



# Achieving renewable energy targets while protecting and restoring biodiversity

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3<sup>rd</sup> Natura 2000 biogeographical seminar  
for the Atlantic and Macaronesian marine regions

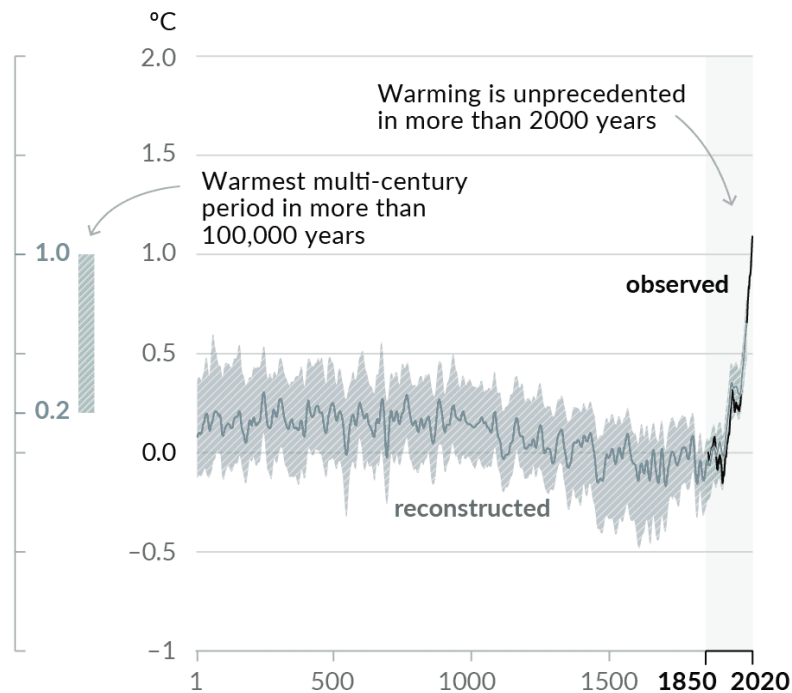
Dublin, 11-13 October 2023

# Climate crisis

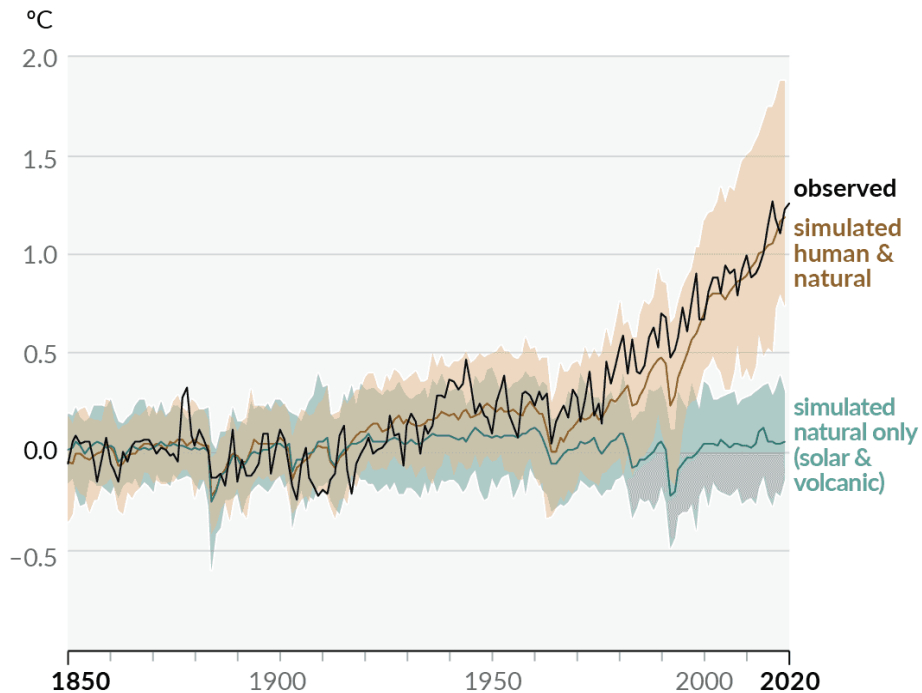
Human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years

