

GoNaturePositive! - A role model project to inspire and guide the future of the Nature-Positive Economy

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“A nature-positive economy demands more than ambition – it requires embedding nature at the heart of public policy, business strategy, and financial systems, not as a trade-off, but as a foundation for long-term resilience and economic security.”

Dr. Benjamin Kupilas, Senior Fellow and Coordinator of Biodiversity Ecologic Institute

Few scientists object today that the impacts of human actions on our planet are now so large that a new phase of Earth’s history is beginning. The old forces of nature that transformed Earth many millions of years ago, including meteorites and mega-volcanoes are joined by another: us. We have entered a new geological epoch called the [Anthropocene](#), based on humanity’s influence on Earth, even if in 2024 the International Union of Geological Sciences (IUGS) rejected the term [Anthropocene](#) as a formal unit of the geologic timescale.

Several studies suggest that Earth is well on the way to its sixth mass extinction, if not in a mass extinction already¹. Compared to the previous mass extinctions, the rate of the current one is being pushed ever higher by human activity. The good news is that, in principle, human activity can also reverse such a dismal trend, although it will require momentous efforts on many fronts. Well thought policy changes can increase conservation efforts, change our patterns of land use, reduce our production of greenhouse gases to slow climate change, support prevention and control of future infectious diseases, and implement a proper ethics and governance for Artificial Intelligence.

The rate of global change in nature over the last decades is unprecedented in human history. The [five direct drivers](#) of change in nature with the largest global impact (i.e. changes in land and sea use; direct exploitation of organisms; climate change; pollution; and invasion of alien species) are underpinned by societal values and behaviors that include production and consumption patterns, human population dynamics and trends, trade, technological innovations and local through global governance. Despite 1 million plant and animal species at risk of extinction, and in the face of wildfires, floods and extreme weather intensifying due to the climate crisis ([the past 10 years 2015-2024 have been the ten warmest years on record](#) and year [2025 is already shaping up to be a record-breaker](#)), nature conservation is increasingly becoming a part of the culture wars raging in many countries. Not acting now may result in extinctions (e.g., [more than 500 bird species could vanish within the next century](#)), the rapid spread of invasive species (often bringing new diseases), plastic pollution on a vast scale, crashing fish populations and disappearing forests. More than a quarter of all plant and animal species that have had in-depth conservation assessments are at risk of extinction, according to the [IUCN red list](#).

¹ This idea is strongly challenged by some authors though: “Proponents of the sixth mass extinction have made invaluable contributions by highlighting recent extinctions, but these extinctions may not be equivalent to past mass extinctions or relevant to current threats.” See (i) John J. Wiens & Kristen E. Saban, [Questioning the sixth mass extinction](#), *Trends in Ecology & Evolution* (TEE), April 2025, (ii) “Crise de la biodiversité: les scientifiques divisés sur la notion de ‘sixième extinction’ des espèces”, *Le Monde*, 20/08/2025.

To take just one small example, at the entrance to the Brière Regional Park, near Guérande (Loire-Atlantique), in the area where I live in France, there's been an unusual silence since the beginning of summer 2025 – here, at this time of the year, there should be chirping everywhere because of mallards, coots, herons, or egrets fishing, but this year marshes are filled with carcasses instead of teeming with life. No fewer than 4,000 bird carcasses have been collected since June, when just as many were recovered around the Grand-Lieu lake, south of Nantes, 90 kilometers away. Marsh birds were struck down by [a virulent strain of botulism](#), whose killer bacteria proliferated due to anoxia, i.e., rivers or ponds becoming deoxygenated due to the lowering of their water levels. As a result, some wetlands were emptied of their water, and some of their inhabitants were contaminated. This disaster could have been avoided. Indeed, if some areas dried up, it was because they were deliberately drained to meet the needs of farmers, who were hit by very weak yields in 2024, even as early heat waves followed one after the other at the end of winter. In Brière, it was mainly livestock farmers who benefited from this low-water policy to gain areas for pasture and fodder. Today, given the high temperatures due to climate change, the water needs to be kept longer and no longer be released into the ocean, which implies co-finding solutions with the agricultural community. The lesson of this local experience is loud and clear: we can no longer choose one use of water over another, but rather in relation to the collective interest of the environment and the species.

