resilience when investing in nature at their premises, such as the installation of green roofs and walls and urban greening. This contributes to healthier work environments, linked to reduced sick leave, lower absenteeism, and sustained or enhanced employee productivity. By fostering physical and mental well-being, NbS can help build a more resilient and adaptable workforce.

Households benefit economically through health care cost savings. The positive health impacts of nature indirectly help secure income levels and social inclusion by keeping people more healthy and resilient. Households directly benefit from nature's services through clean air and water, reduced urban heat, flood protection, and mental and physical well-being. Access to green and blue spaces is associated with lower stress, better cardiovascular health, and more opportunities for recreation and social connection. For example, tree cover around homes can reduce cooling costs in summer and improve air quality — offering both economic savings and health benefits for families. Living in the vicinity of parks reduces temperatures on hot days and contributes to reducing heat mortality as found in a study by **REGREEN**, suggesting tangible and real positive impacts (See Box 3.2).

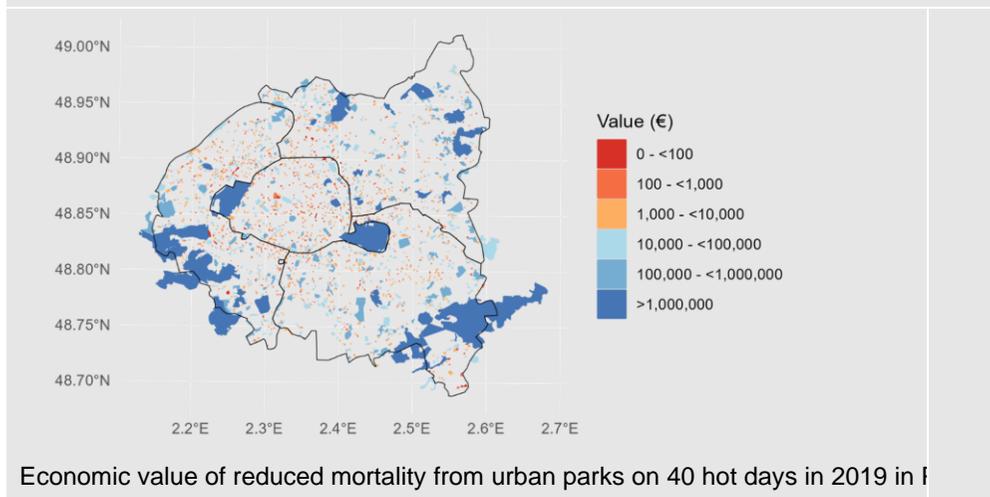
Initiatives such as the **Green4C project** and **RESONATE** have begun to explore NbT and related markets, suggesting that this emerging market has significant potential to respond to societal demands for holistic healthcare, sustainability, and well-being while reducing reactive health care costs ([Mammadova et al., 2021](#); [Fraccaroli et al., 2021](#); [Briers et al., 2021](#); [Roitsch et al., 2021](#)). As such, NbT not only presents opportunities for job creation and innovation but also opens up avenues for financing and investment.

Box 3.2. Urban green spaces reduce heat mortality - evidence from Paris

Project: REGREEN - Grant no. 821016

Source: Garret et al. (forthcoming)

The REGREEN project analysed 575 parks in Paris to assess vegetation's cooling effect and its impact on heat-related mortality. On hot days in 2019, public green spaces cooled surrounding areas by up to 1.9 °C, benefiting 42 % of residents (2.9 million people) and preventing an estimated 42.5 deaths—valued at €198.8 million using the Value of Statistical Life. Larger and greener parks, particularly those with trees, had the greatest cooling range, while mid-sized parks (10,000–100,000 m²) provided the highest cooling efficiency per area. Despite these benefits, 3.9 million Parisians remain outside the cooling influence of urban green spaces, facing heightened heatwave risks.



Recreation & amenity values

Nature-based recreation sustains physical and mental wellbeing and is a key component to a high quality of life. Opportunities for recreation close to where people live increase the use of green spaces and in turn the mental, physical and social benefits derived from their use. Local authorities, households and the private sector benefit in multiple ways from high quality and optimal supply of green and blue spaces for recreation and amenity.

The *private sector*, by supporting the creation and maintenance of additional green spaces, for instance, can improve their branding value, leading to increased customer loyalty and market shares. As consumers grow more sustainability-conscious, businesses demonstrating authentic environmental stewardship are better positioned to retain and expand their client base. Internally in private sector organisations, such ESG initiatives can also improve the attractiveness of the workplace and the retention capacity of employees. Companies implementing NbS report higher attractiveness as employers, aiding recruitment efforts and reducing turnover-related costs.

For the *public sector*, supplying optimal blue and green spaces and infrastructure for recreation and amenity values will improve liveability and attractiveness locally and also regionally if investments and management are at scale. Recreation benefits of green space in welfare economic terms are substantial. In the case of the urban forest of Valdebebas in Madrid, Spain, nature-based recreation was the most substantial benefit, that, if left unaccounted for, meant some scenarios would not produce any net benefits (**Nature4Cities**) (See Box 3.3). Also in the case of redevelopment of an urban park close

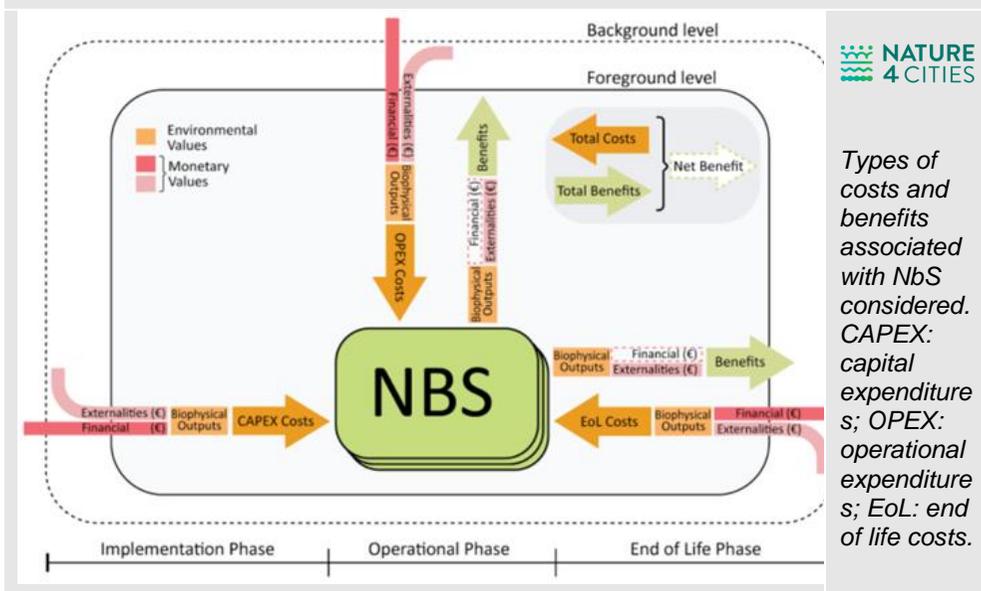
to a lower socio-economic neighbourhood in Manchester in the UK, nature-based recreation and its impacts on physical health was the most substantial benefit assessed (**Grow Green**) (See Box 3.4).

Box 3.3. Net Environmental and Economic Benefits of an Urban Forest in Spain

Project: Nature4Cities – Grant No: 730468

Source: [Babi Almenar et al., 2023](#)

A 50-year economic assessment of Madrid’s Valdebebas Park found that cultural services—particularly recreation—were the most valuable ecosystem benefits, with net gains typically appearing only after a decade. Using Life Cycle Assessment and Environmental Life Cycle Costing, the study showed that carbon benefits were consistent across scenarios, while PM filtration benefits required 6–17 years and varied up to tenfold by species choice. Biowaste reuse via a circular economy approach enhanced benefits, whereas some environmental costs (eutrophication, supply chain impacts) remained uncompensated. Outcomes depend strongly on species mix, design, management, and bio-waste treatment, underscoring the need for integrated, long-term assessment to optimise urban NbS over time and space.



Box 3.4. Ex-post Cost Benefit Analysis of Public Park restoration in the UK

Project: Grow Green - Grant No: 730283

Source: [Tommi et al., 2022](#)

The Grow Green project assessed the economic performance of Manchester’s first purpose-built climate resilience park, redeveloped in a lower-income inner-city area. Covering three football pitches, the multifunctional park integrates woodland with

Box 3.4. Ex-post Cost Benefit Analysis of Public Park restoration in the UK

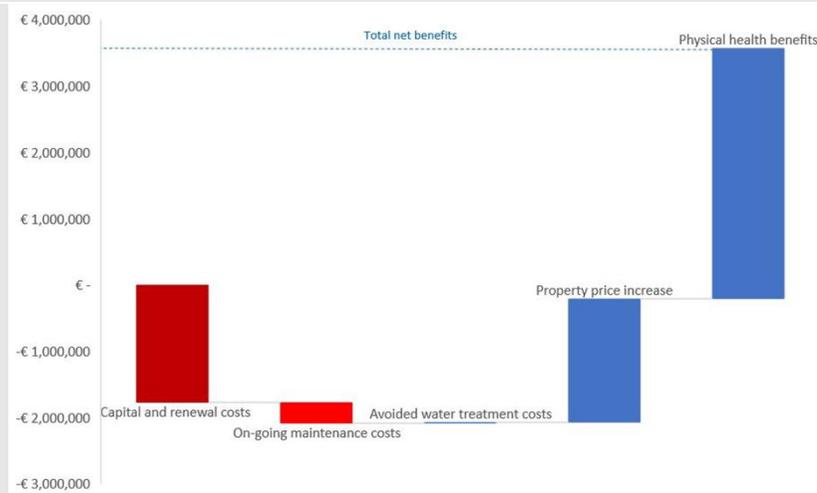
Project: Grow Green - Grant No: 730283

swales, meadows, rain gardens, sports facilities, community gardens, and permeable event spaces, providing climate adaptation and social benefits.

The cost–benefit analysis (25 years, 3% social discount rate) included avoided rainwater treatment costs, physical health benefits from increased activity, and higher nearby property values. Over 25 years, the park is expected to generate EUR 3.3 million



in benefits, with a benefit–cost ratio of 2.5 and an estimated 13.1 FTE jobs per year. Additional unquantified benefits include carbon storage, air quality improvement, biodiversity gains, and heat/noise reduction. Sensitivity analysis confirmed the investment's high profitability.



Present value costs and benefits of the GrowGreen Park restoration in Manchester

Pollution prevention & high environmental quality

In urban settings, the application of NbS contributes to generating both private and public welfare economic benefits and cost savings, primarily through the provision of key ecosystem services such as stormwater flow regulation, carbon sequestration and storage, urban heat mitigation, water purification, noise mitigation and air filtration ([Alves](#)

Box 3.5. Cost-Benefit Analysis of nature restoration - Aarhus River Valley Water & Nature Park, Denmark

Project: Invest4Nature - Grant no: 101061083

Aarhus Municipality, Denmark's second largest, plans to double its nature areas by 2030, including 8,000 ha of Water and Nature Parks. The flagship Aarhus River Valley project (2,368 ha) will renature 1,076 ha of farmland through afforestation, wetland restoration, and hydrological rebalancing to improve drinking water quality, biodiversity, and climate resilience.

A 50-year CBA (2.5% discount rate) valued the welfare economic gains from drinking water protection, carbon sequestration, improved lake water quality, recreational access & public wellbeing, and increased nearby property values. Net benefits are estimated at EUR 225 million, with a benefit–cost ratio of 4.41. Additional unquantified gains include flood damage avoidance and biodiversity enhancement, showing NbS can deliver substantial local and regional benefits across climate, water, health, and recreation.



Present value costs (CAPEX & OPEX) and benefits (million euros 2024 values)



Box 3.6. Sustainable Asset Valuation (SAVi) of River Restoration in Greece

Location: Thessaly, Greece

Source: [IISD \(2023\)](#)

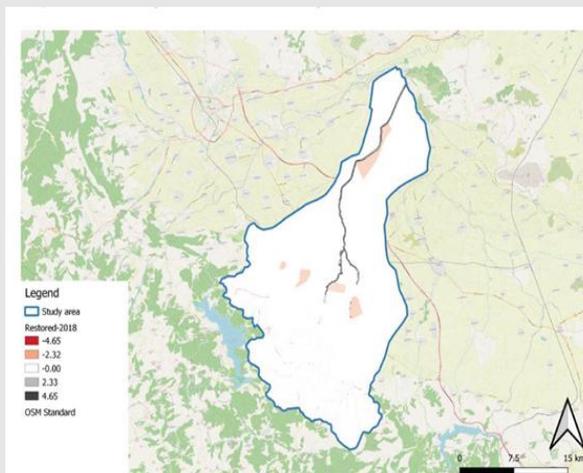
Thessaly, an agricultural region in Greece, faces frequent floods, water scarcity, declining water quality, soil degradation, and habitat loss—challenges expected to intensify with climate change. The Sustainable Asset Valuation (SAVi) tool was used to compare three options:

1. Nature-based solution (NbS): Riparian forest and floodplain restoration.
2. Hybrid: NbS measures plus small upstream dams.
3. Grey infrastructure: New river dikes.

Over 25 years, the NbS delivers the highest benefit–cost ratio (2.9) compared to the hybrid (2.4) and grey infrastructure (1.5). Net benefits are EUR 12.8 million (RCP 4.5) and EUR 12.6 million (RCP 8.5), driven by gains in agricultural production, avoided emissions, carbon sequestration, and water quality. The carbon storage value alone (EUR 12.8 million) exceeds the NbS’s total cost (EUR 6.8 million) and that of the hybrid (EUR 9.3 million). Unlike dikes, NbS also improves habitat quality, biodiversity, and recreational opportunities, further enhancing long-term economic returns.

SAVi tool

The Sustainable Asset Valuation (SAVi) tool measures the financial, environmental, and social performance of infrastructure by integrating spatial modelling, system dynamics, and cost–benefit analysis. It captures risks, externalities, and co-benefits—such as carbon storage, erosion control, and higher agricultural productivity—allowing full-life value comparisons of green, hybrid, and grey infrastructure. Delivered by IISD, SAVi fills gaps in traditional valuation by revealing how externalities can become future financial risks, with transparent methods and results for decision-makers.



Red areas show a decrease in carbon storage, and black areas show an increase in carbon storage. There is a net increase in carbon storage.

Source: Authors' diagram.

Change in Carbon Storage.

In relation to *carbon sequestration*, [JUSTNature](#) conducted an economic valuation of air pollutant removal and carbon sequestration benefits of NbS in seven cities: Bolzano, Merano, Chania, Gzira, Leuven, Munich, and Szombathely. Some of the NbS of the cities include green roofs, green walls, street trees, gardens, unsealing, green infrastructure (courtyards, cafes, and schools) and a Miyawaki forest.

Box 3.7. Impact (direct, indirect and induced) of marine and coastal Nature Inclusive Harvesting & NbS on local and coastal economies.

Location: Bay of Biscay, Spain

Project: FutureMARES - Grant-no. 869300

Source: [Simons, S., Stamatiadou, V., Murillas, A., et al. 2024](#)

One significant oversight has been the failure to account for indirect and induced economic impacts of implementing Nature Inclusive Harvesting (NIH) & NbS. Input-output models were used to quantify those impacts in local and coastal economies from the direct NIH&NbS valuation (using Ecosystem Services valuation). FutureMares investigated how neglecting those indirect and induced values can lead to underestimating by more than 50% in monetary terms (Gross Value Added) the total contribution of developing NIH&NbS. It is crucial to highlight that NbS related to conservation and protection of coastal and marine areas, including construction works, tend to exhibit the most impact on terrestrial economies.

A case study related to a NIH, small-scale fisheries (SSF) active in the Bay Of Biscay in Spain (Atlantic Area in the EU) analysed the socioeconomic and governance aspects surrounding SSF, detailed in [Murillas et al. 2023](#).

Goal and results. The contingent valuation method was employed to estimate the direct use value of SSF associated cultural ecosystem services, estimating the willingness to pay for protecting SSF cultural and natural heritage. Among others, the natural heritage associated with the port landscape resulted in an average (19.84 €) and median (18.01 €) willingness to pay per household, which, when scaled to all Spain households, totalled approximately 300,000 € and 272,000 €, respectively (Castilla et. al. 2022). Input-Output model 'output allows to state that the greatest indirect impact is produced in recreational and cultural activities, but also, in additional 25 economic sectors, including construction, communications, banking, trade, water, and plastic production. These are usually forgotten and therefore, not considered by managers/policymakers.

Box 3.7. Impact (direct, indirect and induced) of marine and coastal Nature Inclusive Harvesting & NbS on local and coastal economies.

Location: Bay of Biscay, Spain

Project: FutureMARES - Grant-no. 869300



3.1.5. Insurance-based gains and disaster related cost savings

The strong business dependency on ecosystem services increases the exposure of economic and financial systems to nature-related risks (see Box 2.2 in Chapter 2). This exposure takes place in the broader context of a significant climate insurance protection gap, with less than 25% of economic losses from natural hazards being covered by insurance ([ECB, 2023](#)). Climate change is making certain risks no longer manageable with traditional practices (e.g. grey infrastructures, commercial insurance) so there is the need to adopt alternative approaches that reduce emissions and contribute to building more resilient economic and financial systems benefitting the climate, biodiversity, and society ([Noy, 2024](#); [Insure Our Future, 2024](#)). NbS are well-positioned to take this role. As part of a wider strategy to respond to global challenges, the protective value of NbS can be understood as an insurance value, i.e. the capability of ecosystems to buffer environmental shocks that is potentially translated into avoided damage and co-benefits ([Costa et al., 2020](#)). As such, nature-based insurance and investment mechanisms offer promising pathways to scale up NbS implementation by addressing the financing demand ([UNEP FI, 2023](#)).

Nature degradation increases business risks through supply chain disruptions (e.g., from floods, droughts), resource scarcity (e.g., water, timber, fish stocks), and stricter environmental regulations or litigation. Investing in nature restoration and protection (through NbS) helps companies mitigate these risks, ensure long-term access to critical natural resources, and build resilience against climate and biodiversity-related shocks.

Nature-related damage to insured assets or activities can lead to an increased number of claims, potentially driving up premiums. In this context, there is growing interest within the insurance sector in NbS in light of their potential to mitigate the intensity of climate-related hazards ([Lallemant et al., 2021](#); [Sudmeier-Rieux et al., 2021](#)). For example, NbS reducing flood risks could lead to fewer insurance claims and lower premiums in countries where flood coverage is available ([EIOPA, 2023](#)). Conversely, in countries without existing flood insurance, NbS may improve the insurability of flood risks, enabling the development of new insurance products. Indeed, there is optimism that insurers can play a leading role in addressing climate change and biodiversity loss by supporting and financing NbS,

especially those that reduce disaster losses. The rationale is that insurers and insureds stand to gain if property and asset losses, and consequently premiums, are reduced. This would contribute to ensuring that premiums remain affordable under future climatic conditions, and can also allow a profitable expansion of the client base. However, to date, apart from securing insurability and their market in high-risk areas, insurers have no record of incentivising or investing in disaster risk reduction.

NATURANCE explored how insurance can enable the scaling of NbS with an array of products and strategies through the two pillars of the insurance business: **underwriting** and **investment** ([Linnerooth-Bayer et al. 2024](#)). The underwriting pillar can support NbS by covering loss and damage to nature, de-risking NbS projects, incentivising NbS implementation through insurance pricing, enabling financing, or declining coverage for nature-negative projects. Pro-NbS insurance products can offer both profitability for insurance companies and facilitate investments in nature. On the other side, the investment pillar is crucial as insurers control significant capital that can help close the financing gap by integrating nature into their investment portfolios. This pillar can enable and finance NbS by promoting transparency and disclosure of asset portfolios, investing in nature-positive assets, divesting from nature-negative ones, and engaging in philanthropic activities. Insurers are increasingly motivated to shift their portfolios toward nature-positive assets to reduce: i) physical risks from rising insured losses, ii) transition and liability risks from changing regulations, and iii) reputational risks driven by shifting societal expectations (ESG investing). However, a free rider problem remains, connected to the public good nature of NbS, which may limit investments by insurance companies despite the multiple potential advantages. To overcome this barrier, transformative governance regulations and strategies will need to be developed to support, or even require, nature-positive underwriting and investing to facilitate novel insurance business models.

NbS co-benefits provide an added value to their implementation in the context of disaster risk reduction ([EEA, 2021](#)). However, assessing the value of NbS, including co-benefits, is challenging. Co-benefits are often overlooked in NbS project design, implementation, or assessment, which may lead to underinvestment in NbS due to an underestimation of their environmental, social, and economic value ([Jones & Doberstein, 2022](#); [Vollmer et al., 2024](#)). Traditional methods are not always capable of capturing the full value of NbS. Climate change further complicates risk prediction by altering event frequency, intensity, and adaptation capacity. Disaster impacts are traditionally estimated with catastrophe modelling ([Marchal et al., 2019](#)), which rarely integrate NbS, often rely on historical data and underestimate future climate impacts ([Wagner, 2022](#)), limiting their ability to reflect the long-term benefits of NbS ([Gómez Martín et al., 2020](#)). The use of Socio-Ecological System assessment as part of NbS design may help to address such issues ([Biggs et al., 2021](#)). By looking at studies that assess the co-benefits of NbS beyond disaster risk reduction, the value of combining multiple approaches, such as field sampling, modelling, stakeholder engagement, and meta-analysis, emerged ([Staccione et al., 2024](#)). For instance, value transfer functions based on meta-analyses combine the results from reviewed studies to estimate monetary values of several NbS co-benefits. This integrated approach can help to address existing challenges by generating harmonised and comprehensive data, enhancing assessments across diverse contexts, and improving the comparability of results. Aligning scientific assessment methods with insurance modelling can further bridge knowledge gaps and strengthen the evidence base for NbS performance under current and future climate.

As aforementioned, the challenges and opportunities associated with NbS assessment are closely linked to policy and governance strategies ([Linnerooth-Bayer et al., 2024](#)). A major challenge for governments and businesses is the lack of knowledge and experience of NbS. This stems from insufficient evidence on performance and co-benefits, limited expertise, political short-termism and budgetary constraints. These factors, together with path dependency or the difficulty of changing legal and social norms, make it more difficult to support NbS over traditional grey infrastructure. A key challenge is shifting from

command-and-control to governance that empowers communities to adapt locally. Insights on social tipping points ([Lenton et al., 2022](#)) and social learning ([Moore et al., 2015](#)) may provide guidance. While inequities and conflicts can hinder progress, stakeholder engagement and polycentric governance have proven effective in overcoming silos and enhancing NbS co-benefits.

While many activities are constrained by insurers' fiduciary responsibilities to their shareholders and the competitive market in which they operate, a new business model that focuses on the long-term benefits of a nature-positive economy and takes into account the emerging generation of impact investors may enable some steering of balance sheets towards nature-positive investments. To move the NbS agenda forward, it will be important to develop transformative governance regulations and strategies that can support, even require, nature-positive underwriting and investments as part of a new generation of insurance business models.

Box 3.8. Boosting flood resilience in Italy through controlled flooding, community insurance and nature-based solutions

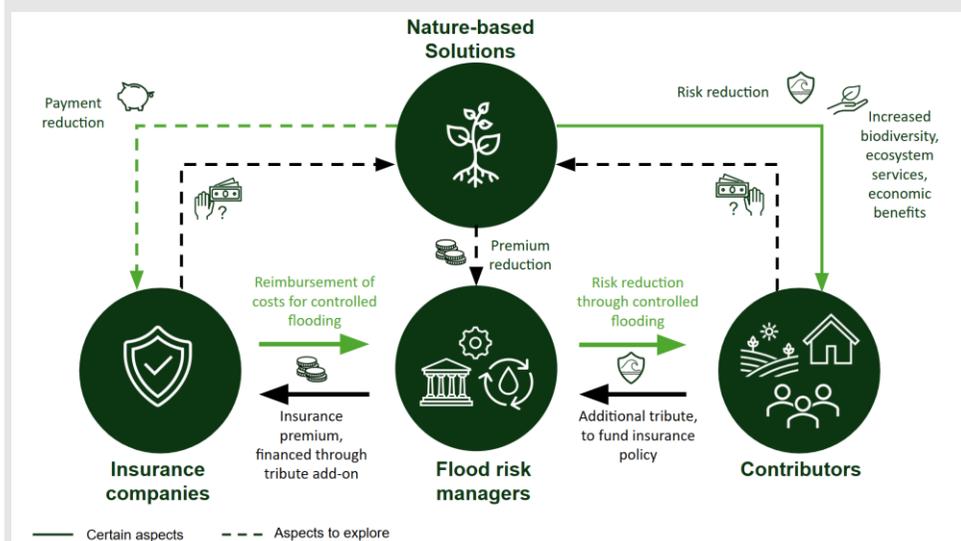
Project: NATURANCE - Grant no: 101060464

Source: [Martin et al., 2025](#) (Bastanzi G., Biddau F., Ceolotto S., Staccione A., Mysiak J. elaboration)

NATURANCE Innovation Labs (ILs) consist of innovation archetypes for exploring business cases and financing strategies in the context of insurance and investments, attempt to boost the opportunities for NbS. This IL explored integrating controlled flooding and nature-based solutions into a new community-based insurance scheme for flood risk management in Italy. The proposed scheme links flood risk management authorities (i.e. regional associations of water boards), local communities and insurance companies. The Lab investigated the feasibility and commercial attractiveness of this insurance-backed, risk-sharing approach within the Italian region's complex governance framework.



The Lab investigated the feasibility and commercial attractiveness of this insurance-backed, risk-sharing approach within the Italian region's complex governance framework.



Innovation Lab scheme.

Box 3.8. Boosting flood resilience in Italy through controlled flooding, community insurance and nature-based solutions

Project: NATURANCE - Grant no: 101060464

The proposal leverages two key legal provisions in Italy: 1) the authority of water boards to impose and collect financial contributions from the communities they serve, and 2) the legal right to flood designated areas for public purposes. Under this framework, water boards would charge an extra tribute on contributors (households, businesses, farmers, landowners), which would be used to purchase an insurance policy covering the costs the water board faces to implement controlled flooding. A water board facing a potential flooding event could exercise the right to perform controlled flooding on upstream agricultural or rural land to limit more severe damages from uncontrolled flooding in downstream urban areas. This activity generates a direct benefit for the communities served by the water board thanks to a reduction in flood risk and damage, justifying the tribute add-on to purchase insurance coverage. The insurance policy would reimburse the costs the water board faces in the implementation of controlled flooding, the repair of damages to (infra)structures, the costs to clean the flooded land after the event, and the civil responsibility in case of unintended damages to third parties. The insurance payment thus ensures that the water boards can continue to conduct their normal flood risk management activities following a flooding event. Insurance companies would likewise benefit from the proposed scheme: obtaining a new client, developing a new line of business, reducing the exposure of their client base in downstream communities, improving their portfolios and ESG ratings. The land identified for controlled flooding should be renaturalised to increase its water-retaining capacity and provide additional ecosystem services. Under this framework, water boards would move from being institutions that simply manage water resources, to institutions that manage land and the ecosystem services it provides.

The project includes different examples of Innovation Labs ([Martin et al., 2025](#); [Surminski et al., 2024](#)) - see [Appendix IV](#) for more details.

3.2. Business models for a Nature-Positive Economy and NbS

Sustainable business models (SBMs) are organisational frameworks designed to create, deliver, and capture value while simultaneously maintaining or enhancing natural, social, and economic capital over the long term. Unlike traditional models that treat environmental and social concerns as peripheral, SBMs embed these elements at their core—aligning business logic with planetary boundaries and equitable outcomes ([Nosratabadi et al., 2019](#)). SBMs are conceptualised in numerous ways, including types like circular, lean & green, social, and integrative frameworks that balance the triple bottom line—people, planet, profit ([Sinkovics et al., 2021](#)).

A growing area within this field is impact business models (IBMs), i.e., SBMs intentionally designed to generate measurable positive outcomes for specific stakeholder groups (e.g. communities, workers, customers), alongside financial returns ([B Lab, 2024](#); [ESCP, 2022](#)). IBMs align profitability with the delivery of tangible societal or environmental benefits, making them an important mechanism for advancing a nature-positive economy—one

where economic activity contributes to the restoration, regeneration, and sustainable management of ecosystems and biodiversity.

Nature-based Solutions (NbS) business models are part of this family of impact-oriented approaches. They apply the same principles to interventions that work with nature to address societal challenges, ensuring that environmental gains—such as improved ecosystem services, biodiversity recovery, and climate resilience—are embedded in the value proposition. NbS business models can operate within an organisation’s own supply chain or extend to its sphere of influence, enabling sectors not directly dependent on ecosystems to invest in, finance, or enable nature-positive outcomes in other landscapes or communities, for instance through nature credits. This makes them relevant to a broad range of industries, from finance and insurance to urban development and manufacturing.

More specifically, in the context of NbS restoration, business models function as frameworks by which organisations can create, deliver, and capture environmental, economic, and social value over time (Chesbrough et al., 2018). The effectiveness of NbS interventions is tied to anticipated outcomes such as improved ecosystem services and enhanced and/or recovery of biodiversity, benefits that pose significant challenges in quantification. Moreover, capturing the societal value of NbS remains challenging, particularly in demonstrating clear returns on investment (Mayor et al., 2021). The monetisation potential of NbS is closely linked to stakeholder preferences, local socio-political contexts, and perceived social value (Ernstson, 2013).

The long-term cost-effectiveness and viability of NbS depend heavily on governance structures established during early planning. Strong governance frameworks and broad social acceptance are essential for success, especially mechanisms that catalyse multiple benefits perceived by different stakeholders and ensure that part of these benefits can be channelled to financially sustain restoration interventions. As Egusquiza et al. (2021) propose, NbS projects benefit from an integrated implementation model that combines governance, financing, and business model components to sustain restoration outcomes over time.

The current body of literature on business models highlights a significant knowledge gap regarding how organisations co-design and implement NbS interventions identifying multiple NbS value propositions, value creation and value capture through innovative business models framed into suitable business plans (Pernice et al., 2024). Antal et al. (2016, **Green-Win** D4.1), for example, defined Green Business Models (GBMs) as economically viable frameworks that reduce environmental impact via products, services, or processes, and introduced criteria for assessing green potential: i) eco-efficiency gains, ii) market potential, and iii) environmental significance. Building on this foundation, the **Connecting Nature** Business Model Canvas, and its adaptation in projects like the **CleverCities** project were used to map eight archetypal NbS business models (D5.3). These include i) maximise material and energy efficiency; 2) create value from waste; 3) substitute with renewables and natural processes; 4) deliver functionality rather than ownership; 5) adopt a stewardship role from stakeholders; 6) encourage sufficiency reducing demand-side consumption and production; 7) re-purpose the business for society/ environment by prioritising delivery of social and environmental benefits rather than economic profit maximisation; and 8) scaling sustainability solutions to maximise benefits. Revenue streams and financial models suggested range from Green Bonds (City of Gothenburg) and increased property value (City of London, for living roofs and walls) to grants and contribution for schools (City of Hamburg, for school gardening), and budget from municipality (City of Milan, for green roofs & walls).

The **Naturvation** project further refined NbS business modelling by developing a catalogue for urban NbS, composed of eight business models based on their project-specific approach, including: risk reduction, green densification, local stewardship, green

health, urban offsetting, vacant space, education, and green heritage ([Toxopeus & Merfeld, 2021](#); [Toxopeus, 2019](#)). These models, derived from 54 in-depth case studies, and an interactive "Business Model Puzzle" tool help stakeholders explore value-driven funding pathways for urban interventions, informing public-private collaboration, stakeholder financing motivation, and service design for NbS uptake, and were validated with stakeholders.

Complementarily, the **proGireg** project created an interactive model of partially and fully self-sustaining NbS business models, derived from 23 interventions across four pilot cities (i.e. Dortmund, Turin, Zagreb, and Ningbo), tested via stakeholder interviews and structured business modelling tools (Pölling & Morgenstern, 2023, proGireg D5.6).

Stork et al. (2023) distinguished between a traditional profit-oriented business model and a holistic business model thinking, where the latter focuses on the potential benefits from ecosystem services, life cycle thinking, sustainability, circularity concepts and NbS. A recent study (UNEP-CCC, 2024) presented a comprehensive framework for financing and developing business models for nature-based solutions (NbS) aimed at addressing climate-related challenges in urban contexts. The work systematically maps the multiple benefits of NbS, including adaptation and mitigation outcomes, as well as environmental, social, and economic co-benefits. Utilising the Nature-based Solutions Business Model Canvas proposed by Stork et al. (2023), the authors identify a range of business models tailored to specific NbS typologies. These models are designed to respond to critical urban sustainability issues such as urban heat stress, water management, coastal protection, carbon sequestration, and energy efficiency.

The typology of business models examined by the REST-COAST project (Johannessen et al., 2024; Pernice et al., 2024) focused on two key dimensions: (i) the mechanisms for value capture from the benefits generated by Nature-based Solutions (NbS) interventions, which serve to repay the initial investments; and (ii) the role of funding and financing in supporting the long-term sustainability and scalability of NbS restoration efforts. Specifically, funding mechanisms refer to non-repayable financial contributions - such as grants, donations, or other forms of support - from entities (e.g., public bodies, philanthropic organisations) that provide resources in exchange for non-monetary outcomes, such as ecological or social benefits. In contrast, financing mechanisms involve investments made by public or private actors who provide capital with the expectation of financial returns, such as interest payments or dividends. REST-COAST identifies three main types of business models:

- Type 1: **Pure Grant-based models**, fully reliant on public grants with no expectations for revenue generation or repayment in monetary terms (e.g. seagrass restoration in Foros Bay, Bulgaria or Rhone Delta, France).
- Type 2: **Revenue-based models** which integrate value-capture mechanisms for revenue generation (e.g. saltmarshes restoration in the Venice Lagoon, Italy (see Box 3.9) or Ebro Delta, Spain). Different mechanisms can be integrated, such as:
 - Payments for cost avoidance where local authorities pay for cost reductions achieved by the NbS (e.g., reduced dredging, flood protection, heat wave protection).
 - Ecosystem service markets where revenues can be generated from selling products and/or services (e.g., carbon credits, eco-labelled products, eco-tourism)
 - Fiscal revenues with funding from taxes, levies, or other public finance instruments
- Type 3: **Revenue and Finance-based models** which involve upfront investments that must be repaid with interest. This type relies on value-capturing (type 2) to ensure repayment of loans and interest.

Based on these three main types of nature-positive business models, Table 3.3 outlines main funding and financing scenarios.

Model Type	Cost Structure	Funding/Financing Mechanism	Revenue Expectations & Benefits
Type 1: Grant-Based	TC = Capital + Maintenance	Fully covered by public grants; no revenue generation expected	Non-repayable public funds; no direct financial return required
Type 2: Value-Capturing	TC = Capital + Maintenance – Revenues	Public grants cover upfront costs; implementing actors (e.g. private sector) finance operations	Revenues from cost savings, ecosystem services, and indirect gains (e.g. insurance savings)
Type 3: Revenue + Financing	TC = Capital + Cost of Capital + Maintenance – Revenues	Public funds used for de-risking; private investment repaid via returns	Returns from value capture mechanisms used to repay financing; same revenue sources as Type 2

While typology 1 is the most commonly identified, the other two typologies are currently less implemented in Europe due to the presence of different economic and financial barriers limiting revenue generation mechanisms and the implementation of innovative financial mechanisms.

Box 3.9. Co-Developing Eco-tourism Business Plans for Upscaled Salt Marsh Restoration in the Venice Lagoon

Project: REST-COAST - Grant no: 101037097



Source: [Pernice et al. \(2024\)](#)

Location: Venice Lagoon, Italy

A forward-looking framework that bridges an advanced business model with a business plan for upscaling NbSs salt-marsh restoration in the Venice Lagoon co-developed through iterative multi-stakeholder engagement. The business plan lays out the governance, management,

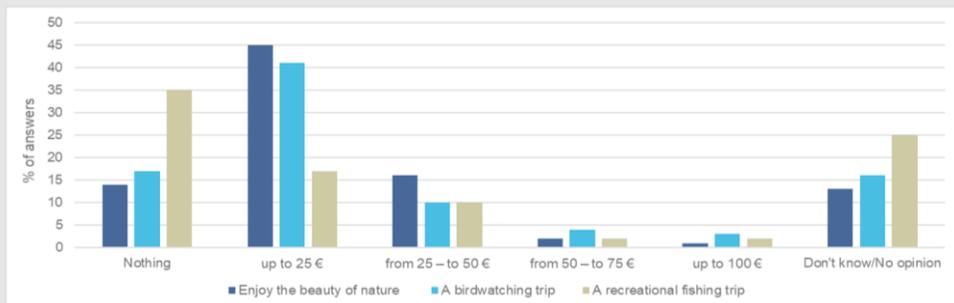
Box 3.9. Co-Developing Eco-tourism Business Plans for Upscaled Salt Marsh Restoration in the Venice Lagoon

Project: REST-COAST - Grant no: 101037097

business and financial strategies for successful coastal restoration, addressing specific interconnected issues, improving five main ecosystem services and delivering NbS multifunctional environmental, economic, social and cultural benefits

The business plan selects a business case consisting in the assessment of eco-tourism in saltmarshes, adopting a willingness-to-pay (WTP) analysis to estimate the economic value of visitor experiences. The main reasons for visiting were to observe nature (28.9%) and to enjoy the beauty of the area (26.3%). Visitors were willing to pay up to €25 per visit, with 49.5% motivated by enjoying nature, 45.1% by birdwatching, and 18.7% by recreational fishing.

The findings show that WTP analysis is a valuable tool for identifying revenue potential from nature-based tourism. Ecotourism - especially birdwatching - offers strong prospects for indirect income generation through tourism taxes and private investment. Consistent with earlier initiatives such as the LIFE VIMINE project, the study highlights the importance of co-designed, win-win strategies and cooperative business planning to scale coastal restoration while delivering economic benefits to local communities.



Willingness-to-pay results for different types of visitor experiences in restored Venice salt marshes.

Box 3.10. Coupling Ecotourism and Agroecology using Nature-based Solutions (NbS)

Project: HYDROUSA – HYDRO6 Demonstration Site - Grant no: 776643



Source: Euro-Mediterranean Water Information System, 2024

Location: Tinos island, Greece

HYDRO6 is a nature-based, circular business model implemented at Tinos Eco-Lodge, transforming it into a self-sustaining eco-agro-tourism facility. It integrates NbS for water management, food production, composting, and sustainability education.

Box 3.10. Coupling Ecotourism and Agroecology using Nature-based Solutions (NbS)

Project: HYDROUSA – HYDRO6 Demonstration Site - Grant no: 776643

The HYDRO6 demonstration at Tinos Eco-Lodge showcases a circular business model that integrates NbS for water management, agroecological food production, composting, and sustainability education in a 0.6 ha tourism site. Key measures include vapor condensation units producing over 20 m³ of drinking water annually, constructed wetlands reclaiming 20–30 m³ of irrigation water, rainwater harvesting exceeding 50 m³, and precision irrigation for 0.15 ha of crops. Annual outputs include ~931 kg of vegetables and herbs, 208 kg of compost, 92 bottles of essential oil, and 380 bottles of hydrosols.

The business model combines water and nutrient recovery, local produce sales, agro-tourism, and training, generating 1.13 FTE jobs and supporting local supply chains, reducing the need for imports. Social benefits include school visits, permaculture seminars, and community education and awareness, while environmental gains encompass reduced freshwater use, biodiversity improvements, and 0.73 t CO₂-eq/year sequestration. Economic viability is supported by revenues from products, cost savings from photovoltaic energy use, educational tourism, and training, though high initial CAPEX - covering wetland restoration, irrigation systems, greenhouse, rainwater storage and certifications - require public funding. HYDRO6 aligns with EU Green Deal goals and offers a scalable and viable model for NbS in remote, arid, tourism-heavy regions. The case would further benefit from the **EU Sustainable Tourism Strategy (expected 2026)**.

Many other EU-funded and other projects have explored how business models can support the move towards a nature-positive economy. A selection of associated case studies, some insights on the value proposition and funding and financing aspects are provided in Table 3.4. The finance landscape for NbS in particular in the EU is discussed in more detail in the next section of this chapter.