## Changes in global surface temperature relative to 1850–1900

(a) Change in global surface temperature (decadal average) as **reconstructed** (1–2000) and **observed** (1850–2020)

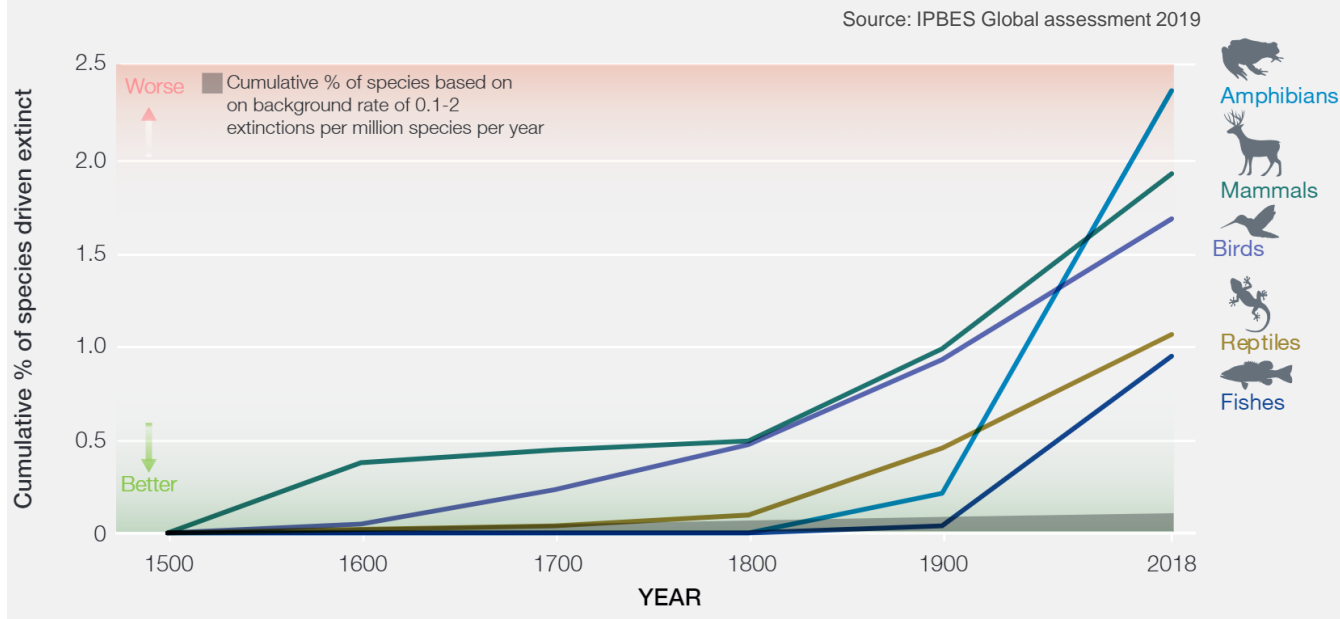


(b) Change in global surface temperature (annual average) as **observed** and simulated using **human & natural** and **only natural** factors (both 1850–2020)



# Biodiversity crisis

## Extinctions since 1500

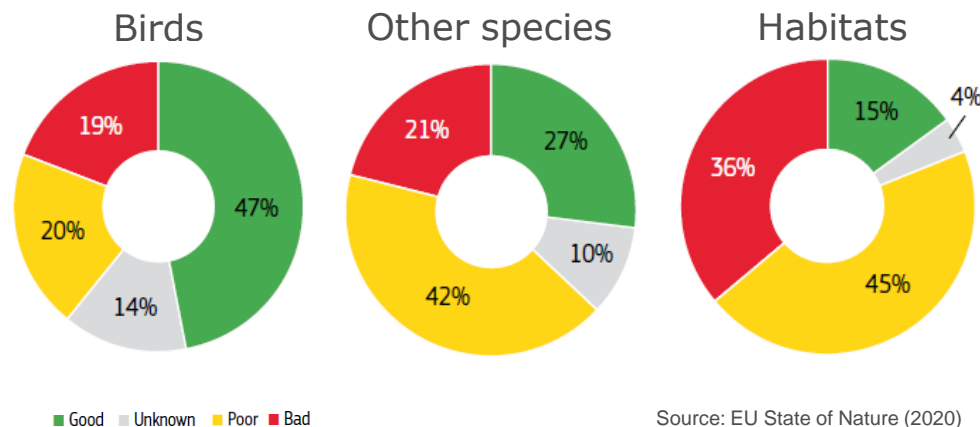


## European Union

- 80% of protected habitat types are in bad or poor status
- up to 70% of soils are in an unhealthy condition

