

ENVIRONMENTAL RESEARCH AND INNOVATION ARE STRATEGIC INVESTMENTS IN EUROPE'S COMPETITIVENESS, RESILIENCE AND SECURITY

Introduction: Environmental Research at Europe's Core

Europe faces converging pressures: global competition, geopolitical instability and accelerating environmental change. Climate impacts, biodiversity loss, pollution and ecosystem degradation are now recognised as systemic economic and financial risks affecting growth, stability and investment confidence.

Environmental research provides the solutions Europe needs. It is a strategic foundation for long-term competitiveness, strategic autonomy, defence capability and preparedness. FP10 and the European Competitiveness Fund should therefore secure strong, ring-fenced investment in environmental science and innovation.

CHALLENGES VS SOLUTIONS

CHALLENGES



GLOBAL COMPETITION

- Geopolitical uncertainty
- Pressure on EU industries
- Rapid technological change



CLIMATE RISKS

- Floods, droughts, wildfires
- Rising adaptation costs
- Growing economy losses



SUPPLY CHAIN VULNERABILITY

- Dependence on imports
- Exposure to global shocks
- Resource price volatility

ENVIRONMENTAL RESEARCH DELIVERS



NEW MARKETS AND INNOVATION

- Green materials and safe chemicals
- Digital environmental tools
- Scalable nature-based solutions



RESILIENCE AND RISK REDUCTION

- Forecasting of extreme events
- Climate-smart land & water management



STRATEGIC AUTONOMY

- Circular resource efficiency
- Reduced reliance on imports

How Environmental Research & Innovation Drive Competitiveness

Environmental research, exemplified by decades of excellence across PEER centres, fuels innovation, growth and industrial leadership by:

- **More efficient production** (climate-adapted crops and forests, efficient and circular processes, reduced resource use)
- **New technologies and products** (safer chemicals, advanced production and materials, nature-based solutions, and digital environmental management and decision tools)
- **Future-proof infrastructure** (climate-adaptive housing, heat management and robust spatial planning)
- **Stronger decision-making** (high quality monitoring, modelling and interoperable research infrastructures that support public authorities and industry)

Environmental research drives Europe's industry and **must be prioritised in FP10.**

How Environmental Research & Innovation Strengthen Europe's Resilience

Environmental research enhances Europe's autonomy, preparedness and resource security:

- **Lower external dependencies** (through circularity, resource efficiency and critical materials)
- **Robust supply chains** (via energy integration and industrial symbiosis)
- **Reduced climate-related losses** (by improving protection against extreme events such as floods, fires or droughts)
- **Resource sovereignty** (through sustainable resource use, soil and water management and climate-adapted production systems)

Environmental resilience is economic resilience. **FP10 must invest to boost competitiveness.**

How Environmental Research & Innovation Reinforce Europe's Security

Environmental research directly supports Europe's defence capacity and crisis readiness:

- **Dual-use monitoring technologies** (remote sensing, acoustic systems and sensor networks that support early warning, surveillance and disaster response)
- **Landscape-based security solutions** (wetlands, peat mires, forests as natural barriers)
- **Critical Arctic insights** (science that underpins maritime safety, climate forecasting and geopolitical stability in a strategically vital region)
- **Food & water security** (resilient, ecosystem-based food systems and water resources)

Environmental resilience is security resilience. **FP10 must invest to enhance security.**

FIVE PRIORITY AREAS FOR THE FP10:



- 1. Climate Mitigation & Adaptation:** advancing nature-based solutions, integrating biodiversity-climate, next-generation modelling, climate-adaptive forest/land management and transition pathways.



- 2. Biodiversity and Natural Capital:** EU-wide long-term, scalable nature-based solutions and evidence-based, usable biodiversity credit frameworks to support investments and policy.



- 3. Sustainability & System Transformation:** system-level assessments, sustainable resource management, multi-hazard and multi-risk strategies, environmental governance and justice, water security



- 4. Nexus Approaches:** biodiversity-trade, soil-water-energy-biodiversity system integration, pollution- health.



- 5. Dual Use Knowledge & Security:** rapid hazard detection and early-warning; secure and sustainable food systems, advanced Earth observation and monitoring, landscape restoration contributing to security and EU autonomy.

Key message:

Environmental research is a **strategic investment** in Europe's competitiveness, preparedness, resilience, security and sovereignty. FP10 and the European Competitiveness Fund **should secure stable, ambitious, ring-fenced funding** across the full knowledge chain, with a coherent and effective interface between the two programmes.

The **Partnership for European Environmental Research (PEER)** is comprised of eight major European environmental research centers with an annual budget of about 600 MEUR and approx. 5,800 people working together.

