



A Green Deal for a Healthy Planet

Research and Transition Policies
for a sustainable future

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DIRECTORATE B
HEALTHY PLANET
J. BELL

B.1
CIRCULAR ECONOMY &
BIOBASED SYSTEMS
HoU - **P. MISIGA**
DHoU - **P. GOYENS**

B.2
BIOECONOMY & FOOD
SYSTEMS
HoU - **P. WEHRHEIM**
DHoU - **K. FABBRI**

B.3
CLIMATE & PLANETARY
BOUNDARIES
HoU - **P. TULKENS**
DHoU - **M. FRITZ**

B.4
HEALTHY OCEAN
& SEAS
HoU - **E. BALZI****
DHoU - **S. NEMETH**



DIRECTORATE C
CLEAN PLANET
R. VAN DER VLIES

C.1
CLEAN ENERGY
TRANSITION
HoU - **H. CHRAYE****
DHoU - **J. SCHUPPERS**

C.2
FUTURE URBAN &
MOBILITY SYSTEMS
HoU - **P. FROISSARD**
DHoU - **W. PANKAUKE**

C.3
LOW EMISSION FUTURE
INDUSTRIES
HoU - **J. AMILHAT**
DHoU - **A. GENTILI**

C.4
EURATOM RESEARCH
HoU - **E. RIGHI STEELE**
DHoU - **D. ROSSETTI
DI VALDALBERO**

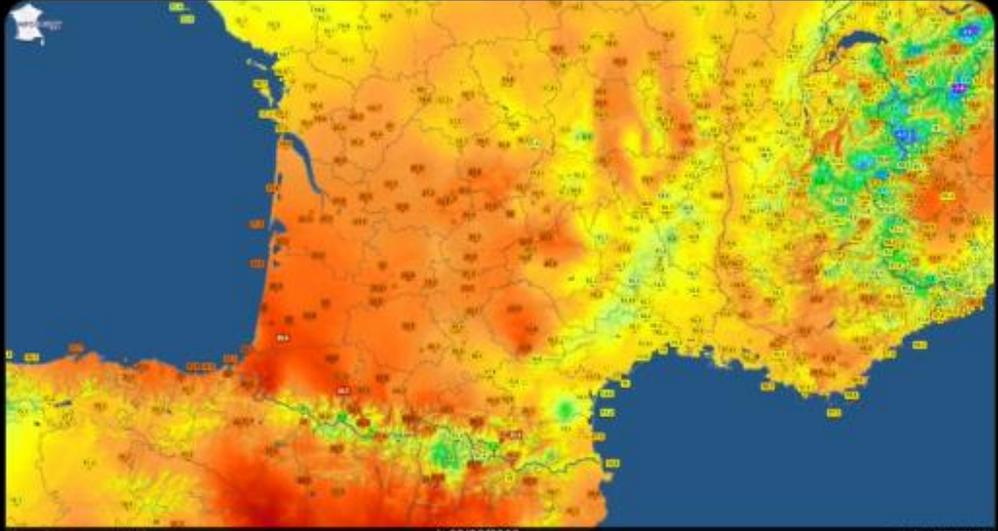
The 21st century's priority



"Floods 16 July 2021, Belgium, Tilff 2" by Régine Fabri is licensed under CC BY-SA 4.0.

 **Dr. Serge Zaka (Dr. Zarge)** 
@SergeZaka

Pour la n-ième fois en mars 2023, la température de ce dépasse les 25–27°C dans le sud de la France (27.2°C à Navarrenx, 25.6°C à Dax). Tellement récurrent, que personne ne le remarque.
Il devient de + en + probable que mars 2023 soit le 14 mois de suite au dessus des normes.



Température maxi (°C) le 23/03/2023

11:59 PM · 23 mars 2023 · **69,5 k** vues

Intergovernmental Panel on Climate Change (IPCC)

Fiona Harvey Environment editor

Mon 20 Mar 2023 18:00 GMT



World can still avoid worst of climate collapse with genuine change, IPCC says

Positive framing of otherwise grim report a counterblast to those who dismiss hopes of limiting global heating to 1.5C



Women wade through floodwaters last year as they take refuge in Shikarpur district of Sindh province, Pakistan. Photograph: Fareed Khan/AP

Avoiding the worst ravages of climate breakdown is still possible, and there are “multiple, feasible and effective options” for doing so, the Intergovernmental Panel on Climate Change has said.