In Western, Central and Eastern Europe:

- Wetlands have shrunk by 50% since 1970
- 71% of fish and 60% of amphibians have been declining over the last decade



Source: EU State of Nature (2020)

# Time is running out...

Intergovernmental Panel on Climate Change, 2022

***“Restoring ecosystems will be fundamental in helping to combat climate change and also reduce risks to food security”***

and we have a.....

***“....brief, rapidly closing window to secure a liveable future”***

# EU policy context



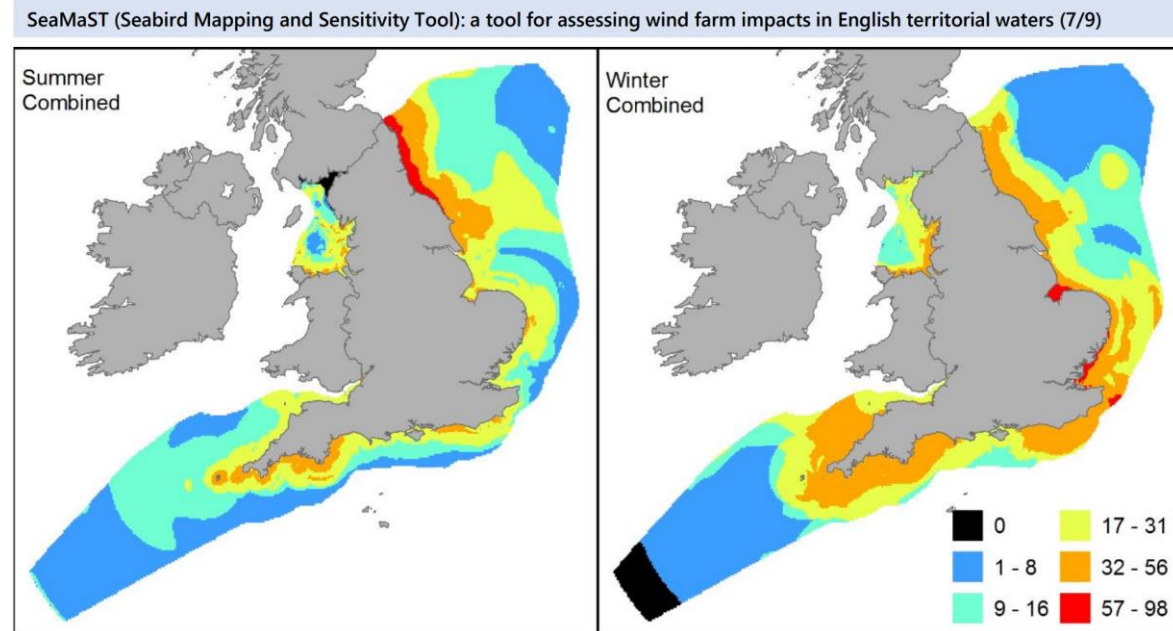
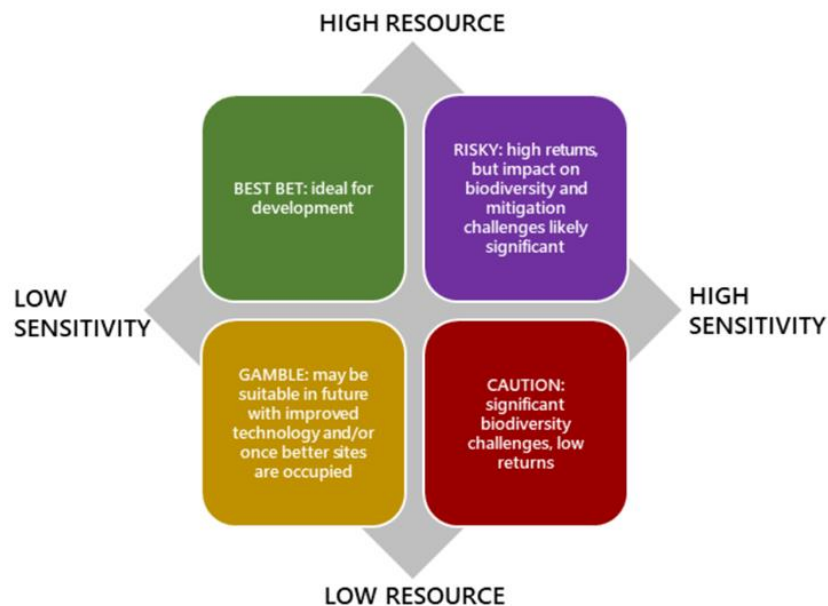
- the **Birds and Habitats Directives**, the Marine Strategy Framework Directive
- **EU Biodiversity strategy for 2030**
- Global biodiversity framework
- **Nature restoration law *proposal***
- Offshore renewable strategy
- **Marine action plan**
- Climate policy and climate law