Facing the formidable challenge that the global change in nature represents, the world doesn't stand by. Every year, countries who have joined the United Nations Framework Convention on Climate Change (UNFCCC) meet to measure progress and negotiate multilateral responses to climate change. The [UNFCCC](#) is a multilateral treaty adopted in 1992, shortly after the first assessment report by the Intergovernmental Panel on Climate Change (IPCC) in 1990 to stabilize greenhouse gas concentrations. Since entering into force in 1994, the UNFCCC has provided the basis for international climate negotiations, including landmark agreements such as the [Kyoto Protocol](#) (1997) and the [Paris Agreement](#) adopted by the 21st Conference of Parties (COP21) under the UNFCCC (2015).

Further developments have taken place over the last 5 years. The [EU Green Deal](#) for climate action, launched in 2019, sets out a plan to transform Europe's economy, energy, transport, and industries for a more sustainable future. It aims to cut emissions by at least 50% by 2030, rising towards 55%, while legally binding the 2050 neutrality goal through the European Climate Law, and at the same time it pushes forward a clean transition that protects people and planet, is economically sound and socially fair. The [UN-driven Biodiversity Plan](#) adopted by 196 countries in 2022 guides global action on nature through to 2030, aiming in particular at biodiversity loss², the restoration of ecosystems and the protection of indigenous rights.

At the beginning of 2020, scientists estimated that humanity could only emit 500 billion more tons of carbon dioxide (CO₂) – the most important planet-warming gas – for a 50% chance of keeping warming to 1.5C. But this year the so-called “carbon budget” has dropped to 130 billion tons, according to a new [study](#). If global CO₂ emissions stay at their current highs of about 40

² Biodiversity refers to all types of life on Earth. The UN Convention on Biological Diversity (CBD) describes it as “*the diversity within species, between species and of ecosystems, including plants, animals, bacteria, and fungi*”. These three levels work together to create life on Earth, in all its complexity. The diversity of species keeps the global ecosystem in balance, providing everything in nature that we, as humans, need to survive, including food, clean water, medicine and shelter. Over half of global GDP is strongly dependent on nature, and more than one billion people rely on forests for their livelihoods. Biodiversity is also our strongest natural defense against climate change: land and ocean ecosystems act as “carbon sinks”, absorbing more than half of all carbon emissions.

billion tons a year, 130 billion tons gives the world roughly three years until that carbon budget is exhausted.

Plastics, which for at least 98% are made from fossil oil, gas and coal, create a “grave, growing and under-recognized danger” to human health and the planet. According to The Lancet, the world is in a “[plastics crisis](#)” that is causing disease and death from infancy to old age and is responsible for at least \$1.5tn (£1.1tn) a year in health-related damages. Plastic production has increased by more than 200 times since 1950 and is set to almost triple again to more than a billion tons a year by 2060.

Let’s make no mistake: we must act quickly as the window for such changes to make a difference is closing rapidly. “It’s not too late to stem the tide and prevent runaway climate change, but only if we act decisively now and all act together,” Frans Timmermans, a former Vice President of the European Commission, wrote in 2021, stressing that ‘this is a global crisis: keeping 1.5 degrees within reach requires net zero emissions worldwide and faster rollout of policies to get there.’ Not too late to change the climate change story from despair to possibility.

In November 2023, the United Nations Environmental Programme (UNEP) released an update to its first original 2019 report “[Environmental Rule of Law: Tracking Progress and Charting Future Directions](#)” that provides a comprehensive assessment of developments towards a more sustainable future, based on a survey and data of 193 UN Member States regarding their laws, institutions, civic engagement, rights and justice. This was only one year and a half ago, and there were indeed at that time reasons for hope that the world was at last ready to act in the face of the “triple existential threats” of climate change, loss of biodiversity and growing chemical contamination.