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
Vindelälven-Juhttáhkká Demo Area	Vindelälven-Juhttáhkká Biosphere Reserve, Västerbotten, northern Sweden	Boreal and subalpine forest landscapes	<p>Environmental: Restoration of monoculture spruce forests to mixed native forests to enhance biodiversity, carbon sequestration, hydrological connectivity, riparian corridors, and resilience. River restoration, wetland restoration, rewilding of forest edges and open land to enhance ecosystem functioning and cater to reindeer migration routes.</p> <p>Social: Collaboration with Indigenous Sámi communities and local municipalities to integrate reindeer husbandry, cultural landscapes, and participatory governance. Multi-stakeholder engagement including forest</p>	<p>Grant funding: One of the 12 SUPERB demonstration area, funded under EU Horizon 2020 Research and Innovation Programme (€20 million).</p> <p>Other: SUPERB also receives €90 million from its associated partners.</p>	SUPERB	Vindelälven-Juhttáhkká Demo Area

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
			<p>owners, NGOs, researchers, and authorities to support inclusive landscape-scale decisions.</p> <p>Economic: Supports sustainable forest economy by diversifying forest products and enhancing ecosystem services that underpin reindeer herding and tourism. Builds enabling finance structures via restoration market platforms and showcases cost-effective NbS that integrate economic and ecological returns.</p>			
Re-naturalisation of the Former Saltworks of Camargue	Southern France	Salt ponds and marshes	<p>Environmental: Improved ecological status and new areas of habitat</p> <p>Social: Recreational value</p> <p>Economic: Reduced operational costs</p>	<p>Public: The CdL, the Region Water Agency.</p> <p>Grants: Life+, Interreg, H2020</p> <p>Private: Coca Cola, WWF, Mava Fondation</p>	WaterLANDS Knowledge Site	↓ WaterLANDS: Water-based solutions for carbon storage, people and wilderness. 3 Restoration_Saltwork

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
			(and carbon footprint) associated with the elimination of electric pumping to manage water levels, reduced flood risk from sea storms, tourism			s_FR_Final_v2-1.pdf
Kvorning	Denmark	Peatland	<p>Environmental: Increased carbon storage, higher water quality, improved habitat.</p> <p>Social: Increased recreational value</p> <p>Economic: Potential for subsidies to support local livelihoods</p>	Grants: LIFE IP	MERLIN	MERLIN O TSI-5-Credit-Guarantees.pdf
Green Roofs/Green Building Façades	Eindhoven	Urban	<p>Environmental: Enhanced biodiversity, reduced air pollution</p> <p>Social: Improved human health, quality of life, aesthetic value, visual attractiveness</p> <p>Economic: Increased rainwater retention (15-30%), increased cooling /</p>	<p>Public: Municipality (<i>in some cases</i>)</p> <p>Private: Building owners</p>	UNaLab Front Runner City	Business Models & Financing Strategies

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
			temperature management			
<i>Proposed - Green Roofs in Tampere</i>	Hiedanranta, Tampere	Urban	<p>Environmental: improved biodiversity, carbon storage</p> <p>Social: recreation, quality of life, health</p> <p>Economic: storm water management</p>	<p>Private: Building owners</p> <p>Grants: European Commission (demonstration sites)</p> <p>Public: Municipal (for public buildings). A 'Storm Water Fee' (totalling 5,6 million €/year) was introduced to fund implementation and maintenance of NbS.</p>	UNaLab Front Runner City	<u>Business Models & Financing Strategies Tampere Municipality</u>

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
Latvia - NATALIE	Central Latvia	Boreal - agricultural lowland with dense river network	<p>Environmental: Demonstrates operational constructed wetlands for nutrient removal and diffuse pollution treatment - tackling eutrophication from agriculture and livestock wastewater; enhances biodiversity and mitigates local flood risks. Extensive baseline sampling, species monitoring, and adaptive wetland management.</p> <p>Governance: NbS will be co-created via local stakeholder workshops (Transformation Labs) that will define suitable wetland locations and build consensus among regional planners and community reps. Awareness-</p>	Grant: Horizon Europe (other funding not stated)	<u>NATALIE</u>	<u>NATALIE</u>

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
			<p>building sessions with the Ministry of Agriculture and environment agencies.</p> <p>Economic: Reduces water treatment costs and potential fines linked to water pollution; fosters uptake of constructed wetlands as low-cost, nature-based wastewater treatment alternatives. The roadmap includes studies for assessing the business case and financial conditions.</p>			

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
Highlands Rewilding	Scottish Highlands - estates at Bunloit (Loch Ness), Beldorney (Aberdeenshire), Tayvallich (Argyll)	Highland temperate/montane rewilded landscapes (woodland, peatland, river corridors)	<p>Environmental: Restoration of natural ecosystems through woodland regeneration, peatland restoration, river corridor rewilding, etc.</p> <p>Social: Embedded community prosperity model - generating local jobs, community co-ownership, and joint venture partnerships rooted in local economic empowerment.</p> <p>Economic: Future revenue streams from verified natural capital credits (carbon & biodiversity), ecotourism, produce from sustainable nature-friendly farming, and environmental consultancy services.</p>	<p>Equity Investment: Raised £7.5M in first round from ~50 investors; later rounds raised >£3.5M including retail crowdfunding (£1M+) and private equity mass ownership model (“citizen rewilders”) offering ~5% annual returns over 10 years.</p> <p>Debt Financing: £12M loan from UK Infrastructure Bank (first Scottish nature-recovery investment) used to acquire Tayvallich estate.</p> <p>Grant Funding: £194,700 from Facility for Investment Ready Nature in Scotland (FIRNS) co-funded by</p>	N/A	Highlands Rewilding - Rewilding Scotland Highlands Rewilding

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
				NatureScot and National Lottery Heritage Fund, supporting development of Community Joint Ventures business plans.		
Peatland Finance Ireland (PFI)	Midlands and West/North-West Ireland	Raised and blanket peatlands	<p>Environmental: Carbon sequestration (~2.3 MtCO₂/yr), flood regulation, improved water filtration, habitat restoration; supports Ireland's national emissions reduction commitments under the EU Nature Restoration Law.</p> <p>Social: Community-led restoration through regional engagement;</p>	<p>Public / Philanthropic: Grants from National Parks and Wildlife Service (NPWS), Department of Agriculture, EU funds, Amazon Right Now Climate Fund, EIB's advisory and financing arms.</p> <p>Private and Multilateral: Expected to produce voluntary carbon credits</p>	N/A	<p>Peatland Finance Ireland Featured Landscapes Landscape Finance Lab Report co-developed with WaterLANDS</p>

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
			aligns rural economic development and cultural heritage; enables leisure and recreation benefits for local communities. Economic: Uses carbon credits via a Peatland Standard to generate revenue; aligns public, community and private finance; aims to build markets for ecosystem services (carbon, biodiversity, water).			
The Great North Bog (GNB)	Northern England	Peatlands	Environmental: e.g. biodiversity gain, increased water quality, carbon storage Social benefits: e.g. employment, volunteering, Economic: e.g. community investment initiatives, water storage, reduced flood risk	Public: From the UK and EU Private: Water companies <i>Potential future offer for private sector partners:</i> Carbon credits; Measurable ES and social benefits; Awareness raising.	N/A	Peatland Finance Ireland Featured Landscapes Landscape Finance Lab Report co-developed with WaterLANDS The Great North Bog

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
Stiemer Valley	Genk, Belgium	Urban, River valley restoration	<p>Environmental: restoration of polluted urban stream</p> <p>Social: new linear park and cycle lane increase nature connectivity</p> <p>Economic: new business opportunities linked to development</p>	<p>Stiemer Deals: community-local government partnership to leverage Stiemer Valley to support new business opportunities in line with Stiemer Valley restoration goals.</p>	Connecting Nature	https://connectingnature.eu/
Proposed - Re-Establishment of Watercourse (Daylighting) in Victoriapark	Eindhoven	Urban	<p>Environmental: Habitat quality, light levels</p> <p>Social: Amenity value and aesthetic value for the human recreation.</p> <p>Economic: Storm water management, flood risk reduction, water storage capacity, extra sewage system capacity</p>	<p>Full costing not yet available.</p> <p><i>Proposed:</i></p> <p>Public: Municipality and the Water Board</p> <p>Private: Potential contribution from developer</p>	UNaLab Front Runner City	Source: Business Models & Financing Strategies
LENS – Cumbria, UK	Cumbria (NW England)	Mixed farming + riparian areas	<p>Environmental: Water quality in Petteril catchment; natural flood management.</p> <p>Social: Local LENS operator (CIC); strong community</p>	<p>Public-private: United Utilities, Nestlé, NEIRF, CiFR</p> <p>Aims for self-financing</p>	N/A	Home - Landscape Enterprise Networks Landscape Enterprise Networks (LENS)

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
			engagement and stewardship. Economic: Builds funding platform for future trades; enables farmer access to new income.			
Leven catchment, Scotland	Scotland	Wetland-agriculture interface	Environmental: Protects Loch Leven; soil and nutrient management, biodiversity gains. Social: Stakeholder co-design; partnerships with Diageo, SSEN, local gov. Economic: Improves long-term land productivity and avoids pollution penalties.	Mixed: Diageo, SSEN, FIRNS, Nature Restoration Fund, Lottery	N/A	Home - Landscape Enterprise Networks Landscape Enterprise Networks (LENS)
Gran Canaria	Maspalomas	Coastal lagoon	Environmental: Improve the water quality of surface runoff reaching the Maspalomas Pond through the implementation of SUDS, flood management, increase of biodiversity.	Grant: EU Horizon and EU NextGeneration funding	NATALIE	NATALIE

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
			<p>Social: Stakeholder engagement with public and private sector stakeholders, including the tourism sector.</p> <p>Economic: Avoided costs of pollution and flood damages; increase in tourism.</p>			
Venice Lagoon	Veneto region, northeast Italy (Venice Lagoon Basin)	Lagoon	<p>Environmental: Restoration of drainage networks (~1,000 km² study area within ~2,300 km streams) to improve hydromorphology, water retention, flood resilience and biodiversity in a densely urbanised-agricultural catchment.</p> <p>Social: Increase resilience for urban communities and improve ecological status of waterways in the Venice Lagoon system.</p>	Grant: Horizon Europe (other funding not stated)	<u>NATALIE</u>	<u>NATALIE</u>

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
Romania	Urban areas, Romania	Urban ecosystem - modified freshwater streams and wetlands	<p>Environmental: Creation of urban wetlands, stream daylighting, and green corridors to restore ecological function.</p> <p>Social: Citizen science and co-design foster stewardship and community pride.</p> <p>Economic: Potentially reduced grey infrastructure maintenance, enhanced urban value, flood mitigation.</p>	Grant: Horizon Europe (other funding not stated)	NATALIE	NATALIE
Results Based Agri-Environmental Payment Schemes	Countries in the EU, including Ireland	Peatlands, Agriculture	<p>Environmental: Increased water quality, biodiversity enhancements, carbon storage</p> <p>Social: quality of life, aesthetic value, recreational value (in some cases)</p> <p>Economic: Payment for ecosystem services linked to vegetation cover and species counts</p>	<p>Grant: European Innovation Partnership (EIP) and LIFE programme. In Ireland, schemes include: FarmPEAT (Farm Payments for Ecological and Agricultural Transition) LIFE-IP Wild Atlantic</p>	LIFE programme	<p>Peatland Finance Ireland Featured Landscapes Landscape Finance Lab</p> <p>Report co-developed with WaterLANDS</p>

Table 3.4. Examples of business models and financing of NbS developed or profiled by case studies from EU projects and beyond.

Case Study Name	Location	Habitat and/or Ecosystem type	Value Proposition (and types of benefits)	Funding and Financing	EU (NbS) Project (if applicable)	Link
Oyster Heaven – development of new restoration system	Rotterdam	Coastal	<p>Environmental: Increased area of habitat, filtration, more stable shorelines, reduced coastal erosion and sedimentation.</p> <p>Social: Sustainable livelihoods</p> <p>Economic: Cost-saving, direct revenue generation</p>	<p>Mixed, including a 100,000 euros startup loan from <u>Rewilding Europe Capital</u> to “<i>bridge a financial gap and fund an oyster restoration initiative in the Rhine-Meuse-Scheldt Delta area of the Netherlands</i>”.</p>	N/A	<p>Home - Oyster Heaven Rewilding forest generates revenue for communities in the Iberian Highlands Rewilding Europe</p>
Vittel Programme – Payment for Ecosystem Services	France	Water	<p>Environmental: Improved water quality</p> <p>Social: Livelihoods</p> <p>Economic: Access to land, funding for equipment, reduced costs of water treatment</p>	<p>Private: Agrivair, a subsidiary of Nestlé Waters</p>	N/A	<p>Microsoft Word - Vittel web version 1-12-06.doc IFMs for biodiversity EUROPE Illes et al 2017-1.pdf</p>

3.3. The current funding and financing landscape for NbS in the EU

Increasing sustainable funding and finance for NbS is key to scaling up their use and contributing to a nature-positive economy. The sections above looked at the different economic and financial benefits of investing in NbS, and the different business models for them. This section explores the different funding and financing (see Box 3.11) mechanisms and approaches that are currently being used to support NbS in the EU. Although NbS will not create a nature-positive economy by themselves, they are identified as an important part of the transition, and so are the focus of this section.

Box 3.11. Funder versus financier. In some cases, the same entity (e.g. a government) may act both as funder and financier of NbS.

Funder	Financier
<p>The entity that pays for the implementation, operation and capital cost of NbS in the long term.</p> 	<p>The entity that provides the money required to start an NbS project and that is paid back by the funder.</p> 

Many EU funded projects are exploring the finance landscape for NbS.

This section draws on research and information coming out of EU funded projects (Table 3.4) and beyond on the finance landscape for NbS. **NetworkNature** has developed a dedicated report on Mapping the Finance Landscape for NbS in Europe ([Ascenzi et al., 2025](#)), which collates the research and resources from these EU funded projects and beyond, to help make it available to investors, financial institutions and businesses including NbEs.

Table 3.4 EU funded projects working on different aspects of finance for NbS

Source: Ascenzi et al., 2025, NetworkNature D4.1

NbS Business Case	Financial models for NbS	Skillset for NbS investment
<u>FABulous Farmers</u>	<u>CONEXUS</u>	<u>CleverCities</u>
<u>Grow Green</u>	<u>Connecting Nature</u>	<u>Connecting Nature</u>
<u>Invest4Nature</u>	<u>Grow Green</u>	<u>Grow Green</u>
<u>MERLIN</u>	<u>Invest4Nature</u>	<u>MERLIN</u>
<u>NAIAD</u>	<u>NAIAD</u>	<u>NAIAD</u>
<u>Nature4Cities</u>	<u>PONDERFUL</u>	<u>Nature4Cities</u>
<u>NATURVATION</u>	<u>WaterLANDS</u>	<u>NATURVATION</u>
<u>REGREEN</u>	<u>Naturance</u>	<u>REGREEN</u>
<u>UNaLabs</u>	<u>REST-COAST</u>	<u>WaterLANDS</u>
<u>WaterLANDS</u>		<u>Invest4Nature</u>
<u>Naturance</u>		

Key recent research by EU funded projects include ([Ascenzi et al., 2025](#)):

- **Invest4Nature** (2024). The economics of Nature-based Solutions: Markets, financing and incentives for NbS. Available online: [Markets, financing and incentives for NbS. Invest4Nature Deliverable 3.3](#)
- **WaterLANDS** (2024). Investing in Peatlands. Available online: [Investing in Peatlands | Publications | Landscape Finance Lab](#)
- **A-TRACK**: University of Cambridge Institute for Sustainability Leadership (CISL), Capitals Coalition, UNEP-WCMC, IDEEA Group and Tecnalía. (2024). Scaling Finance for Nature: Barrier Breakdown. A-Track. Cambridge, UK: University of Cambridge Institute for Sustainability Leadership. Available online: [A Track D6 1 ScalingFinanceForNature Report A4 48pp LoRes SCREEN.pdf](#)
- **CONEXUS**: Konijnendijk C., Di Cagno F., Borelli S. & Wild T. (2024). Capturing the values and making the business case for nature-based solutions – A step-by-step guide. Deliverable 5.3 Report, H2020 CONEXUS project. Available online: [Valorisation of NBS - A step-by-step guide.](#)
- **PONDERFUL**: McDonald, H., Seeger, I., Lago, M., & Scholl, L. (2023) Synthesis report on sustainable financing of the establishment of ponds and pondscapes. PONDERFUL Project (EU Horizon 2020 GA no. ID869296), Deliverable 1.4. Available online: [Nature-based Solutions Sustainable Financing Inventory | Ecologic Institute](#)
- **GrowGreen** (2021). Nature-based Solutions Financing Assessment. Available online: [GrowGreen-Summary-2021-002-v02-FINAL.pdf](#)

- **NAIAD** (2021). Handbook for the Implementation of Nature-based Solutions for Water Security: Guidelines for designing an implementation and financing arrangement. Available online: [Handbook for the Implementation of Nature Based Solutions for Water Security | NetworkNature](#)

This section also draws on the **European Investment Bank's** recent research on finance for NbS in Europe:

- Hudson, G., Hart, S. and Verbeek, A. (2023). Investing in nature-based solutions – State-of-play and way forward for public and private financial measures in Europe, European Investment. Available online: <https://data.europa.eu/doi/10.2867/031133>

There is a strong business case for both the public and private sectors to invest in NbS, and EU funded projects are helping to provide the evidence base for them.

Reasons to invest in NbS include to mitigate risk, improve cost efficiency, ensure social licence to operate and to generate revenue. In its recent deliverable on mapping the finance landscape for NbS NetworkNature identified the following EU funded projects as providing tools, information and support to build the evidence base and business case for NbS:

- “[EU – CONEXUS] **Valuation of urban nature-based solutions in Latin American and European cities** (Wild et al., 2024). A peer-reviewed article explores valuation techniques for urban NbS.
- [EU – REGREEN] **Prospectus For Nature-Based Solutions Business Investment**. An approach for developing sustainable business models is outlined in theory and applied in practice. This results in three distinct business models for NbS: i) a public-private driven model aiming for a balanced and fair relationship between parties; ii) a commercially driven consultancy model; and iii) a citizen driven model.
- [EU - NAIAD] **Handbook for the Implementation of Nature-based Solutions for Water Security: Guidelines for designing an implementation and financing arrangement**. The handbook offers a practical step-by-step guidance – tools and templates – that support private and public sector proponents of NbS to develop the full business case of these projects, turning early-stage ideas into bankable investment proposals
- [EU – NetworkNature] **Nature-based solutions Business information package**. This resource presents examples of NbEs and sets out the business opportunities offered by NbS. Business model canvases are introduced that have been adapted especially for NbS.
- [EU – NATURVATION] **Taking Action For Urban Nature: Business Model Catalogue**. Provides examples of business models for NbS creating several values, including risk reduction for extreme weather and urban NbS for health.
- [EU – UNaLabs] **Business Models and Financing Strategies**. This report provides city planners with examples of business models for selected NbS. It also provides financing strategies that can support NbS implementation and operation efforts.
- [EU – WaterLANDS] **Review of Business and Finance Models and Market Demand**. The report examines business and financing options that are most relevant to the upscaling of wetland restoration in Europe.”

Finance for NbS comes from a variety of sources, but the majority are funded by the public sector.

The *State of Finance for Nature* report from UNEP estimates that only one third of the money needed to reach global climate, biodiversity and land degradation global targets by 2030 is currently being spent on NbS (UNEP, 2023). The vast majority (82%) of the money being spent on NbS comes from public sources. This is also reflected at the EU level. The *Investing in nature-based solutions* report from the EIB identified EU-funded programmes and national governments as a primary source of finance for NbS in Europe – although noting that there were significant data gaps (EIB et al., 2003).

The fact that the majority of NbS are funded by the public sector is due to the inherently public nature of the benefits derived from NbS. It can be hard for private entities to understand and capture the value of NbS, and therefore a public funding model is often seen as most applicable. However, even public funding structures do not always capture the full value of the ecosystem services provided and improved financial mechanisms, such as taxes or tariffs, are also needed. NbS value capture mechanisms can provide support for public funding (from multiple parties) by showing benefits to specific stakeholders.

Example A



Example A: Merlin identified Credit Guarantees as a potentially useful finance mechanism for “financing the transition from a grey economy into a new, cleaner and greener one”. In its [Off-the-shelf instruments – Credit Guarantees](#) report, Merlin explores how Credit Guarantee Schemes could help share risk and finance restoration activities, using two of the project’s case studies as examples. One of these cases is outlined below.

Source: [Merlin](#)

Example A



MERLIN project example 1:

Mutual Guarantee and Environmental Sustainability: Collaborative Efforts for a Greener Future
Examples on how CGS could intervene in some of the MERLIN's case studies

ERVIDEL FLOODPLAIN CASE STUDY 18



Case study cluster: small streams and basins

Country: Portugal

Scientific partner: Instituto Superior de Agronomia, Universidade de Lisboa

Implementation partner: Empresa de Desenvolvimento e Infraestruturas do Alqueva, S.A.

Twinning case study: CS13 Sorraia floodplain: similar approaches on riparian restoration

Demonstration

- **Type of restoration:** –
- **Size:** floodplain: 337.71 km²; catchment scale: 24.79 km²
- **Location(s):** Barranco do Xacafré
- **Value of the case:** riparian rehabilitation (underwood clearing), planting of native species, sowing of flowering fields, pollinator hotels
- **Stakeholders involved:** farmers of the irrigation valley
- **Sectors involved:** agricultural sector (farmers and land owners)
- **Innovations being applied:** –

Implementation plans

- **Type of restoration:** riparian rehabilitation (planting of native species and weed control), habitat enhancement with nature-based solution structures for pollinators and key-species predators (bats, birds, spiders, carabids), installation of shelter boxes for bats, sowing flower fields and installation of hotels for insect pollinators
- **Size:** approx. 30 ha
- **Scope:** to develop a prototype of ecoscheme contract for irrigation farmland, a monitoring protocol to evaluate restoration efficacy and to propose indicators for agro-environmental certification
- **Vicinity:** rural (Mediterranean floodplain valleys dominated by intensive agriculture and super-intensive olive groves)
- **Stakeholders to involve:** agricultural sector (farmers and land owners)
- **Innovations to be applied:** –

How could a Credit Guarantee (Mutual Guarantee) work in the financing of this case (expert recommendations):

1. Agrogarante Mutual Guarantee Society can study and deliver a guarantee to the public authorities to support advance payments of eventual subsidies to the project.
2. Can study and deliver a guarantee of good execution of the project (to support subsidy payments to the project).
3. Can study and deliver a guarantee to farmers involved in the project to get investment loans to acquire the necessary equipment to assure that waters from their agri activities do not pollute the riparian.
4. Agrogarante can support capacitation activities about the (non) use of chemicals and pesticides in their crops.
5. Can support the project financing under its social responsibility activities.

Source: project-merlin.eu

Scaling up private funding and finance for NbS is important for a wide range of reasons

Scaling up private sector engagement in NbS is increasingly recognised as key to filling the 'gap' in financial flows to achieve global goals. If the multiple benefits of NbS, including for the private sector, are able to be considered in decision making, a strong business case for their implementation can be made (see Example B). However, private sector decision-making is widely driven by risk-return calculations. The financial returns for NbS and their co-benefits are still often hard to calculate, and risks are perceived to be high, meaning many actual and perceived barriers still exist to increasing private finance flows to NbS (Lieke et al. 2024).

Example B: Private funding was identified for several pilots in REST-COAST. The Rhone Delta pilot had significant funding from private foundations (including philanthropic ones). The Pro Valat foundation was responsible for the restoration interventions, with indirect incentives stimulated by CSRD and driving corporate investments to nature restoration.



On a smaller scale, institutions often do not have the capacity or knowledge to approach private foundations. Additionally, social acceptance from local communities for the involvement of private actors can be low, which requires careful communication for successful NbS funding and implementation. For example, in the Rhone Delta, on occasions when the private partner wanted to communicate on the project and how much was invested, this was sometimes not ideal in the relationship building with the local population, who would rather see the same funds invested in socio-economic benefits.

Source: [REST-COAST](#)

The public and private sector invest in nature in different ways.

Private sector actors are driven by commercial realities, and all actions they take must ultimately contribute to their bottom line and business viability. That means, therefore, that for NbS to be attractive for private investment – be that financing from financial institutions, or implementation by businesses – they must either create a financial return for the private sector entity, or a tangible reduction in business risk or improvement in cost efficiency (which ultimately will also result in a return). Some businesses, such as mining companies, may consider investing in NbS in order to strengthen their social licence to operate.

Public sector actors, by comparison, are able to invest in actions which contribute to public goods, without always needing to seek a clear financial return.

These different mandates are reflected in the types of NbS that private and public actors are able to consider investing in.

Private sector actors, who aim to seek returns whilst also increasing resilience might consider the following:

- Sustainable agriculture, forestry or fishing, where there is an offtake revenue to support the intervention. Such actions are likely to also contribute to long term business resilience, but this is harder to cost and quantify.
- Habitat restoration or protection paired with the creation of high integrity carbon credits or ecotourism to create a return. This is likely to also increase resilience for a business, particularly if the habitat is closely associated with business assets and generating ecosystem services for the business (such as pollination, water regulation or soil stabilisation).

Private sector organisations may also invest in green infrastructure for water management and pollution abatement (such as bioswales, constructed wetlands and wastewater ponds). Whilst these interventions are not revenue-creating, they represent a more sustainable alternative to grey infrastructure, which water companies and housing developers would need to invest in anyway. Green infrastructure has some notable

differences to grey infrastructure, however, such as lower overall running costs but potentially longer times to become operational (as habitats mature).

Public sector actors, who can invest for public goods, could consider other sorts of NbS, where co-benefits are harder to monetise. For example:

- Street trees and gardens to reduce urban heat islands and improve quality of life for urban citizens.
- Restoring coastal mangroves and marshes to reduce the risk of coastal erosion and flooding.
- Peatland restoration at scale to contribute to national emission reduction aims, as well as regulate stormwater runoff into cities.

Different financing mechanisms are relevant at different stages of NbS projects.

From project initiation through to scaling and maintenance, different activities are undertaken, and potential financing sources or mechanisms vary. At the project initiation stage, which often involves feasibility studies and stakeholder engagement with little opportunity to generate a return, grants, philanthropic funding or concessional loans may be a common source of finance. During the scaling and early implementation stage (e.g. planting, monitoring etc), blended finance and impact investment in the form of loans or equity become more prominent funding sources, as the business case becomes more proven but not yet fully operational. Once an NbS is fully operationalised, if it is a solution which is able to generate revenue, then these will start to kick in and the funding will move to self-sufficiency. For upkeep or expansion at this point, traditional debt and equity models can be considered, or green bonds or reinvestment from carbon credit revenue. The emergence of mechanisms like biodiversity credits may start to play a role in revenue generation from NbS in future (see [Nature Credits Roadmap](#)).

The type of financing mechanisms that are currently used for NbS vary between sectors, and how established they are.

From EIB's analysis of NbS in Europe in their *Investing in nature-based solutions* report, over three quarters of the NbS project identified were classified as urban (EIB et al. 2023). Urban NbS often attract large investments associated with the benefits they offer to people – such as the creation and maintenance of parks that people can use for health or leisure. These types of NbS are often financed by the public sector, through mechanisms such as loans or grants. Some blended mechanisms might be used, where public money is used to de-risk and encourage private investment. Although revenue generation often isn't the aim of these investments, this may be achieved through cost savings on operations and maintenance or through increases in the value of an area.

Sustainable agriculture and forestry are two other 'established' sectors for NbS. While both may benefit from equity as a financing mechanism (among others), their revenue generation opportunities are different. For the water sector, water utility companies may choose to invest in NbS as a cheaper alternative to costly constructed infrastructure and/or as a way to meet legal, policy or other requirements on them (for example to reduce emissions or contribute to biodiversity net gain). Depending on the type of entity, water companies may be able to generate revenue from water bills or avoided costs.

For less 'established' NbS sectors, different financing mechanisms and revenue models may apply. For example, developing sustainable aquaculture involves high initial costs for infrastructure and stock. These costs can be covered by the companies themselves as investments, or by equity investors interested in marine conservation. Companies may be able to attract higher prices for their products if they can demonstrate their sustainability or environmental credentials.

Carbon credits, the blue carbon market and nature credits have potential to increase financial flows towards NbS, but careful safeguards and understanding of trade-offs are required. One form of blue carbon financing involves generating funding through carbon credits based on the carbon sequestration capacity of marine and coastal ecosystems, including seagrass beds, salt marshes, and kelp forests. Wetland habitats, such as seagrass beds, can remove and store significant amounts of carbon dioxide from the atmosphere into their vegetation. Due to its high burial rate of carbon, it can play a crucial role in mitigating climate change. Blue carbon credits are primarily traded on the voluntary market and serve as a financing instrument to support Nature-based Solutions (NbS) in marine environments. In this market, private companies purchase carbon offsets to contribute to sustainability ambitions or targets. Blue forest restoration not only stores and sequesters carbon but also provides biodiversity and other multiple ecosystem services, which are crucial for the livelihoods of local coastal communities. Financing for blue forest restoration has been the focus of living labs both in Invest4Nature and the REST-COAST project (see Examples C and D below).

Example C: In the Norwegian Blue Carbon Restoration Living Lab within **Invest4Nature** (The Economics of Nature-Based Solutions), the voluntary Blue Carbon market initiative has evolved into an emerging business model funded by private companies. Although still in a

primary phase with small-scale pilot projects, the initiative is a bottom-up initiative. A private company interested in buying carbon credits hired a private carbon broker, who in turn facilitated a connection between the research institute and the companies involved in kelp forest restoration and monitoring. In addition to carbon credits, tradable biodiversity and nature credits have been long discussed at the academic level for the restoration of blue forests. Both EU ETS and voluntary blue carbon markets could provide valuable insights to how a good nature credits market could work for blue carbon financing.



Example D: As part of the REST-COAST (Large-Scale Restoration of Coastal Ecosystems through Rivers to Sea Connectivity) project, blue carbon credits were identified as a potential future funding source in six pilot regions. Estimates indicate that carbon credits may cover only a small share of total restoration costs. However, they may play a valuable role in diversifying funding and supporting ongoing maintenance or upscaling. The financial potential of blue carbon credits can increase over time with rising prices and with restoration costs coming down, enhancing their role in funding strategies for NbS projects. Several key challenges were identified: accurately measuring and verifying carbon sequestration in marine systems is complex, and the necessary markets and methodologies remain underdeveloped. These uncertainties, combined with limited local capacity, can slow down the upscaling of blue carbon financing. If frameworks for certification

and governance improve, and the awareness of blue carbon potential grows, these markets could become a sustainable funding stream for coastal NbS. Blue carbon credits are unlikely to fully replace traditional public funding but can help fill funding gaps and attract private sector interest when used strategically within broader financing approaches.



Public-private partnerships and blended finance remains an important mechanism to scale up private finance for NbS.

Various studies and reports into finance for NbS have highlighted the importance of blended finance e.g., **WaterLANDS**, public-private partnerships e.g., [Merlin](#) and other mechanisms to scale up private finance for NbS. Both offer an entry point for private investors, by some of the risk being borne by the public sector. This approach is particularly important given the hesitancy of private sector investors, driven both by the novelty of NbS as an asset class, and the perceived high risk-return ratios. However, these approaches also have challenges. For example, it takes time to set up blended finance arrangements, and there is sometimes limited support for private sector engagement in NbS at the local level.

Example E: WaterLANDS profiled a number of examples of projects that are exploring blended finance for peatlands. One example is the Flow Country Green Finance Initiative in Scotland, which is a multistakeholder initiative that aims to restore remaining areas of peatland that were historically degraded. By working at the landscape scale, they aim to create an investible project for both public and private sectors, using a blended finance investment model. Source: [Investing in Peatlands | Publications | Landscape Finance Lab](#)



There can be significant risks and costs associated with setting up new financial arrangements

Establishing new ways of creating revenue and financial arrangements requires translation costs. It also means risk. A big part of the challenges is that planning, financing and implementing and maintaining NbS has not been done before or at the larger scale. As such there is a considerable amount of transaction costs involved for initiators of NbS projects. This includes developing procedures and technical specifications to support NbS implementation. To scale up investment, the risks for investors needs to be reduced e.g. by applying smart contracts or Environmental Impact Bonds, or setting up a dedicated fund etc. Providing standardisation in project procurement and implementation can also reduce transaction cost for initiators of projects.

Example F: Within REST-COAST, there were a lot of transaction costs and risks associated with adopting NbS. Such transaction costs involved for example:



- Failed efforts to initiate measures due to lack of existing examples and forerunners, which takes a lot of time to find (new) partners/resources.
- Uncertainty in mandate and responsibility: not clear who bears the risk if something goes wrong.

A standardised institutional mechanism or framework could not only help mitigate conflict, but also help brokering and increase efficiency in finding partnerships etc. This insight complements existing literature on transaction costs (e.g. [Favero & Hinkel 2023](#)).

Some major banks, coalitions and platforms are actively mobilising capital to restore ecosystems, address climate risks, and enhance biodiversity.

An example of this is the recent commitment by [Triodos Bank](#) of €500 million for NbS financing by 2030, covering restoration, conservation, and sustainable infrastructure via loans, bonds and equity investments. The [Nature Investment Lab](#) and [BRB Finance Coalition](#) in Brazil has a goal of mobilising “US\$ 10 billion target for supporting large-scale restoration and bioeconomy initiatives across Brazil by 2030” with around a quarter of that already mobilised. Platforms and coalitions are also developing to support greater investment in NbS, including:

- The [Global Landscapes Forum Finance for Nature Platform](#), which connects investors with landscape-level NbS projects globally.
- [Nature4Climate](#), which is a “a *global coalition of environmental organisations dedicated to promoting nature's role in tackling the climate crisis*”
- The [Catalytic Finance Foundation](#), which includes a [Catalytic Cities Initiative](#) to support blended finance investment for climate solutions in cities.

Resources like the [Climate Policy Initiative's Toolbox on Financing NbS](#) showcases scalable and replicable financing models (Del 4.1, NetworkNature).

3.4. Key Messages and Recommendations

1. Nature underpins economies and societies yet its benefits are systematically undervalued

Nature underpins economies and societies yet its benefits are systematically undervalued due to market failures, weak property rights, and the subsequent under-provision of environmental public goods ([Dasputa, 2021](#)). Many vital ecosystem services, such as carbon sequestration, pollination and flood protection, are non-rivalrous and non-excludable making them prone to free-riding and underinvestment. Current market prices fail to reflect the true social costs of environmental degradation, resulting in continued overconsumption of ecologically damaging goods. Internalising these externalities would align market prices with their accounting (social) value.

2. Nature-based Solutions (NbS) present priority pathways towards a Nature-Positive Economy

Nature-based solutions (NbS) play a vital role in the transition to a nature-positive economy. Formerly defined by UNEA in 2022 and rooted in indigenous and local practices, NbS are actions to protect, conserve, restore, and sustainably manage ecosystems to address social, economic, and environmental challenges while delivering benefits for people, biodiversity, and resilience. They apply across forestry, agriculture, freshwater, marine, coastal, and urban systems, offering cost-effective alternatives to grey infrastructure, regenerative alternatives to nature-degrading practices and generating multiple co-benefits such as disaster risk reduction, climate mitigation, and improved health and well-being. By enhancing natural capital stocks and flows, NbS create value for society and business, supporting a regenerative approach to managing ecosystems and biodiversity. Their growing prominence on global and EU agendas reflects their role in tackling climate change, land degradation, and biodiversity loss, but scaling NbS requires closing a significant investment gap.

3. There is limited awareness of the importance of NbS for economic policy although investments into nature provide significant direct and indirect benefits and cost savings for governments, businesses and households

Investing in nature generates a wide range of direct and indirect economic benefits for governments, businesses, and households. Governments gain through stronger tax bases, higher property values, job creation, reduced healthcare costs, and savings on infrastructure and disaster response, while also fostering social capital and scientific knowledge. For the private sector, NbS enhance turnover, stabilise resource bases, increase property and brand value, create jobs across skill levels, reduce regulatory and environmental costs, and lower insurance premiums, all while driving innovation and positioning firms in emerging green markets. Households benefit from higher property values, more job opportunities and stable food prices, better health and wellbeing, lower utility and insurance costs, safer and more attractive communities, and opportunities for recreation. Across stakeholders, NbS reinforce resilience, cut long-term costs, and create conditions for sustainable economic growth through improved environmental quality, reduced risks, and enhanced community cohesion.

4. Innovative business models are essential for realising the full potential of NbS

Strengthening business models and business planning capabilities is essential to attract investment and secure long-term financing for restoration and regenerative initiatives across both public and private sectors. Effective models should be designed to function within existing economic and regulatory systems while driving transformation toward climate resilience and ecological sustainability, drawing on diverse capital flows such as blended finance, impact investment, and public–private partnerships. To build broad support, NbS value propositions must be aligned with stakeholder priorities through co-ownership models and collaborative governance, while landscape-scale approaches help capture the systemic value of ecosystem services and biodiversity. Investment strategies should optimise the multifunctionality of NbS, maximising co-benefits and minimising trade-offs, while innovative financial mechanisms, such as restoration bonds, revolving funds, or outcome-based contracts, can generate revenue streams to offset costs. Embedding these models in integrated governance structures that reconcile stakeholder interests, reduce transaction costs, and coordinate implementation across sectors will be critical to ensuring consistent delivery, sustainable funding, and long-term success of NbS initiatives.

5. Unlocking investment in NbS is a major challenge, but key actors like the insurance sector are beginning to see the strategic value of nature in reducing risk and creating new business opportunities.

Nature-based Solutions (NbS) are emerging as viable public investments that reduce risk, build resilience, and avoid long-term costs, but strategic use of public funds is essential to unlock private capital rather than rely solely on public budgets. Financing needs to evolve across project phases, requiring instruments that range from early-stage grants to long-term revenue or outcome-based models, and sector-specific approaches are critical given differing risks and financial structures in infrastructure, agriculture, forestry, tourism, and the blue economy. EU-funded research confirms a strong economic case for NbS through avoided costs, job creation, insurance benefits, and ecosystem service valuation, while blended finance, supported by regulatory certainty, fiscal incentives, and impact metrics, offers a key tool for mobilizing private investment. The upcoming Multiannual Financial Framework (post-2027) provides a strategic opportunity to embed NbS as a core EU investment priority, aligning biodiversity targets with mechanisms that unlock blended finance at scale.

Insurance can support NbS through underwriting - by covering nature-related losses, de-risking projects, incentivising NbS through pricing, enabling financing, or refusing coverage for nature-negative activities - and through investment by integrating nature into portfolios and divesting from harmful projects. These strategies reduce physical, transition, liability, and reputational risks while helping close the NbS financing gap. Realising this potential requires transformative governance and regulation to overcome current barriers, for example by embedding nature-positive requirements into financial and development strategies to drive a new generation of insurance business models.

Recommendations

Economic & financial (net)benefits of NbS

To fully unlock the investment potential and policy relevance of NbS, it is essential to adopt a more rigorous and actionable approach to economic valuation. This includes:

- Integrating advanced valuation frameworks that capture the full scope of natural capital and socio-economic interdependencies, enabling more strategic public and private investment decisions.
- Quantifying both monetary and non-monetary benefits of ecosystem services and biodiversity (BdV) improvements, while addressing inherent challenges such as measurement limitations and valuation uncertainty.
- Mandating the inclusion of 'cost of inaction' assessments in all investment and policy appraisals, to reflect the long-term socio-economic risks of environmental degradation.
- Ensuring accessibility and relevance of existing economic evidence on NbS performance and co-benefits for both public-sector planners and private-sector investors
- Closing evidence gaps through targeted research and evaluations of NbS impacts across different geographies, ecosystems, and governance settings.
- Requiring and funding systematic performance monitoring and impact assessments for all publicly funded NbS initiatives, with a focus on long-term outcomes.
- Shifting evaluation frameworks from short-term outputs to long-term value creation, resilience, and ecosystem regeneration
- Enhancing value transfer methodologies and economic modelling tools to support the mainstreaming of NbS valuation into planning, procurement, and financing processes.

- Institutionalising social cost-benefit analyses (SCBA) or comparable economic assessment methods in all demonstration projects to build a credible evidence base for scaling.

Business models

Strengthening business models and business planning capabilities is essential to creating an enabling environment that attracts investment and ensures the long-term financing of restoration initiatives across both public and private sectors. Effective business models, underpinned by robust business plans, should be designed considering the following strategic recommendations:

- Develop and deploy innovative business models that operate effectively within current economic and regulatory parameters, while simultaneously enabling systemic transformation toward both climate resilience and ecological sustainability. These models should be designed to attract diverse capital flows, including blended finance, impact investment, and public–private partnerships (PPPs).
- Align NbS value propositions with the priorities of multiple stakeholder groups. Co-ownership models and collaborative governance structures can foster buy-in and long-term support across public, private, and civil society actors.
- Landscape-scale approaches should be used to quantify the systemic value of ecosystem services and biodiversity enhancements. This enables robust performance measurement and informs strategic planning across governance levels and land uses.
- Investment strategies should be designed to optimise the inherent multifunctionality of NbS, maximising co-benefits while minimising trade-offs. Effective business models will capitalise on the joint production and low excludability characteristics of ecological assets to deliver win-win outcomes across sectors.
- Embed business models within effective governance structures that support innovative financial mechanisms, such as investment vehicles capable (such as restoration bonds, revolving funds, or outcome-based contracts) capable of generating revenue streams to offset restoration costs. Value propositions must be customised to reflect the expectations of various investor profiles, ensuring compatibility with sector-specific criteria and unlocking capital across the financial spectrum.
- Institutionalise integrated governance mechanisms capable of reconciling conflicting stakeholder interests, aligning sectoral contributions, and ensuring coherent implementation of NbS initiatives. Establishing dedicated frameworks or entities to coordinate across sectors will be critical for reducing transaction costs, securing sustainable funding, and enhancing operational consistency.

Funding and Financing Nature-based Solutions

A range of funding and financing mechanisms for NbS are needed at different points in their implementation and for different sectors to support their sustainable, resilient and appropriate scaling towards a nature positive economy. Actions and considerations that could help support the enabling environment for this include:

- Examining **tax and subsidy structures** to change the flow of funding and finance away from activities that are 'nature negative' and towards activities that support a nature positive economy, like NbS.
- Ensuring relevant **safeguards** are embedded within policy, that trade offs are acknowledged and considered, and that multiple monetary and non-monetary costs and benefits are integrated into decision making so unintended

consequences are avoided and NbS are implemented appropriately to achieve their stated aims.

- Reviewing the wider policy environment for NbS to **remove unintended barriers** to both public and private investment, like requiring certain engineering specifications that exclude the use of NbS, and **integrate mechanisms that support scaling up**, like insurance for NbS, green bonds and guarantees. These should focus on de-risking investments and aligning incentives with ecosystem restoration and social goals.
- Ensuring transparent and robust data on **monetary and non-monetary costs and benefits** are used to stimulate financial engagement and inform public and private financial decision making.
- Requiring consideration of NbS as an **alternative or complementary approach in public procurement** and exploring opportunities to **expand public private partnerships** to share expertise, experience and risk, and increase the flow of finance for NbS (also see Business Models section).

Research Gaps & Capacity Building

- **Limited recognition of the economic (monetary and non-monetary) value of NbS among policymakers and investors.**

The full potential of NbS remains underappreciated in mainstream economic planning and investment decision-making. Many financial actors lack a clear understanding of how NbS can contribute to risk mitigation, long-term value creation, and portfolio diversification. Targeted research is needed to improve cost-benefit analysis methodologies and results in relation to NbS, develop robust performance metrics for ecosystem services, and demonstrate the financial case for NbS across sectors in both the long and short term. In parallel, awareness-raising and capacity-building measures must support policymakers and investors in integrating NbS into macroeconomic frameworks, fiscal policy, and investment risk assessments.
- **Insufficient business modelling and business planning capabilities for NbS.**

There is a critical need to strengthen the technical and institutional capacity to design and implement viable business models for NbS. Existing models often fail to address the time lag in nature-based returns, the multifunctionality of ecological assets, or the complexities of blended finance and outcome-based contracts. Research is needed to develop adaptable, scalable models that reflect diverse investor requirements and can operate across varying regulatory environments. Training and guidance must also focus on aligning business plans with stakeholder priorities, integrating co-ownership governance structures, and leveraging emerging financial instruments such as restoration bonds, biodiversity credits, and revolving funds.
- **Lack of data and valuation tools to quantify the systemic value of ecosystem services at scale.**

Current investment planning often overlooks the systemic, landscape-level benefits and co-benefits of NbS. Further research is required to improve ecosystem service valuation tools that can integrate monetary and non-monetary costs and benefits of NbS and support performance-based investment models. In particular, methods are needed to quantify non-market values, assess trade-offs, and inform strategic planning across land uses and governance levels. Better data will also help align incentives and enable transparent reporting for investors and policymakers.
- **Need for greater integration of governance and financial innovation.**

There is limited understanding of how institutional arrangements and financial mechanisms interact to influence NbS outcomes. Research should explore the role of integrated governance structures in reducing transaction costs, enabling cross-sector coordination, and scaling investment. In parallel, capacity-building efforts must focus on embedding innovative financial tools - such as outcome-

based financing, PPPs, and hybrid investment vehicles - within accountable, transparent governance frameworks.