Most viewed



Nashville school shooter carefully plotted attack that killed six, say police



Putin prepares Russia for 'forever war' with west as Ukraine invasion stalls



Ukrainian troops return home after Challenger 2 tank training in UK



Live Russia-Ukraine war live: drone strikes 'key threat' to Russian energy infrastructure; Ukraine's main Bakhmut task to 'wear down' enemy



Three abandoned children, two missing parents and a 40-year mystery

The European Green Deal

Designing a set of
deeply
transformative
policies



CLIMATE ACTION

- ▶ **European Climate Law** enshrines the **2030 target of at least 55% reduction in greenhouse gas emissions** and the **2050 climate neutrality** objective into binding legislation across all Member States
- ▶ The **‘Fit for 55’ package** is a set of **interconnected legislative proposals to deliver on the EU’s 2030 climate target**, taking a whole of economy approach for a **socially fair, competitive and green transition**
- ▶ Despite adverse circumstances, the **EU is on track to meet its 2030 climate and energy targets**, and in fact is **currently set to reduce net greenhouse gas emissions by 57% by 2030** (compared to 1990 levels), outpacing the ‘Fit for 55’ target.

Industrial Strategy for a Clean & Circular Economy

The Green Deal
Industrial Plan & Net
Zero Industry Act



**A predictable and
simplified regulatory
environment**

**Faster
access to
funding**

**Enhanced
skills**

**Open trade for
resilient supply
chains**

Industrial Strategy for a Clean & Circular Economy

Critical Raw Materials Act

SETTING 2030 BENCHMARKS FOR STRATEGIC RAW MATERIALS



EU EXTRACTION

At least **10%** of the EU's annual consumption for extraction



EU PROCESSING

At least **40%** of the EU's annual consumption for processing



EU RECYCLING

At least **15%** of the EU's annual consumption for recycling



EXTERNAL SOURCES

Not more than **65%** of the EU's annual consumption of **each strategic raw material at any relevant stage of processing** from a single third country

Research & Innovation powering the Green Deal

Horizon Europe Clusters

Horizon Europe - Structure



Pillar 1
Excellent Science

European Research Council

**Marie Skłodowska-Curie
Actions**

Research Infrastructures



Pillar 2
Global Challenges and
European Industrial
Competitiveness

Clusters

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre



Pillar 3
Innovative Europe

European Innovation Council

**European innovation
ecosystems**

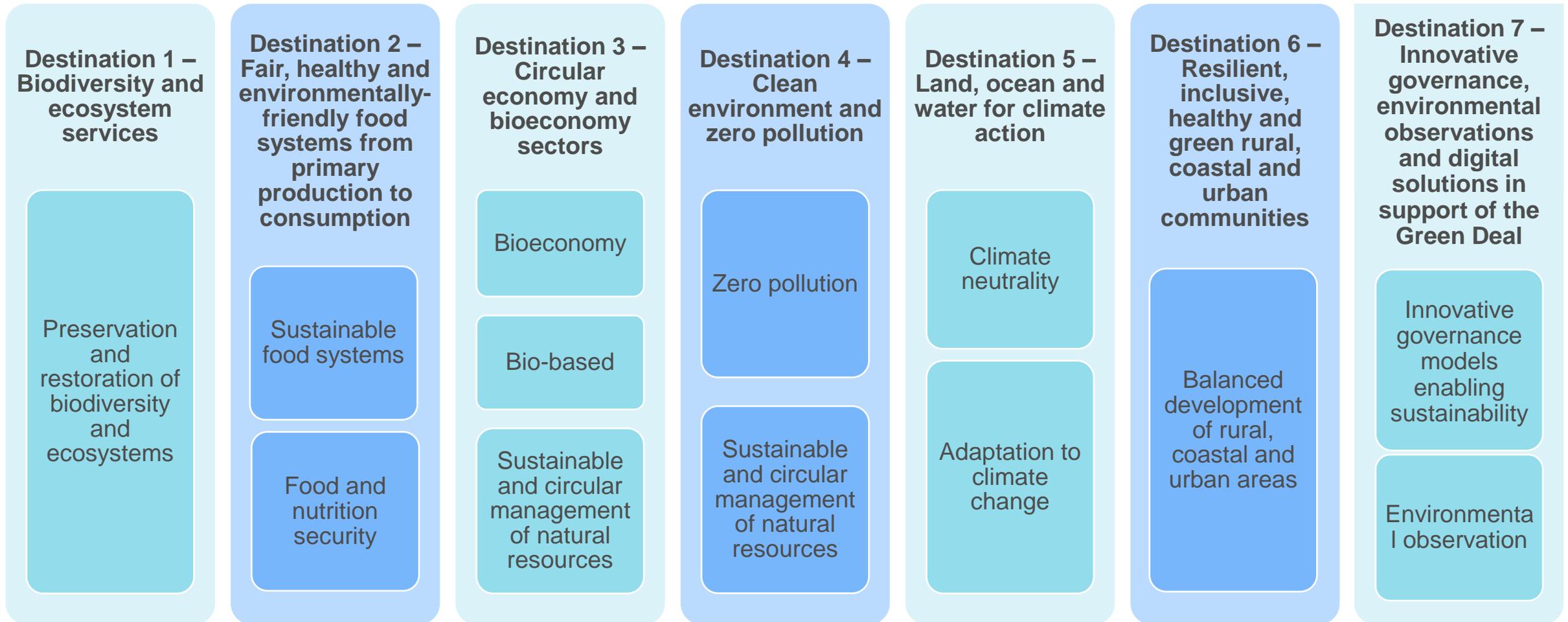
**European Institute of
Innovation
and Technology**