# The role of existing environmental legislation

- The EU policy and legislation (SEA, EIA, HD, WFD, MSPD,...) already provide **tools to avoid conflicts between renewables and biodiversity**.
- The EU nature legislation allows for effective deployment of renewable energy infrastructure and its **coexistence with nature protection**.
- The Habitats Directive (Article 6.3) allows implementation of projects **if they do not harm the integrity** of the Natura 2000 sites.
- Flexibility (Article 6.4): projects affecting the integrity of the sites can be carried out, if it is proven that there are **no alternatives, appropriate compensatory measures** have been put in place, and the plan or project is of **'overriding public interest'** (presumed in REPowerEU emergency regulation).

# The importance of strategic planning

- Conflicts are best avoided through **good strategic planning.**
- **Maritime spatial plans** must integrate nature protection/restoration, energy, fisheries and all other **uses of the sea.**



- Strategic planning of renewables through **sensitivity mapping.**

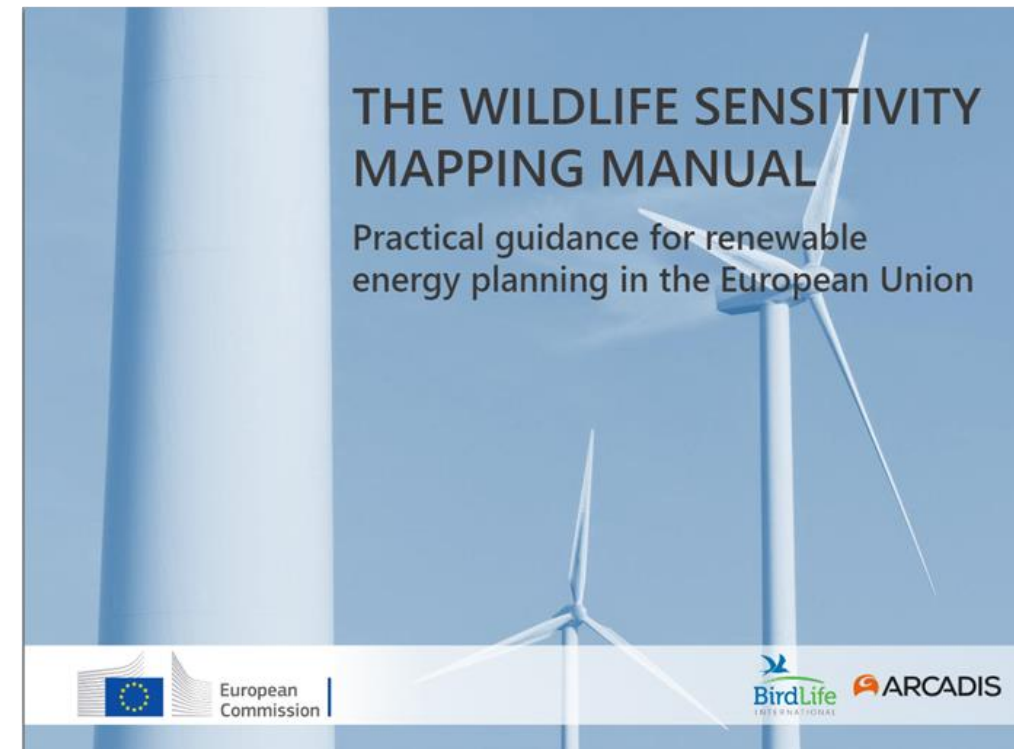
# Guidance and support

- **Guidance document on wind energy developments and EU nature legislation** clarifies existing obligations and flexibilities built in the EU law.
- **The wildlife sensitivity mapping manual** with case studies.
- **The recommendation on speeding-up permit-granting procedures** for renewable energy projects (and the accompanying guidance) adopted as part of REPowerEU.



Guidance document on  
wind energy developments and  
EU nature legislation

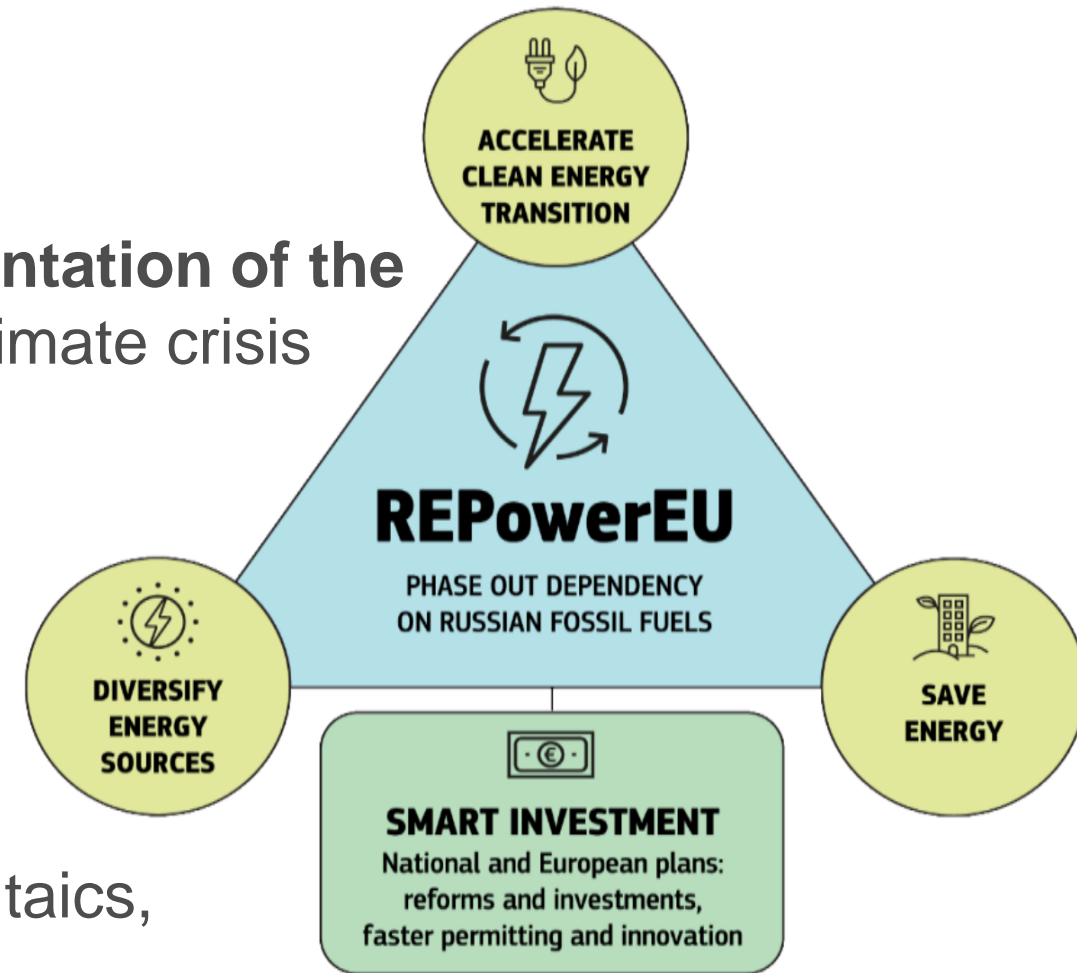
Guidance on Energy Transmission  
Infrastructure and EU nature legislation