4. Business Rationale for Nature-Positive Transition

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Chapter Summary: Chapter 4 sets out the business rationale for transitioning to a nature-positive economy. Businesses are identified as key actors in transformative change towards a nature-positive economy. They stand to gain most from the opportunities created by transformative change and lose most from inaction. This section of the publication is divided into four sections, supported by case studies from business.

- In the first section, we present the overall business rationale for transformative change, drawing extensively on the work of the Taskforce for Nature-related Financial Disclosures (TNFD) to identify the key dependencies and impacts of businesses on nature, the increasing risks to business from the continued decline of nature and the opportunities for businesses to reduce these risks and dependencies. What this means for businesses is the need to identify where their operations rely most on nature (water, soil health, pollination) and where they risk causing harm, so they can manage and reduce those risks. We identify some key roadblocks to transformative change, differentiating between the challenges faced by three types of company (i.e. Corporate, SME and Nature-based Enterprise).
- In the second section, we highlight new opportunities for growth within planetary boundaries, drawing attention to new research on the increasing market demand experienced by nature-based enterprises (NbEs) which deliver nature-based solutions such as ecosystem restoration, natural water management systems, green infrastructure in urban environments and agro-ecological farming practices.
- In the final section, we extend recommendations for the removal of roadblocks to transformative change across the three types of company (i.e. Corporate, SME and Nature-based Enterprise).

4.1. Corporates, SMEs and NbEs - Rationale for change and roadblocks

Businesses are among the major stakeholders needed to accelerate transformative change towards a nature-positive economy (Koh et al., 2025). The role of business is recognised under Strategy 2 of the Transformative Change Assessment, where IPBES calls for systemic change in “the sectors most responsible for biodiversity loss and nature’s decline”, including agriculture, fisheries, forestry, infrastructure, mining and energy (IPBES, 2024a). Transformative change is not limited to the actions of corporations, but is

encompassing of all businesses and value chain partners, including small and medium-sized enterprises and nature-based enterprises ([Koh et al., 2025](#)).

Nature-based Enterprises (NbEs) have been identified as key actors in the transition to a Nature-Positive Economy ([Koh et al., 2025](#)). These are private sector, and mostly small, enterprises ([Tedeschini et al., 2024](#), [Invest4Nature](#)) that are responsible for the planning, delivery and/or maintenance of nature-based solutions (NbS) and ecosystem services, such as regenerative farming, eco-tourism and urban green buildings. While NbEs are experiencing high demand, they are also encountering policy, funding and market barriers to growth. The research from Horizon Europe projects, synthesised within this chapter, shows that NbEs can struggle with knowledge and skill gaps (technical and/or business) and that current educational pipelines can fall short in meeting demand for skills in scaling up NbS. Further barriers emerge due to lack of awareness around NbEs/NbS, funding challenges, doubts over quality due to lack of industry standards, and challenges with procurement. These factors combine to inhibit NbE capacity to appropriately meet and create new market demand. In this chapter, we explore the challenges and opportunities presented by NbEs in more detail.

Despite the growing need and desire for integrating nature into business, there are still barriers to businesses taking nature-positive action or mitigating nature-negative impacts. Research findings from Horizon Europe projects, explored within this chapter, show that businesses are experiencing challenges, such as access to the right data for reporting or assessing impacts, limited organisational capacity, a market or regulatory context that still supports business as usual, and supply chain complexity that reduces the transparency of impacts, amongst other barriers. These factors together inhibit the uptake of nature-positive action and the mitigation of nature-negative impact across private business.

This chapter begins with a short introduction to NbEs and then an overview of the business context with regard to the nature-positive transition, and the challenges to accelerating that transition within the business community. A synthesis of 34 publications from 23 Horizon Europe projects in this chapter (see [Appendix I](#) for full list of projects) highlighted a number of challenges across corporates, SMEs and nature-based enterprises (NbEs) before a final set of recommendations are provided for business transformative change towards a nature-positive economy.

4.1.1. Analysis by Business Type

For the purposes of this chapter, a delineation was made between three types of business organisation - corporate, SME and NbE - based on the following rationale:

- 1) Corporates' interests in the nature-positive economy relate to increasing engagement with nature-positive impacts, avoiding nature-negative impacts, developing business models that operate within planetary boundaries, improving compliance with regulation on reporting, and identifying new market opportunities in the nature-positive economy ([Koh et al., 2025](#)). Further, they are larger players within sectors, and thus, should have more market control and greater resource munificence to take nature-positive action, not only within their organisations but across their value chains and sectors.
- 2) SMEs have the same interests in the nature-positive economy as corporations (albeit at a smaller scale). If listed and based in the EU, they may be obliged to report under CSRD, or otherwise may be requested to share data with large clients as part of their supply chain reporting. SMEs, due to size-imposed resource constraints, will experience different barriers to corporates ([Valkeniers et al., 2025](#), [Invest4Nature](#)).
- 3) NbEs are businesses supplying NbS products and services to the market (EC, 2022). Thus, their interests in the nature-positive economy are linked to identifying new market opportunities to scale their impact, substantiating new value

propositions and exploring financing opportunities to scale the impact of their business, ([Koh et al., 2025](#)). The concept of NbEs is introduced in more detail in Section 4.1.2.

Whilst we make this distinction between businesses for the purposes of this chapter, we recognise that this delineation may not be useful across all contexts. For instance, when discussing the market for NbS, we note its “multiple stakeholders interacting across value chains which vary in complexity from sector to sector” ([EC, 2022, p.25](#)). Such a delineation must, therefore, be applied flexibly to account for corporates, SMEs and NbEs operating at different/multiple stages of the value chain (as buyers and suppliers).

4.1.2. Introduction to Nature-based Enterprises (NbEs)

Box 4.1. What is a Nature-Based Enterprise?

Research from the [Connecting Nature](#) research project, first coined the term nature-based enterprise which is defined as “an enterprise, engaged in economic activity, that uses nature sustainably as a core element of their product/service offering. Here, nature may be engaged directly by growing, harnessing, harvesting, or sustainably restoring natural ecosystems, and/or indirectly by contributing to the planning, delivery or stewardship of nature-based solutions. A nature-based enterprise must contribute positively to biodiversity and ecosystem services” ([McQuaid et al., 2021, p.1](#); [Kooijman et al., 2021](#)).

While nature-based solutions (NbS) have been recognised as vital actions in the transition towards a nature-positive economy, significant barriers hamper the large-scale take-up of NbS on the ground. One such barrier relates to inadequate supply. NbS may require specialist skills for design and delivery, and many organisations, both public and private, do not have the knowledge or capacities in-house to implement and maintain them effectively. Research has shown that finding skilled and experienced suppliers is a major roadblock in the scale-up of NbS with market development still in its infancy ([EC, 2020](#)).

Nature-based enterprises (NbEs) are private sector companies who design, deliver and maintain NbS. As such they contribute to a diverse range of sustainable economic activities that standard industry classification systems do not adequately account for. These include economic activities directly contributing to the restoration of nature such as agro-ecology farming and agro-forestry, regenerative ocean farming, natural water management solutions, ecosystem restoration and biodiversity, green buildings and others. Indirect economic activities include enterprises involved in nature-based health therapies, eco-tourism and smart technologies to support cost-effective design delivery, monitoring and harvesting of NbS ([Connecting Nature Enterprise Platform, 2025](#)). Simultaneously, NbEs generate high socio-economic impacts, contributing to innovation, skills development and job creation as part of the just transition of local economies to more sustainable sectors of economic development. Overall, NbEs play a pivotal role in aligning business practices with broader ecological and community needs ([Koh et al., 2025](#)).

Market opportunities for Nature-based Enterprises (NbEs) are growing alongside increasing demand and investment in Nature-based Solutions (NbS). The UNEP projects that global investment in NbS needs to triple by 2030 and quadruple by 2050 to meet internationally agreed targets. In Europe, NbS have already been mainstreamed into policy, with significant funding and job creation potential. Currently, 61-63 million people are involved in NbS employment worldwide, and expanded investment could create an additional 20-32 million new jobs by 2030, primarily in the agriculture and forestry sectors ([ILO, UNEP & IUCN, 2024](#)).

European research shows NbEs are experiencing strong market demand: based on a survey of 124 NbEs from Invest4Nature, 89% reported increased demand for their products and services ([Tedeschini et al. 2024, Invest4Nature D3.3](#)). This contrasts with broader European SME trends, which show economic pessimism due to inflation, rising costs, and geopolitical uncertainty. Key drivers of NbE growth include increased public and private awareness of climate action needs, new EU and national regulations promoting NbS (e.g., Corporate Sustainability Reporting Regulations - [CSRD](#)) and policies requiring biodiversity-focused development (e.g., Biodiversity Net Gain - [BNG](#)).

However, many challenges remain including policy inconsistencies, poorly designed public procurement approaches and financing ([McQuaid et al., 2021](#); [Connecting Nature](#)). These roadblocks are discussed in more detail in Section 4.3.3.

4.2. The Business Rationale for Transformative Change

All businesses, to varying degrees, are dependent on nature. According to the Taskforce for Nature-related Financial Disclosures, nature is no longer a Corporate Social Responsibility (CSR) issue, “but a core and strategic risk management issue alongside climate change” ([TNFD, 2023b, p.3](#)). Transformative change across all spheres of society, including government, business and civil society, is required. In a business context, this may appear as the need to modify a company’s strategy and underpinning business model to fully integrate nature ([Arcadis et al., 2024](#)). The need for transformative change across the private sector is evident, particularly amongst those “sectors most responsible for biodiversity loss and nature’s decline” ([see Strategy 2 of IPBES, 2024a](#)).

Nature related dependencies for business include land and water use, natural resource use, climate regulation, pollution removal and nutrient cycling ([Koh et al., 2025](#)). Through their dependencies, businesses have impacts on nature that can be positive or negative and be direct, indirect or cumulative ([TNFD, 2023a](#)). Nature-related impacts of business include land, freshwater and ocean use change, climate change, pollution/pollution removal, resource use/replenishment and invasive species introduction/removal ([TNFD, 2023a](#)).

There are also risks to businesses that emerge from their dependencies and impacts on nature ([TNFD, 2023b](#)). The TNFD LEAP Approach¹ delineates these risks as physical (from the degradation of nature), transitional (from a misalignment of businesses with actions aimed at protecting/restoring and/or reducing negative impacts on nature), or systemic (breakdown of an entire system i.e. ecosystem or financial system) ([TNFD, 2023a](#)). Businesses, financial systems and economies are exposed to risks that are increasing in frequency and severity ([TNFD, 2023a](#)). What this means for business is that physical risks may affect supply chains and assets (floods, soil degradation), transition risks can reshape market access and reporting obligations, and systemic risks can undermine sector resilience. For example, the market value of companies is found to be negatively impacted, and their credit risk to lenders elevated, by land and soil degradation ([TNFD, 2023b](#)). However, there are also opportunities for an organisation to benefit nature either through positive impacts or mitigation of negative nature-related impacts ([TNFD, 2023a](#)).

Companies can apply the AR3T (Avoid, Reduce, Restore & Regenerate, Transform) framework² from Science Based Targets Network (SBTN) to help to avoid negative impacts when possible, in the first instance, then to reduce or minimise such impacts through preventative efforts, to regenerate and to restore as compensation for any

¹ The Taskforce for Nature-related Financial Disclosures (TNFD) devised the LEAP (Locate-Evaluate-Assess-Prepare) approach as voluntary guidance for companies to identify, assess, manage and disclose nature-related issues.

² Based on the mitigation and conservation hierarchy.

unavoidable impacts, and to transform underlying systems, at multiple levels, to address the drivers of nature loss ([SBTN, 2024a](#)). Companies can also make voluntary commitments to set science based targets in line with SBTN's methodologies³, thus ensuring that any actions are aligned with scientific boundaries and societal sustainability goals ([SBTN, 2024a](#)). Positive impact can also be enabled through “the transformation of business models, products, services, markets and investments that actively work to halt or reverse the loss of nature”, including the adoption of nature-based solutions (NbS) ([TNFD, 2023a, p.27](#)).

Commercial opportunities in emerging NbS sectors, such as green/blue infrastructure, regenerative agriculture and ecosystem services, can attract investment from companies. Such solutions not only pose opportunities for halting biodiversity loss, but also align closely with the long-term strategic concerns of corporations, “for instance supply chains reliant on natural systems or a social licence to operate” ([EIB, 2023, p.8](#)). Companies may also invest in NbS as a means of reducing their exposure to nature-related risks, meeting mandatory sustainability policies and reaching their CSR targets (Ascenzi et al., 2025, NetworkNature). On the supply side of NbS are nature-based enterprises, or those that are “engaged in economic activity, that uses nature sustainably as a core element of their product/service offering” ([Koojiman et al., 2021](#), p.2). Market opportunities for and growth of NbEs are inextricably linked to market demand and financing of NbS ([Tedeschini et al., 2024](#)).

The policy landscape at EU level has been another major driver for businesses' increased awareness of the value in assessing nature-related issues and taking action on nature. The Corporate Sustainability Reporting Directive (CSRD), which entered into force in 2023, obliges companies (large and listed) in the EU to report according to European Sustainability Reporting Standards (ESRS). What this means for business is that large companies must prepare for detailed nature-related reporting, while SMEs supplying them should expect rising demands for disclosure through value chain pressure. There is also EU Taxonomy Regulation, which entered into force in 2020, as a way for the EU to scale up sustainable investment. The taxonomy provides a classification system that defines criteria for economic activities contributing to the EU's climate and environmental objectives. Companies that fall under the scope of the CSRD have an obligation to disclose the level of eligibility and alignment of their activities/investments with the criteria set out in the taxonomy.

Businesses assessing and acting upon nature not only makes sense from a sustainability and future-proofing perspective, but from a regulatory compliance lens too. Target 15 of the Kunming-Montreal Global Biodiversity Framework commits all parties to “encourage and enable business [to]..Regularly monitor, assess and transparently disclose their risks, dependencies and impacts on biodiversity” ([Convention on Biological Diversity, 2022, p.11](#)). At the EU level, however, policy developments, such as the EU Competitiveness Compass and the Omnibus legislation which will simplify sustainability directives (i.e. CSRD), risk undermining corporate environmental standards, and possibly hindering the transition to a nature-positive economy ([Kupilas et al., 2025](#)). Further, until harmful policy subsidies are phased out across sectors, there is less incentive to deviate from business as usual.

In Chapter 2 of this publication, reference is made to the actors (i.e. business, government and civil society) who must take action across multiple scales and sectors in order to operationalise the nature-positive economy. Businesses specifically must take a multi-level approach to nature-positive, not only looking at sectoral level but also at site, value chain, and corporate levels too ([Arcadis et al., 2024](#)). The ALIGN (Aligning accounting approaches for nature) project, discusses and provides initial guidance on measuring

³ SBTN's framework for measurement of corporate environmental impact is informed by IPBES, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

corporate contributions to nature positive outcomes. Businesses in their own right cannot become “nature positive”, rather they can contribute to nature positive outcomes at the landscape level, through multiple nested levels, at site, value chain, corporate and sectoral level (see Figure 4.1 below).

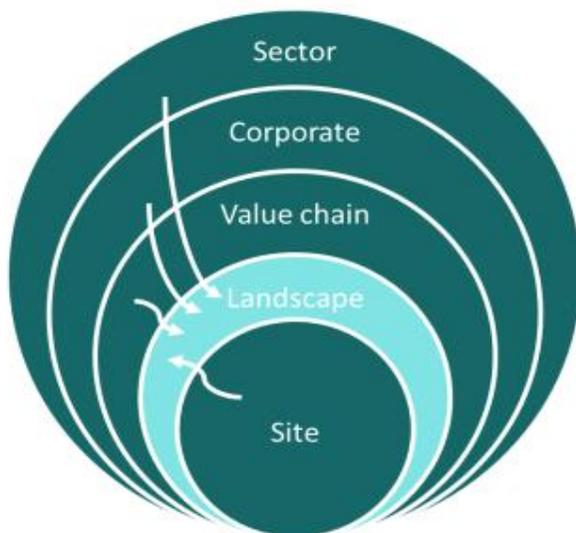


Figure 4.1. Source: [Arcadis, ICF, UNEP-WCMC, Capitals Coalition, & WCMC Europe \(2024\)](#) Discussion Paper from the Align Project- this graph shows how business actions contributing to landscape level nature positive outcomes can occur at multiple nested levels. Figure reproduced with authors' permission.

Sector level action refers to “actions to address sector-level barriers and reach ‘critical mass’ tipping points” ([Booth et al., 2024, p.1244](#)). Action at the level of corporate or business “refers to transformative changes in the company’s strategy or business model resulting in a substantial reduction (including avoidance) of pressures on biodiversity, and/or a substantial increase of ecosystem conservation and restoration” ([Arcadis et al., 2024, p.16](#)). This chapter is focused primarily on the challenges to business level transformative change and sector level change which impact nature-positive outcomes at the landscape level. We aim to set recommendations for how to alleviate these barriers and enable business level and sectoral level action. Through our multi-stakeholder review of corporate, small and medium-sized enterprises (SMEs) and nature-based enterprises (NbEs), we aim to identify the challenges to nature-positive contributions across businesses and their value chains and set recommendations for how such actions can be enabled at policy level.

4.3. Roadblocks to Nature-Positive Transition for Businesses

There are a number of roadblocks to accelerating the nature-positive transition within the business community. These barriers may differ according to company type (i.e. Corporate, SME and NbE). Through a review of relevant Horizon Europe project deliverables, and relevant grey and academic literature, a number of barriers were identified for corporates and SMEs in terms of sustainability reporting or taking action for nature-positive impact or for mitigating nature-negative impact. The barriers to NbEs in terms of investment, market growth and internal capacity constraints are also covered in this section. For each business type, barriers are grouped under common headings and discussed.

4.3.1. Corporate Barriers

1. **Challenges associated with the complex and rapidly evolving mandatory and voluntary reporting landscape.**

There is a rapidly evolving landscape of standards, guidance and regulations that pertain to biodiversity assessment and reporting for businesses ([Saunders et al. 2023, SELINA](#)). Among the leading standards and frameworks are SBTN, which offers companies a process⁴ for setting science-based targets for nature; the TNFD, which provides guidance and metrics architecture to enable businesses to assess, report and act on their nature related dependencies, impacts, risks and opportunities; and the ISSB, which offers a global baseline of sustainability disclosure standards. To ease the burden for companies navigating this evolving and complex landscape of reporting standards, interoperability between existing frameworks and legislation has been vital e.g., between the CSRD and ISSB ([Directorate-General for Financial Stability, Financial Services and Capital Markets Union, 2024](#)).

The proliferation of standards, guidelines and indicators has resulted in divergent voluntary and mandatory reporting requirements for businesses ([Mereuta et al. 2025, A-Track](#)). In 2022, TNFD found over 3,000 unique nature-related metrics, including divergent definitions in use for comparable indicators ([TNFD, 2025c](#)). In a landscape mapping of data platforms and sources, TNFD ([2022](#)) pointed to a number of limitations, such as the interchangeability of terms related to data that could lead to misinterpretation, divergent perspectives and priorities which conflate different metrics, and the internal capacity constraints of organisations to engage effectively with the data. TNFD has since established its own metrics architecture, comprising “a small set of disclosure indicators and metrics that can be compared and subjected to third-party assurance” ([TNFD, 2025c](#)). Other progress in this area includes the ongoing development of “State-of-Nature” metrics from Nature Positive Initiative and the TNFD’s proposed concept of an open access Nature Data Public Facility. Challenges, however, persist for corporate nature-related assessments and include difficulties in interpreting data for risk assessments (e.g., the impacts/interactions of business activities on priority locations⁵), and unavailability and inaccessibility of site-level data ([TNFD, 2025c](#)).

These challenges around data are echoed by the project CircHive which conducted surveys and interviews with case study partners (i.e. 9 private and 2 public organisations) to understand what they are currently doing/have done to evaluate, report and reduce their environmental impacts ([Bhattarai et al., 2024, CircHive](#)). They found one of the main challenges is in accessing biodiversity related data, not due to the lack of availability but rather the complexity and vagueness of the data requirements for assessing the impacts ([Bhattarai et al., 2024](#)). Another core challenge was the lack of organisational capacity to carry out data collections, assessments and reporting ([Bhattarai et al., 2024](#)).

Similarly, SELINA ([Saunders et al., 2023](#)) reported that organisations still struggle with the basics with respect to biodiversity measurement, such as access to data, need for biodiversity indicators that are linked to ecosystem service flow, lack of benchmarks or reference values, and striking a balance between metrics which are feasible to measure and oversimplification of metrics that are not sensitive to

⁴ Assess, Prioritise, Set Targets, Act and Track.

⁵ These are locations where assets or activities in the organisation’s direct operations, upstream or downstream activities are in areas of rapid decline, high biodiversity importance etc. ([TNFD, 2023](#)).

change⁶. Further, A-Track ([CISL et al., 2024](#)) cited the challenge for companies in measuring positive (as opposed to negative) impacts, with ineffective assessments leading to (un)intentional greenwashing. According to CSR Europe ([2025](#)), companies are calling for ways “to better substantiate and quantify positive contributions”, with many improvements at local level failing to translate into targets and indicators at the company level.

In terms of mandatory reporting standards, Invest4Nature ([Valkeniers et al., 2025](#)) conducted interviews with 49 companies to look at the challenges, opportunities and regulatory impacts on private sector investment in NbS. The key barriers that emerged for companies were regulatory complexity, administrative burdens, competitive concerns, and compliance costs. Further, CSRD legislation transposed into national law leaves some room for discretion of EU member states, meaning divergent approaches to implementation can emerge. For instance, some countries may adopt more stringent measures that extend beyond the directive (known as “gold-plating”), whilst others may adopt the minimal requirements of the directive ([Valkeniers et al., 2025](#)). Companies then face unequal reporting pressures depending on their headquartered location ([Valkeniers et al., 2025](#)).

Insights from a complementary Invest4Nature multi-stakeholder workshop highlighted that, despite these challenges, many industries have not waited for sustainability rules: investing in sustainability is increasingly seen as a matter of survival and competitiveness, with company values and employer branding playing a critical role ([Valkeniers et al., 2025](#)). Recent developments in the EU policy landscape (e.g., introduction of the Omnibus legislation) will result in a simplification of sustainability directives which may have the unintended effect of weakening environmental and social standards for companies ([Kupilas et al., 2025](#)). Invest4Nature workshop participants expected the Omnibus legislation to reduce reporting requirements and data points, potentially offering more freedom to companies, but stressed the need for regulatory stability and clearer guidance ([Valkeniers et al., 2025](#)). Concerns regarding the proposed simplification amendments have led to calls from the investor, financial and business communities to preserve the core elements of the CSRD and CSDDD ([Joint Omnibus Statement, 2025](#)).

2. Challenges associated with Integrating Nature Positive Principles into Decision-making, Business Models and Strategies.

A major organisational barrier to nature-positive business models and strategies is the lack of awareness and/or buy-in of organisational members (including leadership and staff) to such approaches. According to TNFD ([2023a](#)), the majority of companies lack understanding of their nature-related DIROs, and fail to properly account for nature in their strategies and capital allocation decisions. As noted by the A-Track project, there is uncertainty over how nature-positive aligned business models⁷ “can be economically viable, evaluated, developed, adopted, transformed, scaled up, financed and, ultimately, mainstreamed” ([CISL et al., 2024, p.13](#)). Resistance to nature-positive action within an organisation may emerge, particularly when such changes result in reductions in material

⁶ These findings stemmed from the natural capital assessment needs of the private sector (gathered during ALIGN project webinars).

⁷ A-Track ([CISL et al., 2024](#)) defines nature positive aligned business models as “a financially viable business entity whose value proposition and rationale are centred around nature positive principles” (p.8).

throughput or in a change to a firm's nature-negative activities ([Zu Ermgassen et al., 2022](#)).

Engagement in sustainability initiatives may disrupt standardised operations that are required for efficiency, for instance a change in protocol for partnering with suppliers can impact a number of business functions and departments ([Valkeniers et al., 2025](#)). Any perceived disruption or lack of clarity as to the broader implications of such changes may create hesitation and resistance internally. Invest4Nature workshop participants echoed these findings, identifying several key challenges for integrating nature-positive principles into decision-making, business models, and strategies. First, they noted that the lack of a clear distinction between NbS and broader sustainability concepts often leads to confusion within organisations, making it difficult to align strategic objectives and operational actions. Second, participants acknowledged that if reporting requirements are not clearly linked to business value—such as increased company valuation or competitive advantage—they may be seen as compliance exercises rather than strategic opportunities. Finally, the lack of accessible, sector-specific guidance, knowledge-sharing platforms, and standardised metrics further complicates efforts to mainstream nature-positive strategies, as companies struggle to measure, communicate, and justify their actions both internally and externally ([Valkeniers et al., 2025](#)).

Further the short-term business pressure to meet immediate financial and operational demands and maximise shareholder return is incongruent with the long term pay-back from sustainability benefits offered by nature-positive practices ([CISL et al., 2024](#)). Buy-in from all levels of an established organisation is vital in the transition towards a nature-positive aligned business model ([CISL et al., 2024](#)). Invest4Nature ([Valkeniers et al., 2025](#)) workshop participants emphasised that securing internal buy-in remains a significant hurdle; without committed individuals or 'internal champions' to advocate for nature-positive approaches, resistance and inertia can persist at all levels of the organisation. However, a lack of awareness as to why nature is relevant to business decision making is another key barrier, as is establishing a business case i.e. how nature action contributes to financial/corporate performance ([Mereuta et al., 2025](#)).

Another issue relates to the lack of organisational capacity and siloed nature of sustainability. A-Track ([Mereuta et al., 2025](#)) conducted a survey with 84 respondents (mostly members of sustainability teams and senior management) to understand how businesses are addressing nature-related challenges. A core barrier was the mainstreaming of nature related issues into business decision making, with sustainability/nature managers struggling to engage internal stakeholders (i.e. procurement, operations, finance and risk), thus leading to fragmented implementation ([Mereuta et al., 2025](#)). A lack of organisational capacity is also evident when companies attempt to implement sustainability practices ([Valkeniers et al., 2025](#)), or when transitioning to nature-positive business models, companies find they lack the specialised knowledge and tools to implement changes ([CISL et al., 2024](#)). According to SELINA ([Saunders et al., 2023](#)), selling the business case for Natural Capital Accounting to managers is challenging due to resource and time constraints.

3. Challenges associated with Locating and Measuring Nature-related Impacts and Implementing Changes across Geographies and Supply Chains.

Locating an organisation's interface with nature is vital as nature-related dependencies and impacts are place based ([TNFD, 2023b](#)). The TNFD LEAP Approach recognises the complexity for large businesses to trace their activities back to specific locations, and the difficulties with measuring upstream and downstream nature-related issues (TNFD, [2023a](#), [2023b](#)). They recommend that businesses apply sector, value chain and geography filters, and prioritise in

particular any ecologically sensitive areas where their business or value chain may have an impact (TNFD, 2023b). SUSTAIN (Griniece, et al., 2024a), however, noted a key limitation among leading nature frameworks was the focus on direct operations and upstream activities with less guidance currently available for downstream activities.

Businesses may focus less on areas they perceive to be beyond their purview. As part of the piloting of the Natural Capital Protocol within the TEEB AgriFood for Business project, it was evident that businesses are much more inclined to look at their impacts and dependencies in their direct operations than to assess their interaction within the wider value chain and/or landscape (Saunders et al., 2023). The complexity of multi-tiered supply networks may prove challenging for corporates to assess and manage risks effectively (Mereuta et al., 2025). Multi-product companies or businesses operating across multiple geographies may struggle to implement nature positive initiatives across all areas (CISL et al., 2024; Griniece et al., 2024c).

The lack of transparency around supply chain impacts is another core challenge, particularly if corporates' suppliers are SMEs that do not measure their impacts, lack the necessary data infrastructure, or withhold information on the basis of confidentiality (Griniece, et al., 2024b; Valkeniers et al., 2025). Suppliers may be numerous (in their hundreds or thousands) or geographically dispersed, thus resulting in companies either not reporting on suppliers or reporting according to their capabilities (CSR Europe, 2025). Supply chain complexity may manifest differently for companies at varying maturity levels, with those at early stages of integrating nature strategies experiencing difficulties in tracing their commodities and assessing upstream activities, and those at advanced stages struggling with the volume of data and inconsistencies from suppliers (Mereuta et al., 2025). This challenge is succinctly captured in a case study from SBTN about the global luxury group, Kering:

“Traceability is one of the fashion sector’s main challenges and, similarly, one of the main challenges Kering faced in its SBTN journey was data collection across its long, complex, and diverse global supply chains. These supply chains also involve numerous artisanal suppliers and small-scale operations, with many tiers of suppliers separating Kering’s Houses from raw material producers. This opacity is further enhanced by suppliers in fashion’s supply chain traditionally not sharing information on raw material producers. This complexity and issues of visibility underscore the importance of the traceability efforts. Kering has been dedicated to over the past fifteen years. It also highlights the need to accelerate this journey, further enhancing the Group’s supplier engagement and traceability programs.”

Source: [SBTN Validation Pilot Summary Report \(2024b, p.18\)](#)

4. Challenges associated with Investing in Nature-based Solutions (NbS).

Companies may privately invest in Nature-based Solutions for varied reasons including mitigation of nature-related risks, market opportunity recognition, CSR, mandatory reporting standards, sustainable investment and Social Licence to Operate (Ascenzi et al., 2025). Private actors, such as companies, may finance NbS through funding instruments, including donations, and in-kind contributions as well as revenue generating instruments, such as commercialisation of goods and services (emerging from restoration works), and commercialisation of credits in carbon markets and biodiversity offset trading (Rouillard et al., 2025, MERLIN). Companies may also invest in nature by including it in their balance sheets or

through insetting⁸ ([Ascenzi et al., 2025](#)). The REST-COAST project ([Favero et al., 2022](#)) cites the example of companies with high water footprints as being ideally positioned to invest in NbS in natural river flows/hydrologic connectedness to address the risk of water scarcity.

However, NbS are often considered public goods, “meaning they offer non-excludable benefits and co-benefits” ([Linnerooth-Bayer et al., 2024, p.43](#)). This gives rise to the free-rider problem where individuals and organisations can benefit without having to contribute financially to the NbS or Ecosystem Service ([Rouillard et al., 2025](#)). Thus, NbS are challenging to monetise, scale up and achieve attractive returns on investment ([Tedeschini et al., 2024](#)). Given the difficulties associated with measuring and monetising the impacts of NbS, companies then fail to account for the benefits ([GreenscapeCE, 2024](#)). Compensation mechanisms, such as offsetting and insetting, are also a means of progressing corporate sustainability goals, although not without critique:

“Nespresso’s partnership with the Rainforest Alliance illustrates such an insetting scheme, through Nespresso’s AAA Sustainable Quality Program to source coffee more sustainably. With financing from the International Finance Corporation, the company supported a transition to agroforestry in East Africa, planting native shade trees, training farmers and promoting landscape-level reforestation. It is important to highlight, however, that most offset systems fail to meet their stated environmental goals and could disincentivise efforts to avoid or mitigate negative impact on climate and biodiversity. Strict regulation and rigorous standards are therefore important to develop the potential of these mechanisms.”

Source: [Ascenzi et al., 2025](#)

Corporate engagement in regulated or voluntary carbon markets has been driven by the pressing need for businesses to assess, report and act on their nature-related impacts ([Tedeschini et al., 2024](#)). However, carbon markets are controversial and come under heavy criticism for their lack of transparency, accessibility, equitability and quality (Cheikosman et al., 2023, as cited in [Linnerooth-Bayer et al., 2024](#)). It is challenging to measure and verify carbon sequestration which is both complex and costly ([Tedeschini et al., 2024](#)). The fragmented nature of such markets further restricts NbS scalability, and better integration is needed to improve market efficiency ([Tedeschini et al., 2024](#)). The EC has established its agenda to drive forward private financing of nature based action through the launch of its *Roadmap towards Nature Credits*. The actions therein to develop nature credits are intended to reduce risks for funders, build market trust and boost investment among potential buyers, including businesses in downstream sectors ([EC, 2025a](#)).

Private sector investment in NbS needs to be accelerated, ([Tedeschini et al., 2024](#)) as does private financing to upscale nature restoration activities ([Rouillard et al., 2025](#); [Favero et al., 2022](#)). Some of the market barriers and failures of NbS result from information gaps (i.e. lack of awareness and data as to NbS, and its benefits and trade-offs), long investment return horizons, and higher risk profiles than other comparable investments ([EIB, 2023](#)). MERLIN ([Rouillard et al., 2025](#)) identified a number of barriers to private sector financing of restoration projects, based on observations made in 20 European case studies that drew on surveys, workshops and interviews carried out during the project. The barriers identified

⁸ Insetting is the use of NbS within landscapes associated with a company’s supply chain to address nature-and climate-related impacts that the company faces ([Ascenzi et al., 2025](#)).

included scepticism among private sector (particularly profit-oriented) actors; limited skills and capacity (among restoration teams) to form partnerships with the private sector; specialised language and terminology that form communication barriers between private investors and restoration teams; and difficulties articulating viable business plans for opportunities unlocked by ecosystem restoration.

5. Challenges associated with Engaging Community Stakeholders.

Companies may also face barriers to nature-positive action if they cannot secure support and collaboration from stakeholders. Target 22 of the Global Biodiversity Framework is to ensure Indigenous People and Local Community (IPLC) participation in decision making, and is highly relevant to companies whose value chains involve lands and waters under IPLC stewardship e.g., forestry, agriculture, fisheries ([WEF, 2023](#)). The involvement of these groups in any company assessment or response to nature is, thus, vital.

The transition to a nature-positive economy must assure sustainable and just futures, and improve social-ecological wellbeing and equity ([Koh et al., 2025](#)). However, these concepts are not easily captured, as the wellbeing of local actors is connected in different ways to nature e.g., reliance on nature for food, resources, livelihoods or cultural values/recreational use ([Zu Ermgassen et al., 2022](#)). As such, business actions that contribute to nature-positive outcomes may lead to social inequity “due to the varying dependence of social groups on aspects of nature and its associated value to them, raising the question: positive for whom?” ([Zu Ermgassen et al., 2022, p.10](#)).

The Horizon Europe project, JUSTNature, aims to ensure the right to ecological space and to uphold the duty of not constraining that of others, via the activation of NbS for low carbon cities. Through a workshop held with its City Practice Labs (CiPeLs), it was reported that business owners (e.g., touristic, hotelier and restoration businesses) were among those perceived to have a louder voice in decision making processes, unlike other groups such as the elderly, youth, migrants and refugees, and homeless ([Gantioler et al., 2023](#)).

The TNFD offers guidance on engagement with indigenous peoples, local communities and affected stakeholders for companies that are undertaking identification and assessment of nature-related issues. They emphasise the importance of a full understanding of such groups, not only in terms of how they are affected by the organisation’s impact on nature or through their shared dependencies on nature, but also by the responses taken by companies to nature impacts i.e. through mitigation and adaptation strategies or changes to business models ([TNFD, 2023d](#)).

Recommendations to Support Corporates towards a Nature-Positive Economy

Corporate Barrier #1: The complex and rapidly evolving mandatory and voluntary reporting landscape.

Recommendations for Policymakers	Recommendations for Corporates
<p>The EU Omnibus Proposal cuts reporting obligations by 25% in large firms and 35% in SMEs. Although a welcomed development by many in the business sphere, the EU should ensure that a balanced approach is taken so that robust environmental commitments are maintained (Kupilas et al., 2025) i.e. how to incentivise/enable the 80% of companies removed from the scope of CSRD to report voluntarily. Increase capacity building for all businesses to tackle the challenges of mandatory or voluntary reporting.</p>	<p>Familiarise themselves with current and proposed legislation & directives, and their relevance to company supply chain, products/services and markets. For those companies removed from the scope of CSRD reporting, consider voluntary standards such as the vSME.</p>
<p>Ensure continued interoperability between EU regulatory standards (ESRS) and globally accepted standards, building on the work done to align ESRS with ISSB and GRI.</p>	<p>Devise company sustainability or nature-positive strategies/policies and impact measurement framework, taking into account legislation and voluntary guidance on interoperable metrics/indicators (e.g., TNFD's recommended disclosures; Nature Positive Initiative's "State of Nature Metrics")</p>
<p>Harmonise legislation across EU member states to ensure a level playing field (Valkeniers et al., 2025).</p>	<p>Join the SBTN Corporate Engagement Programme (allows companies to test and offer feedback on science based targets for nature).</p>
<p>Engage with and respond to concerns of the European Central Bank (ECB, 2025a; ECB, 2025b) and business community with regard to proposed simplification amendments e.g. investor and business joint statement on the omnibus initiative - 310 organisations calling on EU policy makers to preserve the code of the EU sustainable finance framework. (Joint Omnibus Statement, 2025). Use policy instruments such as incentives, in particular for external verification, to encourage take-up of voluntary reporting.</p>	<p>Ensure verification (independent third party review) of biodiversity reporting/positive impacts (Zu Ermgassen et al., 2022).</p> <p>Best practice: In certain countries (i.e. USA) nature rehabilitation & offsetting action plans may be verified by external consultants, enhancing robustness and credibility of such plans. This usually only occurs when regulations on the control of rehabilitation programmes are in place (CSR Europe, 2025).</p>
<p>Direct further funding and resources into improving data accessibility and standardisation/aggregation that provides decision-useful information across sectors and geographies (TNFD, 2022; TNFD, 2025c).</p>	<p>Businesses should engage with policymakers to ensure a collaborative approach to policy development (Valkeniers et al., 2025) via forums like EU and national Business and Biodiversity Platforms and networks, WBSCD, Business for Nature, the</p>

Recommendations to Support Corporates towards a Nature-Positive Economy

Corporate Barrier #1: The complex and rapidly evolving mandatory and voluntary reporting landscape.

Recommendations for Policymakers	Recommendations for Corporates
<p>Case exemplar: <u>ENCORE - A key tool for TNFD'S LEAP approach.</u> ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) is a free online tool that enables organisations to investigate their exposure to nature-related risk and take the initial steps to understand their dependencies and impacts on nature.</p>	<p>Nature Positive Initiative amongst others.</p>
<p>Deliver more capacity building, ideally adapted to local language and nature context: development of technical expertise, resources and capacity in companies for collection and analysis of high quality, robust data (<u>TNFD, 2022</u>).</p>	<p>Utilise and expand the availability of capacity building courses in a variety of formats from in-person to online self-learning, as well as networks of shared learning (e.g. We Value Nature, NBS EduWorld) (<u>Saunders et al. 2023</u>).</p>
<p>Incentivise companies to avail of capacity building and the use of external experts in the design of reporting and verification processes adapted to local context and languages.</p>	<p>Draw on external consultants when setting science based targets if in-house expertise is missing (<u>SBTN, 2024b</u>). Consider platforms like the Connecting Nature Enterprise Platform to identify relevant expertise.</p>
<p>Vignette: <i>Business for Biodiversity Ireland.</i></p> <p>Business for Biodiversity Ireland supports businesses on their journey to nature-positive. The not-for-profit organisation supports Ireland's vision for biodiversity: By 2050, biodiversity in Ireland is valued, conserved, restored and sustainably used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people. The organisation receives funding from the national government, and runs the Nature Strategy Accelerator Programme for registered businesses. This programme guides businesses through assessing their nature-related issues and developing a nature strategy using the ACT-D Framework (aligns with TNFD and CSRD). Find more information at https://businessforbiodiversity.ie/</p> <p>Source: Business for Biodiversity Ireland (n.d.)</p>	<p>Leverage and adapt to local language and context existing supports, tools and resources i.e. TNFD's additional guidance e.g. sector-specific guidance & metrics; ENCORE (sector screening tool); <u>SBTN resources</u>, e.g. materiality screening tool; Integrated Biodiversity Assessment Tool (IBAT); <u>ESII Tool</u> (The Nature Conservancy).</p>

Corporate Barrier #2: Integrating Nature Positive Principles into Decision-making, Business Models and Strategies.

Recommendations for Policymakers	Recommendations for Corporates
<p>Conduct research into, and address, the systemic roadblocks that hinder uptake of nature positive business models and nature positive business opportunities at scale.</p>	<p>Utilise existing examples of successful and scalable nature-positive business models to enhance organisational awareness and buy-in.</p>
<p>Develop supportive policies and programmes aligned with the specific needs of different Nature Positive Aligned Business Models (CISL et al., 2024).</p> <p>Vignette: The A-Track project has developed a typology of Nature Positive Aligned Business Models, or business models that are rooted in nature positive principles. The typology consists of seven archetypes:</p> <ol style="list-style-type: none"> 1. Products and services to minimise nature impact. 2. Service models to minimise nature impact. 3. Regenerative products and services. 4. Regenerative service models. 5. Value chain reconfiguration. 6. Supplementary service provision. 7. Purposeful stewardship. <p>A-Track provided examples of established businesses that have aligned with one of these business model archetypes. Lush Cosmetics, for instance, were assigned the archetype of value chain reconfiguration for their circular business model. Marks and Spencer were assigned the archetype of products and services to minimise nature impact for the sustainable practices in forestry and agriculture that are employed within its supply chains.</p> <p>Source: CISL et al., 2024, A-Track, D5.1.</p>	<p>Best Practice: Diageo and regenerative agricultural sourcing.</p> <p>Collaboration with global networks to share best practices and scale business models globally e.g., The World Business Council for Sustainable Development; The Nature Conservancy etc.</p> <p>Build the business case for action (e.g., generation of new forms of value via ESS; improved supply chain resilience), including the costs of inaction (i.e. nature-related risks). Ensure collaboration and alignment between company depts./teams e.g., procurement, finance, sustainability (SBTN, 2024b).</p> <p>Ensure sustainability initiatives and ideas for nature-positive aligned products/services and business models are suitably incentivised and rewarded, whether they emerge from within or outside the organisation.</p> <p>Case exemplar: KPMG Nature Positive Challenge for Eco start-ups.</p>
<p>Target funding programmes, subsidies or tax incentives towards broader adoption of nature positive approaches (CISL et al., 2024) or of new commercial opportunities in the nature-positive economy.</p>	<p>Draw on case studies and best practice examples for how to embed nature into decision making (Mereuta et al. 2025), scale nature positive business models (CISL et al., 2024), or carry out a natural capital assessment (Saunders et al. 2023).</p>

Corporate Barrier #2: Integrating Nature Positive Principles into Decision-making, Business Models and Strategies.