However, following a few years of optimism, the 29th Conference of Parties (COP29) organized in Baku (11-12 November 2024) took place in a tense international climate marked by the impressive number of climate sceptics in some countries³, the growing attractiveness of populist and hate rhetoric within the world democracies, and the dangerousness and monstrosity of conflicts in Europe and the Middle East.

Then, the general mood changed. On February 26, 2025, the European Commission unveiled a series of measures aimed at “simplifying” three key texts of the European Green Deal, under the name of the “Omnibus directive”. The announcement, presented by the European Commission as a strategic response to the heavy investments of the United States and China in the ecological transition, received mixed reactions from the media and economic circles. Actually, some experts perceive the Omnibus directive as a necessary strategic lever in today’s turbulent world, whereas others see it as an unfortunate weakening of the original Union’s environmental ambitions.

³ On January 20, 2025, US President Trump signed an [Executive Order](#) on Paris Agreement withdrawal, stating that the US “shall immediately cease or revoke any purported financial commitment made by the United States under the United Nations Framework Convention on Climate Change.” On July 23, 2025, the US Department of Energy released a [report](#) asserting that global warming is “less damaging economically than commonly believed.” A few days later, the US Environmental Protection Agency (EPA) unveiled a [plan](#) to undo the so-called “Greenhouse Gas Endangerment Finding”, which in 2009 laid out a comprehensive case for how human emissions of carbon dioxide, methane and other greenhouse gases threaten human health and welfare. Instead of challenging the science, which would have required EPA to assemble a body of evidence rejecting the overwhelming consensus that humans are driving climate change primarily through the burning of fossil fuels, the Trump administration leant into an [argument](#) that a key 2007 Supreme Court ruling allowed but did not require the agency to regulate greenhouse gases.

This tension between simplification and environmental rigor is at the heart of the controversy, illustrating the new compromise that seems to be sought to reconcile competitiveness and sustainability. It is aggravated by the growing resistance in the European population against the perceived effects of the Green Deal on their future everyday life. In an article conjuring up “[the humbling of green Europe](#)”, the British weekly news and current affairs journal The Economist wrote: “*Europe’s elites have sought to make action on climate change a part of what it is to be European. If they want that identity to take root, they urgently need to find ways to convince their fellow citizens that it is worth the candle. And they must rebuild support in a way that makes steady progress hard to reverse, even if that progress is not as fast as would be ideal.*” In another article entitled “[The art of the possible](#)”, the same journal wrote: “*But a politics of new possibilities could put climate policy on a more sustainable footing, as well as offering hope. That is what those fighting climate change need to offer.*” Ideally, organizations that work with the various ecosystem dynamics would be better positioned to navigate climate change, regulatory shifts, and changing consumer expectations, thus making that the goal of a nature-positive economy be not a mere constraint on business success but actually a pathway to long-term resilience and competitiveness.

Unfortunately, such a balanced, reasonable and wise approach is compromised for the reason of an inherent, ever-present tension between short-term economic pressures, focusing on competitiveness and market access, and long-term ecological health, focusing on climate and biodiversity policies. Is it still possible to manage that tension in a sophisticated, efficient, effective and economical, not conflicting way? Hopefully yes, but let’s be clear: the clock is ticking, and therefore the goal of achieving truly resilient ecosystems that provide at the same time sustained economic, ecological, and social benefits increasingly looks like reaching “the inaccessible star” (to parody Jacques Brel, a famous Belgian singer). So, should we drop arms and just wait for the Armageddon? Obviously not.