# REPowerEU plan

- Reinforces and **accelerates the implementation of the European Green Deal** and tackling the climate crisis
- Three pillars:
  - diversifying energy sources
  - saving energy
  - accelerating renewable energy
- EU solar strategy, target for solar photovoltaics, European solar rooftop initiative
- Heat pumps
- Hydrogen ...



# RES temporary emergency regulation

- Adopted 22 Dec 2022 - Sets **new, temporary and targeted measures** to accelerate the deployment of certain renewable energy projects
- Directly applicable in all MSs for **18 months** (30 Dec 2022 – 30 June 2024)
- **Articles 3 (OPI)**, 5 (repowering) and **6 (permit-granting)** apply to all renewable energy sources
- Applies to **all permitting procedures** with a starting date within the duration of its application, regardless of their end date, as well as to ongoing processes which have not resulted in a final decision before 30 Dec 2022

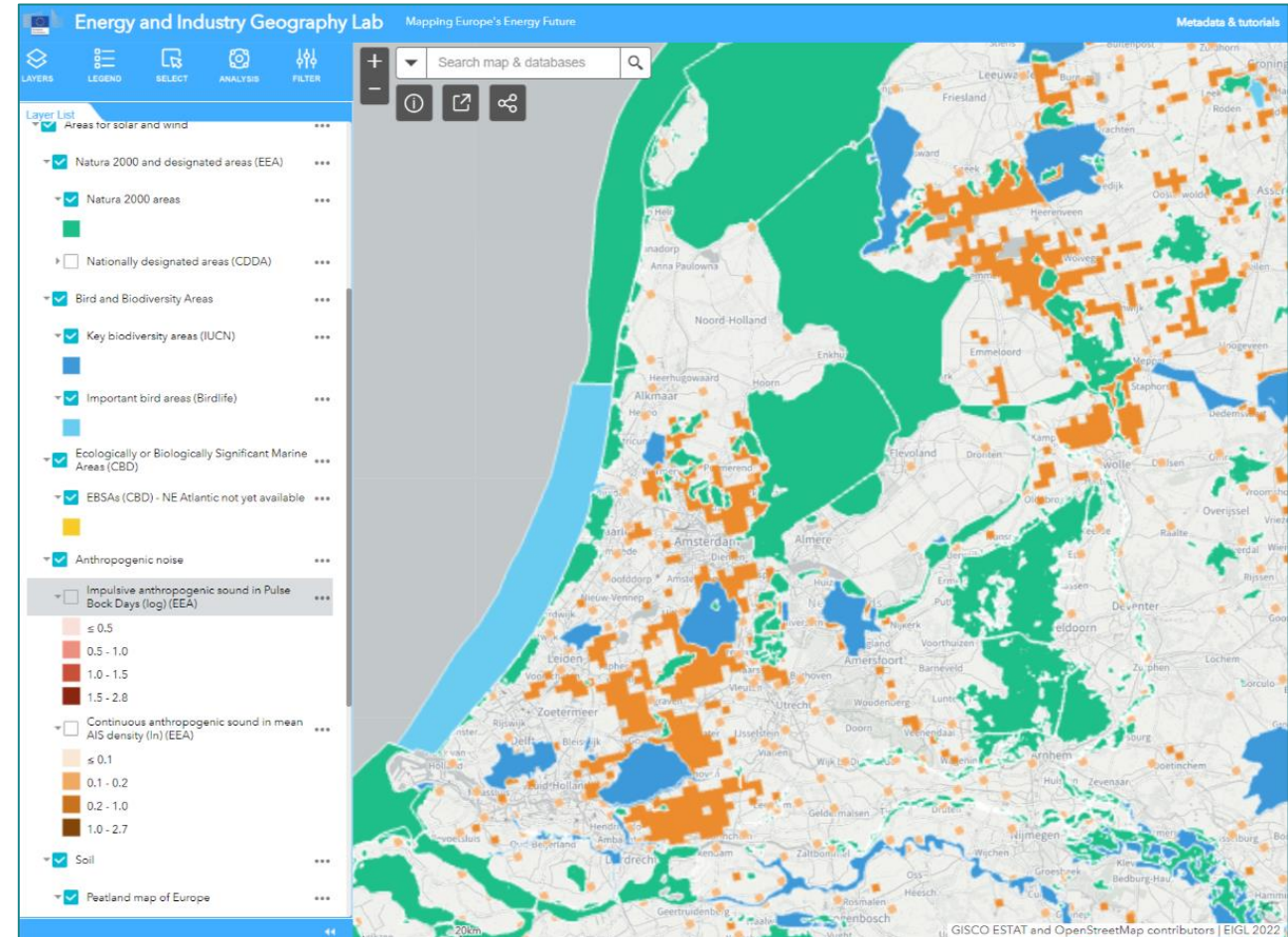
# RED revision - Renewables Acceleration Areas (RAAs)