Widening Participation and Strengthening the European Research Area

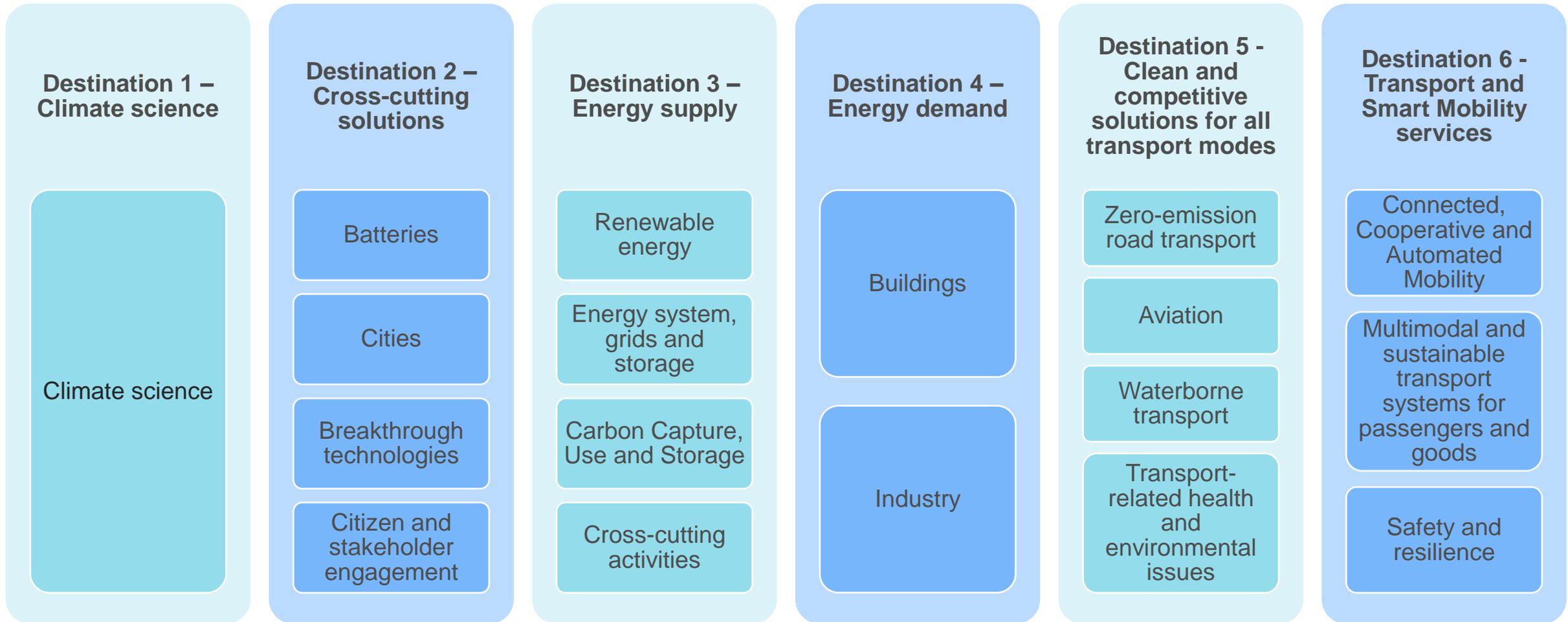
Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

HORIZON EUROPE – CLUSTER 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment



HORIZON EUROPE – CLUSTER 5: CLIMATE, ENERGY, MOBILITY



Green Deal Missions

HORIZON EUROPE GREEN DEAL MISSIONS



Adaptation to climate change,
including societal transformation



Climate-neutral and
smart cities

Soil health and food



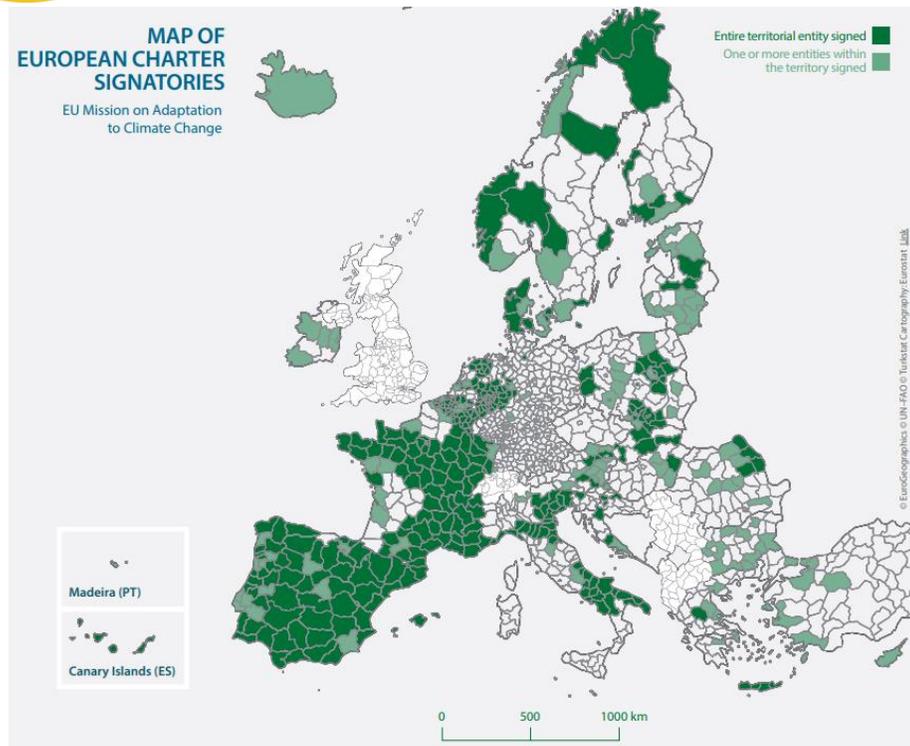
Healthy oceans, seas,
coastal and inland waters