Our mission – individually and of course collectively – should be to combine rigorous science with practical experience to create real-world solutions enabling organizations to maximize their positive impact on nature through their specific areas of expertise. For example, in the field of forest management the challenge is to assess how silvicultural practices affect soil health, water cycles, and wildlife habitats. This implies to understand the conditions and implement the proper solutions that support the forest’s role as a biodiversity reservoir and ecosystem service provider is maintained and enhanced, not just exploited. Said like this, it may look relatively easy but in reality, it is not: forests don’t exist in isolation, they are actually connected to agriculture, water systems, urban development, and tourism. And what is true for forestry is also true for other sectors, in particular Tourism, Built Infrastructure, Blue Economy, Agri-food.

Robert Kennedy said at the University of Capetown, South Africa, in 1966: “*Like it or not, we live in interesting times. They are times of danger and uncertainty; but they are also the most creative of any time in the history of mankind. And everyone here will ultimately be judged – will ultimately judge himself – on the effort he has contributed to building a new world society and the extent to which his ideals and goals have shaped that effort.*”

I will use this quote to highlight the concept of a Nature-Positive Economy (NPE). NPE means that the net result of all economic activities combined leads to an absolute increase in nature, to the point of full recovery, i.e. nature recovers so that thriving ecosystems continue to support future generations. Several concepts have been conjured up over the last few years to provide pathways to an NPE, the most important being the following: Net-Zero Economy, Bioeconomy, Circular Economy, Green Economy. These concepts should not be considered in opposition nor

should any sort of hierarchy be artificially established between them. Actually, they should be seen as complementing and enriching each other through the creation of synergy made possible through the co-creation and collaboration of international, multidisciplinary teams.

Net-Zero Economy (NZE): “cutting carbon emissions to a small amount of residual emissions that can be absorbed and durably stored by nature and other carbon dioxide removal measures, leaving zero in the atmosphere”. Scientific evidence shows that in order to avert the worst impacts of climate change and preserve a livable planet, global temperature increase needs to be limited to 1.5°C above pre-industrial levels. Currently, the Earth is already about 1.2 C than it was in the late 1800s, and emissions continue to rise. To keep global warming to no more than 1.5°C emissions need to be reduced by 45% by 2030 and reach net zero by 2050.

Bioeconomy (BE): “using renewable biological resources from land and sea, like crops, forests, fish, animals and micro-organisms to produce food, materials and energy”. BE leverages the potential of biological resources from land and sea for the development and commercialization of goods and services; it thus proposes the substitution of fossil-based activities with those based on living biomass, with biotechnology and knowledge-based innovations driving this process.

Green Economy (GE): “contributing to making the global economy low carbon, resource efficient and socially inclusive”. GE promotes low-carbon (abiotic, lithosphere-originated) energy; it also advocates that ecological processes occurring in natural and semi-natural systems can be leveraged to the benefit of human beings without jeopardizing the sustainability of these ecosystems.

Circular Economy (CE): “maintaining the economic value of materials and minimizing their environmental impacts”. CE aims at supporting the development of regenerative production-consumption systems, where inputs and outputs are minimized by slowing, closing, and narrowing material and energy loops.

The table below gives a comparative overview of the Bioeconomy, Circular Economy and Green Economy concepts, which are all together influencing the Nature-Positive Economy that focuses more on biophysical limits, nature recovery, and social well-being.

A comparative overview of the green, circular and bioeconomy (GE, CE BE), based on the Framework for Strategic Sustainable Development (FSSD) (modified from Broman and Robert (2017); Robert et al. (2013, 2002)).