Recommendations for Policymakers	Recommendations for Corporates
<p>Case exemplar: ACRES Agri-environment scheme (Ireland) - €1.5 billion scheme to address biodiversity decline and provide income support for up to 50,000 farms.</p>	<p>Best practice: Leverage existing knowledge tools and platforms e.g., Capital Coalitions case study database.</p>
<p>Enhance recognition of and reward for companies that adopt nature-positive practices / implement nature-positive aligned business models.</p>	<p>Provide training (either in-house or via consultancy) for staff and management to integrate nature positive principles into decision making. Biodiversity-related training is vital for addressing skills and knowledge gaps (Zu Ermgassen et al., 2022).</p>
<p>Work collaboratively with industry associations, standards bodies and policy makers on industry wide change towards nature positive.</p>	<p>Utilise a nature positive roadmap or transition plan to present joint actions towards nature positive (Arcadis et al., 2024; Groot et al., 2024). A number of roadmaps and guidelines exist on which an organisation can model its own roadmap, with targets/metrics that are biome and sector specific (e.g., TNFD, WBCSD, Business for Nature, WWF).</p>
<p>Cultivate nature-positive leadership among CEOs of businesses and financial institutions leading to industry-wide shifts in nature negative practices.</p>	
<p>Direct funding towards capacity building opportunities in this space.</p>	

Corporate Barrier #3: Locating and Measuring Nature-related Impacts and Implementing Changes across Geographies and Supply Chains.

Recommendations for Policymakers	Recommendations for Corporates
<p>Design effective international agreements that can help regulate supply chains to reduce unsustainable consumption and production (IPBES, 2024a).</p>	<p>Bioregional approach for value chain integration (rather than focusing nature positive actions on site specific interventions, address accumulative ecosystem impacts across multiple locations).</p> <p>Stipulate nature-positive considerations in procurement/supplier contracts (Jacobs, 2023) e.g., suppliers who are certified.</p>

Corporate Barrier #3: Locating and Measuring Nature-related Impacts and Implementing Changes across Geographies and Supply Chains.

Recommendations for Policymakers	Recommendations for Corporates
<p>Corporates can only take responsibility to the extent that is proportional to their accountability (boundary of influence), thus public authorities must become jointly involved to support nature-positive outcomes (Arcadis et al., 2024).</p>	<p>Collaborate closely with suppliers (providing tools, knowledge & resources) to record, assess and address nature impacts.</p> <p>Vignette: Olam Agri</p> <p>Olam Agri is a global food and agricultural business with global expertise across major food and agricultural value chains and operations on six continents. Rice is a key commodity of Olam Agri’s business, with countries in Asia, specifically India, Thailand and Vietnam, among the top exporters. Typical rice production requires large volumes of water and results in high methane emissions. Olam’s vision of sustainable rice cultivation led to their implementation of sustainability standards with farmers in its operating regions. Olam partners with organisations (e.g., international organisations, local governments) in these locations to deliver training programmes aligned to the Sustainable Rice Platform (SRP) standard. Olam has launched large-scale sustainable rice projects aimed at training smallholder rice farmers in climate-smart farming practices and boosting the production of sustainable, high-quality rice. Olam and partners have reached over 35,000 farmers under these programmes, leading to a reduction in GHG emissions and up to 20% increase in farmer incomes.</p> <p>Source: Griniece, A., McCormick, N. and Gleeson, E. (2024a); Olam Agri (n.d.)</p>
<p>Drive uptake of voluntary reporting on nature impacts/alignment with EU taxonomy among SMEs and suppliers (outside the scope of CSRD) (Tedeschini et al., 2024).</p> <p>Best practice: Voluntary Reporting Standards for SMEs (VSME).</p>	<p>Adopt “innovative methods for enhancing supply chain transparency” (Zu Ermgassen et al., 2022, p.8).</p> <p>Vignette: Trase, supply chain mapping platform.</p> <p>Trase is a supply chain mapping platform that brings transparency to deforestation and agricultural commodity trade. A not-for-profit initiative established in 2015, Trase maps the trade links between consumer countries via trading companies to the places of production. Trase combines data on commodity production and trade from a multitude of public</p>
<p>Establish funding streams into research on new technologies, sector level initiatives and guidance aimed at increasing supply chain transparency (TNFD, 2023a).</p>	

Corporate Barrier #3: Locating and Measuring Nature-related Impacts and Implementing Changes across Geographies and Supply Chains.

Recommendations for Policymakers	Recommendations for Corporates
	<p>sources (e.g., official government data, data disclosed by industry associations) with a unique form of material flow analysis (SEI-PCS) to map supply chains. Through Trase's supply chain mapping the following capabilities are possible:</p> <ul style="list-style-type: none"> • systematically link individual supply chain actors to specific, subnational production regions, and the sustainability risks and investment opportunities associated with those regions; • identify the individual companies that export, ship and import a given traded commodity; and • cover all of the exports of a given commodity from a given country of production. <p>Source: trase (n.d.)</p>

Corporate Barrier #4: The challenges associated with Investing in Nature-based Solutions.

Recommendations for Policymakers	Recommendations for Corporates
<p>Reduce, eliminate and repurpose harmful incentives and redirect these towards activities that are nature positive (e.g. NbS) (Groot et al., 2024).</p> <p>Best practice: Adopt recommendations/guidance offered in GoNaturePositive report on <i>Mapping policy and co-operative initiative landscapes for systemic change towards a Nature-Positive Economy</i>.</p>	<p>Broaden the range of criteria used to evaluate nature positive opportunities, and assign weight more evenly to financial, social and environmental ROIs (Rouillard et al., 2025).</p>
<p>Support the use of innovative and market-based financing mechanisms for NbS, including blended finance and PES (Tedeschini et al., 2024), as well as greater enforcement of existing policies to reduce the funding gap i.e. polluter pays principle (Rouillard et al., 2025).</p>	<p>Review and adopt existing and emerging tools and methods for NbS valuation. Examples: SELINA Demonstration Project 14 (establishment of NbS valuation methods <i>forthcoming</i>); Nature Valuation Methodology (Guertin et al., 2019).</p>
<p>Establish clear standards for NbS and create regulations that stimulate private sector participation (Tedeschini et al., 2024).</p>	<p>Learn from challenges and opportunities of existing cases of privately funded NbS/restoration projects.</p> <p>Example: The UNESCO Biosphere Reserve Mittelgebirge receives funding from two multinational companies for restoration</p>

Corporate Barrier #4: The challenges associated with Investing in Nature-based Solutions.

Recommendations for Policymakers	Recommendations for Corporates
	<p>projects. These low-risk projects offer a quick turnaround in terms of impact, thus contributing to companies' sustainability targets (see Rouillard et al., 2025 for more).</p>
<p>Enact policy interventions that foster the development of carbon markets (e.g., emerging technologies like blockchain carbon credits), whilst ensuring that safeguards and understanding of trade-offs are factored into the development of any market for carbon /biodiversity credits e.g. Nature Credit Roadmap.</p>	<p>Invest in NbS to offset carbon emissions.</p> <p>Best practice: Livelihoods-Yagasu project for planting mangrove forests (Linnerooth et al., 2024; good practice case 11). The mangrove planting and restoration project is financed through carbon finance in the form of both pre-financing and carbon offtakes from 12 different carbon investors with varying investment terms.</p>
<p>Model approach on international leaders in this space for best practice on establishing EU/nationally certified carbon credit markets.</p> <p>Example: Japan's issuing of the world's first voluntary blue carbon credit to Urchinomics in December 2022.</p>	

Corporate Barrier #5: The challenges associated with Engaging Community Stakeholders.

Recommendations for Policymakers	Recommendations for Corporates
<p>Foster communication and collaboration between local communities, indigenous peoples and other affected stakeholders and business community on transition to a nature-positive economy.</p>	<p>Local consultation to ensure social equity in the nature-positive transition (Zu Ermgassen et al., 2022).</p> <p>Engage indigenous people, local communities and affected stakeholders in lock-step with assessment, management and disclosure of nature-related dependencies, impacts, risks and opportunities (TNFD, 2023d).</p>

4.3.2. SME Barriers

1. **Challenges associated with Reporting/Transparency of Impacts and Dependencies.**

Resource and capability constraints may prove to be a barrier for SMEs in the transition to a nature-positive economy. Smaller and/or less mature businesses can struggle to identify reliable datasets on nature-related data due to: fragmented data systems, sector specific gaps, cost and accessibility ([Mereuta et al., 2025](#)). This lack of data and measurement capabilities may impede compliance with either their own sustainability reporting standards or those of large companies that request such information from them ([Valkeniers et al., 2025](#)). Invest4Nature, which interviewed 49 companies, of which 22 were SMEs, found that SMEs within the ecosystem of larger organisations face a complicated landscape of reporting requirements, as different companies may have divergent approaches to requests for data ([Valkeniers et al., 2025](#)). This may lead to multiple submissions to meet the same regulations, resulting in additional workload and uncertainty for SMEs. They called for simpler, more standardised reporting requirements and better access to relevant data ([Valkeniers et al., 2025](#)).

SMEs also have reduced capacity to deal with nature-related impacts and dependencies compared with their larger and international counterparts, and thus have different needs and demands for networking, support and guidance ([Dinesen & Lemaître, 2023](#)). Biodiversa+, for their Deliverable 3.4, carried out a workshop in June 2023 with the aim of identifying barriers and opportunities to Research & Innovation in the business and biodiversity landscape (for full results see Danner, 2023). Through that workshop it was recognised that the limited capacity of certain businesses (in terms of human and financial resources) to develop the necessary expertise over the long-term (e.g., engaging the financial team in house to improve data quality in order to capture biodiversity metrics) is a key barrier ([Dinesen & Lemaître, 2023](#)).

2. **Challenges associated with the Uptake of Nature-Positive Practices.**

SMEs can be better equipped than their larger counterparts to integrate nature positive practices due to their inherent flexibility and agility ([CISL et al., 2024](#)). As mentioned in A-track, small businesses “might adopt the use of more sustainable materials, minimise waste or design eco-friendly products without the constraints faced by larger organisations” ([CISL et al., 2024, p.50](#)). However, small businesses must instead contend with limits in financial and human resources, and must therefore prioritise nature positive practices that provide the optimal return on investment ([CISL et al., 2024](#)).

Challenges may also emerge from the trade-offs associated with nature-positive practices, particularly if such practices disrupt livelihoods, or long-established processes and practices. IPBES ([2024a](#)) states that entrenched narratives favouring industrial agriculture act as a barrier to scaling up agroecology. Loss of revenue and lack of know-how may also inhibit the uptake of nature-positive practices. For instance, small operators in the agricultural space who shift to regenerative agriculture may experience an initial period of higher costs and lower yields, which damage their incomes ([WBCSD, 2023a](#)). Another example emerges from the SUPERB project that found the restoration costs of the Norway spruce forest in the Czech Republic, could result in a prolonged disruption to income for timber producers ([EC, 2025d](#)).

Recommendations to Support SMEs towards a Nature-Positive Economy

SME Barrier #1: The challenges associated with Reporting/Transparency of Impacts and Dependencies.

Recommendations for Policymakers	Recommendations for SMEs
<p>Stimulate capacity, support and awareness among the SME community (that fall outside the scope of CSRD) in terms of the benefits and opportunities emerging from voluntary reporting.</p> <p><i>Vignette: Voluntary Reporting Standards for SMEs from EFRAG</i></p> <p>EFRAG or the European Financial Reporting Advisory Group was tasked by the European Commission to develop a voluntary reporting standard for non-listed micro, small and medium enterprises (VSME). The VSME will help to standardise the sustainability information that SMEs intend to report, and enhance opportunities for SMEs to secure green financing, thus enabling the transition to a sustainable economy. It emerged from the market demand for a simplified reporting tool that SMEs could use to respond to sustainability data requests from large companies for which non-listed SMEs are suppliers, banks and investors. The VSME standard was delivered to the EC in late 2024.</p> <p>In July 2025, the EC recommended the adoption of a future voluntary reporting standard for SME undertakings (based on the EFRAG VSME) as proposed under the Omnibus I simplification package. This updated standard provides much needed clarity on reporting and disclosure for the many companies who now fall outside the scope of CSRD requirements but who may nonetheless wish to disclose sustainability data to comply with requirements of banks, investors and corporate clients.</p> <p>The basic standard consists of 5 modules addressing (i) Energy and greenhouse gas emissions (ii) Pollution of air, water and soil (iii) Biodiversity (iv) Water and (v) Resource Use, circular economy, and waste management</p> <p>Source: EFRAG (2025); EC (2025e).</p>	<p>Utilise capacity building courses as well as networks of shared learning (e.g. We Value Nature training modules on natural capital and biodiversity).</p>

Recommendations to Support SMEs towards a Nature-Positive Economy

SME Barrier #1: The challenges associated with Reporting/Transparency of Impacts and Dependencies.

Recommendations for Policymakers	Recommendations for SMEs
<p>Provide clear guidance, simplified reporting requirements, and support to SMEs in developing data measurement capabilities in order to meet requests from larger clients for sustainability data (Valkeniers et al., 2025). Note: The EU Omnibus Proposal is to cut reporting obligations by 25% in large firms and 35% in SMEs. Although a welcomed development by many in the business sphere, the EU should ensure that a balanced approach is taken so that robust environmental commitments are maintained (Kupilas et al., 2025). Need to ensure that reduced reporting obligations do not trigger trade-offs or unintended consequences for SMEs where they could become overlooked for sustainable investment (Joint Omnibus Statement, 2025).</p>	<p>Leverage existing supports and resources i.e. ENCORE (sector screening tool), SBTN Materiality screening tool and Integrated Biodiversity Assessment Tool (IBAT).</p> <p>Vignette: SME Climate Hub</p> <p>The SME Climate Hub is an initiative of the We Mean Business Coalition, the global nonprofit catalysing business and policy action to halve global emissions by 2030. Launched in 2020, the aim of the hub is to empower leaders of Small and Medium Sized companies, or those with less than 500 employees, to take climate action and to future-proof their businesses. The SME Climate Hub partners with NGOs, financial institutions and corporations to deliver its climate action resources for SMEs. The initiative offers free tools and resources for SMEs to understand and reduce their emissions. SMEs then publicly commit to reducing their emissions (as part of the UN Climate Change High Level Champion’s Race to Zero Campaign) and report on progress that is made publicly viewable on the SME Climate Hub website.</p> <p>Source: SME Climate Hub</p>

SME Barrier #2: The challenges associated with the Uptake of Nature-Positive Practices.

Recommendations for Policymakers	Recommendations for SMEs
<p>Work collaboratively with SME representative groups, industry associations, standards bodies and policy makers on industry wide change towards nature positive.</p>	<p>SMEs should consider external partnerships and support to overcome the resource constraints associated with implementing nature-positive initiatives (CISL et al., 2024).</p>
<p>Research into and removal of systemic roadblocks to nature-positive pathways for SMEs.</p>	
<p>Funnel resources towards capacity building for SMEs to supply NbS (Tedeschini et al.,</p>	

SME Barrier #2: The challenges associated with the Uptake of Nature-Positive Practices.

Recommendations for Policymakers	Recommendations for SMEs
<p>2023) and in undergoing transformative change (Dinesen & Lemaitre, 2023).</p> <p>Implement funding mechanisms that trigger nature-positive action e.g., a new concessional funding instrument for small innovative projects and SMEs providing NbS (EIB, 2023).</p> <p>Vignette: ADEME - The French Agency for Ecological Transition</p> <p>ADEME is the French Agency for Ecological Transition. It is run under the joint authority of the Ministry for Environment, the Ministry for Energy and the Ministry for Research, and is responsible for the development of national and local policies for ecological transition. The agency has supported over 15,000 businesses towards the ecological transition since its inception in 2014. The agency works with businesses of all sizes, including micro-enterprises and SMEs, to engage in production methods based on principles of circularity. A range of support schemes are provided, including the Green Loan, launched in 2020, in partnership with BPI France. The Green Loan is a low interest loan for SMEs to invest in optimising performance in order to reduce environmental impact or to innovate with new products and services that are circular, reduce consumption or contribute to environmental protection.</p> <p>Sources: ADEME (n.d.); Takegreen (n.d.)</p>	<p>SMEs should consider membership of networks (e.g., NetworkNature NbS business forum, SME Climate Hub, NbS Business Forum) to gain access to supports, resources and context-aligned cases studies of businesses that have successfully implemented nature-positive initiatives.</p> <p>Vignette: NetworkNature NbS Business Forum</p> <p>The NbS Business Forum is an initiative of the NetworkNature project, created to bring together SMEs, NBEs, corporates, and financial institutions to accelerate the market adoption of Nature-based Solutions (NbS). The Forum aims to strengthen the NbS business ecosystem by convening key actors to explore and scale nature-positive practices. The NbS Business Forum will facilitate collaboration and provide access to strategic tools, financing opportunities, success stories, and practical resources to help organisations unlock the economic potential of NbS. Through ongoing events and knowledge exchange, the Forum will support business engagement in NbS and contribute to building a resilient, nature-positive economy.</p>

4.3.3. NbE Barriers

1. **Challenges associated with Knowledge and Skill Gaps among NbEs and Lack of Awareness of NbS/NbEs.**

A lack of knowledge, skills and awareness is a major hindrance to the delivery of nature-based solutions. Current educational pipelines are not meeting the demand for the skills needed to scale up nature-based solutions, according to an interview study (as part of the Invest4Nature project) of leaders across 40 NbEs ([Brangan & Brophy, 2025](#)). Gaps emerged when taking into account both the numbers of professionals trained in core NbS disciplines (e.g., ecology, landscape architecture) as well as the revision of curricula in relevant sectors (such as forestry, agriculture and aquaculture) to include the state-of-the-art in regenerative approaches ([Brangan & Brophy, 2025](#)). This challenge is exemplified by the following quote taken from the study:

“One of our key gaps is finding collaborators who are, also have that mindset, or approach or ethos of nature based solutions, and even contractors. ...and it’s very hard to get ecologists now. And so it - getting people to work with is quite difficult, which I’m sure you’re seeing - and real skill shortage in - we don’t, literally don’t have enough ecologists.” — Landscape architect

Source: [Brangan & Brophy, 2025](#)

Interviews also showed the absolute necessity for NbEs to bring together both business knowledge and technical knowledge ([Brangan & Brophy, 2025](#)). If either side was weak, impact was likely to be reduced (*idem*). Entrepreneurs with strong business skills were often successful in establishing complementary technical expertise or partnering with those who have such a skillset (*idem*). Entrepreneurs with technical knowledge, however, often found challenges to develop the necessary business acumen or to secure business partners who shared their commitment to an environmental mission (*idem*).

The barrier of knowledge gaps among NbS practitioners is echoed across projects. NbS EduWORLD, carried out a poll of NbEs to uncover their capacity building and skills development needs ([Dowling, 2024](#)). Based on 83 responses, it was found that the top three priorities for skills development were: 1) Measuring impact and effectiveness of NbS; 2) Technical knowledge (e.g., implementing NbS, different technical and industry standards); and 3) Financing and business models ([Dowling, 2024](#)).

Although not focused on NbEs per se⁹, Phusicos conducted 20 interviews with private sector professionals working in the provision of NbS services across Europe. They found that knowledge related factors are one of the most significant barriers influencing the contractors’ ability to acquire or expand their expertise in offering NbS. This included a lack of measurable evidence supporting the benefits of NbS, a lack of practical NbS experience, difficulties in finding/retaining qualified

⁹ [Linnerooth-Bayer et al., 2023](#): “interviewees could be classified as representing nature-based enterprises (NBE) according to the typology designed by (McQuaid et al., 2020); yet we do not make use of this classification as a number of the participating companies are traditionally engaged in economic activities far removed from NbS projects and have only recently participated in NbS projects.” (p.53)

employees, a need for multidisciplinary skills, and complexity of NbS projects ([Linnerooth-Bayer et al., 2023](#)).

Another barrier is that of knowledge gaps amongst clients, funders and investors as to the role and value of nature-based enterprises. Gaps in knowledge and awareness as to the value and multi-functionality of NbS, as well as the cost structure of NbS (i.e. the need to factor in long-term maintenance costs) are evident among decision makers of public and private sector organisations ([McQuaid et al., 2021](#)). Invest4Nature ([Tedeschini et al., 2024](#)) highlighted that banks may be unaware of the increasing attractiveness of the NbS industry and that policy makers are unlikely to be aware of the differences in characteristics and needs between nature-based enterprises and the average SME (i.e. NbEs' lower proclivity towards debt financing).

2. **Challenges associated with the Funding and Market Development of NbS.**

Difficulties with the funding and market development of NbS are major challenges to the growth and scaling up of nature-based enterprises. Invest4Nature ([Tedeschini et al., 2024](#)) analysed 124 responses from NbEs to a survey on their finance related needs. They identified some key challenges for NbEs as access to traditional financing, lack of time/staff capacity to explore financing options, and a difference in goals between NbEs and private investors. However, NbEs did express strong market demand and optimism compared with the average SME ([Tedeschini et al., 2024](#)).

[Linnerooth-Bayer et al., \(2023\)](#) identified a number of economic and market related barriers to contractors offering NbS, including uncertainties over future demand/lack of demand for NbS, grey path dependency, lack of funding and competition (for small companies). Funding constraints due to small company size can also inhibit growth potential. Since NbEs are mostly microenterprises ([Tedeschini et al., 2024](#)), they lack the capacity to take on large amounts of debt, and thus may have a necessity based preference for non-repayable financing e.g., grants, personal savings ([EIB, 2023](#)).

In the Invest4Nature interview study of 40 NbEs, leaders expressed concerns about potential consequences of escalating demand for nature based solutions in the context of current limited supply side capacity to deliver high quality NbS ([Brangan & Brophy, 2025](#)). In particular, many potential buyers may not have enough information to distinguish between options based on quality (idem.). The credibility of NbS can be further undermined by the misuse of terminology and greenwashing ([EC, 2022](#)).

A lack of NbS specific regulations and standards are also known to impact the procurement process for nature-based enterprises ([Linnerooth-Bayer et al., 2023](#)). Issues around bureaucracy, incomprehensible legislation and regulations and long procurement processes may also delay or prevent NbS delivery ([Linnerooth-Bayer et al., 2023](#)).

The development of industry standards is necessary to ensure the continued growth and attractiveness of the market for NbS ([McQuaid et al., 2021](#)). Contractors of NbS were reported to be concerned with the lack of such standards to ensure quality and compliance in the design and implementation of NbS ([Linnerooth-Bayer et al., 2023](#)). Current Horizon Europe projects, including NetworkNature, NATURANCE, and VARCITIES, are addressing this gap by advancing NbS standards at the European level through the development of CEN Workshop Agreements (CWAs). NetworkNature is supporting the creation of the first European standard on [NbS Nomenclature through CEN/TC 465 Working Group 1](#), helping to ensure compatibility, interoperability, and high integrity.

VARCITIES and NATURANCE are likewise developing CWAs, with

[NATURANCE's CWA](#) specifically proposing a standard to measure the risk reduction benefits of NbS. This standard aims to ensure that NbS performance is measured consistently across countries and contexts, capturing environmental, social, and economic benefits while including process indicators to avoid negative impacts such as biodiversity loss or social inequality. NATURANCE plans to work with UNI (Ente Italiano di Normazione), leveraging its expertise in CEN processes, with an estimated nine-month timeline from planning to finalisation. These coordinated efforts are helping to build investor and public confidence, create a more competitive and transparent NbS market, and ensure that solutions deliver both ecological and social value.

Recommendations to Support NbEs towards a Nature-Positive Economy

NbE Barrier #1: Knowledge and Skill Gaps among NbEs and Lack of Awareness of NbS/NbEs.

Recommendations for Policymakers	Recommendations for NbEs
<p>Provide capacity building, educational and training programmes specifically for nature-based enterprises responsible for NbS design and implementation. Training should be provided in local language and adapted to local contexts e.g. regulatory, natural environment (Linnerooth-Bayer et al., 2024; Tedeschini et al., 2024). Deliver through existing networks such as the Connecting Nature Enterprise Platform and industry networks at national scale.</p>	<p>Engage in multi-stakeholder collaborations to address issues of economies of scale and fragmentation of data, as well as leveraging complementary expertise (Brangan & Brophy, 2025).</p>
<p>Invest in innovative tools and technology that enables uptake, impact measurement and valuation of NbS, such as digital twin technologies e.g. VARCITIES Health & Wellbeing platform.</p> <p>Vignette: Cascais for Tomorrow</p> <p>Cascais for Tomorrow is an innovative tool that enables visitors and event planners to measure the environmental impact of their stay or event and reduce it. The tool emerged from a partnership between Breeze, a sustainable travel solutions provider, Visit Cascais, a destination marketing organisation, and Cascais Ambiente, the municipal company in charge of environmental management in Cascais, and a living lab</p>	<p>Consider the value in joining existing networks, such as NetworkNature, Oppla and the Connecting Nature Enterprise Platform, as a means of addressing technical knowledge gaps (EC, 2022; Eurac Research et al., 2022).</p> <p>Best practice: Join the Connecting Nature Enterprise Platform to stay up-to-date with good practices, emerging technologies, future trends & market opportunities.</p> <p>Utilise existing tools for impact measurement (e.g., Connecting Nature CO-IMPACT Tool, Invest4Nature Decision Support Toolbox)</p>

Recommendations to Support NbEs towards a Nature-Positive Economy

NbE Barrier #1: Knowledge and Skill Gaps among NbEs and Lack of Awareness of NbS/NbEs.

Recommendations for Policymakers	Recommendations for NbEs
<p>partner in the Invest4Nature project. Through Breeze powered technology, visitors can pay a contribution based on their estimated carbon footprint for each trip/event (e.g., travel distance, details of accommodation) which is calculated based on an internal carbon price. The contribution then goes towards local sustainability projects managed by Cascais Ambiente, including reforestation, biodiversity conservation and sustainable land use.</p> <p>Sources: Healy (2025); Cascaisfortomorrow (n.d.)</p>	<p>Develop the business case for NbS and bid or pitch to prospective public and private sector clients.</p> <p>Best practice: NbS Financing Pitch & Match Webinar series - brings together 1 NbS and 1 funder to spotlight innovative financing models for promising NbS endeavours (co-organised by Invest4Nature and NetworkNature).</p>
<p>Address gaps and limitations in supply side through scaling high quality NbS capacity and strengthening the educational pipeline of NbS practitioners (Brangan & Brophy, 2025).</p>	<p>Join existing NbS online marketplaces that address industry fragmentation, support peer-to-peer knowledge exchange and connect buyers and suppliers of NbS i.e. Connecting Nature Enterprise Platform</p>
<p>Enhance recognition and awareness of NbS/NbEs at national and regional policy level (Tedeschini et al., 2024), and among public authorities to ensure higher funding rates or incentives (Tedeschini et al., 2023).</p> <p>Vignette: Grünstatgrau, Austria.</p> <p>Grünstatgrau is Austria's national centre of competence for green buildings and an innovation lab for greening cities. It stimulates market development, networks and connects suppliers with customers, supports research and development of innovative products and projects and leads on urban greening strategies.</p> <p>Source: McQuaid (2024)</p>	
<p>Greater efforts to inform policymakers, as well as banks and other investors, about the specific needs and characteristics of NbEs (Tedeschini et al., 2024).</p>	
<p>Boost public awareness and education around the value of NbS through communication campaigns.</p>	

NbE Barrier #2: Challenges associated with the Funding and Market Development of NbS

Recommendations for Policymakers	Recommendations for NbEs
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<p>Drive policy change and support for the development and scaling up of NbS sectors.</p> <p>Vignette: Regen10</p> <p>Regen 10 is a global multi-stakeholder initiative that will work with over 500 million farmers to scale regenerative food production by 2030. The initiative also aims to ensure that approximately USD \$60 billion annually is deployed to finance the transition. Regen10 will drive alignment and convergence of existing food and farming sector initiatives, and scale-up collective action, by bringing together farmers, along with businesses, investors, NGOs, and policymakers to accelerate system change.</p> <p>Source: WBCSD (2021)</p>	<p>Potential for small NbEs to report voluntarily/become taxonomy aligned - boost attractiveness for corporate lenders (Tedeschini et al., 2024).</p> <p>Best practice: Voluntary Reporting Standards for SMEs (VSME) from EFRAG.</p>
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<p>Tackle the challenges regarding procurement that preclude NbEs/suppliers of NbS e.g., stipulate nature-positive considerations in procurement/supplier contracts (Jacobs, 2023).</p>	<p>Partake in incubators, enterprise competitions and funding contests.</p>
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<p>Introduce policies that support the establishment and development of industry and certification standards that can enhance the measurement and communication of impact from NbS/ NbEs (Brangan & Brophy, 2025).</p>	<p>Explore and pursue alternative and diversified funding arrangements e.g., crowdfunding, microfinancing, debt/equity financing.</p>
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<p>Foster an environment of “nature-based entrepreneurship” (Tedeschini et al., 2023). For instance through the setting up of test laboratories for municipalities and companies to co-create efficient multifunctional solutions (idem.).</p> <p>Vignette: Madrid Innovation Sandbox</p> <p>Madrid Innovation Sandbox is a controlled-testing environment that provides safe spaces in which different products, services, and innovative projects on multiple themes can be tested and put into practice. These proof-of-concept offerings contribute to enhancing</p>	<p>Pursue existing relevant certification standards, such as Forest Stewardship Council Certified, Regenerative Organic Certified, Certified Regenerative, Ethos Regenerative Outcome Verification.</p>
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NbE Barrier #2: Challenges associated with the Funding and Market Development of NbS	
Recommendations for Policymakers	Recommendations for NbEs
<p>quality and efficiency or solve problems in the urban environment on topics including sustainability, economy, energy, public spaces, safety and accessibility. This initiative enables the testing of innovative offerings on a reduced and temporary scale (an urban area of 20 sq.km), helping to simplify procedures and administrative burden and attract innovation and entrepreneurship to the city of Madrid.</p> <p>Source: The Innovation in Politics Institute (n.d.)</p>	
Co-develop EU, national and regional business and finance strategies for scaling NbEs.	
Lower the time and labour demands for grant applications (Tedeschini et al., 2024).	
Enhance stakeholder engagement of investors and NbEs to explore barriers and opportunities to increase investment, and to address lower uptake of institutional and private financing (Tedeschini et al., 2024).	
Align existing economic policies and instruments with NbE needs, as well as new financial instruments piloted towards NbEs e.g. recognition for nature-positive NbE activities in the EU Sustainable Finance Taxonomy (Tedeschini et al., 2024).	

4.4. Key Messages and Recommendations

Key Messages

All businesses, to varying degrees, have dependencies and impacts on nature, and there are risks and opportunities to business from nature (TNFD).

According to [PwC \(2023\)](#), 55% of global GDP, or approximately \$58 trillion, is moderately or highly dependent on nature. The impacts of business on nature are well accounted for, and include, for instance, land, freshwater and ocean use change, climate change, and pollution/pollution removal. The risks to businesses from their dependencies on nature are increasing in frequency and severity. Notwithstanding, there are opportunities emerging for business through the nature-positive transition, such as new commercial prospects

from NbS markets and the opportunity to de-risk supply chains, and secure a Social Licence to Operate.

Large businesses encounter a number of challenges to taking nature-positive action or mitigating nature-negative impacts.

- *Integrating Nature Positive Principles into Decision-making, Business Models and Strategies:* While some financial and business leaders in Europe have shown exceptional leadership on nature, for the majority, nature is not high on the agenda for senior management. There is a lack of awareness and/or buy-in related to the dependencies, impacts, risks and business opportunities related to nature. This is compounded by the siloed nature of sustainability reporting in many large organisations and the dominant focus on climate change in business and policy discourse. The result is that nature is not integrated into decision making on business models, strategies and financing.
- *Regulatory and Voluntary Standards and Reporting:* the divergence and proliferation of standards, guides, metrics and indicators that large businesses can or must utilise in their assessments and reporting creates confusion and inhibits uptake.
- *Locating and Measuring Nature-related Impacts and Implementing Changes across Geographies and Value Chains:* businesses face difficulties associated with measuring the impacts of upstream and downstream supply chain activities, in direct and indirect operations. Many global supply chains are complex and opaque, making it difficult to acquire nature-related data from suppliers.
- *Engaging Community Stakeholders:* there is a two-way lack of understanding and experience in developing meaningful and equitable collaborations between businesses and community stakeholders. This applies to engagement with local communities and Indigenous Peoples at site level and throughout supply chains.

SMEs face specific challenges complying with reporting requirements and transition to nature-positive practices

- SMEs, though having the same interests as corporates in the nature-positive transition, will differ in terms of challenges due to resource constraints. Mandatory reporting standards may not be applicable to unlisted SMEs in the EU; however they may still be beholden to larger clients that request sustainability data from their supplier network.
- Guidance and support for implementation of updated (July 2025) voluntary reporting standards for non-listed micro, small and medium enterprises ([VSME](#)) is unclear.
- As different companies may have divergent approaches to requests for data and the official guidance on voluntary standards is unclear, SMEs face a complicated landscape of reporting requirements, compounded by capacity constraints.
- Limitations in capacity and resources may result in SMEs prioritising nature-positive initiatives that provide the most optimal return on investment (ROI). This may lead to lower uptake of NbS as wider societal and environmental benefits are not a priority. Transition to NbS practices can trigger disruption to livelihoods, or long-established processes and practices.

Nature-based Enterprises are encountering policy, funding and market barriers that inhibit their capacity to appropriately meet and create new market demand.

- Nature-based enterprises face a lack of awareness about the terms 'NbS' and 'NbEs'. While awareness of the term 'NbS' has increased in the public sector in recent years, there is an enduring lack of awareness among businesses in the private sector. This translates to a lack of knowledge and gaps in quality

standards relating to the deployment of NbS. Lack of NbS industry standards may impact growth and attractiveness of the market.

- NbEs also struggle to differentiate their business mission and nature-positive business model from those of other businesses operating in the space. They express concerns about the potential for green-washing and delivery of sub-standard solutions. While application of voluntary reporting standards could help NbEs to demonstrate their nature credentials, the lack of clarity, guidance and cost of applying such standards is a major barrier.
- Nature-based enterprises face specific knowledge and skill gaps pertaining to business and/or technical knowledge, which is compounded by the limited educational pipeline in core NbS disciplines. The lack of skills around impact measurement of NbS is a major gap and the lack of knowledge as to NbE/NbS among clients, funders and investors is a major barrier to investment and financing.
- Funding constraints emerge through lack of staff capacity to explore financing options, onerous grant applications, lack of access to traditional financing, misalignment of investor and business owner expectations, and small company size that precludes taking on large amounts of debt. Prohibitive procurement processes are also a barrier with tendering for public sector contracts.

Sectoral-level business action must be taken, particularly amongst those businesses that contribute significantly to biodiversity loss and nature's decline (IPBES)

The Nature-Positive Economy prioritises systemic change in the sectors which have highest impact and dependencies on nature, and which are simultaneously doing most harm. Priority sectors are agriculture and livestock, fisheries, forestry and infrastructure, mining and fossil fuel (IPBES, 2024). The nature-positive economy identifies how biodiversity loss in these sectors is leading to significant risks for businesses dependent on healthy ecosystems and proposes opportunities for systemic change towards nature-based solutions and nature-positive business practices to mitigate risks and generate new growth opportunities aligned with planetary boundaries. This publication reviews the Dependencies, Impacts, Risks and Opportunities (DIROs) of four sectors (Agri-food, Built Environment, Blue Economy and Forestry) in relation to nature. The challenges to a nature-positive transition for businesses within these sectors were also explored.

Recommendations

Recommendations for Corporates:

- Ensure a balanced approach is taken to proposed simplification amendments to the CSRD and CSDDD that retains the benefits of sustainability reporting whilst ensuring that requirements are proportionate.
- Steer more funding and resources towards data accessibility and standardisation, as well as incentives and capacity building initiatives needed for high-quality nature-based assessments and reporting in companies.
- Direct funding, subsidies and tax incentives towards broader business adoption of nature-positive initiatives, as well as funding for capacity building in this space.
- Cultivate industry wide shifts towards a nature-positive economy through partnership work with stakeholders and address the systemic roadblocks to adoption of nature-positive business opportunities (e.g., subsidising “business-as-usual”).
- Tackle supply chain opacity through increased incentivising uptake of voluntary reporting and funding of research into new technologies/sector level initiatives on supply chain transparency, whilst also increasing regulation of those sectors that contribute most to unsustainable production.

- Reduce, eliminate and repurpose nature harmful subsidies, establish clear standards and regulations for NbS to stimulate private sector investment.
- Foster communication and collaboration between local communities, indigenous peoples and other affected stakeholders and business community on transition to a nature-positive economy. Support capacity building and cross-stakeholder networking initiatives.

Recommendations for SMEs:

- Stimulate voluntary reporting among SMEs through capacity building and incentives to support awareness and uptake. e.g. the updated voluntary reporting standard for SME (VSME 2025)
- Provide clear guidance, simplified reporting requirements, incentives and support to SMEs in developing data measurement capabilities in order to meet requests from larger clients for sustainability data.
- Ensure that reduced reporting obligations do not trigger trade-offs or unintended consequences for SMEs where they could become overlooked for sustainable investment.
- Funnel resources, funding and research towards removing systemic roadblocks to nature-positive action in SMEs and to stimulate capacity building among SMEs to supply NbS.

Recommendations for NbEs:

- Address capacity gaps in NbEs through strengthening the educational pipeline of NbS practitioners and ensuring greater provision of capacity building, education and training programmes for NbEs.
- Enhance recognition and awareness of NbEs/NbS among policymakers, public authorities, investors, civil society and other stakeholders.
- Foster an environment of nature-based entrepreneurship and introduce policies that support the establishment and development of the industry e.g. invest in tools/technologies for impact measurement and valuation of NbS, introduce new financial instruments piloted at NbEs, tax and other incentives to encourage investment in innovation and scaling of NbEs for increased nature-positive impact.
- Drive policy change and support for the development and scaling up of NbS sectors, including efforts to tackle systemic roadblocks (e.g., challenges to procurement, barriers to private sector investment, time and labour demands for grant applications).

Research Gaps & Capacity Building

- **Further research needed on the business model for nature-positive transformation.**
Build upon existing work (e.g., A-Track) to develop, test and innovate with nature-positive aligned business models. Research should be carried out to further investigate the feasibility, scalability and investability of nature-positive business models, as well as strategies needed to enhance their wider adoption across businesses and sectors. Capacity building and guidance should be provided for businesses that either innovate with established business models or develop new business models based on nature-positive principles.
- **Shed light on internal business challenges to nature-positive transformation.**
There are many internal roadblocks to a company's nature-positive journey including resistance to nature-positive action and lack of organisational awareness and/or buy-in. Organisational research is needed to better understand

the causal factors and the strategies/tools needed to address these internal organisational challenges to a nature-positive transformation.

- **Further research needed into policy and non-policy drivers of nature-positive business transformation.**

Research is required on the optimal measures (policy and non-policy) required to support the transformation of EU businesses, in particular SMEs, towards nature-positive. Capacity building is required for banks, investors, funders and other decision makers who should be equipped with the knowledge and awareness of NbS and Nature-based Enterprises, including of their unique characteristics (e.g., economic and non-economic goals).

- **Address limited NbS supply and skill gaps among Nature-based Enterprises.**

There is a requirement to address capacity gaps among NbEs and bolster the educational pipeline of NbS suppliers in areas where demand exceeds supply. Career guidance and awareness of NbS at third level should be leveraged to alleviate the current dearth of qualified NbS practitioners. Research should build upon prior work (e.g., NBS EduWORLD) to enhance understanding of the pathways and barriers to entry for NbS careers, as well as the current provision and standard of NbS educational offerings at third level institutions across the EU. Research and support measures should be developed with practitioners and industry associations to support the development of industry standards and certifications to raise quality standards and mitigate against green-washing and malpractices in a growing market.

5. Industry Sector Transformation

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Chapter Summary: This chapter is grounded in EU-funded evidence and real-world policy innovations, drawing from activities and case studies in Agri-food, Built Environment, Blue Economy and Forestry to provide sectoral examples illustrating how policy design can drive transformative change by:

- Correcting harmful subsidies and incentives
- Redirecting finance toward regenerative practices
- Mainstreaming biodiversity into sectoral planning and performance metrics
- Promoting inclusive governance and participation
- Supporting innovation and long-term systemic resilience

5.1. From system-wide principles to sector-specific recommendations

Translating systemic insights into meaningful progress requires identifying how transformation towards a Nature-Positive Economy can be operationalised within specific economic sectors. The following sections zoom into high-impact sectors that are pivotal for reversing biodiversity loss and enabling regeneration. Building on the business-focused analysis in [Chapter 4](#), each sector is examined through the lens of enabling policies, strategic recommendations and real-world examples from EU-funded projects. Together, they show how a Nature-Positive Economy can take root through sector-specific interventions that uphold the principles of biodiversity enhancement, equity and systemic change.

Global assessments, including the IPBES Global Assessment on Biodiversity and Ecosystem Services (2019), the IPBES Transformative Change Assessment (2024) and the European Commission Joint Research Centre analysis of EU nature dependencies, consistently identify agriculture, forestry, fisheries and aquaculture, and built infrastructure as the leading economic drivers of biodiversity loss. These findings provide the scientific and policy rationale for the focus of this chapter.