- MSs to adopt **plan(s) designating RAAs for one or more types of RES, where RES projects are not expected to have significant environmental impacts:**
  - **give priority to artificial and built surfaces**, such as rooftops and facades, transport infrastructure etc.
  - **exclude Natura 2000 sites and areas designated under national protection schemes** for nature and biodiversity conservation, **major bird and marine mammal migratory routes** as well as **other areas identified based on sensitivity maps** and other tools except for artificial and built surfaces located therein
  - **use all appropriate and proportionate tools and datasets to identify the areas** where the renewable energy plants would not have a significant environmental impact, including wildlife sensitivity mapping
- RES projects in RAAs to benefit from **faster and simpler permitting procedures**



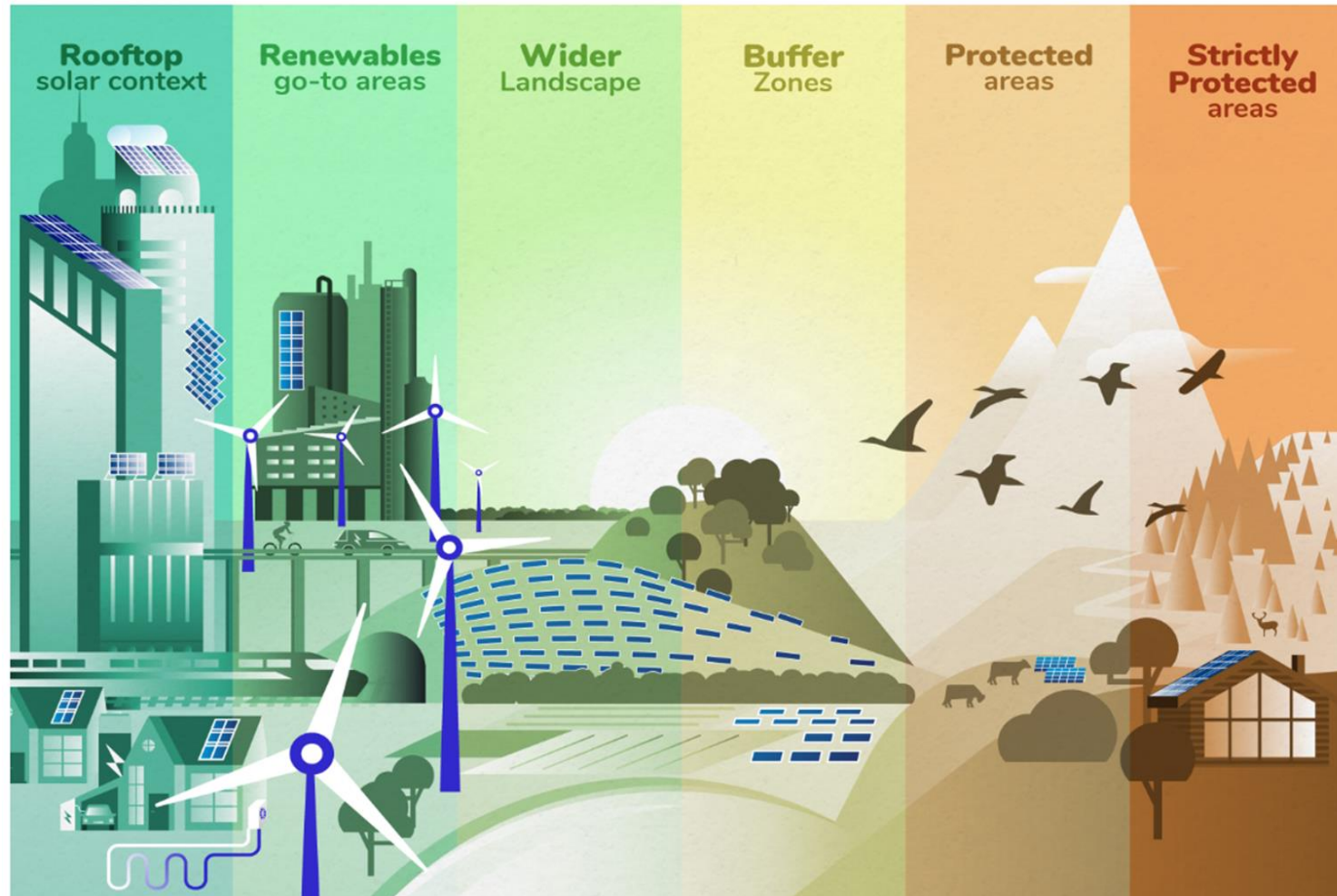
# Identification of RE acceleration areas for wind and solar