FSSD levels	Strategic framework	GE's stance	CE's stance	BE's stance
1. The focus system	Social and ecological constitutional boundaries and system functioning, e.g. thermodynamics; resilience properties of complex adaptive systems; the dependence of biogeochemical cycles on solar energy; interdependencies of biodiversity levels; societal dependency on and exchange with the biosphere.	Recognition that the society and economy inevitably depend on the global biosphere; spatial and temporal trade-offs between ecosystem services and societal goals recognized, but in conflict with the belief that win-win solutions can always mitigate them; in practice some weak sustainability stances occur (e.g. leakage, rebound). No explicit reference to decoupling prosperity from resource use.	Some degree of recognition that the society and economy inevitably depend on the global biosphere; thermodynamics of energy and material recognized, but in conflict with the belief that full circularity is achievable; temporal and spatial trade-offs between societal goals recognized, but in practice some undesired effects occur (e.g. leakage, rebound). No explicit reference to decoupling prosperity from resource use.	Some degree of recognition that the society and economy inevitably depend on the global biosphere; spatial and temporal trade-offs between provisioning and other ecosystem services recognized, but remain unaddressed; in practice some weak sustainability stances occur (e.g. leakage, rebound). No explicit reference to decoupling prosperity from resource use.
2. Goal	Desired end-state of the system, i.e. no increase in: inputs from lithosphere or from ecosystem; outputs from societal, economic and industrial systems; conditions that systematically undermine and hamper meeting people's needs worldwide, now and in the future.	Enhancing material and immaterial benefits from the biosphere (ecosystem services) to address human well-being, employment and poverty alleviation; reducing lithosphere inputs through substitution of fossil energy with abiotic renewable energy.	Reducing (<i>in absolute terms</i> ^a) of inputs and outputs in production/consumption systems by retaining material and energy flows within high value/functionality levels for as long as possible; improving social conditions through job creation and regional development.	Substituting lithosphere inputs (i.e. fossils) with biosphere inputs (living biomass) in economic activities; improving social conditions through job creation and regional development.
3. Strategies	Most relevant principles and governance processes for implementation.	Coordination of regulatory processes, public and private financial support (emphasis on market-like schemes), voluntary standards or practices, market-demand; Particularly relevant principles: polluter/beneficiary pays.	Coordination of regulatory processes, public-private financial support, voluntary standards and practices (emphasis on industry collaboration), market-demand; Particularly relevant principles: avoid lock-in; responsibility in efficiency/effectiveness of resource use.	Coordination of regulatory processes, public-private financial support (emphasis on research programmes and green procurement), voluntary standards and practices (emphasis on industry collaboration), market-demand; Particularly relevant principles: precautionary principle; avoid lock-in; responsibility in effectiveness/efficiency of resource use.
4. Actions	Concrete measures towards the desired end-goal.	Assessment and accounting of ecosystem services, restoration and maintenance of ecosystems, development of nature-based solutions and green infrastructures.	Improvement of material and energy performance; product reuse and remanufacturing preferred over traditional recycling; product sharing and multi-functionality preferred over ownership and mono-functionality.	Development and marketization, through knowledge and technology, of innovative and high-value goods and services from the potential held in biological resources, while ensuring sustainable sourcing and efficient resource use ^b .
5. Tools and indicators	Monitoring of the effectiveness and efficiency of strategies and actions, as well as tools and indicators themselves.	Biophysical assessments (field observations and experiments, remote sensing, modelling or expert-based considerations); social valuation (e.g. surveys, questionnaires, ethnographic methods, focus groups, analysis of secondary statistics and documents, scenario analysis, multi-criteria analysis, citizens' juries); monetary valuation (market price, production function, avoided damage/replacement cost, hedonic pricing, travel cost, contingent valuation, choice modelling). Example of aggregated metrics: Global Green Economy Index; Green growth indicators framework; Natural Capital Index; System of Environmental-Economic Accounting.	Approaches to assessing sustainability impacts of all economic activities, e.g. input-output analysis, total material flow method, life cycle approaches, substance flow analysis, material flow accounting, eco-balances, ecological/carbon/water footprints. Example of aggregated metrics: Circularity rate; Material Circularity Indicator.	A range of approaches, from approaches to the assessment of bio-based content and of sustainability impacts of economic activities (e.g. input-output methods and LCA approaches) to multi-criteria or cost-benefit analysis. Aggregated metrics: under development.

^a Not explicitly recognized across all CE literature.

^b Not explicitly recognized across all BE literature.