The chapter presents profiles of agri-food, built environment, blue economy and forestry, and also provides policy recommendations for all these sectors and for tourism. Although tourism is not ranked as a top priority impact sector in global or EU assessments, it remains highly relevant for local economies, for nature positive business models (see [Box 3.9 in Chapter 3](#)), and is a strategic focus of GoNaturePositive!, offering important opportunities for conservation oriented development. Each profile describes sector size, value chains, stakeholders, dependencies, impacts, risks and opportunities; highlights enabling and

constraining elements in EU policy; and sets out recommendations for economic policymakers. Drawing from EU funded projects and emerging business models, these sectors illustrate how transformation is already unfolding and what is needed to scale it further. The criteria for selecting these sectors are set out in [Appendix V](#), apart from the tourism sector.

The sectors we focus on are both heavily dependent on nature and significant contributors to its decline. The externalities of the sectors most responsible for nature's decline, including agriculture and livestock, fisheries, forestry, infrastructure, mining and fossil fuel industries, were estimated at over ten trillion US dollars in 2021, which corresponds to approximately ten point seven trillion in 2023 prices ([IPBES, 2024a, p.38](#)). Much can be achieved at a sectoral level when businesses coordinate for best practice, collaborate at landscape scale, integrate natural capital into decision making and advocate for ambitious policy action ([Koh et al., 2025, p.39](#)).

Despite promising practices, significant obstacles persist. These include policy barriers such as the continuation of harmful subsidies and weak incentives for nature positive action, regulatory hurdles and administrative burdens that delay implementation, and financial constraints that limit private investment in nature based solutions and ecosystem restoration. Corporates, Small and Medium-sized Enterprises (SMEs) and Nature-based Enterprises (NbEs) each face different challenges across value chains, but all have critical roles in driving change.

The subsequent sector profiles apply the Dependencies, Impacts, Risks and Opportunities (DIROs) framework developed by the Taskforce on Nature-related Financial Disclosures (TNFD). This lens clarifies how businesses depend on and impact nature and how these interactions create risks and opportunities, helping to target transformative action where it is most needed.

5.2. Sector-Specific Challenges and Pathways for a Nature-Positive Business Transition

5.2.1. Agri-Food

Sector Profile: Agri-Food

Sector Overview



Agriculture is both a driver of environmental degradation and a key opportunity for regeneration. The Agri-food ecosystem, comprising all operations in the food supply chain (farmers, food industry, food retail and wholesale, and food service) and their suppliers of inputs and services ([European Commission, n.d., f](#)), employs 16 million people and contributes €603 billion or 6.4% of the EU's total economy ([Van de Velde et al., 2023](#)).

Agriculture accounts for 38 percent of EU land use and remains the leading cause of biodiversity loss and pollution across habitats, especially in grasslands and wetlands. Chemical inputs and intensive production models continue to degrade ecosystems, while biodiversity indicators such as farmland birds and grassland butterflies have declined sharply in recent decades.

Despite these pressures, the sector holds strong potential to transition towards a nature-positive economy. Agroecological, regenerative and organic systems offer proven approaches to enhance biodiversity, rebuild soils and improve ecological

Sector Profile: Agri-Food

resilience. These solutions reduce external inputs while delivering long-term benefits for food security and climate mitigation (McDonald et al., 2025).

Dependencies, Impact, Risks, Opportunities (DIROs)

The Agri-food sector is highly dependent and impactful on nature. Over one-third of habitable land and half of all wetlands are converted for agriculture ([WBCSD, 2023a](#)). As a result of its impacts and dependencies on nature, the agri-food sector is exposed to physical risks, such as loss of revenue due to variability in crop yield, and transition risks, such as costs of regulatory compliance e.g., meeting food sector GHG emission reduction targets ([TNFD, 2024a](#)).

There are, however, opportunities for the Agri-food sector from transition to nature-positive practices. WBCSD suggest over 15% in return on investment (ROI) can be achieved by farmers by transitioning to regenerative agriculture ([WBCSD, 2023a](#)). Businesses in this sector can also benefit from increased revenue from improved yields in addition to increased market valuation ([TNFD, 2024a](#)). However, there are trade-offs to transitioning to regenerative agriculture, due to initial higher costs and lower yields, concerns regarding ease of implementation and entrenched narratives of traditional farming practices ([EC, 2022](#); [IPBES, 2024a](#); [WBCSD, 2023a](#)).

Agricultural NbS

As part of the Horizon Europe project, Invest4Nature, a systematic literature review, surveys and interviews were undertaken to better understand the financing landscape for NbS. [Tedeschini et al.'s \(2024\)](#) review showed that agricultural NbS cases focus on agro-forestry, silvo-pastoral practices and sustainable land-use management. Latin America (44%) and Asia (18%) are the main regions, with projects ranging from local (51%) to medium (26%) and large-scale (23%). Public funding dominates (56% of cases), followed by mixed public and private (26%) and private only (18%) sources. Financing instruments include PES, incentives, and in-kind donations (support, technical assistance, equipment, and livestock). Ensuring long-term success in this sector often requires the implementation of enforcement mechanisms or penalties. In terms of investment, a survey with investors and financing institutions found that agriculture/food related NbS is among those NbS with a higher investability/bankability potential. This corresponds closely with the [European Investment Bank \(2023\)](#) and its assessment of agriculture as among the sectors with the highest potential for private investment and scaling of NbS.

Business Type/Size and Value Chain

The EU agri-food sector is typically formed by SMEs, with 99% of food and drink enterprises categorised as SMEs, and in particular, micro enterprises ([Van de Velde et al., 2023](#)). Large enterprises comprise 1% of food and drink enterprises, yet employ 40% of the workforce and contribute over half of the turnover of the sector ([Van de Velde et al., 2023](#)). Although farms are not categorised as SMEs, most are, however, small, with only 1% of EU farm holdings reporting an annual turnover of €500,000 ([Van de Velde et al., 2023](#)).

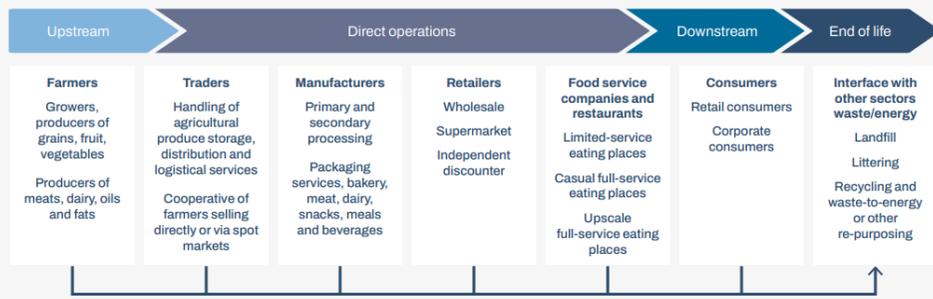
Sector Profile: Agri-Food

Corporates, SMEs and NbEs may operate at different phases of the agri-food value chain (i.e. upstream, direct operations, downstream) and represent one or more value chain participants. The participants of the agribusiness value chain are hugely diverse in terms of type of organisation and size:

- Farmers (ranging between smallholders to agroholdings)
- Traders (ranging from local middlemen to global agribusinesses)
- Food companies (ranging from SMEs to multinationals) and
- Retailers (ranging from corner shows to hypermarkets)

Source: [KPMG \(2013\)](#).

NbS activities of nature-based enterprises often pertain to agricultural landscapes and production (e.g., grazing optimisation, nutrient management) ([EC, 2022](#)), and are, thus, generally concentrated in the upstream segment of the value chain. The majority of DIROs occur in the upstream primary production stage and so this must be made a priority for investigation ([TNFD, 2024a](#)). However, this can be a challenge for large-scale food sector companies that are operating in complex supply chains and do not typically own and operate farms ([TNFD, 2024a](#)).



Source: Illustrative food and agriculture value chain from [TNFD \(2024a\)](#) Additional sector guidance Food and agriculture. <https://creativecommons.org/licenses/by/4.0/>

Roadblocks

As part of the Horizon Europe project SUSTAIN, a set of case studies were published pertaining to two large agri-food firms (Nutrien & Olam Agri). A number of key challenges were identified, reflecting corporates' common challenges to assess and act upon nature-related issues, including:

- Value chain positioning (less guidance re downstream activities);
- Data availability/traceability;
- Materiality assessment (certain regions outperforming due to more stringent regulatory standards);
- Access to finance & investment case;
- Collaboration & stakeholders (must engage stakeholders, including producers).

Challenges pertaining to smaller players (i.e. smallholdings, small farms, growers and producers, NbEs in agriculture) include limited access to finance and incentives (e.g. carbon credits) if implementing NbS (e.g. agroforestry) ([Grinieue et al., 2024a](#)). Further, farmers may be disincentivised due to issues with land tenure and the higher costs and lower yields associated with regenerative agriculture ([WBCSD, 2023a](#)).

Sector Profile: Agri-Food

Adoption of NbS in this sector may be hindered by a multitude of factors including lack of awareness/training, the uncertainty of financial return on investment and non-economic factors that include cultural barriers and ease of implementation (EC, 2022). Another major barrier to the uptake of Agricultural NbS is the continuation of harmful subsidies that support “business as usual”, the reality of which is encapsulated in the following case study.

NbE Case Study - Flanders Farm - Taken directly from GoNaturePositive! Sectoral Brief Agri-food Systems (McDonald et al., 2025; GoNaturePositive! Autumn Webinar Series, 2024)

A farm in Flanders, Belgium provides an inspiring demonstration of how agricultural practices can be successfully integrated within a nature reserve through collaboration with the local ecosystem. On the 150 hectare farm, livestock such as cattle, sheep, and locally endangered goat breeds play a vital role in maintaining the ecological balance of the landscape.

The farm employs a low-cost, nature-based business model that minimises external inputs and relies on ecosystem functions for animal feed. At the same time, the farmer maintains and contributes to the ecosystem services the nature reserve provides for society by using extensive grazing. This approach enhances sustainability while fostering a closer connection between farming, nature conservation and society.

Despite the ecological benefits of such a nature-positive approach, there are several challenges and systemic barriers. For example, financial recognition for ecosystem services remains inadequate. The main challenges are:

- (1) the CAP's instruments of direct income support and investment support favour the status quo of intensive, large-scale farming reliant on chemical fertilisers and pesticides;
- (2) the market and the CAP make it financially more interesting for farmers to maintain nature-negative practices.



As a more sustainable and nature-positive alternative, the CAP's instruments should reward the farmer for providing ecosystem services, rather than the current approach which in practice only covers lost revenues and extra costs of nature-positive measures. In addition, nature-positive farming should be stimulated to make it more competitive. In doing so, CAP and other policies that use public money for the public good (i.e. ecosystem services) can help to make nature-positive farming an attractive business model for all farmers and avoid subsidies that support a food system that is harmful for the environment.

Sources: [McDonald et al. \(2025\); GoNaturePositive! Autumn Webinar Series \(2024\).](#)

Sector Profile: Agri-Food

Policy Recommendations for Economic Policymakers

To position agriculture as a foundation for the nature-positive economy, economic decision-makers should:

- Reorient agricultural subsidies under the CAP to reward delivery of biodiversity outcomes and ecosystem services, not merely compliance or productivity.
- Establish binding biodiversity performance indicators and integrate them into CAP conditionality, eco-schemes and agri-environment-climate measures.
- Support investment in nature-based enterprises and sustainable farm transitions, including targeted financial instruments for smallholders and marginalised groups.
- Mainstream payment for ecosystem services schemes and make biodiversity restoration a core criterion for rural development and resilience strategies.
- Ensure coherence across CAP, the EU Biodiversity Strategy and the Nature Restoration Regulation to reinforce restoration in agricultural landscapes.
- Collaboration between farmers and conservationists, public financial support for ecological practices, and systemic changes to reward sustainable farming through measures like true-cost accounting.

Sector-Specific Research & Skills Gaps

- Further research is needed to improve the evidence base related to the economic performance of regenerative and agroecological systems at different scales and climates.
- Development and piloting of decision-support tools and metrics for biodiversity outcomes and ecosystem services for different stakeholders in the value chain i.e. from farm-level to policy level.
- Build capacity and skills in participatory landscape management and true-cost accounting for stakeholders in the agri-food value chain e.g. farmers, local communities, large businesses and local authorities.
- Develop and deliver training in blended finance and cooperative business models for farmer collectives and nature-based enterprises. Capacity building for investors and financial institutions on needs of farmers and NbEs in the nature-positive economy.
- Research and testing of new financial instruments and incentives programmes tailored to the mission and needs of farmers, NbEs and all agri-food businesses transitioning towards nature-positive.

Some cases from EU Projects

- GoNaturePositive: The partner Voedsel Anders supports community-led agroecological farming initiatives that blend ecological regeneration with social innovation, including income diversification and landscape stewardship.
- MULTISOURCE: Demonstrates circular approaches in agricultural water and nutrient cycles using nature-based solutions. These models enhance soil function, reduce runoff and contribute to both food security and water quality.

Conclusion

Agriculture can become a pillar of the nature-positive economy by shifting its economic incentives and institutional structures. This transition must be supported by clear policy direction, investment in innovation and inclusion, and recognition of the true value of nature in food systems. Advancing this vision requires structural transformation, the creation of shared societal goals, and the alignment of policy and investment strategies. It also demands pluralistic governance, the inclusion of diverse knowledge systems, and coherent engagement across government and society. As farmers and land stewards navigate these transitions, targeted support from business actors and inclusive governance mechanisms will be critical to foster nature-positive practices and

Sector Profile: Agri-Food

rural resilience.

5.2.2. Blue Economy

Sector Profile: Blue Economy

Sector Overview



The blue economy covers marine, coastal and sea-linked industries (e.g. such as fisheries, aquaculture, marine energy, ports, maritime transport and coastal tourism) (EU, 2024). In Europe the blue economy directly employs 4.82 million people and accounts for approximately 2.4 per cent of EU-27 GDP (European Commission, 2025b).

Despite its economic importance, marine and coastal ecosystems face severe degradation from habitat destruction, pollution, overfishing, unsustainable coastal development and climate impacts. Many marine habitats remain in poor or unknown conservation status, with 86 per cent of EU Marine Protected Areas offering inadequate ecological safeguards.

A nature-positive blue economy shift would protect marine biodiversity, support equitable coastal livelihoods, and embed ecological principles in fisheries, aquaculture and maritime infrastructure where restoration and regeneration become core elements of economic activity rather than afterthoughts (Elkina et al., 2025).

Sector Profile: Blue Economy

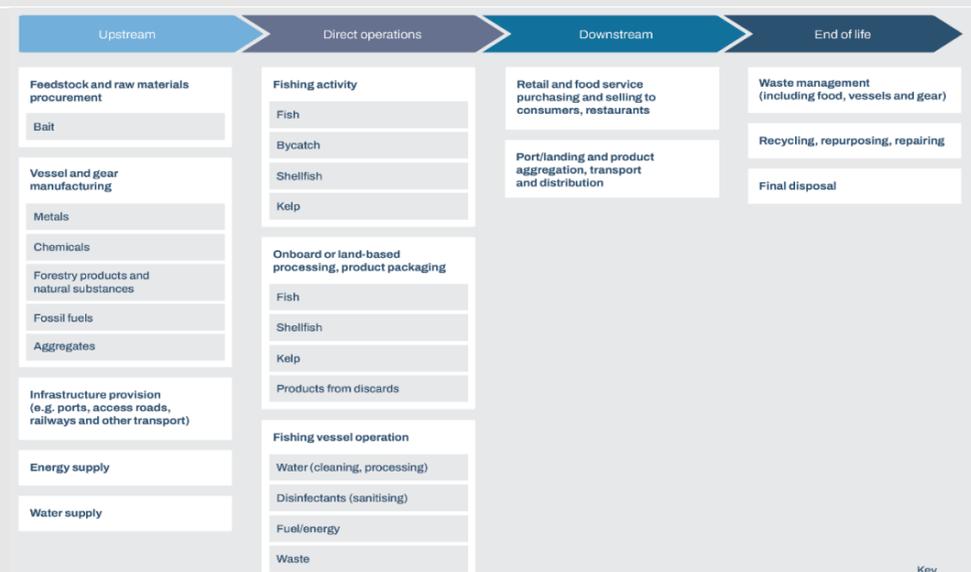
Dependencies, Impact, Risks, Opportunities (DIROs)

Fisheries, as a key sector of the blue economy, are highly dependent on healthy and functioning marine ecosystems for access to fish stocks, water supply, cultural services, and other regulating and maintenance services (TNFD, 2025a). This sector, in turn, is among the most impactful on nature, causing habitat destruction (e.g. fishing gear that falls to the seabed), pollution, CO2 emissions and harm to endangered species (caught as secondary catch) (TNFD, 2025a). This sector is exposed to numerous nature-related risks including decreased revenues due to dwindling fish stocks, as a result of overfishing and poor fishery management (TNFD, 2025a).

There are, however, opportunities for a nature-positive transition of the sector. Nature-positive practices within the sector are emerging and include “blue carbon farming and marine ecosystem restoration for carbon sequestration and biodiversity benefits, organic/regenerative aquaculture, and circular bio-based solutions” (Kupilas et al., 2025, p.48). Illustrative benefits for businesses that adopt nature-positive opportunities include increased revenue and stability of fisheries, and increased sustainability of long-term business activities and revenues due to the safeguarding of marine habitats and species (TNFD, 2025a).

Business Type/Size and Value Chain

Fisheries may range in size from industrial scale with thousands of fishing vessels to small-scale, artisanal operations consisting of one or two boats (TNFD, 2025a). Value chains can be long and complex with hatcheries, aquafeed and equipment suppliers (in the upstream segment) supplying to fishers/producers (who may or may not engage in onboard/land-based processing) who sell downstream to wholesalers, retailers and the restaurant market (see TNFD graph below). Further, this industry is characterised by its international trade with the EU’s trade volume of fishery and aquaculture products reaching 8.1 million tonnes (at a total value of €38.2 billion) in 2023, second only to China at 12.1 million tonnes (at a total value of €41.3 billion) (EUMOFA, 2024).



Source: Typical Fishing Industry Value Chain from TNFD (2025a) Draft sector guidance - Fishing. <https://creativecommons.org/licenses/by/4.0/>

Sector Profile: Blue Economy

Much of the enterprises in the fishery, aquaculture and fish processing sectors are SMEs. Small scale coastal fisheries represent 76.1% of active vessels and 49.2% of engaged crew, and account for 6.8% of the landed weight and 15.7% of the landed value in 2021 ([Kuepper, 2025](#)). Large scale fisheries represent 20.1% of active vessels and 31.6% of engaged crew, yet account for 22.5% of the landed weight and 32% of the landed value in 2021 ([Kuepper, 2025](#)).

Aquaculture enterprises in the EU are primarily small and family-owned, with 80% of such enterprises comprising under 10 employees, as of 2020 ([European CINEA, 2023](#)). NbEs in this sector include those engaged in regenerative aquaculture, defined as “a form of marine venture that gives back more than it takes out, leaving nature in a better state that benefits future generations” (Kapletia et al, 2024, as found in [Klinkenbergh & Fletcher, 2024](#)).

For this profile, corporates are understood as sector adjacent, large enterprises whose operations may result in physical damage to marine and coastal habitats (e.g., port companies, offshore energy producers, mining companies, cruise lines). Such companies may be obliged by legislation or be voluntarily committed to engage in nature-positive action ([EIB, 2023](#)). For instance, REST-COAST identified blue carbon credits (used by companies for offsetting purposes) as an innovative financing mechanism for coastal restoration.

Roadblocks

Through the REST-COAST project, a number of technical, financial and governance barriers to coastal restoration NbS were uncovered (see also [Pernice et al., 2024](#)). In their review of innovative public funding, finance and provisioning arrangements of coastal NbS ([Favero & Hinkel, 2023](#)), REST-COAST identified the shortage of firms with experience of NbS supply as a key barrier to procurement contracting. Challenges to carrying out NbS in the marine/coastal sector relate to technical costs (location, scale, water depths), obtaining permits and timescales ([EIB, 2023](#)).

C-FAARER ([Klinkenbergh & Fletcher, 2024](#)) explored the opportunities and challenges for the business and socio-economic case for Norwegian Seaweed Association members and the seaweed industry generally in Norway. They uncovered a core challenge for SME seaweed operators as the struggle for opportunities to scale while being able to produce enough to meet market demand, which is exemplified in the following case study.

Sector Profile: Blue Economy

NbE Case Study - Lofoten Seaweed - Taken directly from C-FAARER NSA Cluster Insights Report - Socio-Economic and Business (Klinkenbergh & Fletcher, 2024)



Lofoten Seaweed, based in the Lofoten Islands in Northern Norway was established in 2016 and is run by two female founders, Angelita Eriksen and Tamara Singer. Eriksen comes from a fishing village and has spent her life on the ocean working alongside her fisherman father. Given her experience, combined with an interest in nutrition, Eriksen embarked on a career in seaweed as a food source. Singer, originally from New Zealand, has a Japanese mother who used seaweed as a regular ingredient in

their home. Together, Singer and Eriksen have combined their knowledge, experience and traditions from opposite sides of the globe to create a unique seaweed brand.

Lofoten Seaweed is one of a few companies in Norway that wild harvests seaweed. They do this in a sustainable manner and their methods are not comparable to other wild harvesting techniques such as methods such as large-scale bottom trawling. With their method of harvesting, Lofoten Seaweed states that protecting the ecosystem is their highest priority and they use carefully reviewed harvesting and monitoring methods to ensure healthy regrowth and minimal impact to

marine life. Harvested seaweeds by Lofoten Seaweed include winged kelp, sugar kelp, dulse, nori, oar weed and truffle seaweed. Their seaweed is certified as organic through Debio, a Norwegian membership organisation acting as a certification body in Norway which is recognised by Organic Agriculture Europe. Lofoten Seaweed also markets under the 'Seagreens of Norway' trademark, a mark developed by the Norwegian Seaweed Association (NSA) for use by NSA members, which illustrates that seaweeds are harvested responsibly from Norwegian waters. Currently, in the case where the demand for Lofoten Seaweed products exceeds supply, they will source organically farmed winged kelp from a seaweed cultivator in Northern Norway. Additionally, Lofoten Seaweed themselves would like to expand into farming but are apprehensive due to their knowledge and understanding of the challenges and investment costs.

Source: [Klinkenbergh & Fletcher, 2024](#).

Sector Profile: Blue Economy

Policy Recommendations for Economic Policymakers

To reposition the blue economy as nature-positive, economic decision-makers should:

- Embed biodiversity-positive incentives in maritime policies and funding instruments, aligning the Marine Strategy Framework Directive, the EU Biodiversity Strategy, and the Ocean Pact with nature restoration targets.
- Prioritise ecosystem-based marine spatial planning and ensure the EU Nature Restoration Regulation and upcoming MSP Directive integrate blue economy restoration goals.
- Incentivise ESG-aligned blue finance through instruments such as blue bonds, blended finance and Taxonomy-aligned investment tools.
- Support small and medium coastal and marine enterprises through simplified access to funding and streamlined licensing pathways.
- Mainstream performance indicators and impact metrics for biodiversity in fisheries, maritime transport, port operations and aquaculture permit systems.

Sector-Specific Research & Skills Gaps

- Further research and development is needed on cost-effective methods and data for assessing the cumulative impacts of fishing, aquaculture and coastal infrastructure on marine ecosystems.
- Capacity building and funding is needed to enhance knowledge of innovative and cost-effective large-scale restoration techniques, such as seagrass or saltmarsh recovery.
- Build awareness, capacity and skills for developing and certifying blue carbon credits and other marine natural capital accounting mechanisms among providers, industry players, financial institutions and policy makers.
- Further social science research is needed on equitable benefit sharing in coastal communities and inclusive marine governance.

Some cases from EU Projects

- REST-COAST: Saltmarsh restoration pilot in the Venice Lagoon. Demonstrated strong visitor willingness to pay for eco-tourism and birdwatching. Business model integrates restoration with cultural heritage and sustainable tourism. See REST-COAST cases from [chapter 3](#): Box 3.9 Co-Developing Business Plans for Upscaled Salt Marsh Restoration in the Venice Lagoon (Pernice et al., 2024).
- GoNaturePositive: Supports regenerative ocean farming and community-led marine conservation as pathways for scaling biodiversity restoration and food security in coastal regions.

Conclusion

The blue economy has the potential to transform marine sectors from drivers of ecosystem degradation into engines of ocean restoration, community resilience and low-carbon innovation. Achieving this requires structural transformation, realigning finance and regulation toward biodiversity restoration, and embedding nature-positive principles in economic paradigms. Inclusive, adaptive governance, valuing local knowledge and enterprise innovation, and equitable outcomes for coastal communities are all necessary. Business-led initiatives such as seaweed aquaculture projects (Óir na Farraige) and regenerative aquaculture SMEs show how private sector leadership can mobilise restoration while scaling nature-positive livelihoods. Coordinated action across public policy, finance, civil society and the private sector is essential for unlocking the transformative potential of the blue economy in Europe's journey toward a nature-positive future.

5.2.3. Forestry

Sector Profile: Forestry

Sector Overview



Forests cover approximately 45 per cent of the EU's land area ([European Commission, n.d., b](#)) and represent vital ecological infrastructure. They deliver ecosystem services critical to water regulation, agriculture, biodiversity, climate resilience and recreation. Yet despite their significance, many forests remain degraded due to land abandonment, lack of intervention and forest management and extractive management practices that prioritise short-term timber production over long-term

ecosystem health and resilience.

Despite the contribution of forestry to other sectors in the provision of raw materials, diverse value and supply chains in the circular and bioeconomies, the economic contribution of the forestry sector in Europe is in decline, with forestry and logging now representing a reduced share of EU GDP. Between 2000 and 2022, employment in the sector fell by 16 per cent and gross value added decreased by 19 per cent. Approximately 60 per cent of forest land is privately owned, while 40 per cent is under public management ([Weiss et al., n.d.](#)). Many actors operate within low-margin models, with limited incentives for biodiversity-enhancing forestry or investment in ecological restoration (Burgos et al., 2025).

The forestry sector is heavily dependent on nature, yet many current models often degrade the very ecosystems on which they rely. There are significant opportunities to integrate nature-based solutions, such as close-to-nature silviculture, mixed-species regeneration, agroforestry, payments for ecosystem services and biodiversity credits. However, uptake remains limited due to perceived trade-offs with timber yields, high restoration costs, institutional inertia and complexity around governance and land ownership and tenure issues given the high private ownership. More and more, there is also the need to balance production of raw materials that feed a bioeconomy and biodiversity conservation and restoration goals. Large corporations still hold leverage to influence sustainability outcomes, particularly through certified supply chains, public-private partnerships and responsible procurement practices.

Dependencies, Impact, Risks, Opportunities (DIROs)

The forestry sector is highly dependent on nature for biomass provisioning services (i.e. wood provisioning), water supply, soil and sediment retention, as well as cultural and supporting services e.g. recreation and tourism ([TNFD, 2024b](#)). As a result of its nature-related dependencies, this sector has considerable impacts on nature. The vast majority (84%) of EU forest habitats are currently reported as having “poor” or “bad” conservation status, while only 16% have a “good” conservation status ([EIB, 2023](#)).

Forestry businesses are exposed to nature-related risks that include physical risks, such as decreasing yields as a result of biodiversity loss, and transition risks, such as lower demand for certain single-use forest products as a result of changing customer

Sector Profile: Forestry

sentiment ([WBCSD, 2022](#)). There are, however, opportunities for a nature-positive transition of the sector. Private sector investment initiatives in forestry NbS may be driven by a need to protect supply chains and retain a social licence to operate ([EIB, 2023](#)).

There is significant opportunity for restorative and regenerative practices in upstream activities as a result of access to large amounts of land owned, leased or managed by companies, governments and community groups ([WBCSD, 2022](#)). Further, the growing demand for timber in sustainable construction is an emerging commercial opportunity ([WBCSD, 2022](#)) e.g. Sickla or “Stockholm wood city” (see [Daglid Hunt, 2025](#)).

Forestry NbS

From a review of 165 cases of NbS investment, Invest4Nature ([Tedeschini et al., 2024](#)) found that NbS in forests/forestry was the most prominent NbS landscape (40% of cases). Forestry NbS includes close-to-nature forestry, agroforestry, sustainable forest management, forest ecosystem services and ecological restoration/reforestation. These initiatives vary in scale, with local (51%), medium (26%), and large-scale (23%) projects addressing diverse challenges. Geographically, a significant portion of forest and forestry NbS projects are concentrated in Latin America (44%) and Asia (18%). Common financing instruments include Payment for Ecosystem Services (PES) (32%) and incentives and subsidies (25%).

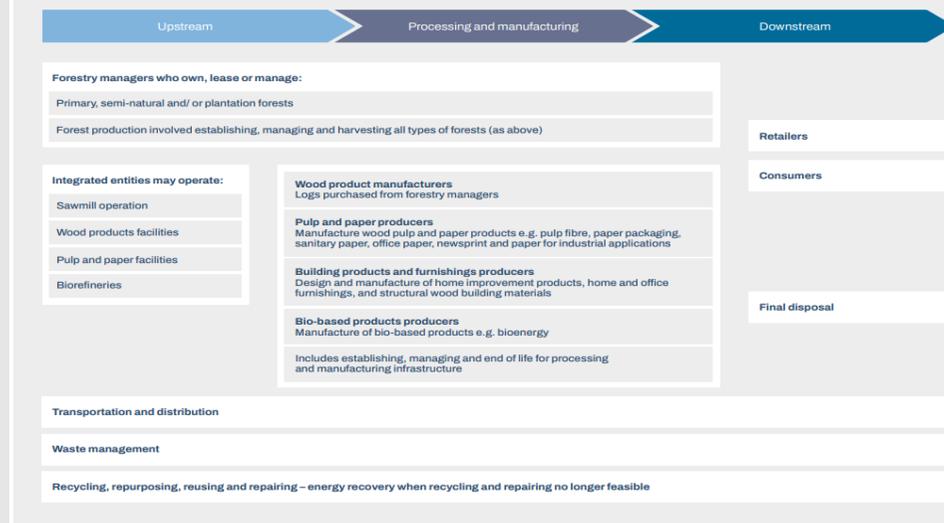
The EIB report ([2023](#)) signalled a high level of opportunity for upscaling forestry NbS due to potential revenue streams from carbon credits and ecotourism. The opportunity for carbon sequestration and meeting nature based policy goals (e.g., EU Nature Restoration Regulation) may drive the turnaround of poorly managed commercial forests ([EIB, 2023](#)). The CLEARING-HOUSE project cites the use of biodiversity credits as an incentive for companies to fund urban forestry NbS. PES for forest ecosystem services is another means of incentive for forestry NbS, and the European Commission has developed voluntary guidance in this space. Such payments allow forest owners and managers to secure income through, for instance, sustainable forest management, and not only by means of biomass provisioning ([EC, 2023b](#)).

The Horizon 2020 project SUPERB aims to implement large-scale forest restoration across Europe. The project presents preliminary findings from a discrete choice experiment that resulted in 464 responses from medium and large companies across 10 EU countries. Firms were presented with a hypothetical scenario in which they choose to engage in nature conservation projects focused on re-establishing forested areas on agricultural or forestry land. It was found that “companies are interested in investing in biodiversity conservation and that high-quality government-backed certification significantly increases this preference” ([Zu Ermgassen et al., 2025, p.15](#)).

Business Type/Size and Value Chain

Forestry companies (e.g., those that produce pulp, paper or other wood based products) operate in the processing and manufacturing phase of the value chain and may or may not partake in upstream activities. At the upstream phase of the value chain are forestry managers and owners who grow, manage and harvest forests and may be integrated with other value chain processes, such as logging and sawmill operations (see [TNFD, 2024b](#) graph below).

Sector Profile: Forestry



Source: Typical business activities in the value chain of the forestry, pulp and paper sector from [TNFD \(2024b\)](#) Sector guidance - Forestry, pulp and paper.

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The four major forestry industries in the EU are woodworking (e.g., construction materials & products), furniture industry, pulp and paper industry and printing industry ([EC, n.d., d](#)). The majority of companies operating in forest-based industries are SMEs or micro enterprises ([EC, n.d., d](#)). The large companies in the forestry products sector should conduct materiality assessments in order to stop impacts from materialising in operations and across the value chain, in addition to contributing nature-positive action through restoration and support of value chain partners to drive positive impact ([WBCSD, 2022](#)).

Roadblocks

Forestry companies may face a number of sector-specific challenges in their nature-positive transition. The adoption of forestry NbS presents challenges in terms of capital and operating costs, and also leads to a reduction in timber production compared to purely commercial forestry operations ([EIB, 2023](#)). The SUPERB project presents some of the trade-offs associated with large-scale forest restoration. For instance, the immediate restoration costs of the Norway spruce forest in the Czech Republic can be costly and result in a prolonged period of no income or lost income for timber producers ([EC, 2025d](#)). The availability of funding for restoration activities may prove to be a further barrier to overcome, though the maturity of carbon markets and PES are helping to make such works more feasible ([WBCSD, 2022](#)).

CLEARING-HOUSE ([Schante et al., 2024](#)), based on a state of the art lit review, expert interviews, inputs from workshops and case studies, identified critical barriers and enablers to the successful implementation and scaling of Urban Forestry NbS. The publication found that acquiring sufficient space at affordable prices (due to high demand of land market) was a major impediment to investment in Urban Forestry by private organisations and enterprises. There was also a reference to Urban Forestry entrepreneurs (or NbEs) facing challenges around securing funding, navigating urban planning regulations, and ensuring the long-term maintenance of urban green spaces ([Schante et al., 2024](#)).

Sector Profile: Forestry

Despite these challenges to forestry NbS, there are examples of good practices across the corporate sphere where companies with indirect impacts on forestry have integrated sustainable practices through their supply chains e.g., Marks & Spencer ([CISL et al. 2024](#)). Further, there is evidence of large companies that have altered their business model towards nature-positive, as exemplified by the following case study of a leading business in the paper and packaging industry.

Corporate Case Study - Mondi Group

“Going from Strategy to Action”

Direct extract from ACT-D Case Studies: Demonstrating Business Action for Nature ([Capital Coalitions et al. 2023](#)).

Overview:

- Nature is integrated directly into Mondi Group’s overall action plan, MAP2030, interlinked with the Climate Action.
- Originally from South Africa, the group’s focus on water stewardship has not only kept it a step ahead of regulations, but has garnered a Panda award from WWF in 2004, and resulted in several partnerships that further differentiate Mondi within their industry.
- Through the MAP2030 sustainability framework Mondi is undertaking both water and biodiversity impact assessments at all of their pulp and paper mills and forestry operations.



Background: Mondi is a global provider of packaging and paper products, employing around 21,000 people at approximately 100 production sites across 30 countries, with key operations located in Europe, North America and Africa. The business is integrated across the value chain – from managing forests and producing pulp, paper and films, to developing and manufacturing effective industrial and consumer packaging solutions. Mondi aims to contribute to a better world by making innovative

packaging and paper solutions that are sustainable by design.

ACT-D Framework:

ASSESS - Mondi Group has been measuring double materiality (impact of nature on their business and the impact of their business on nature) every 3 years since 2015. Evaluated risks of deforestation and land conversion, as well as other nature-related controversial activities, in all wood fibre sourcing areas (via WRI’s Global Forest Watch, FSC’s National Risk Assessments) Completed high-level risks review in relation to climate (via WBCSD’s Climate Scenario Tool), water (via WWF’s Water Risk Filter) and biodiversity (via Integrated Biodiversity Assessment Tool).

COMMIT - 100% responsibly sourced fibre with 75% FSCTM- or PEFC-certified fibre procured by 2025 & remainder meeting the FSCTM Controlled Wood standard Conduct water stewardship assessments & biodiversity assessments at all mills and forest operations, introducing action plans where

Sector Profile: Forestry

necessary by 2025 Reduce GHG emissions in line with science-based Net-Zero targets (Scopes 1, 2 & 3 aligned to a 1.5°C scenario) with milestones by 2030 and 2050.

TRANSFORM - Mondi Group is expanding their nature stewardship beyond property lines to catalyse ecosystem partnership across entire landscapes and product value chains, to promote best practice sharing. Through partnerships with WWF South Africa and Endangered Wildlife Trust, Mondi is contributing to the development, refinement, and application of global nature stewardship standards. Mondi also collaborates with scientific institutions to enable science-based context-specific approaches to nature conservation and management (e.g. Stellenbosch University, IUFRO).

DISCLOSE - Mondi openly and publicly reports its performance against all MAP2030 commitments on their website, in annual reports and through publicly available consolidated performance data. Top scores in sustainability rankings (EcoVadis, CDP) acknowledge Mondi's clear ambitions and best-practice approach to sustainability and transparent reporting.

Source: [Capital Coalitions, Metabolic and EFTEC \(2023\)](#).

Policy Recommendations for Economic Policymakers

To ensure the forestry sector contributes meaningfully to a nature-positive economy, economic policymakers should:

- Reallocate public funding streams to prioritise a more “integrated forest management”, prioritising forest restoration and biodiversity outcomes, while also considering multiple societal demands and constraints on forests, thus harmonising the EU Forest Strategy, the Nature Restoration Regulation and the EU Biodiversity Strategy.
- Support the adoption of “integrated” and “close-to-nature” forest management over intensive forest management practices through targeted subsidies, rural development programmes and ecosystem service valuation mechanisms.
- Stimulate biodiversity-aligned investment by advancing market-based tools such as carbon credits, biodiversity credits and payment for ecosystem services schemes tied to verifiable ecological outcomes.
- Integrate biodiversity performance criteria into public procurement, investment screening and certification schemes to reward businesses that contribute to nature recovery.
- Enhance data transparency, supply chain traceability and community rights through instruments such as the EU Forest Observatory and the EU Deforestation Regulation (EUDR).
- Support nature governance approaches that support and enhance implementation of integrated forest management and nature-based solutions, and access to the wider benefits provided by ES.

Sector-Specific Research & Skills Gaps

- Further research and piloting is needed to improve the valuation of forest ecosystem services and the long-term economic modelling of integrated management options.
- Additional funding and support is required for more applied research on mixed-species regeneration, natural disturbance dynamics and resilient silviculture under climate change.
- Build capacity and skills among all stakeholders relating to participatory forest governance, conflict resolution over land tenure and multi-use planning.

Sector Profile: Forestry

- Develop training programmes for private owners and municipal forest managers in new business and financing models such as biodiversity credits and carbon payments.
- Research and test optimal policy measures to incentivise transition to nature-positive business models and practices throughout forestry value chains.

Some cases from EU Projects

- SUPERB: A cross-European initiative that surveyed hundreds of companies and demonstrated how state-backed certification can unlock corporate interest and investment in forest restoration.
- CLEARING-HOUSE: Developed replicable investment models for urban forestry, showing how biodiversity and carbon crediting can support multifunctional green infrastructure in European cities.
- Intercede: Improving the value of Europe's forests by identifying and promoting market-based solutions that incentivise forest owners to manage their land for the benefit of society

Conclusion

The forestry sector can be a powerful lever for ecological regeneration and rural resilience. By shifting financial and regulatory priorities from extraction towards ecosystem and societal health, forests can deliver diverse economic and climate benefits, biodiversity recovery and social value. Realising this potential will require systemic alignment across policy instruments, investment channels and governance systems, alongside structural shifts in economic models and paradigms. Promoting inclusive, adaptive forest governance, valuing local and traditional knowledge, and ensuring just outcomes for communities are essential to success. Public and private actors alike must play a role in catalysing restoration finance and stewardship, helping forests become a cornerstone of Europe's nature-positive economy.

5.2.4. Built Environment

Sector Profile: Built Environment

Sector Overview



The built environment, including urban development and construction, contributes 9 per cent of EU GDP and provides 18 million direct jobs ([European Commission, 2019](#)), yet consumes vast resources and generates substantial greenhouse gas emissions. Urban expansion consumes around 1 000 km² of land annually, fragmenting habitats and worsening heat island and flooding risks. A nature-positive built environment integrates green infrastructure, permeable surfaces, wetlands and urban forests to reduce environmental burdens

and elevate biodiversity (McDonald et al., 2025).

The sector is nature-dependent but largely operates on grey infrastructure and resource-intensive design. Nature-based solutions in cities, such as green roofs, living walls, wetlands and nature corridors, can enhance resilience, reduce temperatures,

Sector Profile: Built Environment

mitigate runoff and increase carbon sequestration. However, implementation remains limited due to planning inertia, weak procurement frameworks, lack of financial incentives and insufficient data on green infrastructure across EU markets (Kupilas et al., 2025).

Dependencies, Impact, Risks, Opportunities (DIROs)

The construction sector is highly dependent and impactful on natural habitats, through land conversion, habitat degradation, reduced groundwater availability and pollution during construction ([Griniece et al., 2024b](#); [WBSCD, 2023b](#)). The construction sector is responsible for over 35% of the EU's total waste generation ([European Commission, n.d., c.](#)). Construction and renovation of buildings accounts for an approximate 5-12% of total national GHG emissions ([European Commission, n.d., c.](#)).

The construction sector is exposed to nature-related risks that include increased regulations on material uses, building prescriptions and location limitations, in addition to reduced value of construction location due to pollution, flooding risk and lack of green space ([Griniece et al., 2024b](#); [WBSCD, 2023b](#)). There are also multiple opportunities that stem from a nature-positive transition of this sector. Innovating and investing in circular design can reduce raw material demand ([WBSCD, 2023b](#)). Moreover, the use of green-blue networks and other NbS (e.g., urban greening) can reduce urban heat island effect, improve climate change adaptation and offer broader benefits to society and people ([WBSCD, 2023b](#)).

Urban NbS

There is a high opportunity for growth in the Urban NbS space ([EIB, 2023](#)). It is uniquely positioned amongst NbS markets, by having many policy instruments for urban NbS (building codes for green roofs) and high population density that ensures a greater number of people derive benefits ([EIB, 2023](#)). In fact, an increase in demand for products and/or services was reported among the vast majority of those supplying NbS in urban areas, based on a survey of 91 Nature-based enterprises for the HE project Urban Nature Plans+ ([Lemo & Ni Chínseallaigh, 2025](#); [Whitehead et al., 2024](#)).

Technological developments provide scope for expansion of Urban NbS, such as digital twin technologies (i.e. virtual replicas of a physical asset/environment) that allow for real-time monitoring, analysis and optimisation ([VARCITIES, 2024](#)). An example is that of VARCITIES' Health and Wellbeing Platform that implements and monitors nature-based actions that promote health and wellbeing across its seven pilot cities ([VARCITIES, 2024](#)).