- EIGL - an instrument to support planning choices by national and regional authorities who may not otherwise have immediate access to relevant datasets



[https://joint-research-centre.ec.europa.eu/energy-and-industry-geography-lab\\_en](https://joint-research-centre.ec.europa.eu/energy-and-industry-geography-lab_en)

# Need to support win-win solutions



Source: <https://meta.eeb.org/2022/11/15/mapping-out-space-for-nature-positive-renewables//>

# Need to support win-win solutions



## OFFSHORE WIND / POSSIBLE SYNERGIES



**Artificial Reefs**  
provide new habitats for marine species



**3D Underwater Farming**  
of seaweeds and shellfish requires zero inputs and minimise acidification while sequestering CO<sub>2</sub>



**(Re)introducing Reef Building Species**  
for example, oysters or Ross worms (*Sabellaria spinulosa*)



**Noise Reduction**  
from installation of wind turbine foundations, to protect marine mammals



**Scour Protection**  
using materials such as rock and sand to protect cables and structures to prevent local seabed deepening



**Bird Protection**  
Elevated nacelle height can reduce bird collisions by providing migratory paths between water surface and swept wind area



# Nature restoration and renewables - examples

- **TKI Wind op Zee - Project Eco-Friend / Oyster bed restoration:** <https://www.wur.nl/en/project/ecofriend.htm> and <https://projecten.topsectorenergie.nl/projecten/jip-eco-friend-31407>
- **The BENSO project - Scour protection and biodiversity enhancement :** <https://www.wur.nl/en/research-results/research-institutes/marine-research/show-marine/benso-3.htm> and <https://projecten.topsectorenergie.nl/projecten/scour-protection-design-for-biodiversity-enhancement-in-north-sea-offshore-wind-farms-33056>
- **The Rich North Sea project:** <https://www.derijkenoordzee.nl/en/>
- **TenneT (TSO) fish hotels:** <https://renewables-grid.eu/activities/best-practices/database.html?detail=232&cHash=27d024210eb6dd53fc50c9832076f639> and [https://offshore-documents.tennet.eu/fileadmin/offshore\\_document\\_uploads/Library/Leaflet\\_Green\\_grid\\_operator\\_EN\\_JUN2021.pdf](https://offshore-documents.tennet.eu/fileadmin/offshore_document_uploads/Library/Leaflet_Green_grid_operator_EN_JUN2021.pdf)
- **Research project EDEN2000:** <https://www.health.belgium.be/en/node/40715>
- **Non-price criteria for auctions**

# Thank you



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