Source: “[Integrating the green economy, circular economy and bioeconomy in a strategic sustainability framework](#)”, Elsevier, Ecological Economics, October 2021

All actors in society have a role to play in shaping and working towards the Nature-Positive Economy: those who have high impacts and dependencies on nature (businesses, nature-based enterprises); those who shape the competitive advantage (policy-makers & governments, finance & investors, standards bodies); and those who encourage accountability (NGOs, researchers, citizens, civil society). Of course, coalitions of actor groups are more effective for transformative change, such as community-supported agriculture models where consumers are committed to directly help local farmers.

The Horizon Europe-funded [GoNaturePositive!](#) (GoNP) research and innovation action best embodies today the transformational change that is needed to enable the Nature-Positive Economy, thwart the dismal prospect of nature loss, and lead the world towards a nature-positive and socially equitable future. It is well aligned of course with the European Green Deal but also with international and multilateral initiatives such as [United Nations Climate Change](#) and [G20 Recommendations](#) for “Advancing a Nature-Positive Economy and Just Transition”.

Project Information

[GoNaturePositive!](#)

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Total cost: € 5 029 696,25

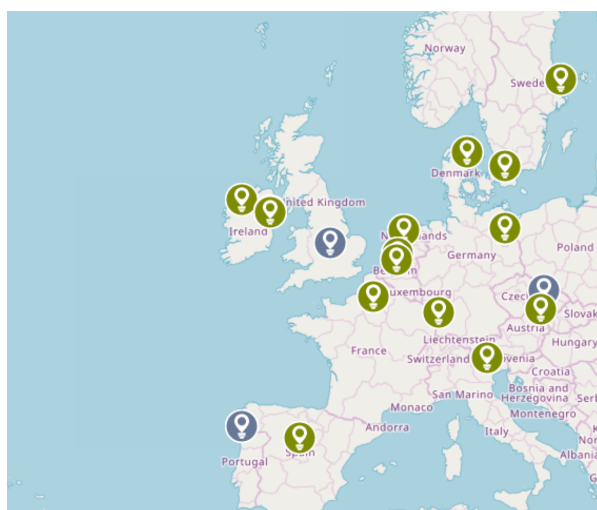
EU contribution: € 5 029 696,25

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Coordinated by:

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Number of Participants: 19



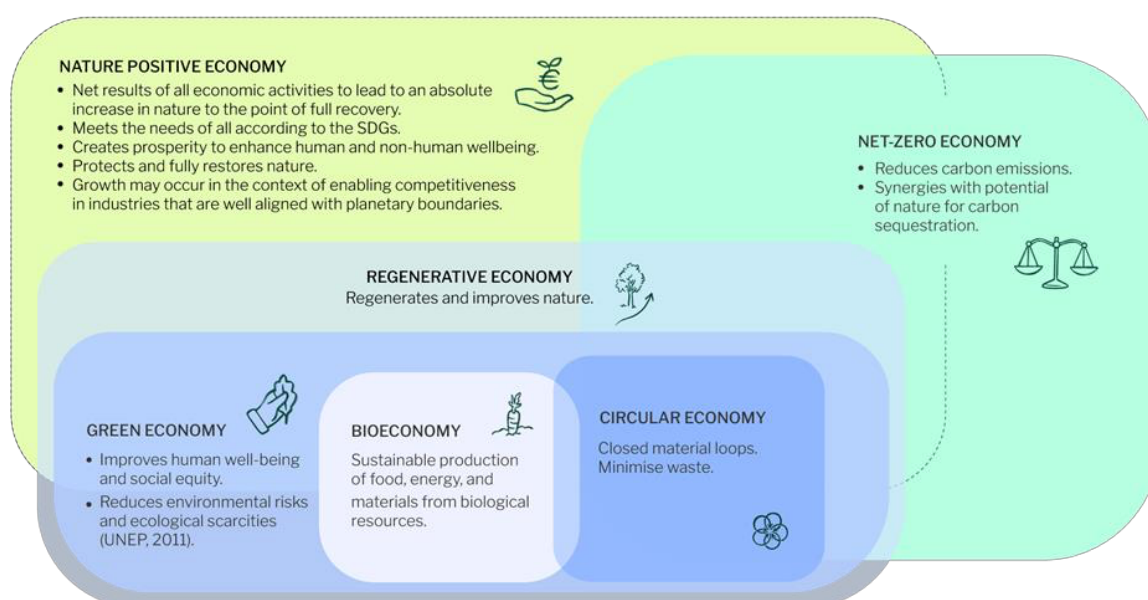
The GoNP rationale is the following: *“Nature is the foundation of our economies, societies, and well-being – yet we are depleting it at an alarming rate through land and sea use change, resource exploitation, human-induced climate change, and pollution. With more than half of global GDP dependent on nature and its services, biodiversity loss and environmental degradation are not just an ecological crisis; they pose significant risks to businesses, supply chains, and financial markets worldwide. Addressing these challenges requires a fundamental transformation of economic, finance and governance structures to ensure long-term resilience and sustainability.”*⁴