The HE project, Invest4Nature, found that the investor community was particularly interested in NbS projects from sectors including urban environments. From an analysis of the literature, Invest4Nature ([Tedeschini et al., 2024](#)) found that Europe leads the way in urban NbS implementation, accounting for 88% of reviewed cases. Urban NbS such as green roofs, parks, and ponds are primarily implemented at the local level (70% of reviewed cases). Public funding dominates this sector, utilising instruments like public

Sector Profile: Built Environment

budgets and incentives (reduced storm water fees, property tax allowances, co-financing of green roofs).

However, enforcing these incentives remains a challenge, requiring innovative solutions to achieve scale-up and replicability. The support for Urban NbS can be found in Horizon Europe projects, including GreenScape CE, which aims to enhance urban resilience through NbS, and in GoNaturePositive!, through its Sectoral Brief on the Built Environment ([Kupilas et al., 2025](#)), which analyses the EU policies and private sector sustainability initiatives that feature within the Built Environment.

NbE Case Study - GreenVille Service SRO

Nature-based Enterprise in Green Roofs and Green Facades

Written by report authors and reviewed by Dostal P. (2025)

GreenVille Service is an award winning green roof business based in Brno, in the Czech Republic. Founded in 2012 by Jitka Dostalová, this family business is now run by her son, Pavel Dostal. GreenVille installs a wide range of green roofs for any structure - from bird houses to office buildings. The company cooperates with universities and researchers to design solutions that are aesthetic, functional and sustainable. To ensure credibility, their work is compliant with the Green Roof Standards and the Czech ČSN 73 1901-4 standards.



Source: [EFB Bisolar Green Roof](#),

Pavel Dostal, the CEO of GreenVille, is also the President of the Czech Association of Green Roofs and Facades, the Vice President of the

European Federation of Green Roofs and Walls (EFB) and is a member of the enlarged stakeholder board of the Biodiversa+ project. Pavel points out that the green buildings sector in the Czech Republic has benefited from a favourable political environment, with its Ministry of the Environment approving subsidies for green roofs on low-energy buildings which has boosted market development. At a European level, the EFB have called for the embedding of nature-positive design into green public procurement and urban planning - such as through municipal Urban Nature Plans.

This can help building owners, planners, and policymakers to prioritise sustainability and social inclusion, while also enhancing competitiveness and supporting EU goals under the e.g. Nature Restoration Regulation and Biodiversity Strategy to 2030. Pavel sees continued EU leadership as critical, including the enforcement of existing mandates - such as the prioritisation of green and blue infrastructure solutions where possible under the Urban Wastewater Treatment Directive when developing integrated urban wastewater management plans. In parallel, increased prioritisation and funding through Horizon Europe, the European Regional Development Fund, and the LIFE Programme is needed to scale up circularity, sustainable construction, and ecosystem

Sector Profile: Built Environment

restoration in (peri-)urban areas, contributing to EU targets on energy efficiency, climate adaptation and biodiversity conservation and transition to a nature-positive economy.

Business Type/Size and Value Chain

As much as 95% of construction, architecture and civil engineering firms in the EU are micro-enterprises or small and medium sized enterprises (EC, n.d., c). Complex value chains may impact construction companies that operate across many different sites and with many different suppliers/customers with significant nature related dependencies and impacts (TNFD, 2025b). Construction (in the graph below from TNFD sectoral guidance) is represented under the direct operations segment of the value chain. Upstream activities encompass extractive industries like mining for construction materials (e.g., sand, gravel) that contribute to widespread environmental degradation (Kupilas et al., 2025).



Source: Typical industries in the value chain of the engineering, construction and real estate sector from [TNFD \(2025b\) Additional sector guidance - engineering, construction and real estate](#).

<https://creativecommons.org/licenses/by/4.0/>

Nature-based Enterprise activities that pertain to green buildings (e.g., living green roofs and façades, living green walls, interior greening, and green buildings management) are delivered mostly by SMEs in the landscaping industry, with the support of value chain participants including urban planners, architects and horticulturalists with expertise in maintenance of green NbS (EC, 2022).

Sector Profile: Built Environment

Roadblocks

The Horizon Europe project, REGREEN ([Tedeschini et al., 2023](#)) reported on the challenges to NbS uptake in urban planning in terms of external factors, like public policies, building codes and official permissions, and financial factors (implementation versus running costs). The roadblocks to implementing green buildings and urban NbS stem from the lack of evidence based knowledge regarding the value of urban greening and the dearth of knowledge of maintenance requirements ([EC, 2022](#)).

As part of the Horizon Europe project SUSTAIN, a set of case studies were published pertaining to three large built environment firms (Sacyr, Holcim and AECOM). A number of key challenges were identified, reflecting corporates' common challenges to assess and act upon nature-related issues, including:

- Data, tools and application (access to primary data, in addition to deciding what combination of data should be used on an active infrastructure project);
- Lack of standardisation (re the process of calculating natural capital);
- Timing (to conduct the materiality assessment and flexibility to change elements of an ongoing infrastructure project).

Source: Griniece et al. ([2024b](#))

Despite these challenges, there is a strong rationale for why corporates in the Built Environment are taking action on nature, as illuminated in the following case study.

Corporate Case Study - Sacyr

Direct extract from SUSTAIN Insights from Business Case Studies in the Built Environment System ([Griniece et al., 2024b](#)), updated by Sacyr (Perez Casa, C., 2025)



Sacyr is a multinational company operating in the engineering, infrastructure and concessions sector. The company's approach to nature-related assessment and reporting, including alignment with the TNFD framework, is touched upon in the SUSTAIN case study below.

Why built environment companies are taking action on nature - Sacyr's Rationale:

- *Corporate commitment:* Caring for nature is one of the four key pillars included in the company's Environmental Strategy. The ambition is applied throughout the entire value chain, involving the different interest groups and supported by innovation, training and internal awareness actions.
- *Understanding Impacts and Dependencies:* Sacyr is aware of their dependence on the resources and services they receive from nature. Only by knowing their impacts and dependencies on nature are they capable of making better decisions when carrying out projects worldwide.
- *Compliance to the evolving frameworks and regulations:* The company has strengthened commitment to natural capital and to improving their reporting systems to align with the latest benchmark standards, in particular the reporting requirements of the Taskforce for Nature-related Financial Disclosure (TNFD), to prevent future risks and adapt their business model and analyse innovative

Sector Profile: Built Environment

opportunities. As an Ibx35 listed company, it is essential that Sacyr aligns with new regulations such as the EU Corporate Sustainability Reporting Directive (CSRD).

Sacyr has a Comprehensive Risk Management System, based on internal control and risk management standards. As established within the framework of the Environmental Management System implemented according to ISO 14001, environmental risk management is one of the key aspects in any business. Sacyr carry out a robust process under this framework, including an identification and assessment of the risks and opportunities associated with their activities. Once identified, the company establishes a plan for management and monitoring. In order to continue improving their risk analysis, adapting to new frameworks, the company has followed the guidelines established in the TNFD LEAP methodology.

Key Learning Points:

- Satellite images allow a much faster analysis of the impact on ecosystem services; however, it must be ensured that the result is as exhaustive as field work.
- The upstream value chains ENCORE's Biodiversity Module (regarding the mining sector) can be used by procurement teams working on infrastructure projects to identify opportunities to reduce the nature-related impacts and risks of supply chain partners, as well as highlighting specific questions that supplier assessments could consider to better address nature and climate risks.
- Tailor the TNFD LEAP approach to the specific organizational context. It entails aligning metrics, terminologies, and internal frameworks according to the company's unique operations and value chain.
- Synergies through simultaneous implementation of the TCFD and TNFD frameworks allow organizations to make integrated and better-informed decision-making as it allows companies to tackle climate and nature-related risks and opportunities simultaneously and align their strategies accordingly.

Source: [Griniece, A., McCormick, N. and Gleeson, E. \(2024b\)](#).

Policy Recommendations for Economic, Urban, and Environmental Policymakers

To ensure the built environment sector contributes meaningfully to a nature-positive economy, economic policymakers should:

- Integrate biodiversity net gain requirements into spatial planning, environmental policy, and building regulations to ensure that urban infrastructure supports ecosystem health.
- Include NbS criteria in public procurement and financing programmes to prioritise ecological design in construction.
- Align public investment instruments with nature-based urban solutions.
- Support the use of circular, low-carbon and locally sourced materials across planning and renovation schemes.
- Support strategic Urban Nature Plans (see NRR), including municipal green space metrics, microclimate modelling and community co-design frameworks.

Sector Profile: Built Environment

Sector-Specific Research & Skills Gaps

- Further research is needed to improve the evidence base relating to the cost effectiveness and life-cycle benefits of nature-based urban infrastructure compared with grey solutions, and when combined with grey solutions.
- Increased awareness and capacity-building to support local government take-up of biodiversity accounting and monitoring methods compatible with planning and investment processes.
- Training and capacity building is required to improve skills for integrating digital twin technologies and nature-based indicators in urban design and construction management.
- Capacity building and knowledge sharing for municipalities, architects and SMEs on financing, maintaining and scaling nature-positive buildings and districts e.g., linking business with existing networks such as [Metabuilding](#)¹⁰, a platform for the innovation ecosystem of the European Built Environment sector.

Some cases from EU Projects

- Biotope City Vienna: A 7 ha regeneration of a former industrial site into climate-resilient housing with green roofs, vegetated facades, wetlands and permeable pavements. Modelling shows significant cooling, runoff reduction and carbon sequestration at low cost, while promoting equity and circular construction.
- GoNaturePositive (Urban Pilot): Demonstrates implementation of nature-positive indicators in the green building industry. The project aims to provide tools for integrating NbS into investment decisions, and engages with policymakers to reform planning and financial frameworks.

Conclusion

Urban systems can become engines of regeneration. Shifting investment and governance from extractive, grey infrastructure towards inclusive and restorative NbS unlocks economic, social and environmental co-benefits. With clear metrics, long-term funding and strong institutional alignment, the built environment can transform to support resilient communities, enhance biodiversity and become a cornerstone of the nature-positive economy.

5.2.5. Tourism

Sector Profile: Tourism

Sector Overview

Tourism contributes around 10 per cent of the EU's GDP and supports nearly 23 million jobs. With 80 per cent of tourism value chains reliant on nature, the sector's prosperity hinges on healthy ecosystems and climate resilience. However, tourism is also a major driver of environmental degradation, including habitat fragmentation, pollution, coastal erosion and biodiversity loss. Infrastructure expansion, overconsumption of resources and mass tourism pressure local ecosystems and communities, while climate change further endangers destination viability.

Despite these challenges, tourism holds strong potential to contribute to a nature-

¹⁰ Horizon Europe funded project Metabuilding Labs (2021-2026).

positive economy. Regenerative, eco- and community-based tourism models prioritise biodiversity, local well-being and long-term ecological balance. These approaches can channel revenues back into conservation and restoration while empowering communities. However, widespread adoption is limited by weak regulation, fragmented planning and lack of biodiversity safeguards (Davis et al., 2025).

Policy Recommendations for Economic Policymakers

To ensure the tourism sector becomes a driver of regeneration and resilience, economic policymakers should:

- Establish binding requirements for biodiversity impact assessments and reinvestment of tourism revenues into local conservation and restoration.
- Integrate biodiversity metrics and ecological thresholds into destination planning and tourism investment strategies.
- Incentivise eco- and regenerative tourism through targeted funding, tax benefits and sustainability certification schemes.
- Align tourism zoning, infrastructure and public procurement with nature-positive standards, especially in ecologically sensitive areas.
- Promote the uptake of sustainability schemes such as the EU Ecolabel and Eco-Management and Audit Scheme, and increase accountability across tourism operators.

Some cases from EU Projects

- REST-COAST (Venice Lagoon): Demonstrates eco-tourism as a viable value-capture mechanism for upscaling coastal restoration. Willingness-to-pay studies show strong visitor interest in nature-based experiences like birdwatching. See REST-COAST cases from Chapter 2: Box 3.9 – Co-Developing Business Plans for Upscaled Salt Marsh Restoration in the Venice Lagoon (Pernice et al., 2024). Valsugana Lagorai DMO (Italy): This GSTC-certified destination demonstrates circular economy principles, local reforestation and public-private partnerships for eco-tourism and community well-being.

Conclusion

Tourism can evolve from a pressure on ecosystems into a regenerative force within the nature positive economy. This requires systemic alignment between regulation, investment and community benefit. Tourism's transition depends on binding safeguards, inclusive governance and nature centred business models that reinvest in the very ecosystems they depend on.

Taken together, these sectoral analyses show how a nature positive economy can be advanced by aligning finance, governance and business practices with ecological limits and regenerative opportunities. Agriculture, forestry, the blue economy and the built environment illustrate in detail how nature-based solutions, innovative financing and new market models can reverse degradation and create long term economic and social value. Tourism, while not explored in the same depth, remains an important arena for action because of its strong dependence on natural assets and its potential to reinvest revenues in conservation.

This cross-sector perspective shows that the levers for transformation such as redirecting subsidies and investments, embedding biodiversity in supply chains and fostering inclusive governance are shared even as specific pathways differ. These shared insights form the basis for the next section on cross sectoral cooperation.

5.3. Cross-sectoral Cooperation

Cross-sectoral cooperation is necessary to address the underlying drivers of nature loss ([Kupilas et al., 2025](#)). The IPBES Nexus assessment ([IPBES, 2024c](#)) identifies 10 broad categories of action with the potential to simultaneously address biodiversity, water, food, health and climate change. They note that some of these actions which are "not typically focused on biodiversity can often have greater benefits than those specifically designed as such" ([IPBES, 2024c](#), pp 16). Many of the actions identified in this Nexus publication can be recognised as nature-based solutions generating multiple co-benefits e.g. conserve or halt conversion of ecosystems of high ecological integrity; restore natural and semi-natural ecosystems; manage ecosystems in human exploited lands and waters. Others align with nature-positive economy principles e.g. consume sustainably; reduce pollution and waste; integrate planning and governance; manage risk; ensure rights and equity; and align financing.

Addressing environmental challenges through a siloed sectoral approach is, thus, less effective compared with cross-sectoral solutions that recognise the inter-dependencies between sectors and ecosystems ([REXUS Consortium, 2024](#)). A major challenge to ecological restoration efforts is the difficulty in aligning differing sectoral priorities and the fragmented nature of policies across varying sectors ([EC, 2025d](#)). An EC report on supporting the development of nature restoration plans called for "integrated policies that accommodate and ideally mutually reinforce multiple sectoral interests, such as from climate policy, water policy, bioeconomy and environmental policy" ([EC, 2025d, p.19](#)). The policy mapping exercise by GoNaturePositive! ([Kupilas et al., 2025](#)) focused on five key sectors across three cross-sectoral areas (environment, climate and economic development). The authors called for the EU to create "clear cross-sectoral funding strategies with biodiversity related targets at their core" ([Kupilas et al., 2025, p.86](#)). Such policy recommendations are clearly aligned with the key messages of the IPBES Nexus Assessment ([IPBES, 2024c](#)).

The EU Horizon 2020 project, REXUS, focused on the dynamic interdependencies between Water, Energy and Food sectors or the WEF E (Water-Energy-Food-Ecosystem) nexus. The project developed a guide or framework for practitioners, based around four clearly defined steps, to develop strategies to address their WEF E nexus challenges, whilst taking into account synergies and trade-offs between sectoral objectives ([REXUS Consortium, 2024](#)). Four EU large scale restoration projects, MERLIN¹¹, REST-COAST, SUPERB, and WaterLANDS, showcase the value in adopting a nexus approach (i.e. identifying opportunities for collaboration across actors and scales) to help address trade-offs and lead to more holistic management and governance of restoration ([EC, 2025d](#)). Below are some examples of cross-sectoral collaboration (cited in the above projects) for the sectors profiled in this chapter.

- **Agri-food: Cross-sectoral collaboration**

The MERLIN project created sectoral strategies for mainstreaming freshwater restoration through NbS. The report authors found that collaboration was key, including cross-sector partnerships at varying scales (e.g., national, EU). They identified the significant overlaps between agriculture and other sectors, including peat extraction, navigation, insurance and Water Supply and Sanitation. They linked sustainable agricultural practices (e.g. wetland restoration, soil conservation) to benefits that could be derived by the navigation sector (e.g., water level regulation), insurance sector (i.e. reduced flood risk) and peat extraction sector (e.g., stabilised peatlands). These positive ecological outcomes can lead to trade-offs with economic objectives (e.g., value of drained peatlands)

¹¹ Mainstreaming Ecological Restoration of freshwater-related ecosystems in a Landscape context: INnovation, upscaling and transformation.

and competition for water resources. The MERLIN project signals the need to address these challenges through regulatory reforms, financial incentives and platforms for stakeholder dialogue between farmers, policymakers and other private actors, that allow for mutually beneficial solutions to be reached. **Source:** [Bérczi-Siket, A., Blackstock, K. and Nyíró, F. \(2025\).](#)

- **Built Environment: Cross-sectoral collaboration**

The built environment has an impact on many kinds of ecosystems, including waterways, wetlands and coastal regions. Construction can cause soil sealing which reduces the soil's ability to absorb water and lead to an increased risk of flooding ([WWF, 2022](#)). Nature-based solutions through the restoration of wetlands and sustainable urban drainage systems are means of addressing this problem ([WBCSD, 2023](#)). The WaterLANDS project identified a range of potential revenue streams for funding wetlands' NbS. The project identified that building construction activities in specific areas could be conditioned on the purchase of wetland mitigation credits. For one of their action sites (EMS Dollard), the authors recommended to analyse if and to what extent private companies are economically impacted by the restoration project. They referred to the shipping industry, constructions and water utilities as examples where industry players might view such restoration not only in terms of environmental value, but also one that provides corporate value e.g. possible cost reduction or improved supply chain. This value from restoration could then be funded through equity participation, subsidy and PES.

Source: [Alpizar, F., et al. \(2023\).](#)

- **Blue Economy: Cross-sectoral collaboration**

The REST-COAST project has identified the synergies between large-scale coastal restoration and the tourism sector. Ecotourism fees were identified as an innovative financing instrument and means of value capture for marine and coastal ecosystem restoration ([Favero et al. 2022](#)). The project found that NbS business models based on ecotourism were among the most promising means of funding and scaling up of coastal restoration. However, there are challenges to this mode of revenue generation. Access to high-value ecosystems in exchange for user fees requires exclusion of access to the general public who previously might have enjoyed access for free. Thus, gaining social acceptance by local stakeholders is an important success factor. Moreover, ecotourism fees may prove insufficient for restoration costs and the scaling of such operations are limited to high-value ecosystems with fauna and flora that attract high tourist volumes. According to Pernice et al. (2024), the upscaling plan for restoration at the Venice Lagoon offered benefits across sectors, including agricultural, agri-food, forestry and fishing, as a result of the improved productivity of the area. By leveraging the local tourism sector in Venice, the restoration project could ensure better balance between growing demand and sustainability, and help to combat the challenge of overtourism in Venice.

Sources: [Favero et al. \(2022\);](#) [Pernice et al. \(2024\).](#)

- **Forestry: Cross-sectoral collaboration**

The SUPERB project signals the value of coherent cross-sectoral policy integration for the forestry sector and other forest-relevant land use sectors such as agriculture, water and renewable energy ([Sotirov, 2022](#)). An academic paper co-authored by ETIFOR ([Restrepo et al., 2024](#)), signalled the potential for Forest NbS to address the Water-Energy-Food-Ecosystem nexus challenges. The authors focused on a case study of the Nima sub-basin of Columbia, which is critical to water supply for various sectors including water, energy and agriculture. An assessment of a hypothetical forest landscape restoration project (via afforestation and reforestation) was undertaken. A trade-off emerges through this assessment where water flow regulation and purification increases under the NbS

scenario, but food provisioning service decreases. The NbS would therefore deliver a public good, benefitting the local communities as a whole, at the partial expense of private goods (food). The authors acknowledged how this might raise concerns among local stakeholders (e.g., farmers) in the municipality of Palmira if the restoration is applied to areas where agriculture is central to livelihoods.

Sources: [Restrepo et al. \(2024\)](#); [Sotirov \(2022\)](#)

5.4. Key Messages and Recommendations

The Nature-Positive Economy prioritises systemic change in the sectors which have highest impact and dependencies on nature and which are simultaneously doing most harm. Priority sectors are agriculture and livestock, fisheries, forestry and infrastructure, mining and fossil fuel ([IPBES, 2024a](#)). Sectoral deep dives in this chapter identified both the systemic roadblocks and the opportunities for a nature-positive business transition and provide grounded pathways to operationalise the Nature-Positive Economy and align with the systemic levers outlined in the IPBES Transformative Change Assessment.

Sectoral-level business action must be taken, particularly amongst those businesses that contribute significantly to biodiversity loss and nature's decline (IPBES)

This chapter reviews the Dependencies, Impacts, Risks and Opportunities (DIROs) of four key sectors (Agri-food, Built Environment, Blue Economy and Forestry) in relation to nature. We profile opportunities for systemic change towards nature-based solutions and nature-positive business practices to mitigate risks and generate new growth opportunities aligned with planetary boundaries. The challenges to a nature-positive transition for businesses within these sectors were also explored.

Key messages relating to each sector are summarised here-after:

- **Agri-food:**
 - Whilst a highly dependent and impactful sector on nature, agri-food has many opportunities emerging from NbS including agro-forestry, silvo-pastoral practices and sustainable land-use management.
 - Corporates, SMEs and NbEs can be found across the phases of the agri food chain with NbEs mostly concentrated in upstream activities i.e. agricultural landscapes and production.
 - Large scale food sector companies may struggle to assess and manage impacts, where they do not own or operate farms. Other common challenges for corporates include Value chain positioning (less guidance re downstream activities) and Data availability/traceability ([Griniece et al., 2024a](#)).
- **Blue Economy:**
 - The blue economy comprises industries and sectors linked to oceans, seas and coasts, whether they operate directly within the marine environment or on land ([EU, 2024](#)).
 - The fisheries sector, for instance, has a number of negative impacts on nature including pollution, CO2 emissions and harm to endangered species.
 - Dwindling fish stocks and overfishing poses risks to the sector's viability.
 - NbS in aquaculture and coastal/marine restoration offers opportunities.
 - Businesses like fisheries and ports, are uniquely positioned to invest in coastal NbS as well as other businesses, even pharmaceuticals, which may be impacted by loss of resources/degradation of coastal ecosystems.

- **Forestry:**
 - The forestry/timber sector has significant dependencies and impacts on nature, although there is a high level of opportunity for upscaling forestry NbS (e.g., close-to-nature forestry).
 - Challenges for businesses in adopting NbS include capital and operating costs, which may lead to a reduction in timber yield.
 - Large corporates can have indirect impacts on forestry through sustainable practices through their supply chains.
- **Built Environment:**
 - The Built Environment comprises everything people live in and around, such as housing, transport, infrastructure, service networks or public spaces ([EC, 2019](#)).
 - There is a high level of opportunity in the Urban NbS space e.g., green roofs/facades, digital twin technologies ([VARCITIES project](#)).
 - Public funding dominates this NBS sector ([Tedeschini et al., 2024](#)).
 - Large construction companies may face challenges in nature assessment due to complex value chains, data, tools and application and timing (when to conduct assessment of an ongoing infrastructure project).
 - Those providing urban NbS may face external challenges such as public policies, building codes and official permissions, and financial factors (implementation versus running costs).

Summary of Sector-Specific Recommendations for Policymakers

Sector-Specific Research & Skills Gaps

Quantifying the economic costs and benefits of nature-positive transitions for all actors along sector-specific industry value chains. Research has shown potential for nature restoration from the transition of mainstream business models towards nature-positive, underpinned by the reform of harmful subsidies to incentivise this transition, e.g. integration of agro-ecological practices throughout the value chain of the agro-food industry. Further research is needed to quantify the economic costs and benefits of such transitions for all actors along the value chains, including end-consumers, and the optimal policy measures required to support such a systemic transition. Accompanying research on trade-offs and the potential to scale alternative and community-led socio-economic models for industry transition are also required.

Industry sector-specific transformations: further research and piloting of measures (both policy and non-policy) to align NPE principles with sector-specific transition pathways. Research should prioritise those sectors with the highest nature-related impacts, dependencies, risks and opportunities for transition i.e. agriculture, forestry, fisheries and aquaculture, mining and metals, construction, water utilities and healthcare delivery. Transition pathways should be piloted at different scales from landscape to EU, employing a whole-of-society approach. Sector specific-research directions include:

Agri-food

- Further research is needed to improve the evidence base related to the economic performance of regenerative and agroecological systems at different scales and climates.
- Development and piloting of decision-support tools and metrics for biodiversity outcomes and ecosystem services for different stakeholders in the value chain i.e. from farm-level to policy level.

- Build capacity and skills in participatory landscape management and true-cost accounting for stakeholders in the agri-food value chain e.g. farmers, local communities, large businesses and local authorities.
- Develop and deliver training in blended finance and cooperative business models for farmer collectives and nature-based enterprises. Capacity building for investors and financial institutions on needs of farmers and NbEs in the nature-positive economy.
- Research and testing of new financial instruments and incentives programmes tailored to the mission and needs of farmers, NbEs and all agri-food businesses transitioning towards nature-positive.

Blue Economy

- Further research and development is needed on cost-effective methods and data for assessing the cumulative impacts of fishing, aquaculture and coastal infrastructure on marine ecosystems.
- Capacity building is needed to enhance knowledge of cost-effective large-scale restoration techniques, such as seagrass or saltmarsh recovery.
- Build awareness, capacity and skills for developing and certifying blue carbon credits and other marine natural capital accounting mechanisms among providers, industry players, financial institutions and policy makers.
- Further social science research is needed on equitable benefit sharing in coastal communities and inclusive marine governance.

Forestry

- Further research and piloting is needed to improve the valuation of forest ecosystem services and the long-term economic modelling of integrated management options.
- Additional funding and support is required for more applied research on mixed-species regeneration, natural disturbance dynamics and resilient silviculture under climate change.
- Build capacity and skills among all stakeholders relating to participatory forest governance, conflict resolution over land tenure and multi-use planning.
- Develop training programmes for private owners and municipal forest managers in new business and financing models such as biodiversity credits and carbon payments.
- Research and test optimal policy measures to incentivise transition to nature-positive business models and practices throughout forestry value chains.

Built Environment

- Further research is needed to improve the evidence base relating to the cost effectiveness and life-cycle benefits of nature-based urban infrastructure compared with grey solutions, and when combined with grey solutions.
- Increased awareness and capacity-building to support local government take-up of biodiversity accounting and monitoring methods compatible with planning and investment processes.
- Training and capacity building is required to improve skills for integrating digital twin technologies and nature-based indicators in urban design and construction management.
- Capacity building for municipalities, architects and SMEs on financing, maintaining and scaling nature-positive buildings and districts.

Extending research on nature positive transitions to other industry sectors: This publication captures research findings from EU Horizon Europe-funded projects on nature-positive transitions in five industry sectors - agriculture, forestry, fisheries and aquaculture, buildings and tourism. Further research is needed on these sectors and in other sectors with a high impact and dependency on nature such as mining and metals, water utilities and healthcare delivery

6. Policy Pathways for Transformative Change toward a Nature-Positive Economy

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Chapter Summary: Chapter 6 sets out policy pathways for transformative change toward a nature-positive economy. This chapter draws on the evidence presented in chapters 2-5 to provide strategic guidance for policymakers seeking to align economic development with nature conservation and regeneration. It builds upon the Key Messages of the [IPBES Transformative Change Assessment](#), translating them into concrete, actionable pathways for policy design and implementation which address the rationale and roadblocks to transformative change identified in the previous sections. This chapter is grounded in EU-funded evidence and real-world policy innovations, drawing from activities and case studies illustrating how policy design can drive transformative change by:

- Correcting harmful subsidies and incentives
- Redirecting finance toward regenerative practices
- Mainstreaming biodiversity into sectoral planning and performance metrics
- Promoting inclusive governance and participation
- Supporting innovation and long-term systemic resilience.

6.1. Introduction

This chapter provides a roadmap for transformative policy action toward a Nature-Positive Economy (NPE). It recognises the systemic shifts needed in values, institutions, and practices to halt and reverse biodiversity loss, as underscored by the [IPBES Transformative Change Assessment \(IPBES, 2024a\)](#) and the forthcoming Business and Biodiversity Assessment. Both global reports stress the urgency of reform across economic sectors and systems, informing the rationale and structure of this chapter.

The IPBES Nexus Assessment (IPBES, 2024c) identifies ten broad categories of action with the potential to simultaneously address biodiversity, water, food, health and climate change. These interdependent systems demand integrated responses. Interdisciplinary collaboration is therefore essential to incorporate these nexus actions into mainstream economic policy and ensure synergies across sectors.

This chapter also builds on the business-focused analysis in Chapter 4 and sector-specific analysis in Chapter 5, which outlines how companies, small and medium-sized enterprises and Nature-based Enterprises (NbEs) are already engaging with nature-positive strategies. Frameworks such as ACT-D, AR3T and DIROs demonstrate how the private sector is integrating biodiversity into strategy, operations and value chains. The structural reforms and policy levers explored in this chapter are designed to support, scale and align with these business-led efforts, ensuring that economic governance enables rather than constrains a nature-positive transition.

The analysis also draws from the GoNaturePositive! policy report [Mapping policy and co-operative initiative landscapes for systemic change towards a Nature-Positive Economy](#) (Kupilas et al., 2025), also covered in Chapter 2, the first output among EU-funded research projects explicitly focused on identifying policies that enable or hinder the nature-positive economy. That report reviewed more than sixty EU and global instruments, provided analysis of twenty key policies, and offered some sector-specific briefs on agriculture and food systems, the blue economy, forestry, built environment and tourism. In this chapter, insights are further complemented by findings from Horizon Europe NbS projects, especially those contributing to [Task Force 3 on Finance and Business Models \(for NbS\) in a Nature-Positive Economy](#), convened by NetworkNature.

Recognising that a nature-positive economy requires reorienting both public and private decision-making, this chapter targets economic and sectoral policymakers. It proposes tools and principles to embed biodiversity at the core of economic governance.

The chapter is structured in the following parts:

- Foundational conditions for transformation
- Cross cutting economic and governance levers, addressing institutional reforms and fiscal innovation
- Sectoral entry points for transformation
- Key recommendations and identified research and skill gaps

Drawing on the sectoral entry points analysed in Chapter 5, this chapter shows how policy can redirect finance, reform governance and support practices that deliver positive outcomes for nature. These cases show how biodiversity can be systematically integrated into regulation, planning, procurement and monitoring. Inclusive governance and innovation-oriented approaches are also essential to ensure that transitions are equitable, locally grounded and resilient.

6.2. Foundational Conditions for Transformation

The IPBES Transformative Change Assessment identifies seven foundational conditions that must be in place to shift the trajectory of biodiversity loss. These key messages provide a comprehensive framework for reorienting both public and private decision-making toward a nature-positive economy. While these conditions extend beyond corporate action and include the financing landscape, governance reform, and shifts in societal values, they are directly relevant to creating the enabling environment in which businesses, Nature-based Enterprises (NbEs), and public institutions can accelerate transformative change.

This section links each foundational condition to practical insights from recent European research, including Horizon Europe NbS projects, and to the economic, business model, and financing evidence presented in Chapter 3, which demonstrates the net benefits of NbS, viable business models for their delivery, and the evolving financing landscape in the EU. It also builds on the analysis in Chapter 4, particularly the recommendations, which outline concrete steps to support corporates in contributing to a nature-positive transition.

As highlighted in Chapter 4, most businesses, whether large businesses, SMEs, or NbEs, currently face low awareness of nature-related dependencies and risks, limited capacity to measure impacts, and confusion from the proliferation of reporting standards. Large businesses may struggle to integrate nature into decision-making at the senior executive level, while SMEs face resource constraints that limit their uptake of nature positive initiatives. NbEs encounter market and policy barriers that slow their ability to deliver high quality NbS at scale. Sectoral analysis in Chapter 5 further shows that high impact sectors

such as agri-food, forestry, blue economy, and the built environment present both urgent challenges and significant opportunities for NbS adoption.

By connecting the IPBES foundational conditions with these business realities and the systemic enablers described in Chapter 2, 3, 4 and 5, this section shows how social equity, inclusive governance, financing reform, and cultural change are not abstract goals but practical prerequisites for scaling NbS and delivering a resilient and competitive nature-positive economy.

6.2.1. Urgency and the cost of inaction

“Urgency and the cost of inaction” refers to the first key message (KM1) of the IPBES Transformative Change Assessment. This first foundational insight concerns the high stakes of delay. The longer societies wait to act, the more costly and difficult restoration becomes. A nature-positive economy must therefore prioritise early intervention and invest in activities that regenerate ecosystems and build resilience. This approach is already taking shape through initiatives like GoNaturePositive!, which presents a strong economic case for early investment in nature, and through NATURANCE, which explores risk models linking ecosystem degradation to financial instability. Complementary EU-funded efforts such as NetworkNature have proven instrumental in disseminating timely knowledge and creating momentum around NbS.

The SUSTAIN report (Groot et al., 2024) adds economic weight to this call by highlighting that considerably more than 50 percent of global GDP is directly dependent on ecosystem services, and delays in nature restoration increase cumulative costs exponentially. It also introduces the Triangle of Inaction, which illustrates how delayed responses are reinforced by mutual expectations among governments, businesses and consumers, each waiting for others to take the first step. This feedback loop perpetuates inaction, increases long-term risks and weakens the conditions for a timely transition. It calls for bold public leadership to break this cycle and provide clear direction toward regenerative economic pathways.

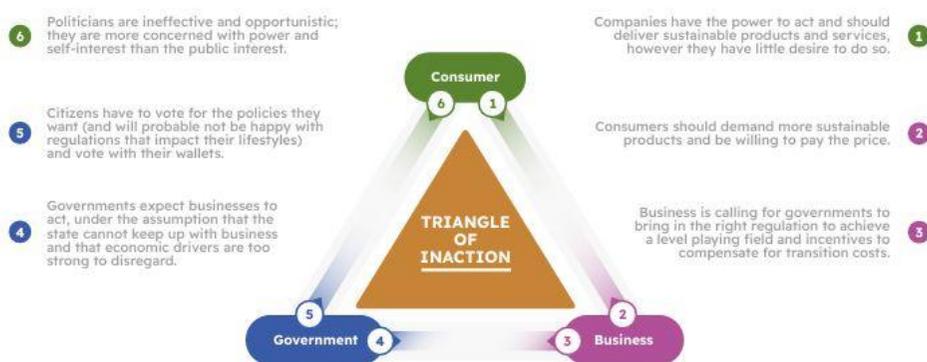


Figure 6.1. Source: Groot et al. (2024). SUSTAIN “Changing rules of the game – Reforming targets, regulations, and incentives to promote Nature Positive outcomes”

Chapter 4 reinforces this urgency by showing how business actors are already recognising biodiversity loss as a material risk. Companies adopting frameworks such as ACT-D and DIROs seek to anticipate regulatory tightening, investor expectations and ecosystem disruptions. These business-led responses align with public policies that incentivise early investment in ecosystem regeneration. Fiscal tools such as green bonds, restoration funds and tax incentives for biodiversity-positive infrastructure can enhance private action, while reducing systemic risk.

Failing to act promptly will not only accelerate ecological degradation but also pose significant threats to macroeconomic stability. Policymakers can intervene through fiscal measures such as tax incentives for restoration, green bonds and dedicated nature recovery funds that frontload investment and reduce exposure to future risk.

6.2.2. Structural transformation

“Structural transformation” refers to KM2 of the IPBES Transformative Change Assessment. Achieving a nature positive economy (NPE) requires a fundamental shift in how economies create value, moving away from extractive models and toward regenerative systems. Nature is rapidly declining, eroding resilience to climate disruption and increasing societal risks such as food insecurity.

Transitioning into a nature-positive economy is therefore portrayed not merely as harm reduction but as strategic renewal. Restoration, the uptake of NbS and ecosystem regeneration can play a central role. Chapter 4 and Chapter 5 show how pioneering companies are already adopting regenerative approaches such as agroecology, regenerative aquaculture and urban circular NbS. These innovators illustrate how markets can align with ecological principles.

Realising this future will require transformative collective action by governments, businesses and citizens. Economic policy and business strategy must embed nature as an organising principle, decoupling development from environmental degradation. To drive systemic change, a suite of policy interventions is recommended, as highlighted in Chapter 2. Financial alignment with biodiversity goals is essential for long term transformation. Policy levers highlighted in the report include incorporating biodiversity criteria into public procurement for urban planning and forestry contracts, using natural capital accounting frameworks like SEEA in national planning, applying conditionalities in public funding to ensure alignment with nature-positive economy objectives, and integrating NbS into infrastructure and land use investment strategies.

Evidence from EU funded projects reinforces these insights. GoNaturePositive! is developing the operationalisation of the nature-positive economy through piloting, stakeholder engagement and defining policy, governance and metric pathways for implementation. NATURANCE explores how risk transfer and insurance models can unlock private finance for ecosystem regeneration, while Invest4Nature is developing the economic and financial foundations for a Nature Positive Economy by evaluating NbS in Living Labs, building decision support tools, and supporting NbEs, investors and policy makers to scale high impact NbS.

These reforms should be underpinned by robust assessment frameworks to eliminate harmful practices, increase transparency and strengthen governance. Chapter 4 underscores how businesses that align with ecological goals are already demonstrating financial and resilience advantages. Groot et al. (2024) call on governments to reform tax and subsidy systems, advance nature positive fiscal policies and integrate environmental objectives into mainstream economic planning, rather than allowing competitiveness to eclipse long term ecological sustainability.

Absent these structural shifts, the vision of a nature-positive economy remains aspirational. The task is not just to internalise natural costs but to reorient economic purpose toward long term ecological health, making nature the foundation of future prosperity.

6.2.3. Equity, justice, and pluralism

“Equity, justice and pluralism” refers to KM3 of the IPBES Transformative Change Assessment. Any transition that fails to address equity risks reinforcing existing inequalities and undermining public legitimacy. A Nature-Positive Economy must place justice at the heart of decision making, not only as an ethical imperative but as a practical necessity for political and social acceptance.

EU funded projects provide concrete illustrations. JUSTNature and URBAN GreenUP embed justice in the design of urban NbS, ensuring that nature-based interventions contribute to fair access to green space and improved living conditions. CONEXUS and INTERLACE bring international perspectives to inclusive policy making and participatory planning. Recognising the importance of inclusive processes for urban ecosystem restoration, [INTERLACE](#) published a [guide on gender, cultural, and ethics-related considerations](#) (Øian et al., 2021) to support practitioners in ensuring transparent and fair stakeholder participation. Awareness and consideration of these aspects help to reduce resistance triggered by poorly communicated or unjust transition processes. In the blue economy, participatory planning with Indigenous communities and small scale fishers provides further evidence of equitable approaches.

Chapter 4 illustrates how Nature-based Enterprises (NbEs) and community led enterprises strengthen these inclusive approaches, fostering local benefits and building the trust and legitimacy essential for durable change. The SUSTAIN report (Groot et al., 2024) identifies the lack of fairness in implementation as a major obstacle to progress. It stresses that policies which disregard social equity weaken trust, delay action and provoke backlash. Aligning economic transition with social justice is therefore not optional. It is foundational.

6.2.4. Addressing systemic barriers

“Addressing systemic barriers” refers to KM4 of the IPBES Transformative Change Assessment. Entrenched structures, such as harmful subsidies, institutional inertia, and fragmented governance, continue to obstruct progress. Strategies to support a must directly confront these barriers. Reforming perverse incentives, improving cross-sectoral coherence, and overcoming resistance to institutional change are essential early steps.

[NATURANCE](#) has mapped how financial governance, insurance frameworks and investment models can either hinder or enable the deployment of NbS at scale, while BIOFIN are identifying opportunities to redirect capital flows. GoNaturePositive! highlights that while many EU policy instruments promote nature-positive outcomes, they often lack legal enforceability, rely heavily on voluntary measures, and suffer from weak implementation. Fragmentation and inconsistent alignment with biodiversity goals remain widespread across sectors. This leads to overlapping or competing priorities, particularly when nature-related objectives are seen as secondary to short-term economic competitiveness.

Chapter 4 highlights how these systemic barriers also hinder business contributions to the nature-positive economy. NbEs frequently encounter misaligned procurement systems, short funding cycles and the absence of biodiversity criteria in investment assessments. These obstacles reduce the viability of nature-positive business models and disincentivise innovation. The chapter underscores the need to reform public finance, contracting, and regulatory frameworks to support more predictable and scalable engagement from the private sector.

The GoNaturePositive! assessment points to several critical areas for improvement. First, phasing out environmentally harmful subsidies is foundational. Without addressing the

systemic funding of nature-negative practices, positive actions remain marginal. Second, the report calls for strengthening enforcement mechanisms and embedding clear, binding targets into existing policy frameworks, particularly in light of new instruments such as the EU Nature Restoration Regulation and the Multiannual Financial Framework 2028-2034. These priorities reinforce the systemic gaps and reform needs highlighted in Chapter 2, where harmful subsidies and weak enforcement emerged as major barriers to a nature-positive economy.

Another structural barrier concerns the misalignment of public institutions and infrastructure agencies. [Invest4Nature](#) has observed that grey solutions are often favoured over NbS due to bureaucratic hurdles, infrastructure security concerns and distrust among decision makers, particularly in areas such as groundwater management, traffic planning, and utility pipelines. Local authorities frequently lack trained personnel and experienced stakeholders to plan, implement and maintain NbS projects. Conventional gardeners and landscape professionals are often employed without NbS-specific sustainability training. Consequently NbS may not perform sustainably, with materials such as synthetic weed fleeces or invasive plant species used, and long-term monitoring overlooked. The report highlights that the material value chain and long-term performance of NbS projects are not prioritised, reducing their circular economy and nature-positive potential.

Policy coherence should also be promoted through clear legal norms that shape procurement and bidding practices. [PHUSICOS](#) identified a lack of mandatory policy instruments as another major barrier to prioritising NbS over grey solutions. It showcases the Norwegian 2018 regulation, "National Guidelines for Climate and Energy Planning and Climate Adaptation" as an example of a solution to this barrier. In paragraph 4.3 of this regulation, it is stated that nature-based solutions must be explicitly addressed as an alternative to be assessed along with any grey solution. Should the NbS be dismissed, the reason must be substantiated. In 2022, the Norwegian Environment Agency (NEA) published more detailed guidelines for climate adaptation that built strongly on this regulation.