HORIZON EUROPE GREEN DEAL MISSIONS

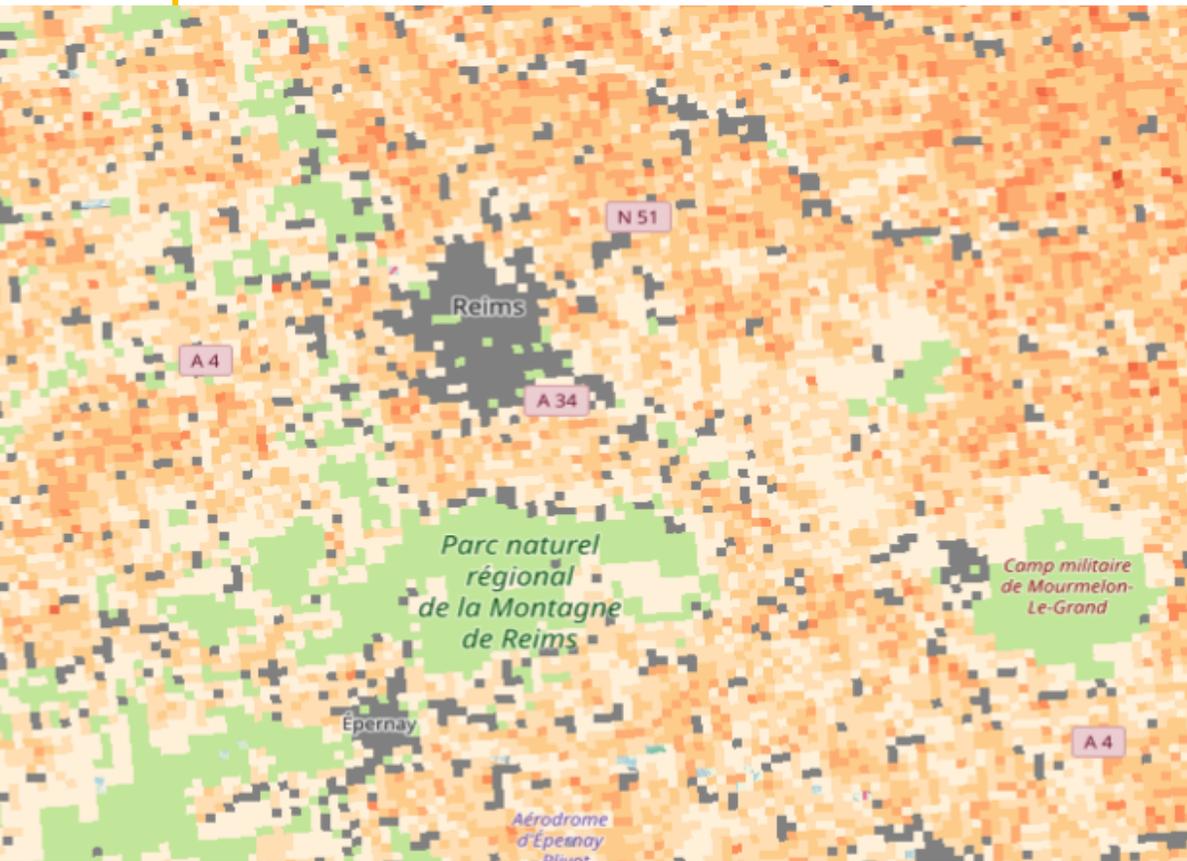


**Adaptation to climate change,
including societal transformation**

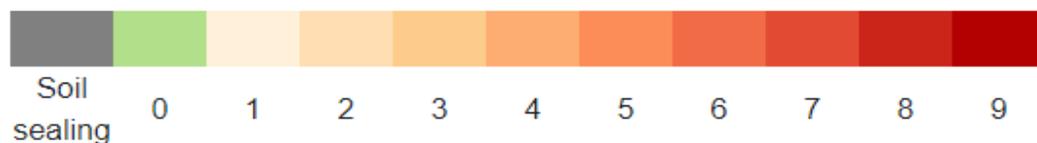


- Make adaptation smarter, faster, more systemic resilience as Climate will become increasingly hostile
 - Knowledge base development
 - Stimulating innovation
- 284 Regions & local authorities signed Mission Charter
- Mission Implementation Platform (2023)

HORIZON EUROPE GREEN DEAL MISSIONS



Number of soil degradation processes



Soil health and food



- Set up a network of 100 living labs
 - Harmonise EU monitoring & reporting
 - Increase soil literacy in society
- Example of the recently launched Soil Observatory

HORIZON EUROPE GREEN DEAL MISSIONS

➤ Restore health & natural capital of Ocean & Water system

- ❖ 30 % of EU sea area protected by 2030
- ❖ 50 % plastic litter reduction
- ❖ 50 % reduction of nutrient losses & chemical pesticides
- ❖ Make Blue Economy Climate Neutral

➤ Four “lighthouses”:

- ❖ Mediterranean
- ❖ Baltic & North Sea
- ❖ Danube River Basin
- ❖ Atlantic / Arctic

Healthy oceans, seas,
coastal and inland waters



HORIZON EUROPE GREEN DEAL MISSIONS

- Aim: 100 climate-neutral and smart European Cities by 2030
 - Innovation & experimentation hubs to help all EU cities become climate neutral by 2050
- Climate City Contract currently being co-designed with stakeholders



Climate-neutral and smart cities

Cities will start working on their Climate City Contracts



Including climate action plan and investment strategy



Innovative city governance and citizen engagement



Involvement of EU, national and regional level

Horizon Europe Partnerships

Horizon Europe Partnerships

- With EU and associated countries, the private sector, foundations and other stakeholders
- To deliver on global challenges, modernize industry :
 - Aviation, steel, hydrogen, waterborne, rail, process industries, batteries...
- To produce major contributions to Climate, Biodiversity, Food targets by 2030
 - Agriculture Data, *Rescuing Biodiversity*, Blue Economy, Sustainable Food systems, Circular Bio-based Economy, Water4All....



Horizon Results Platform

HORIZON RESULTS PLATFORM

MAKING RESULTS MATTER



Share Knowledge • Find Mentors • Seize Opportunities • Innovate

A service provided by the Horizon Results Platform

Wrap-up

- Breaking silos & Trans-disciplinarity are core of the European Green Deal, and Horizon Europe
- Research is the engine of our work...
 - Providing ideas for testing & scaling-up,
- ... but its central aim is to create positive impact in society
- Transforming society will require major efforts, on all levels, from all sectors

Thank you !



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