The goal of GoNP is to inspire and guide systemic change through Research, Demonstration and Transformational Leadership by adopting a multi-stakeholder approach, with nature-based solutions (NBS) and nature-based enterprises (NBEs) at its core. Clear roadmaps will identify policy and governance pathways towards an NPE. Blueprints for solutions to systemic roadblocks will be researched and tested aimed at reducing business risk and attracting increasingly nature-sensitive investors. The action will demonstrate how nature-positive practices can generate multiple benefits for people and the planet. Five European and one Global Pilot (covering Agri-Food, Forestry, Blue Economy, Tourism & the Built Environment) will be co-created with industrial, political, NGO and societal stakeholders.

At the first meeting of the GoNP Impact Board, which I and Béatrice Fieux-Castagnet have the honor to be members of for ENSA, four “key messages” were deeply discussed and agreed.

Key message 1: In an NPE, the priority of an economy is nature recovery alongside human prosperity. The NPE is a transitional state for the global economy towards a point of nature recovery.

Key message 2: The NPE closely aligns with core ideas of green economy, bioeconomy, and circular economy, but with a focus on biophysical limits, nature recovery, and social well-being.



Source: GoNaturePositive! (GoNP) action

⁴ Source: GoNaturePositive! project, D1.3.

Key message 3: A robust framing of a Nature Positive Economy contains aspects of actors, scale (spatial, temporal), sectors (with emphasis on high-impact sectors), nature and biodiversity actions, and societal factors (human rights, social inclusion, etc.).

Key message 4: There are many existing frameworks (e.g., Global Biodiversity Framework) and tools (e.g., Mitigation and Conservation Hierarchy) for realizing the NPE.

GoNP is beautifully coordinated by Trinity College Dublin, the University of Dublin, with a team of highly-skilled and dedicated people doing a stupendous job. The proximity of Dublin is a very positive factor since that city has started the [Urban Sense](#) initiative to measure and monitor greenhouse gas (GHG) emissions using a network of novel sensors deployed on mobile phone masts. A total of 20 sensors are being deployed in both residential and commercial areas in the city (i) to measure carbon dioxide and methane levels, as well as air quality and weather variables, such as wind, and (ii) to provide “a real-time visual pulse of the city”, reflecting differences in land use, the seasonal cycle in vegetation growth, weather events and even hourly patterns of traffic moving in and around city streets.

GoNP will participate at the NetworkNature EU Annual Event 2025 where a key question will be debated: How can we align biodiversity and economic resilience in times of urgency? Biodiversity/ Economy/ Urgency: this is definitely the biggest challenge of our generation as well as the most pressing moral responsibility of our generation for the next generations.

Some Future NPE-related Events 2025	
16/09/2025:	NetworkNature Annual Event , Brussels (BE)
30/09-02/10/2025:	Building Bridges , Geneva (CH)
09-15/10/2025:	IUCN World Congress , Abu Dhabi (UAE)
23-24/10/2025:	European Business and Nature Summit (EBNS), Helsinki (FI)