In response, GoNaturePositive! stresses the need for stronger assurance mechanisms, mandatory disclosure requirements and comprehensive NbS policy roadmaps that identify windows of opportunity for reform during legislative cycles and budget discussions. The multi-actor governance platforms promoted by Invest4Nature, NetworkNature and NATURANCE can support coordinated planning and capacity building across city departments, ministries and sectors.

6.2.5. Valuing diverse knowledge systems

“Valuing diverse knowledge systems” refers to KM5 of the IPBES Transformative Change Assessment. A nature-positive economy depends on embracing diverse forms of knowledge. Indigenous, local, and community-based perspectives offer context-specific insights that improve both the effectiveness and legitimacy of policy. Projects such as INTERLACE, CONEXUS, CLEVER Cities, and COEVOLVERS demonstrate the value of co-creation in producing innovative and grounded solutions. Inclusive frameworks that respect these contributions are more likely to succeed. INTERLACE’s guidance on cultural, gender and ethics related considerations (Øian et al., 2021) highlights the diverse values and knowledge systems across and within Latin America and Europe and the need to integrate local and indigenous as well as scientific knowledge planning and decision-making processes.

Chapter 4 highlights how NbEs and businesses benefit from engaging with diverse knowledge holders. It documents how companies that co-develop NbS with local actors improve their legitimacy, sustainability, and capacity to deliver context-specific outcomes.

It also shows that solutions co-created with local communities tend to generate more durable biodiversity gains and foster long-term stewardship. This requires institutional support and funding mechanisms that embed local knowledge into design, implementation, and monitoring phases.

However, local implementation still faces significant capacity barriers. As [Invest4Nature](#) highlights, local authorities often lack trained personnel with sufficient expertise in NbS planning and implementation. Conventional gardeners or landscape architects may be appointed who are unfamiliar with climate- and biodiversity-friendly practices. This results in suboptimal outcomes and limits the sustainability of solutions over time. Building inclusive and knowledgeable teams is therefore crucial to effectively value and integrate diverse knowledge systems.

PHUSICOS found that stakeholder engagement and equity are major enablers of NbS implementation (Martin et al., 2025). The project highlights the case of the Serchio River Basin in Italy, where NbS measures to reduce sediment and pollutant runoff into Lake Massaciuccoli were co-developed through a bottom-up participatory process. Farmers and local organisations collaborated closely with the responsible authority, the Autorità di Bacino Distrettuale dell'Appennino Settentrionale (ADBS), to select the appropriate NbS interventions, and were financially compensated for giving up their land for the NbS ([PHUSICOS](#)).

Groot et al. (2024) support this approach, arguing that top-down action alone cannot achieve transformation. It calls for governments to encourage voluntary and locally led initiatives that foster learning, trust, and experimentation beyond regulatory mandates. Supporting mechanisms may include community protocols, participatory spatial planning processes, and flexible seed funding for locally designed NbS. Invest4Nature additionally highlights the need to build local capacity, including training for NbS planning, implementation and monitoring, in order to ensure solutions are environmentally and socially sustainable.

6.2.6. Scaling change across levels

"Scaling change across levels" refers to KM6 of the IPBES Transformative Change Assessment. Systemic transformation must occur concurrently across spatial and institutional scales. Cities, regions, and national governments each have a distinct role to play. EU Horizon projects such as UNaLab, CLEVER Cities, REGREEN, and URBAN GreenUP show how community-level innovation in Nature-based Solutions (NbS) can inform broader strategic agendas. The GoNaturePositive! approach directly supports the emergence of a nature-positive economy by linking on-the-ground action with structural reforms in finance, policy, and governance ([Koh et al., 2025](#)). This approach aligns with multi-scale experimentation, from local NbS pilots to the redesign of financial frameworks that shape investment and risk globally.

Chapter 4 introduces Nature-Positive Roadmaps as strategic instruments for aligning business actions with biodiversity targets across scales. These roadmaps provide a structured path for translating global nature-positive goals into local implementation, while guiding public institutions in setting coherent regulatory signals and investment pathways. As such, they reduce policy and market fragmentation, creating the enabling conditions for NbS and regenerative practices to scale within a functioning nature-positive economy.

These roadmaps are transition plans, tools for coordinated action that integrate ecological goals into economic planning (cf. ALIGN, SUSTAIN). A wide range of reference frameworks, such as TNFD, WBCSD, Business for Nature, and WWF, offer sector- and biome-specific metrics that organisations can adopt or adapt. The SUSTAIN report (Groot

et al., 2024) reinforces this integrated, multi-level approach, calling on governments to develop roadmaps that align public and private action over time. Examples include inter-municipal cooperation mechanisms, national investment strategies incorporating NbS, and vertically integrated biodiversity targets through national biodiversity action plans. Together, these efforts are essential to operationalising a nature-positive economy that is both locally grounded and globally coherent.

6.2.7. Strategic coherence and alignment

“Strategic coherence and alignment” refers to KM7 of the IPBES Transformative Change Assessment. This KM outlines five mutually reinforcing strategies to support transformative change: shifting narratives, rules, values, resource flows, and relationships. These strategies offer a guiding framework for how a Nature-Positive Economy can be realised. Horizon projects are already translating these ideas into practice. GoNaturePositive! works on aligning public and private actors around shared goals, while NetworkNature aggregates lessons from over 100 NbS EU-funded projects to increase coherence and reduce fragmentation.

Chapter 4 of this publication demonstrates how companies and nature-based enterprises are experimenting with valuation models and impact measurement systems that support biodiversity integration across value chains, highlighting how business led actions can complement systemic policy reform. Policymakers need practical tools to evaluate and improve coherence, for example biodiversity policy diagnostics that cross reference the Common Agricultural Policy, the Common Fisheries Policy, and European Structural and Investment Funds. The EU Nature Restoration Regulation represent a relevant opportunity for system wide policy alignment.

The [NetworkNature Policy Screening and Analysis of Needs and Gaps for 2024 to 2030 report](#) (IEEP et al., 2024) provides additional insights into systemic gaps and opportunities. It screened 48 EU and global policy instruments in terms of NbS uptake and identified key barriers such as a lack of measurable targets, insufficient funding mechanisms, inconsistent terminology, and low private sector engagement. The report highlights the need to mainstream nature-based solutions through policy harmonisation, improved implementation instruments, integration into budgeting processes, and a stronger evidence base for their cost effectiveness and co benefits.

[GoNaturePositive!](#) (2024) further elaborates on the need for systemic policy alignment and introduces a Theory of System Change for biodiversity. It calls for a new strategic governance approach that enhances political ownership and institutional cooperation, embeds biodiversity goals into financial programming, and ensures that cross-sectoral strategies do not remain fragmented. The project provides a detailed diagnosis of existing policy blind spots and inconsistencies across scales, and offers design principles for aligning fiscal tools, legal frameworks, and reporting mechanisms with biodiversity goals, based on multi-actor dialogues and evidence from NbS EU-funded projects.

Groot et al. (2024) add urgency in the SUSTAIN report, noting that many strategies remain aspirational in the absence of clear implementation plans. It calls on policymakers to develop credible and transparent pathways with defined milestones and responsibilities to translate ambition into measurable and accountable progress.

6.2.8. Reflections on systemic readiness

These seven foundational conditions are not abstract ambitions. They are already being explored and enacted through concrete initiatives across Europe. What emerges from these efforts is a growing understanding that systemic transformation is both necessary

and possible. They show that policies rooted in equity, informed by diverse knowledge, and aligned across levels of governance can shift the trajectory toward a nature-positive economy. To move from scattered innovation to structural change, these foundations must be reinforced by economic and governance levers that support transformation across sectors and scales. The following section explores these enabling levers in greater depth.

6.3. Cross-Cutting Economic and Governance Levers

While foundational conditions lay the groundwork for transformation, realising a nature-positive economy requires structural levers that cut across sectors and institutions. The IPBES Transformative Change Assessment identifies a set of cross-cutting economic and governance conditions captured in Key Messages 8 to 17 that are critical for enabling and sustaining systemic change. These levers include the reform of governance structures, fiscal systems, financial flows, policy frameworks and societal norms to mainstream biodiversity into economic decision-making.

Drawing from Horizon Europe NbS projects, this section showcases how these levers are being put into practice. It highlights interventions such as participatory governance, performance-based budgeting, green public procurement, fiscal reform and the redirection of subsidies, all of which accelerate the shift to regenerative, inclusive and resilient economic models.

Businesses and the wider private sector, as set out in KM17, also have a central role in realigning supply chains, shifting investment flows and developing regenerative business models. When supported by coherent regulation, nature positive metrics and policy aligned incentives, businesses can catalyse innovation, scale up NbS and co-lead the transition to a nature-positive economy. Rather than treating business as a separate domain, this section integrates it into the broader architecture of systemic transformation as both a driver and beneficiary of cross-cutting levers.

These economic and governance levers are not sector specific but foundational. They shape the institutional and financial conditions under which sectoral change becomes viable, investable and scalable, ensuring that biodiversity is embedded not only in policy aspirations but also in the operating logic of economies.

6.3.1. Transformative stewardship by Indigenous and local communities

“Transformative stewardship by Indigenous and local communities” refers to KM8 of the IPBES Transformative Change Assessment. In the context of a nature-positive economy, it highlights the critical importance of recognising and resourcing community-led approaches to land, water and biodiversity management. Indigenous Peoples and local communities (IPLCs) often steward areas of high ecological and cultural value, and their practices contribute significantly to sustaining ecosystem services, conserving biodiversity, and building resilience. Stewardship becomes transformative when it is inclusive, well resourced, and firmly rooted in the recognition of rights. This includes the protection of land tenure and customary governance systems, the integration of biocultural approaches, and, in some contexts, the recognition of the rights of nature and Mother Earth. This message calls for stronger legal protections, investment in locally led conservation and restoration, and respect for diverse knowledge systems. It also highlights the importance of spatial planning and governance that is context-specific, culturally appropriate, and driven by the communities themselves.

In the European context, many EU-funded initiatives are aligning with the principles of KM8 by recognising the value of place-based knowledge and participatory governance. The [NbS Task Force 6 on Co-Creation and Governance](#) has produced practical guidance to support inclusive and effective NbS financing and implementation. Key outputs include the reports [Guidelines for Co-creation and Co-governance of Nature-based Solutions](#), which analyses participatory approaches across the NbS lifecycle, and [Harnessing the Power of Collaboration for Nature-based Solutions](#), which provides insights for local decision-makers. The work of Task Force 6 reinforces the central role of inclusive governance in ensuring that nature-positive transitions are equitable, context-specific, and socially legitimate.

Although the legal category of Indigenous Peoples does not apply in most EU Member States, several projects support communities with long-standing ties to specific territories. Projects such as WaterLANDS and MERLIN work with farmers, fishers, and land stewards to co-design nature-based solutions for wetlands, rivers, and agricultural systems. Their approaches include participatory spatial planning, biocultural restoration, and governance models that are locally owned and socially legitimate. Internationally, the CONEXUS project has taken bold steps to centre justice, intercultural dialogue, and historical awareness in nature-based solutions. One of its contributions is the publication [Bridging Worlds: Decolonising Nature-Based Solutions Education](#). This essay explores how professional education can move beyond technocratic and colonial frameworks.

Together, these projects illustrate that transformative stewardship is not simply about participation. It is about shifting power, recognising historically marginalised worldviews, and creating the legal, financial and institutional conditions that allow Indigenous Peoples and local communities to co-lead. Supporting their leadership is essential to achieving a just, inclusive and economically viable nature-positive future.

6.3.2. Transform key economic sectors and their governance

“Transform key economic sectors and their governance” refers to KM9 of the IPBES Transformative Change Assessment, which emphasises the critical need for institutional reconfiguration to reduce silos, mainstream biodiversity, and achieve coherent policy alignment across sectors. Despite growing awareness of environmental degradation, many governance systems remain outdated and fragmented, perpetuating short-term economic competitiveness over long-term ecological and societal resilience.

As explored in Chapter 2, particularly Sections 2.2 and 2.3, a nature-positive economy demands that sectoral governance structures evolve to recognise nature as a foundational asset. The alignment of economic institutions with ecological goals is necessary to reverse ecosystem degradation and transition toward regenerative economic models. Groot et al. (2024) stress that sectoral instruments must be recalibrated to align with overarching frameworks such as the EU Green Deal, the Kunming-Montreal Global Biodiversity Framework, and the Nature Restoration Regulation.

Horizon Europe projects are already demonstrating innovations that can enable this transition. These include performance-based budgeting mechanisms, integrated monitoring frameworks, and participatory co-creation models that shift institutional incentives toward biodiversity and ecosystem service delivery. A key illustration of this institutional evolution is provided by the [WaterLANDS project](#), in collaboration with the Climate Finance Lab and Climate Catalyst. The project promotes a landscape-scale approach to implementing nature-based solutions, particularly within the agricultural sector. This approach fosters governance that is inclusive, place-based, and economically viable, ensuring that ecological restoration supports local development goals. A flagship

example within WaterLANDS is the use of Results-Based Agri-Environmental Payment Schemes (RBAPS), which realign governance and financial instruments to outcomes rather than prescriptive practices. Under RBAPS, farmers and landowners receive payments for delivering measurable ecological results, allowing them the flexibility to determine how best to achieve these outcomes. Unlike traditional subsidy models, RBAPS empower land managers to innovate by drawing on local knowledge and conditions. Importantly, the RBAPS model enhances scalability, as restoration in one area contributes to wider ecological connectivity across the landscape. Funded through the European Innovation Partnership ([EU CAP Network](#)) and LIFE programme, RBAPS illustrate how governance frameworks can be reoriented to mainstream biodiversity while simultaneously addressing socio-economic challenges. Such mechanisms offer a blueprint for scaling up ecosystem restoration while embedding nature-positive metrics into agricultural governance. The approach exemplifies the operationalisation of KM9, showing how policy and practice can converge to deliver systemic transformation.

There is an urgent need to reconfigure economic systems to halt nature loss and build long-term resilience. Nature underpins our societies, economies and well-being. Yet its degradation is accelerating, threatening more than half of global GDP and undermining Europe's food security, climate resilience and public health. Transitioning to a nature-positive economy is a strategic imperative. It moves beyond minimising harm to actively restoring and regenerating ecosystems, not least through nature-based solutions. As outlined in [GoNP's policy report](#) (2025), this transition can unlock job creation, innovation and economic resilience, if supported by coherent policy, institutional reform and targeted investment.

IPBES identifies the reconfiguration of governance systems as essential for reducing silos, embedding biodiversity in decision-making, and aligning sectoral institutions with sustainability goals. Yet many sectors remain governed by regulatory frameworks that favour short-term gains and reinforce path dependencies. The [PHUSICOS](#) project, for example, highlighted governance barriers affecting nature-based infrastructure. Its findings showed that politicians often focus on immediate goals that deliver visible support from voters, while nature-based infrastructure typically requires longer timelines to demonstrate impact. Moreover, these solutions lack standardised long-term data on their performance, despite their multiple environmental, social and economic co-benefits. In contrast, conventional grey infrastructure benefits from established norms, long operating histories, and dedicated financing pathways. This structural advantage continues to delay the shift to nature-based alternatives.

The Nature Restoration Regulation adopted in 2024 marks a paradigm shift. It sets legally binding targets for restoring degraded ecosystems, including agricultural lands, forests, rivers, marine habitats and urban green spaces. Member States are required to develop national restoration plans with measurable outcomes, integrating restoration objectives into sectoral policies and coordinating across governance levels. The regulation intersects directly with core economic sectors such as farming, forestry, infrastructure and fisheries. These sectors not only drive ecosystem degradation but also fundamentally depend on healthy ecosystems for their viability. By establishing a regulatory baseline for ecological performance, the regulation compels both public and private actors to embed biodiversity and resilience into planning, procurement and development strategies. It is expected to catalyse long-term investment in nature-based solutions, correct the systemic bias in favour of grey infrastructure, and stimulate new markets for ecological services. This will enhance demand for nature-based enterprises and accelerate the shift toward a nature-positive economy.

Groot et al. (2024) emphasise that aligning sectoral instruments with strategies such as the EU Green Deal and the Global Biodiversity Framework is essential. Horizon Europe projects offer critical evidence and tools, including co-created planning processes,

performance-based budgeting, and integrated monitoring systems to support institutional transformation at the heart of KM9.

6.3.3. Transform dominant economic paradigms

“Transform dominant economic paradigms” refers to KM10 of the IPBES Transformative Change Assessment. Transforming economic paradigms is essential to achieving a Nature-Positive Economy. Current models focused primarily on GDP growth often do not fully account for the economy’s reliance on natural capital or the risks posed by environmental degradation. This can result in missed signals related to resource scarcity, climate vulnerability, and declining ecosystem services. Integrating indicators that reflect ecosystem condition, regenerative capacity, and long-term sustainability can enhance policy effectiveness and economic resilience. The GoNaturePositive! concept note (2024/2025) sets out core principles of a Nature-Positive Economy, presented in detail in Chapter 2, and calls for an economic model that embeds nature at the core of value creation and advocates for a transition to metrics that reflect ecological integrity, inclusive wealth and wellbeing. Chapter 4 illustrates how pioneering businesses and nature-based enterprises are adopting such metrics to guide regenerative strategies and investment decisions.

NetworkNature has been supporting this evolution by convening the [Task Force 3 on Finance and Business Models \(for NbS\) in a Nature-Positive Economy](#). The authors of this publication collaborate through this Task Force, drawing on insights from multiple EU-funded NbS projects. Task Force 3 aims to accelerate investment in NbS by addressing policy gaps, improving financial incentives and aligning nature-positive initiatives with international reporting standards. It fosters innovation through research and piloting efforts, supports green entrepreneurship, and works to mobilise finance while integrating NbS into broader economic planning. Through joint activities, the Task Force is building the evidence base for scalable, investable NbS business models and valuation approaches that can attract private sector engagement. Task Force 3 also participates actively in [events such as CBD COP 16](#), where NbS finance and systemic economic transformation were key agenda items. This engagement further reinforces the platform’s advocacy for mainstreaming nature into economic decision-making. As highlighted in the SUSTAIN report (Groot et al., 2024), transforming economic paradigms requires that governments adopt measures which reflect ecological limits and promote net-positive outcomes. Only through such systemic reconfiguration can nature move from the margins to the core of economic governance.

6.3.4. Inclusive, adaptive governance

“Inclusive, adaptive governance” refers to KM11 of the IPBES Transformative Change Assessment. Embedding nature-positive approaches across governance scales requires institutions that are collaborative, flexible, and grounded in continuous learning rather than fixed or siloed. The CONEXUS project responds to emerging critiques of NbS by promoting a more incisive Nature-Based Thinking approach that positions nature with people, not merely for people. Through a reflective and iterative research process involving symposiums and futures workshops in Europe and Latin America, [CONEXUS identified the need for cultural-structural change, novel governance paradigms and cross-sectoral coordination](#) beyond formal organisational boundaries. These principles align closely with inclusive governance objectives, highlighting the importance of long-term perspectives, equity in decision-making and engagement of local stakeholders in shaping urban nature relations (Mercado et al., 2024).

Other EU-funded projects including CLEVER Cities, PHUSICOS, INTERLACE and URBAN GreenUP demonstrate how purpose-built living labs support co-creation,

experimentation, and coordination across departments and sectors in planning and delivering nature-based solutions. The [Urban Governance Atlas](#), developed within the INTERLACE project, showcases 250 policy instruments supporting NbS and provides insights for each on their governance approaches (e.g. what types of actor groups were involved and how in the design and implementation of the instruments). This serves as a valuable resource for municipalities or practitioners wishing to design more inclusive, adaptive governance in policy and decision-making processes. CONEXUS and COEVOLVERS explore governance arrangements that strengthen responsiveness and iterative learning, highlighting the value of inclusive and decentralised decision-making.

Despite these innovations, Groot et al. (2024) identify persistent governance inertia in the SUSTAIN report. Institutional fragmentation, overlapping mandates, and weak coordination mechanisms continue to undermine strategic coherence and stall implementation. The report calls for more formal mechanisms that link environmental, financial, and development policies within a unified governance framework to drive integrated and sustained action toward a nature-positive economy. The findings are also in line with a literature review and stakeholder elicitation workshops carried out under PHUSICOS, where key governance enablers and barriers were identified ([D5.2](#), [Martin et al., 2025](#)). Indeed, inclusive stakeholder engagement and true co-design throughout all phases of NbS implementation ranked among the most frequently mentioned enablers. Likewise, lack of equity (both in NbS governance and in NbS benefit distributions) was identified as a key barrier to successful NbS implementation.

Complementing these efforts, [Connecting Nature has promoted reflexive monitoring](#), an adaptive evaluation approach that systematically integrates learning into all phases of NbS planning, implementation and stewardship. By capturing real time insights from co-creation and governance processes and feeding them back into decision making, reflexive monitoring enhances institutional adaptability and stakeholder capacity. As shown in Chapter 5, such tools are particularly relevant in sectors like forestry, where decentralised governance structures, overlapping land tenure systems, and complex stakeholder landscapes require governance models that are both inclusive and capable of continuous adjustment to shifting ecological and socio-economic conditions.

Strengthening existing public participation platforms and processes contributes to overcoming aforementioned governance barriers. The [NetZeroCities pilot project in Zagreb](#) demonstrates this by building on existing participatory approaches in Zagreb to expand the system of carbon sinks while improving quality of life and reducing urban sprawl.

6.3.5. Shift norms and values

“Shift norms and values” refers to KM12 of the IPBES Transformative Change Assessment. The transition to a Nature-Positive Economy requires more than technical adjustments and policy reforms. It depends on reshaping the cultural norms, societal values, and collective narratives that determine how people relate to nature. This transformation demands that nature is no longer seen as a passive backdrop to economic activity, but as a foundation of wellbeing, prosperity, and resilience.

Several EU-funded projects are already advancing this shift. Projects such as NBS EduWORLD and eNABLS strengthen the educational foundations needed to shift societal norms and values. NBS EduWORLD develops learning units and scenarios for schools, universities and professional training, as well as teacher development tools, to integrate NbS into curricula and everyday teaching. eNABLS complements this by embedding NbS and biodiversity concepts in higher education and vocational training and by creating living labs across Europe that foster applied, transdisciplinary learning and inclusive

participation. Projects such as URBAN GreenUP and GoGreenRoutes engage communities in reimagining urban life around health, wellbeing, and ecological connection. Operating at the intersection of health and ecosystem care, GreenME encourages an understanding of the value of nature to prevent and treat mental health conditions. RESONATE strengthens this evidence base by uniting researchers, practitioners, policymakers, and innovators across sectors to demonstrate the biopsychosocial benefits of nature-based therapy, foster multi-sectoral collaboration, and scale low-cost, inclusive approaches that enhance resilience and wellbeing in urban, rural, and coastal communities. Framing nature as a foundation of human health and wellbeing makes ecological values tangible. It helps shift cultural norms by linking biodiversity protection not only to environmental goals but also to everyday experiences of quality of life, resilience, and social equity. This health-focused framing creates new opportunities for broad societal support, while also mobilising actors from healthcare, urban planning, and social policy to engage in nature-positive transformation.

However, changing values at scale requires more than isolated initiatives. The Invest4Nature project shows that many city departments lack trained personnel to design and manage nature-based solutions. Conventional landscaping teams often default to outdated practices such as synthetic weed barriers, biocide-infused membranes, or non-native and water-intensive plantings. These decisions reflect entrenched norms that favour tidy appearances over ecological effectiveness, and they point to deeper institutional constraints that hinder the adoption of nature-based approaches. The [CONEXUS Report on Professional Skill Gaps in Nature-based Solutions](#) confirms that essential competencies such as participatory planning, impact evaluation, and cross-sector collaboration remain insufficiently developed. Without greater investment in human capacity, nature-positive norms will remain difficult to embed across planning, design, and implementation. Along the same lines, based on interviews with contractors and consultants, a PHUSICOS report highlights the various barriers private sector professionals face when venturing into NbS projects, which include limited experience and expertise with NbS, difficulties in recruiting and retaining skilled employees, insufficient evidence of NbS effectiveness, and limited funding that restricts work opportunities ([PHUSICOS](#)).

Groot et al. (2024), in the SUSTAIN report, warn that unless nature positive strategies are seen to improve quality of life, they risk being rejected as restrictive or technocratic. Reframing these strategies as routes to wellbeing, empowerment, and local resilience is therefore essential. This includes targeted support for training, peer learning, and community engagement to embed ecological understanding and stewardship at every level of governance and practice.

This normative shift is not only relevant to the public sector. As shown in Chapter 4, businesses increasingly depend on social legitimacy and cultural alignment to advance nature positive strategies. Reframing success to include ecosystem health, community wellbeing, and long-term regeneration creates new pathways for innovation and value creation. Aligning public and private narratives around a shared commitment to nature is crucial to support a Nature-Positive Economy that is credible, inclusive, and durable.

6.3.6. Create shared visions

“Create shared visions” refers to KM13 of the IPBES Transformative Change Assessment. A nature-positive economy requires shared visions of the future that connect ecological goals with social aspirations. These visions must be grounded in local realities while aligned with global objectives. At the heart of this effort is GoNaturePositive!, which aims to co-create a clear definition and framework for a Nature-Positive Economy, develop policy and governance roadmaps, and pilot real world experiments across key sectors. Complementing this, NetworkNature serves as the central hub of the European nature-

based solutions community. It convenes stakeholders annually in Brussels and facilitates Task Forces on themes such as [Data and Knowledge Sharing](#); [Integrated Assessment Framework](#); [Finance and Business Models \(for NbS\) in a Nature-Positive Economy](#); [NbS Communications](#), [NbS Education](#) and [Co-creation](#). Through its aggregative role, the Task Forces foster strategic alignment across research, policy, and practice, enabling cross project knowledge sharing and collaborative framing of NbS approaches. Further EU funded projects such as INTERLACE, IN HABIT, and VARCITIES provide platforms for envisioning inclusive, nature-positive urban futures. These projects support participatory planning and forward-looking storytelling, helping to connect lived experiences with broader regenerative ambitions. The INTERLACE project, for example, developed [Stories of Justice in Action](#) to convey the profound emotional and cultural importance natural surroundings have for local communities and showcase the power of collective action across the project's case study sites. Inclusivity is a central theme in these stories: they give a voice to marginalized groups, including children, and weave in traditional perspectives as a foundation for fostering shared understandings.

Groot et al. (2024) underline the importance of coalitions between business and civil society, such as Business for Nature, in aligning transition expectations. By embedding biodiversity considerations into corporate and societal strategies, these coalitions contribute to a coherent narrative and build collective purpose. This wider ecosystem of shared visioning reflects the business transformation dynamics explored in Chapter 4. There, it is shown that aligning policy signals, investor expectations, and corporate strategies around values such as ecosystem health, social legitimacy, and long-term regeneration is essential to shift business models and investment behaviour. Shared visions not only inspire community engagement and governance reform, but also help consolidate the enabling conditions for a nature-positive economy.

6.3.7. Engage whole of government and society

“Engage whole of government and society” refers to KM14 of the IPBES Transformative Change Assessment. Realising a nature-positive economy requires coordinated action across all levels of governance and active collaboration from all parts of society. [GoNaturePositive! places a whole of society approach](#) at the centre of its vision for transformation, as set out in Chapter 2 on principles of a nature-positive economy. This means combining legislative action to curb environmentally harmful activities with voluntary and citizen-led initiatives that empower communities to contribute to positive change. It also demands full alignment with international human rights standards, such as the UN Guiding Principles on Business and Human Rights, and a commitment to equity, fairness, and justice. As the transition to a nature-positive economy inevitably involves trade-offs, including the possible loss of certain ecosystems or species, broad societal participation is essential to democratically determine what can be considered acceptable. This includes mechanisms such as citizen assemblies and especially the inclusion of those most closely connected to nature, including Indigenous Peoples, local communities, and farmers.

Other EU funded initiatives reflect this multisectoral ethos. Both [Biodiversa+](#) and [NetworkNature](#) have supported science policy dialogues that foster collaboration across research, practice and governance. NetworkNature, in particular, has created structured Task Forces that bring together expertise on finance, co-creation, education and data to improve coordination and knowledge exchange across the European NbS community. The Horizon 2020 project CONEXUS, operating in cities across Europe and Latin America, applied co-production methods that involved multiple ministries, local governments, researchers, business actors and citizens. Urban living labs in Lisbon, São Paulo and Turin demonstrated how shared governance structures can align diverse regional agendas and improve the coherence of planning, environmental and infrastructure strategies.

To translate these visions into impact, coordinated engagement must also extend to operational levels. [Invest4Nature](#) identifies persistent challenges at the municipal level, where departments responsible for infrastructure, water and transport often work in isolation and lack knowledge of the benefits of nature-based solutions. This results in a default preference for conventional grey infrastructure perceived as more reliable. Where NbS are implemented, their sustainability is often compromised by materials and methods that undermine ecological goals, such as biocide treated membranes, synthetic weed barriers or non native and water intensive plants. Maintenance is usually entrusted to staff without ecological training, and few projects include mechanisms for long term monitoring. These practices point to deeper institutional limitations. Biodiversity and sustainability goals must be embedded across all departments and professional roles to create the enabling environment for systemic change.

The need for a whole of government and society approach is also in line with findings of PHUSICOS, where sectoral silos emerged as key NbS implementation barriers, often due to the fact that NbS require the expertise of diverse actors, including ecologists, hydrologists, engineers, city or landscape planners ([PHUSICOS](#)). Contrastingly, polycentric governance arrangements - which allow the collaboration of actors across scales (horizontally) and sectors (vertically) - were seen as key for NbS implementation. This is the case for the Isar Plan restoration project in Munich, which saw the creation of a multi-scale and multidisciplinary working group that spread the decision-making process across scales (city and state) and sectors (flood control, environmental organisations, city planning and more). This working group was considered as a vital success factor for the Isar Plan implementation ([Martin et al., 2021](#); Martin et al., 2019).

The broader ecosystem of engagement described here mirrors the dynamics explored in Chapter 4. Aligning public narratives, regulatory frameworks and business strategies around shared goals such as ecosystem health, wellbeing and long-term regeneration strengthens the economic rationale for nature positive action. It also creates enabling conditions that support both public and private actors in delivering transformative outcomes.

6.3.8. Government levers of change

“Government levers of change” refers to KM15 of the IPBES Transformative Change Assessment. It highlights the powerful role governments play in reshaping economic systems, by redirecting financial flows, redesigning markets, and setting regulatory conditions that support a nature-positive economy. Instruments such as public procurement, fiscal policy, budget frameworks and subsidies can all be re-oriented to favour biodiversity and ecosystem restoration.

Building on this, the EU project NAIAD has developed financial tools to integrate nature into national risk management strategies. Meanwhile, [GoNaturePositive!](#) calls for phasing out harmful subsidies and investing in systems that restore ecological health. SUSTAIN echoes this, warning that voluntary measures alone cannot achieve the scale required and that government-led investment is essential to build a robust nature-positive economy. The IPBES Nexus Assessment reveals the scale of the challenge. Approximately 5.3 trillion dollars per year in private financial flows and around 1.7 trillion dollars in public subsidies are currently promoting biodiversity loss and intensifying pressures on the interconnected systems of biodiversity, water, food, health and climate. Eliminating, phasing out or reforming these subsidies could shift business models toward sustainability, reduce environmental pressures and deliver co-benefits across multiple nexus elements.

One of the most immediate and actionable government levers is [public procurement](#), as it accounts for around 14% of the EU's GDP, making it one of the most powerful instruments

that public authorities have to influence markets. Used strategically, it can drive innovation, help reduce environmental impact and support social objectives. Yet many public authorities continue to face challenges in leveraging procurement effectively for nature-based solutions, particularly in urban contexts. The European Commission's report on [Public Procurement of Nature-based Solutions](#) outlines challenges across nine cities, including a lack of clarity on how NbS differs from general green procurement, insufficient technical capacity, difficulty in evaluating long-term ecological outcomes, and risk-averse institutions that favour grey infrastructure. Preliminary market consultations, as used in cities like Turin, are essential for understanding market capabilities and designing effective tenders. This approach, combined with defining tenders by functional challenge rather than by specific product, stimulates more innovative and sustainable responses from suppliers. These procurement limitations reflect similar issues identified in Chapter 4, where businesses and nature-based enterprises, especially small and medium-sized ones, encounter fragmented demand, lack of standardisation, and weak value chain integration. Public procurement therefore acts as both a barrier and a powerful driver to accelerate nature-positive markets. When tenders include ecological criteria, cover long-term maintenance, and support smaller qualified suppliers, they become transformative tools.

Beyond procurement, governments can also deploy fiscal incentives in the form of tax credits, rebates, or payments for ecosystem services to encourage biodiversity-positive behaviour across sectors. Public funding schemes, including grants and co-financing mechanisms, are vital for de-risking innovation and crowding in private capital. Integrating nature-positive conditionalities into public budget frameworks such as the Common Agricultural Policy, the LIFE programme, or the Cohesion Funds ensures that public money works for, rather than against, systemic change. However, the reduced ambition of the current Multiannual Financial Framework, as mentioned in Chapter 2, limits the scale of this potential, reinforcing the need for more robust mainstreaming of biodiversity across all financial flows.

In a significant development, the International Court of Justice issued a landmark advisory opinion on 23 July 2025, affirming that states have a legal duty under international law to prevent significant harm to the climate system. The court clarified that these obligations extend beyond treaty commitments such as the Paris Agreement, encompassing customary international law, human rights principles, and duties of good faith cooperation. Government inaction, or failure to regulate emissions from national actors, may now constitute a violation of international law. Although the opinion is advisory, it raises the legal bar for climate responsibility and reinforces the legitimacy of strong regulatory and fiscal action. This ruling places additional pressure on governments to align their fiscal systems with environmental protection, including by reforming subsidies, introducing carbon pricing, and investing in nature restoration. It reframes environmental action as not only a matter of policy, but of legal obligation and justice.

In line with this evolving legal context, GoNaturePositive! reiterates the need to reform subsidies to penalise nature-negative activities and reward ecosystem stewardship. However, many policies actively support harmful activities, including through continuing the provision of environmentally harmful subsidies, which by and large outweigh Nature Positive subsidies. In 2022 alone, governments provided over US \$350 billion in environmentally harmful agricultural support and US \$1.16 trillion in fossil fuel subsidies to consumers (UNEP, 2023). According to the IPBES Nexus Assessment, private sector financial flows that are directly damaging to biodiversity are estimated at \$5.3 trillion, and public subsidies incentivising such activities, distorting trade and increasing pressure on natural resources are estimated at approximately \$1.7 trillion per year. The SUSTAIN report adds that voluntary business commitments, while valuable, are not enough. Governments must lead through strategic investment, coherent regulation, and the integration of biodiversity into the economic fabric. These tools need to be deployed in a

harmonised manner, ensuring that ambition at the policy level is matched by delivery on the ground. As demonstrated in Chapter 4, companies are already responding to these signals. Those governments that move with clarity and consistency will shape market expectations, support business transformation, and unlock the systemic shifts required for a nature-positive economy.

6.3.9. Civil society and rights defenders

“Civil society and rights defenders” refers to Key Message 16 of the IPBES Transformative Change Assessment. A transition to a nature-positive economy must be socially legitimate and durable. This means protecting civic space and enabling the meaningful participation of civil society organisations and environmental justice advocates.

EU-funded projects such as JUSTNature, CONEXUS, INTERLACE, and COEVOLVERS exemplify how NbS implementation can be made more inclusive and effective by embedding co-creation at every stage. JUSTNature, for instance, operates seven [City Practice Labs](#) across diverse European urban contexts. These labs engage citizens, civil society organisations and local authorities to co-develop nature-based interventions that not only deliver climate and biodiversity benefits but also address social equity, access to nature, public health and housing needs. [Strategies and Tools for Just Collaborative Planning of Nature-Based Solutions](#) (JUSTNature) provides guidance on how participatory mapping, advisory boards, and equitable decision-making can be operationalised within NbS planning and governance frameworks. It reinforces the idea that justice considerations must be intentionally integrated into all dimensions of NbS, especially when working in contexts with vulnerable populations or contested resources. INTERLACE developed a free [Massive Open Online Course on regenerative nature-based solutions](#), including modules on citizen engagement as a tool to build local awareness and participation around NbS and co-creation as a form of collaborative NbS governance. The NbS Task Force 6, dedicated to co-creation and governance, has also produced guidance to support inclusive and effective NbS financing. Key outputs include the reports [Guidelines for Co-creation and Co-governance of Nature-based Solutions](#), which analyses participatory approaches across the NbS lifecycle, and [Harnessing the Power of Collaboration for Nature-based Solutions](#), offering practical insights for local decision-makers. Another example comes from the NATURANCE project, which launched [Naturethon](#), a citizen engagement initiative bringing together community members, experts, policymakers, and entrepreneurs to co-develop innovative financial approaches for nature-based solutions. Naturethons provide a space for collaboration on NbS finance and risk reduction, while enhancing public understanding of ecosystem services and creating the conditions for more equitable and effective investment strategies.

These examples demonstrate that protecting civic space, ensuring transparency, and enabling collective action are not peripheral concerns, but central requirements for advancing a legitimate and lasting nature-positive transition.

6.3.10. Business and private sector can incentivise sustainable practices

“Business and private sector can incentivise sustainable practices” is KM17 of the IPBES Transformative Change Assessment. Businesses play a critical role in enabling a transition towards a nature-positive economy. They are both major contributors to environmental degradation and holders of the solutions needed to restore ecosystems. Their capacity to reconfigure supply chains, shift financial flows and adopt regenerative models gives them significant influence over the pace and direction of change.

Several EU-funded projects are already demonstrating how this shift can be supported through regulatory innovation, financial tools and co-designed frameworks. The SUSTAIN report by Groot et al. (2024) underscores the need to complement voluntary initiatives with stronger regulation. Governments are encouraged to set enforceable standards that compel companies to disclose their impacts and dependencies on nature, implement transition plans, and adopt sustainable business models that align with ecological limits. The Invest4Nature project is building the evidence base for making nature-based solutions investable. By testing business models and quantifying both environmental and economic outcomes, the project equips companies and investors with the tools to evaluate nature-positive strategies. This work addresses a core challenge in the market, which is a lack of transparency and confidence in the financial performance of nature-based interventions. The NATURANCE project brings nature into the financial mainstream by working with insurers and banks to embed nature-based solutions into climate adaptation and disaster risk portfolios. A key contribution of NATURANCE is the development of standards for nature-based financial products through the European Committee for Standardization. This standardisation effort helps to align financial instruments with ecological objectives, making it easier for institutions to integrate natural capital into their investment planning and risk assessments. In parallel, GoNaturePositive and BIOFIN-EU are working to embed biodiversity into economic governance. GoNaturePositive engages business and policy stakeholders to co-develop sectoral transition roadmaps, incorporating shared accountability frameworks and indicators. BIOFIN-EU complements this by identifying harmful subsidies and designing public finance reforms. It also analyses how finance mechanisms are “activated” in regenerative business models in “learning sites”, including agroecological systems and urban green infrastructure, sites that use blended finance approaches combining public and private funding.

Supporting this wider innovation ecosystem, the [Connecting Nature Enterprise Platform](#) strengthens the emerging market of nature-based enterprises. It facilitates connections between solution providers and cities or clients, enhances visibility, and promotes peer learning to scale effective practices. Similarly, the [MERLIN Marketplace](#) serves as a digital matchmaking platform, linking restoration project developers with financiers, technical experts and policymakers to catalyse investment in large-scale restoration initiatives. The [NbS Business Forum](#), coordinated through the NetworkNature project, complements these efforts by uniting enterprises, SMEs and supporting organisations working at the intersection of business and nature. Through business intelligence, webinars, peer exchange and tailored training, these initiatives aim at enhancing the uptake of nature-based solutions across sectors and countries. Business models demonstrating these principles in action offer compelling evidence of what is possible. As detailed in Chapter 3, the case of Vittel in France illustrates how a conservation partnership supported sustainable land management practices among local farmers to protect spring water quality. The company provided financial incentives for reduced chemical use, ensuring continued access to high-quality natural resources while maintaining biodiversity standards. Further financing mechanisms and business models are explored in Chapter 3, setting the stage for the sectoral pathways discussed in Chapter 4. These show how private sector engagement can drive systemic change across agriculture, infrastructure and other high-impact domains. Together, these initiatives illustrate that the private sector is not merely a stakeholder but a strong catalyst in the transition to a nature-positive economy. Through innovative financing, supportive policy and inclusive partnerships, businesses can move beyond harm mitigation to become active agents of ecosystem restoration.

6.4. Sectoral Entry Points for Transformation

The transformation toward a Nature Positive Economy depends on how agriculture, forestry, the blue economy, the built environment and tourism operate. Chapter 5

examined the sectors in depth and identified practical regenerative practices, financing mechanisms and business models. This section distils the most policy relevant lessons and links them to the cross cutting economic and governance levers in Section 6.3. Across sectors three priorities reoccur:

- Sectoral governance needs to align mandates and incentives with ecological goals. This reflects Key Message 9 of the IPBES Transformative Change Assessment and includes performance-based budgeting, integrated monitoring and binding restoration targets.
- Financing systems should reward long term ecosystem stewardship. Blended finance, payments for ecosystem services and green public procurement can redirect public and private flows toward nature positive outcomes.
- Inclusive and adaptive governance is essential for equity and resilience. Participatory planning, co creation and multi scale collaboration, consistent with Key Messages 11 and 14, enable durable change.

These priorities connect sector specific action to economy wide reform and reinforce messages on structural change and coherence in policy and investment, as set out in Key Messages 2 and 7. They provide a practical bridge to Section 6.5, which summarises concrete recommendations for policymakers and highlights near term research and skill needs.

6.5. Key Recommendations and Identified Research and Skill Gaps

This final section translates the chapter's analysis into concise guidance for policymakers and highlights the research and capacity building priorities needed to accelerate a Nature Positive Economy. The first table presents concrete policy recommendations distilled from Sections 6.2 to 6.4. The second table identifies priority research needs and skill gaps to inform Horizon Europe calls, national programmes and professional training.

Systemic Recommendations for Policy Makers

- **Embed nature at the core of economic governance:** Introduce legally binding restoration targets, integrate biodiversity criteria into budgets and public procurement, and redirect subsidies and fiscal flows toward regenerative practices.
- **Reconfigure sectoral governance and incentives:** Align mandates, planning rules and market signals in agriculture, forestry, the blue economy, built infrastructure and tourism with ecological goals. Scale up instruments such as performance-based budgeting, payments for ecosystem services and blended finance.
- **Strengthen business engagement for systemic change:** Support nature-based enterprises and broader private sector action by creating clear regulatory standards, disclosure requirements and incentives for regenerative business models.
- **Advance inclusive and adaptive governance:** Ensure participation of Indigenous Peoples, local communities and civil society. Promote co creation, multi scale collaboration and rights-based approaches to secure legitimacy and long-term resilience.
- **Foster a whole of government and society approach:** Integrate biodiversity objectives across ministries and agencies, coordinate funding streams and strengthen policy coherence through national and EU level roadmaps.

Systemic Research Gaps and Capacity Building

- **Knowledge integration and governance innovation:** Deepen research on combining Indigenous, local and scientific knowledge in policy design, and test new governance models that enable co creation and iterative learning.
- **Economic evidence and valuation:** Further quantify costs, benefits and trade-offs of nature positive transitions across value chains and consumer markets to strengthen the economic case for policy and investment.
- **Sector specific transition pathways:** Pilot and assess measures to align nature-positive economy principles with high impact sectors such as agriculture, forestry, fisheries, construction and tourism.
- **Monitoring and metrics:** Develop harmonised indicators and long-term monitoring systems for biodiversity outcomes, ecosystem services and NbS performance to underpin fiscal and investment reforms.
- **Skills and institutional capacity:** Expand training and education in NbS design, ecological engineering, participatory governance and blended finance. Address shortages of qualified practitioners and local technical expertise.

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Appendix I: Details of EU-funded projects contributing to this publication

	<p>Horizon Europe Invest4Nature is an EU-funded project that contributes to the creation of a market for nature-based solutions. A group of 15 partners from 11 European countries prepare the grounds for investments in nature-based solutions by evaluating its benefits and economic performance. Grant Agreement number: 101061083.</p> <p><i>Details of contributors:</i> Marianne Zandersen (Aarhus University); Wenting Chen (NIVA); Martina Brophy (Horizon Nua); Lydia Lienhart (Joanneum Research); Andreas Tuerk (Joanneum Research)</p>
	<p>NetworkNature is a resource for the nature-based solutions community, creating opportunities for local, regional and international cooperation to maximise the impact and spread of nature-based solutions. Grant Agreement number: 887396. Also funded by UKRI.</p> <p><i>Details of contributors:</i> Daniela Rizzi (ICLEI Europe), Siobhan McQuaid (Trinity College Dublin); Katie Dawkins (UNEP-WCMC), Chrispin Sanga (Steinbeis); Vipul Sarnot (Steinbeis); Paola Lepori (ICLEI Europe)</p>
	<p>Connecting nature is a consortium of 30 partners within 16 European countries, and hubs in Brazil, China, Korea & The Caucasus (Georgia and Armenia) that co-work with local authorities, communities, industry partners, NGOs and academics who are investing in large scale implementation of nature-based projects in urban settings. Grant Agreement number: 730222</p> <p><i>Details of contributors:</i> Siobhan McQuaid (Trinity College Dublin), Daniela Rizzi (ICLEI Europe)</p>
	<p>GoNaturePositive! is coordinated by Trinity College Dublin and involves 20 partners across 14 countries, represented by research institutions, non-profits and environmental organisations who are leading the nature-positive agenda at global and European levels. Grant Agreement number: 101135264.</p> <p><i>Details of contributors:</i> Siobhan McQuaid (Trinity College Dublin); Marianne Zandersen (Aarhus University); Daniela Rizzi (ICLEI Europe); Hugh McDonald (Ecologic); Lucía Rúa Saez (ICLEI Europe); Naomi Odigbo (ICLEI Europe); Benjamin Kupilas (Ecologic); Paola Lepori (ICLEI Europe); Samuel Lara Arciniegas (LGI Sustainable Innovation); Pierre Cattoire (LGI Sustainable Innovation)</p>

	<p>Urban Nature Plans+ (UNP+) is a Horizon Europe project that strives to make urban nature the norm, not the exception. By working with cities, UNP+ aims to halt biodiversity loss and enhance urban ecosystems, fostering healthier and more resilient communities. Through collaborative research and action, UNP+ integrates city-led initiatives with national sustainability strategies to develop transformative green solutions. Grant Agreement number: 101135386.</p> <p><i>Details of contributor:</i> Hadiza Lemo (Horizon Nua); Paola Lepori (ICLEI Europe)</p>
	<p>Horizon Europe A-Track is a new four-year, €11 million project that will accelerate business, finance, and government action for nature. The eleven A-Track partners are: Capitals Coalition, VITO, UNEP-WCMC, Tecnalia, World Business Council for Sustainable Development, Cambridge Institute for Sustainability Leadership, Oppla, Institute of Chartered Accountants in England and Wales, Fraunhofer-Gesellschaft, University of Stuttgart and IDEEA Global. Grant Agreement number: 101082268.</p> <p><i>Details of contributor:</i> Martine van Weelden (Capitals Coalition)</p>
	<p>Horizon Europe SUSTAIN project provides businesses, financial institutions, and regulatory bodies with the knowledge and resources to better understand, assess, and monitor the dependencies and impacts on nature from activities across different sectors of the economy. Grant Agreement number: 101060320.</p> <p><i>Details of contributors:</i> Martine van Weelden (Capitals Coalition); Hidde Boom (Capitals Coalition)</p>
	<p>Horizon Europe CircHive project helps businesses and the public sector recognise, measure and report on the value of nature. CircHive is a five-year, €11.5 million project with 15 research and 13 case-study partners. Grant Agreement number: 101082081.</p> <p><i>Details of contributor:</i> Erika Winquist (Natural Resources Institute Finland - LUKE)</p>
	<p>SELINA will provide guidance for evidence-based decision-making that supports the protection, restoration, and sustainable use of our environment. Grant Agreement number: 101060415.</p> <p><i>Details of contributor:</i> Martine van Weelden (Capitals Coalition)</p>
	<p>Naturance - nature for insurance, insurance for nature - explores the feasibility and effectiveness of financial instruments, as nature-based insurance and investment solutions, with a focus on co-development and uptake of shared performance metrics, design principles, transformative business and policy innovation cases. Grant Agreement number: 101060464.</p> <p><i>Details of contributors:</i> Andrea Staccione (CMCC); Stefano Ceolotto (CMCC); Jaroslav Mysiak (CMCC); Joanne Linnerooth-Bayer (IIASA); Timothy Foreman (IIASA); Juliette Martin (IIASA); Wouter Botzen (VU-IVM); Guillermo Garcia Alvarez (VU-IVM); Max Tesselaar (VU - IVM); Zuzanna Kozłowska (LSE); Swenija</p>

	<p>Surminski (LSE), Daniela Rizzi (ICLEI Europe); Paola Lepori (ICLEI Europe)</p>
	<p>Biodiversa+ is the European co-funded biodiversity partnership supporting excellent research on biodiversity with an impact for policy and society. It was jointly developed by BiodivERsA and the European Commission (DG Research & Innovation and DG Environment) and was officially launched on 1 October 2021. Grant Agreement number: 101052342</p> <p><i>Details of contributor:</i> Lars Dinesen (SGAV), Marie-Claire Danner (FRB), Mariem El Harrak (FRB), Mithila Unkule (FRB).</p>
	<p>NBS EduWORLD or the Nature Based Solutions Education Network is an EU funded project that aims to nurture an NbS literate society, supporting a just transition to a sustainable future. For this, NBS EduWORLD will create an NbS community that facilitates synergies between NbS professionals and education providers and ensures free and easy access to NbS knowledge and resources for all. Grant Agreement number: 101060525</p> <p><i>Details of contributor:</i> Conor Dowling (Trinity College Dublin)</p>
	<p>CLEARINGHOUSE is a Sino-European project that addresses the global challenge of creating resilient and livable cities by restoring degraded peri-urban environments, enhancing ecological connectivity, and improving human well-being, including public health and social inclusion. Grant Agreement number: 821096</p> <p><i>Details of contributor:</i> Rik De Vreese (European Forest Institute)</p>
	<p>Horizon Europe MULTISOURCE is an EU-funded project that will facilitate the systematic, city-wide planning of nature-based solutions for urban water treatment, storage, and reuse. Grant Agreement number: 101003527</p> <p><i>Details of contributor:</i> Elena Petsani (ICLEI Europe), Laura Pirazán Palomar (ICLEI Europe)</p>
	<p>Horizon Europe REST-COAST is a project aiming to provide the social, financial, and governance tools needed to secure the restoration of degraded coastal ecosystems. Grant Agreement number: 101037097</p> <p><i>Details of contributors:</i> Umberto Pernice (Independent Senior Consultant and Researcher); Laura Puértolas (Albirem)</p>
	<p>Horizon Europe REGREEN is a project aimed at fostering nature-based solutions for equitable, green and healthy urban transitions. Grant Agreement number: 821016 (2018-2024)</p> <p><i>Details of contributor:</i> Marianne Zandersen (Aarhus University)</p>

	<p>Horizon Europe PHUSICOS is a project that demonstrates how nature-based solutions provide robust, sustainable and cost-effective measures for reducing the risk of extreme weather events in rural mountain landscapes. Grant Agreement number: 776681</p> <p><i>Details of contributors:</i> Joanne Linnerooth-Bayer (IIASA); Juliette Martin (IIASA); Alberto Fresolone (IIASA); Jenan Irshaid (IIASA); Amy Oen (NGI); Anders Solheim (NGI); Anna Scolobig (University of Geneva); Julia J. Aguilera-Rodríguez (University of Geneva)</p>
	<p>C-FAARER (Community driven Farming for the Atlantic and Arctic Sea basins through REgeneRative aquaculture) is a two-year project funded by Horizon Europe under the Mission 'Restore Our Ocean and Waters by 2030'. The aim of the project was to support ocean farmers in the Atlantic and Arctic Sea basin to develop community-driven business models for regenerative ocean farming and policymakers to take enabling actions. Grant Agreement number: 101112729</p> <p><i>Details of contributor:</i> Isobel Fletcher (Horizon Nua)</p>
	<p>HYDROUSA is a EU Horizon2020 Innovation Action project approved under the call topic CIRC-02-2016-2017 (Water in the context of the circular economy) (Grant Agreement No. 776643). HYDROUSA aims to revolutionize the water supply chain in Mediterranean regions by demonstrating innovative solutions for water/wastewater treatment and management, which will close the water loops and will also boost their agricultural and energy profile.</p> <p><i>Details of contributor:</i> Najla Kamergi (UT SEMIDE)</p>
	<p>SUPERB (Systemic solutions for upscaling of urgent ecosystem restoration for forest-related biodiversity and ecosystem services) is a €20 million project funded by the EU Horizon 2020 Research and Innovation Programme, that aims to restore thousands of hectares of forest landscape across Europe. The project has 36 partners in 16 countries, led by the European Forest Institute and co-ordinated by Wageningen Environmental Research. Grant Agreement number: 101036849</p> <p><i>Details of contributions:</i> Milestone 5.1; Deliverable 4.3</p>
 <p>Aligning accounting approaches for nature</p>	<p>The Align 'Aligning Accounting Approaches for Nature' project aims to develop a generally accepted suite of methods, indicators and criteria for biodiversity measurement and valuation tools and approaches that can be used by businesses and financial institutions.</p> <p><i>Details of contribution:</i> Arcadis et al. (2024)</p>
	<p>The MERLIN (Mainstreaming Ecological Restoration of freshwater-related ecosystems in a Landscape context: INnovation, upscaling and transformation) project commits to transformative ecosystem restoration, mainstreaming Nature-based Solutions for the urgent systemic change of our society. Grant Agreement number: 101036337.</p> <p><i>Details of contributor:</i> Gerardo Anzaldúa (Ecologic Institute)</p>

	<p>GreenScape is a European Project financed by the Interreg Central Europe programme of the EU. The GreenScape-CE project strengthens planning capacities and pilots the application of nature-based solutions and green infrastructure approaches in five cities, which are significantly affected by urban heat island effects.</p> <p><i>Details of contribution:</i> GreenscapeCE (2024) - Deliverable 1.5.1</p>
	<p>JUSTNature is a Horizon 2020 project that focuses on activating nature-based solutions to ensure a just transition to low carbon cities, based on the principle of the right to ecological space. Grant Agreement number: 101003757.</p> <p><i>Details of contributors:</i> Alice Reil (City of Munich); Ronan Frizzell (Inlecom Commercial Pathways); Jessica Balest (Eurac Research)</p>
	<p>Varcities or Visionary Nature-based Actions for Health, Well-being and Resilience in Cities is a Horizon Europe project that sets out to advance innovation across different urban scales by fully exploiting nature-based solutions from a digital, social and cultural perspective. Grant Agreement number: 869505.</p> <p><i>Details of contributor:</i> Denia Kolokotsa (Technical University of Crete)</p>
	<p>RESONATE or Resilience through Nature-based Therapies is a Horizon Europe project that brings together a consortium of world leaders in nature-based therapy (NbT) research. The aim is to build individual and community resilience through nature-based therapies. Grant Agreement number: 10063874.</p> <p><i>Details of contributor:</i> Colm O'Driscoll (ETIFOR)</p>
	<p>Nature4Cities is a Horizon 2020 EU-funded Research & Innovation project, creating a comprehensive reference Platform for Nature Based Solutions, offering technical solutions, methods and tools to empower urban planning decision making. Grant Agreement number: 730468</p> <p><i>Details of contributors:</i> Javier Babi Almenar (Politecnico di Milano and National Biodiversity Future Centre (NBFC)/Nature4Cities); Benedetto Rugani (Consiglio Nazionale delle Ricerche); Claudio Petucco (LIST)</p>
	<p>GrowGreen is a Horizon 2020 EU-funded Research & Innovation project that aims to create climate and water resilient, healthy and livable cities by investing in NbS. The project ended in 2022. Grant Agreement number: 730283</p> <p><i>Details of contributors:</i> Kym Whiteoak (Trinomics)</p>
	<p>FutureMARES - Climate Change and Future Marine Ecosystem Services and Biodiversity - is an EU-funded research project examining the relations between climate change, marine biodiversity and ecosystem services. Grant Agreement number: 869300</p> <p><i>Details of contributors:</i> Wenting Chen (NIVA), Arantza Murillas</p>

	(AZTI)
	<p>URBAN GreenUP is a project funded under the European Union's Horizon 2020 programme. Its objective is the development, application and replication of Renaturing Urban Plans in a number of European and non-European partner cities. The project ended in 2023. Grant Agreement number: 730426</p> <p><i>Details of contribution:</i> Deliverable 7.13</p>
	<p>ProGInreg or 'productive Green Infrastructure for post-industrial urban regeneration': nature for renewal is a project funded under the European Union's Horizon 2020 programme. ProGInreg uses nature for urban regeneration with and for citizens. The project ended in 2023. Grant Agreement number: 776528</p> <p><i>Details of contributor:</i> Benedetto Rugani (Consiglio Nazionale delle Ricerche)</p>
	<p>Naturvation or NATure-based URban innoVATION is a 4-year project, funded by the European Commission and involving 14 institutions across Europe in the fields of urban development, geography, innovation studies and economics. The project ended in 2022. Grant Agreement number: 730243</p> <p><i>Details of contributor:</i> Helen Toxopeus (Utrecht University)</p>
	<p>WaterLANDS or Water-based solutions for carbon storage, people and wilderness is a 5-year EU-funded project that will restore wetland sites across Europe and lay the foundations for scalable protection across much wider areas. Grant Agreement number: 101036484</p> <p><i>Details of contributor:</i> Craig Bullock (University College Dublin)</p>
	<p>The COEVOLVERS project aims to explore how nature-based solutions can contribute to the societal change needed to address the ongoing biodiversity and climate crisis. Grant Agreement number: 101084220</p> <p><i>Details of contributor:</i> Juha Hiedanpää (Natural Resources Institute Finland - LUKE)</p>
	<p>The Conexus project, funded by the EU Horizon 2020 research and innovation programme, aims to provide accessible knowledge on how to restore natural ecosystems; improve the quality of life in and around cities; and support collaboration between Latin America and Europe. Grant Agreement number: 867564</p> <p><i>Details of contributors:</i> Daniela Rizzi (ICLEI Europe); Tom Wild (University of Sheffield).</p>
	<p>INTERLACE, International Cooperation to Restore and Connect Urban Environments in Latin America and Europe, is a project to strengthen urban ecosystem restoration in the European Union and Latin America. The project ended in 2024. Grant Agreement</p>

	<p>number: 869324</p> <p><i>Details of contributor:</i> McKenna Davis (Ecologic)</p>
	<p>CLEVER Cities - Co-designing Locally tailored Ecological solutions for Value added, socially inclusive Regeneration in Cities - is a Horizon Europe project that aimed to foster sustainable and socially inclusive urban regeneration locally, in Europe and globally. The project ended in 2023. Grant Agreement number: 776604</p> <p><i>Details of contributor:</i> Daniela Rizzi (ICLEI Europe)</p>
	<p>The UNaLab project, in receipt of Horizon Europe funding, contributed to the development of smarter, more inclusive, more resilient and increasingly sustainable cities through the implementation of nature-based solutions. Grant Agreement number: 730052</p> <p><i>Details of contributor:</i> Laura Wendling</p>
	<p>NAIAD, or NAture Insurance value: Assessment and Demonstration, is a H2020 project that aims to operationalise “Natural Assurance Schemes”, defined as a range of schemes to internalise the insurance value of river systems. The project ended in 2020. Grant Agreement number: 730497</p> <p><i>Details of contributor:</i> Monica A Altamirano de Jong (ALTAMIRA Regenerative Finance)</p>
	<p>Green-Win Project aims to develop and disseminate win-win strategies for sustainability and climate action by improving our understanding of their linkages, trade-offs and implementation barriers. Grant Agreement number: 642018.</p> <p><i>Details of contribution:</i> Deliverable 4.1</p>
	<p>The Horizon Europe project, TRANS-lighthouses, aims to understand the strengths and limitations in the design and implementation of nature-based solutions (NBS). TRANS-lighthouses integrates a network of “lighthouses” in urban, rural, coastal and forest areas. Grant Agreement number: 101084628</p> <p><i>Details of contributor:</i> Ela Callorda Fossati (University of Louvain).</p>
	<p>ENABLS is an EU funded project with the vision to boost skills & capacity building to ensure environmental sustainability and a nature-positive society by means of biodiversity & Nature-Based Solutions (NBS) learning and teaching. Grant Agreement No. 101135035</p> <p><i>Details of contributor:</i> Michael Jones (SLU)</p>

	<p>The Naturescapes project focuses on nature-based solutions from a landscape perspective. Naturescapes looks into diverse social, cultural, economic and geographical settings across 30 functional urban areas (FUAs) with a specific focus on 12 case studies in the European Union, Latin America and the United States of America. Grant Agreement No. 101084341</p> <p><i>Details of contributor:</i> Rob McDonald (The Nature Conservancy)</p>
	<p>NATALIE is a Horizon Europe research project focused on accelerating and mainstreaming transformative NATure-bAsed solutions to enhance resiLIence to climate change for diverse bio-geographical European regions. Grant Agreement No. 101112859</p> <p><i>Details of contributors:</i> Edoardo Carlucci (IISD); Amanda Radstake (GIB)</p>
	<p>GreenME is a Horizon Europe project focused on scaling nature-based therapy and green care frameworks to improve adult mental health and wellbeing, while delivering socio-ecological co-benefits. Grant Agreement No. 101136599</p> <p><i>Details of contributors:</i> Helen Cole (Universitat Autònoma de Barcelona); Margarita Triguero-Mas (Open University of Catalonia)</p>

Appendix II: Description of Methodology

The methodology for this publication involved a series of five iterative development steps as summarised hereafter:

(i) Initiation: The process of planning and writing the publication began in October 2023 with the development of key research themes among the projects involved in NbS Task Force 3 and the establishment of theme facilitators and a core writing team for each theme.

(ii) Scoping process 2024: As part of the pre-consultation process for this publication, in the summer of 2024, a short scoping document was jointly developed by the group, with a view to engaging economic policy makers to ensure the report's relevance in addressing key knowledge gaps and providing the evidence needed to support uptake of NbS. Feedback was received from twenty-two contributors from July to September 2024. These contributors were loosely grouped into five categories - Economic Policy, Environment Policy, Investor/Finance, Corporate, and Innovation Ecosystem. A comprehensive report on the scoping document feedback was produced for internal review purposes and informed the subsequent content development of the publication.

(iii) Data gathering: In addition to this consultation process a series of NetworkNature Taskforce 3 meetings¹² supported the data gathering phase and the overall development of the publication. Five meetings took place from April 2024 to June 2025. At the first meeting, TF3 members, interested in contributing to the EC Expert Publication, were asked to participate in breakout room sessions per theme:

- Theme 1: Mapping of Financing instruments and business models (6 interested members participated).
- Theme 2: Economic valuation of benefits of NbS (10 interested members participated).
- Theme 3: Policy and regulation impacting on financing of NbS (7 interested members participated).
- Theme 4: Activating business engagement in the nature-positive economy (5 interested members participated).
- Theme 5: The role of technology / FinTech in increasing investment in nature (3 interested members participated).
- Theme 6: Engaging citizens in the NPE to influence consumer behaviour, political decisions, financing and investment in NbS (1 interested member participated).
- Theme 7: Exploring opportunities for synergies with broader climate change and biodiversity initiatives in relation to financing and investment in nature (4 interested members participated).

These breakout sessions were repeated on 27th of May 2024. At meetings in November 2024 and February 2025, theme facilitators provided updates as to the progress of their respective chapters of the EC expert publication. Complementing these wider TF3 meetings involving all projects, a further seven dedicated TF3 Theme Facilitator Meetings, which focused exclusively on the EC Expert Publication, were held online on 16th of May 2024, 13th June 2024, 12th August 2024, 23rd September 2024 (in person in Brussels), 24th of February 2025, 24th of April 2025 and 30th of May 2025. Over the course of these meetings, invitations to contribute were extended to more than 140 members of the TF3

¹² These meetings took place on the following dates: 22nd April 2024, 27th May 2024, 11th November 2024, 4th February 2025 and 30th June 2025.

working group with affiliations to 86 Horizon Europe projects, of which 45 feature in this publication (see [Appendix I](#)).

(iv) Analysis, validation and review process. The period of analysis and writing was interspersed with periodic validation and review of the findings and recommendations emerging from the report. The NetworkNature Taskforce 3 meeting on 30th of June 2025 was an especially important juncture in the review process. Approximately 30 TF3 members were in attendance and heard from chapter leads about the results and recommendations stemming from the report. Breakout sessions were undertaken to validate findings and recommendations across each of the report's chapters. This valuable feedback experience provided a basis for (dis)confirmation of key findings, inclusion of previously overlooked project outputs, and refinement of recommendations.

(v) Final review and publication. The first completed draft of the report was finalised by the close of July 2025 and sent for review to the European Commission and to the full list of report contributors. By September, feedback from the EC was incorporated and the report was finalised and sent for publication. A soft launch of the report took place at the NetworkNature Annual Event (16th-17th September 2025) and an official launch took place at the European Business & Nature Summit 2025.

Limitations: The approach to data gathering was not on a systematic basis. Relevant source materials were gathered, in the first instance, from EU Horizon Europe Research and Innovation projects relevant to NbS and biodiversity topics i.e. deliverables, such as reports, or outputs, such as conference proceedings, case studies and academic papers. Once project deliverables were exhausted as a data source, publications were sought from reputable organisations that included World Economic Forum, Business for Nature, World Business Council for Sustainable Development and World Wildlife Fund. Any remaining gaps in knowledge were supplemented with academic literature.

Appendix III: Analysis of the European Commission proposal for the Multi-Annual Financial Framework 2028-2034

The EU Multiannual Financial Framework (MFF)

The current 2021-2027 Multiannual Financial Framework (MFF) is the EU's long-term budget, defining financial priorities and spending limits for various programmes and policies. It allocates a total of €1,074 billion (in 2018 prices) across seven key areas, including natural resources and environment, which receives €356.4 billion. As part of the EU's commitment to biodiversity, the current MFF earmarks €112 billion for biodiversity-related financing. Additionally, the MFF sets a progressive biodiversity spending target: 7.5% of annual spending in 2024, increasing to 10% in 2026 and 2027. However, recent European Commission estimates indicate that these targets might not be reached as they are at risk, with projected spending reaching only 7.8% in 2026 and 7.9% in 2027 (Kupilas et al, 2025, GoNaturePositive! D1.3).

As the European Union shapes its next MFF for the period from 2028 to 2034, it faces a convergence of environmental, economic and demographic pressures. These intersecting challenges are accelerating the loss of biodiversity and climate stability while also deepening existing inequalities in health, wellbeing and access to nature across European regions.

The upcoming MFF offers a critical opportunity to position nature as a strategic investment priority and to align EU funding with biodiversity and climate goals. However, the European Commission's current proposal raises serious concerns. With the EU budget shifting toward a more flexible and policy-driven framework under the next MFF that is expected to consolidate numerous programmes into broader funds, priorities such as decarbonisation, security and defence, and innovation are taking centre stage. While these strategic shifts aim to enhance the EU's competitiveness and responsiveness to emerging challenges, they risk sidelining biodiversity, potentially blurring biodiversity targets and reducing its share of funding at a time when robust financial mechanisms are essential to support stakeholder commitment to a nature-positive economy transition (Kupilas et al, 2025, GoNaturePositive! D1.3).

The European Environmental Bureau (EEB) [warns that absorbing the LIFE Programme into a broader European Competitiveness Fund](#) risks sidelining one of the EU's most effective tools for nature conservation and environmental action. This change, coupled with the merging of dedicated climate and biodiversity targets into a single 35 percent climate and environment spending goal ([European Union, 2025](#)), may weaken accountability and reduce targeted investment in ecosystem restoration at a time when it is most urgently needed.

At the same time, networks of local and regional governments have warned that the proposed MFF risks centralising EU budgetary control, weakening Cohesion Policy, and marginalising local voices in policy design and delivery. The [Local Alliance](#)¹³ [published a position paper](#) recommending embedding multilevel governance, strengthening place-based approaches, and ensuring that local actors are empowered to lead implementation on the ground, as key conditions for a future-proof, democratic, and inclusive EU budget (The Local Alliance, 2025).

¹³ A coalition of Europe's leading city and regional networks comprising [ICLEI Europe](#), [ACR+](#), [CEMR](#), [Climate Alliance](#), [Energy Cities](#), [Eurocities](#), [FEDARENE](#), and [POLIS](#)

A nature-positive, inclusive and resilient future for Europe requires a financial framework that supports local action, safeguards dedicated environmental funding and prioritises NbS as a pillar of economic and territorial cohesion. This is not only about restoring nature; it is also about laying the foundation for long term economic stability and resilience across Europe.

Table 2.8

Analysis of the European Commission proposal for the MFF 2028-2034 from a NPE perspective (as of August 2025).

European Budget Proposal Summary	NPE perspective
<p>A 35% climate and environment spending target for the overall budget mobilising over EUR 700 billion</p> <ul style="list-style-type: none"> – to support climate and environmental objectives, climate mitigation, adaptation and resilience; sustainable growth, innovation and strategic independence. – to make sure that climate resilience and environmental measures are better aligned. 	<p>The bundling of climate and environmental spending targets without specific recognition and earmarking of targets for biodiversity spending present a significant risk of reduced budget allocation. In the previous MFF, there was a spending target for climate (30%) and a stated ambition for a biodiversity target (10% for 2026-27). Bundling both into a 35% climate and environment target effectively signals a reduction of 50% in biodiversity spending, potentially higher if other non-biodiversity measures are included.</p> <p>Conflicting priorities, such as balancing renewable energy expansion with carbon sink conservation, create challenges and can potentially increase the risk of greenwashing due to inadequate reporting and monitoring, especially for small-scale projects. These conflicts will intensify if the proposals for consolidated post-2027 funding are adopted, as biodiversity projects will have to compete with new pressing priorities such as economic recovery, security, and infrastructure, likely to reducing funding for nature conservation (Kupilas et al., 2025, GoNaturePositive! D1.3).</p>
<p>The 'Do No Significant Harm' principle:</p> <ul style="list-style-type: none"> – to be applied through a single, simple and proportionate approach, ensuring that EU funded activities do not cause significant harm to climate and environmental objectives. 	<p>The continued decline of biodiversity and nature shows that the 'Do No Significant Harm' principle is not effective. The current MFF continues to fund nature-negative activities, such as intensive agriculture or infrastructure, while only activities explicitly tagged as contributing to climate objectives are required to follow the DNSH principle. As a result, 70% of MFF funding remains unrestricted by environmental safeguards, potentially slowing progress toward</p>

European Budget Proposal Summary	NPE perspective
	<p>biodiversity and nature-positive goals. Conflicting priorities, such as balancing renewable energy expansion with carbon sink conservation, create challenges and can potentially increase the risk of greenwashing due to inadequate reporting and monitoring, especially for small-scale projects. These conflicts will intensify if proposals for consolidated post-2027 funding are adopted, as biodiversity projects will have to compete with new pressing priorities such as economic recovery, security, and infrastructure, likely to reducing funding for nature conservation.</p> <p>Additionally, with no clear biodiversity and nature targets and priorities proposed under</p> <p>While single, simple and proportionate approaches are welcomed, they must be based on clear indicators that EU funded activities lead to a reduction of negative impacts on nature, with priority given to activities that show a positive impact on nature restoration (Kupilas et al., 2025, GoNaturePositive! D1.3).</p>
<p>The “Climate resilience by design” principle: – to be applied to protect people and investments from the increasingly devastating impact of climate change. – to prepare for and better manage climate risks, limit economic and social costs, and promote innovative technologies.</p>	<p>The “Climate resilience by design” principle is welcomed but should specifically recognise the cost-effectiveness of nature-based solutions in building climate resilience to protect people, assets, and investments from the growing risks of climate change (see research on economic benefits of NbS for disaster risk reduction and climate change adaptation in Chapter 3)</p>
<p>An enhanced system to monitor EU spending and results on green objectives:</p> <ul style="list-style-type: none"> – Simple and robust system to better track actions supported related to the budget for environment and climate mitigation, adaptation and resilience. 	<p>A simplified reporting mechanism is welcomed as under the current MFF, multiple impact assessment instruments create complexity, while the absence of dedicated monitoring, evaluation, and performance-based indicators weakens green objectives Kupilas et al., 2025, GoNaturePositive! D1.3).</p> <p>The proposed monitoring system must specifically track spending on nature and biodiversity and show how they align with European and member state international</p>

European Budget Proposal Summary	NPE perspective
	commitments to agreements such as the GBF.

Table 2.9

Analysis of the individual EU programmes as presented in the European Commission proposal for the MFF 2028-2034 from an NPE perspective.

Programmes	NPE perspective
<p>National and regional partnership plans will link reforms with clean investments, supporting the EU 2040 climate and energy targets and supporting local communities and businesses in the clean transition. These plans will help take better account of the needs of each territory, as regions are at the core of the transition.</p>	<p>Regional and local governments are leading actors in the transition to a nature-positive economy. They have been at the forefront of investment in nature-based solutions recognising their cost-effectiveness in addressing social and environmental challenges simultaneously. Further investment is needed to strengthen operational capacity including technical and financial expertise to deploy nature-based solutions and scale nature-based enterprises as a key pathway to deliver measurable biodiversity outcomes.</p>
<p>The European Competitiveness Fund will strengthen the EU's economy through investments aiming to decarbonise the European economy, both small and big. This will strengthen the development of clean technologies and the circular economy, drive forward sustainable transport and the energy transition while protecting the climate and the natural environment.</p> <ul style="list-style-type: none"> • The Innovation Fund will reinforce the European Competitiveness Fund, boosting support to industrial decarbonisation and innovation of clean technologies. • The Industrial Decarbonisation Bank, announced in the Clean Industrial Deal, will be placed within the governance of the Competitiveness Fund. 	<p>While investment in decarbonisation and clean technologies are welcome, it is not clear how this will lead to protection of the natural environment. In line with the recommendation on “Do no significant harm” above, investment in such activities must be based on clear indicators that such investment leads to a reduction of negative impacts on nature, with priority given to activities that show a positive impact on nature restoration.</p> <p>Further, the European Competitiveness Fund and the Innovation Fund need to ring-fence 50% of financing to make up for the historic imbalance of climate finance going to nature financing. This should include a significant investment in the scaling up of business and financing models related to nature-based solutions and finance and business supports for nature-based enterprises.</p>

Programmes	NPE perspective
<p>Horizon Europe, the Framework Programme for Research and Innovation, will work with the European Competitiveness Fund and Innovation Fund to provide research applications and innovation supporting the decarbonisation efforts</p>	<p>Decarbonisation does not address the underlying causes of biodiversity loss. Thus investment in research on decarbonisation will do little to reduce the equally significant risk of the European economy from biodiversity loss.</p> <p>A significant budget needs to be ring-fenced into research and measurement of innovative business and financing models related to nature-based solutions and research and piloting of finance and business to support the scaling of nature-based enterprises, and economic models to quantify impacts.</p>
<p>The Connecting Europe Facility will boost investments in key cross-border infrastructure projects in the energy and transport sectors, that are crucial to complete the Energy Union and complete trans-European network for transport</p>	<p>“Nature is - an asset, just as produced capital (roads, buildings and factories) and human capital (health, knowledge and skills) are assets.” Dasgupta (2021)</p> <p>The NPE calls for recognition of the value of natural capital to our economy and commensurate investment in nature-based infrastructure.</p>
<p>The Global Europe Instrument will empower partner countries fostering partnerships and alliances to increase financial support for enhanced climate, energy, environmental and sustainability action.</p>	<p>Entrenched economic systems in Europe are a significant barrier to take up of the NPE. We have much to learn from partnering with both developed countries (e.g. Japan) and developing countries (e.g. Costa Rica) on take-up of the NPE concept.</p>
<p>Several other funds, such as ERASMUS+, Creative Europe, and the Union Civil Protection Mechanism, will also contribute to climate action through their investments.</p>	<p>Significant skills gaps exist to transition to a nature-positive economy. Funding needs to be ring-fenced in these funds to contribute to biodiversity action.</p>

Appendix IV: Details of the Innovations Labs (ILs) from the NATURANCE Project

- **Investing in Natural Flood Management (NFM) in urban areas in the UK.** This IL aimed to co-develop business cases with relevant stakeholders that enable insurers to unlock both direct and indirect investments into natural flood management in urban areas. As climate change increases flood risks, these investments can reduce both direct property damage and indirect economic impacts such as reduced access to insurance. Working with insurers, NFM experts and local councils, the IL explored ways to make NFM a viable, co-beneficial solution despite its implementation and maintenance costs.
- **Methods to quantify flood risk reduction and co-benefits of NbS in the Netherlands.** This IL aimed to improve methods for assessing the risk reduction and co-benefits of NbS for flood management in Limburg (NL). In collaboration with insurers and local governments, it focused on valuing NbS benefits, especially after the severe 2021 floods, to support sustainable finance and provide insights with global relevance.
- **Harnessing insurance to promote NbS for wildfire risk management.** This IL explored how insurance can support NbS for wildfire risk management, bringing together insurers, ecologists, and other stakeholders to design insurance products that encourage NbS adoption and support local communities and forest agencies. The IL led to follow-up workshops in Solsona (ES) and Nea Makri (GR) to further develop policy and business cases for NbS in wildfire management.
- **How can insurance be an enabler to catalyse investment into nature-based projects?** The IL brought together insurers, investors, and bankers to examine the role of the financial sector and innovative funding models to catalyse investments into NbS. Key outcomes included the identification of six focus areas—partnerships, risk mitigation, data integration, financial innovation, value assessment, and community engagement—and the development of a practical roadmap for implementing innovative financing.
- **Financing for heat action plans at city-level in Europe.** This IL aimed to explore financial solutions like parametric insurance and NbS in the context of urban heat waves. Key barriers identified included financing gaps, poor data, and governance issues. Case studies focused on improving London's H-SWEP fund for rough sleepers and managing heat impacts on green spaces. The Lab found that trigger-based financing could enhance fund efficiency, but further collaboration with local authorities is needed to assess its practicality.
- **Boosting flood resilience in Italy through controlled flooding, community insurance and nature-based solutions.** This IL aimed to integrate controlled flooding, a novel community insurance scheme, and NbS for flood risk management in Northern Italy. The IL assesses the operational, regulatory, and financial feasibility of the scheme and its commercial appeal to insurers within the complex flood management framework.

Appendix V: Criteria for Choice of Sector

Parameters were set for the choice of sector to profile, based on the following criteria:

- The sector must be recognised as having high dependencies and impact on nature - all four chosen sectors are recognised by IPBES (2024a) as among those with the most responsibility for nature's decline.
- There must be at least three Horizon Europe NbS projects associated with mentioned sectors. If little to no ongoing projects are covering highly impactful sectors, then this signals directions for future research.
- There should be sufficient availability of recent data sources to ensure a deep dive of each sector - at least three dating from 2022 onwards.
- The sector was mentioned at least twice by policymakers in the scoping document to this publication.

On the basis of these parameters, four sectors – Agri-food, Built Environment, Blue Economy and Forestry – were profiled in this chapter. There are other sectors highly impacted and dependent on nature that could have been considered for inclusion in this sectoral profile, including the mining and fossil fuel sector and energy sector. We acknowledge this limitation in our review and signal the need for future EU funded RTD projects that focus on NbS and biodiversity in these specific sectors.

Appendix VI: Summary Table - IPBES Messages to EU Policy Action

A matrix showing IPBES KM → Policy Barrier → Recommendation → Relevant EU example (to be developed in annex).

Mapping IPBES Transformative Change Summary for Policy Makers - Extracting Key Messages to the Nature-Positive Economy - Evidence-based Recommendations for Policy Makers and Case Studies

IPBES Key Message	Core insight	Bridge to Nature-Positive Economy	Recommendations for European economic policy makers	Evidence/ Cases - show policy practice and show examples and evidence
IPBES KM1	Urgency and high cost of inaction	The nature-positive economy must deliver timely interventions that regenerate ecosystems and prevent long-term economic and social costs.		Idea, to ask Wouter to Review - economic policy makers could review this. They want practical examples that they can apply - see how to do recommendations for the different sectors (key words will not be NPE) Practical case studies
IPBES KM2	Transformative change requires shifts in views, structures, and practices	Calls for restructuring economic systems that currently drive biodiversity loss—e.g. shifting from linear to regenerative models.	Promote social enterprises and cooperative structures by providing funding directed to municipalities for these (municipalities know the local actors and realities)	Nantes (France) initiated and coordinated <i>Ecosolies</i> . It is a network that brings together 600 members, including 300 companies, representing around 5,000 jobs in the Nantes region, that cooperates to develop and promote the SSE. Case study in - URBINAT, 2024. <i>Roadmap for social and solidarity initiatives and business cases for inclusive urban regeneration</i> . page 87 -
IPBES KM3	Principles for change: equity, justice, pluralism, reciprocal human–nature relations, adaptive learning	These are the ethical and institutional foundations of a nature-positive economy, ensuring it is inclusive and just.		

IPBES KM4	Systemic barriers sustain the status quo	Nature-positive strategies must tackle harmful subsidies, institutional inertia, and power asymmetries that hinder transition.		
IPBES KM5	Diverse knowledge systems enhance strategies	Nature-positive approaches recognise Indigenous and local knowledge as critical for legitimacy and effectiveness.		
IPBES KM6	Change can be small- or large-scale if it addresses root causes	Aligns with multi-scale experimentation—from community NbS pilots to global financial reforms.		
IPBES KM7	Five synergistic strategies are key to system-wide transformation	These strategies offer a blueprint for nature-positive economic governance, finance, and cultural reform.		
IPBES KM8	Inclusive, rights-based ecosystem restoration contributes to change	Community-led, well-resourced conservation is a pillar of a nature-positive model, especially in high-value nature areas.		

IPBES KM9	Sectoral transformation is urgent (agriculture, forestry, etc.)	Nature-positive transitions require targeted reforms for high-impact sectors to reverse nature loss and boost resilience.		
IPBES KM10	Dominant economic and financial paradigms must be transformed	This is central to a nature-positive economy: prioritising regeneration, nature, and equity over extractive growth.	promote bundling of more revenue generating projects (eg those which can generate land betterment levies) with less revenue generating projects)	<i>Athens Resilient City and Natural Capital</i> project funded by the EIB Natural Capital Financing Facility (NCFE). The EIB provided a loan for a bundled portfolio of projects allowing less-revenue generating projects to receive finance. Case study in - GROWGREEN, Trinomics and IUCN, 2019. <i>Approaches to financing nature-based solutions in cities.</i> page 12 -
IPBES KM11	Inclusive, adaptive governance drives change	Supports multi-level, participatory governance structures that embed nature in economic planning and decision-making.		
IPBES KM12	Social norms and values must shift to recognise human–nature interconnectedness	Cultural change underpins economic transformation—narratives, ethics, and learning systems must reflect care for nature.		
IPBES KM13	Shared visions inspire change and	A nature-positive economy builds on		

	reflect values and ethics of care	collective visions of sustainable futures for people, nature, and non-human life.		
IPBES KM14	Whole-of-society and whole-of-government engagement is essential	Nature-positive shifts must be mainstreamed across ministries, sectors, and civil society: not siloed in the environment sector.		
IPBES KM15	Governments can drive change through policy, regulation, and finance	Public finance must redirect subsidies, internalise externalities, and invest in ecosystems and equity.		
IPBES KM16	Civil society and environmental defenders play a critical role	Bottom-up mobilisation and rights protection are essential for nature-positive transitions to be legitimate and durable.		
IPBES KM17	Business and private sector can incentivise sustainable practices	Businesses are key actors—through sustainable value chains, regenerative business models, and biodiversity-linked finance.		

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Drawing on insights from 44 EU-funded R&I projects, this publication outlines the case for a Nature-Positive Economy (NPE) and the pathways to achieve it. It shows how embedding nature at the core of EU policies can secure Europe's resilience, prosperity, and global leadership. Urgent action is needed through strategic investment, coherent regulation, empowered local engagement, and systemic reform. Transitioning to a NPE is essential to deliver the European Green Deal, the EU Biodiversity Strategy, and the Kunming-Montreal Global Biodiversity Framework, ensuring economic growth within planetary boundaries while restoring nature for future generations.

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