H2020 Restarting Economy in Support of Environment, through Technology (ReSET)

Introducing the ReSET (Restarting Economy in Support of Environment, through Technology) Policy Support System

Communication and visualisation of model results

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KING'S College LONDON

RIKS research institute for knowledge systems

AmbioTEK Technology Environment Knowledge www.policysupport.org

ICATALIST

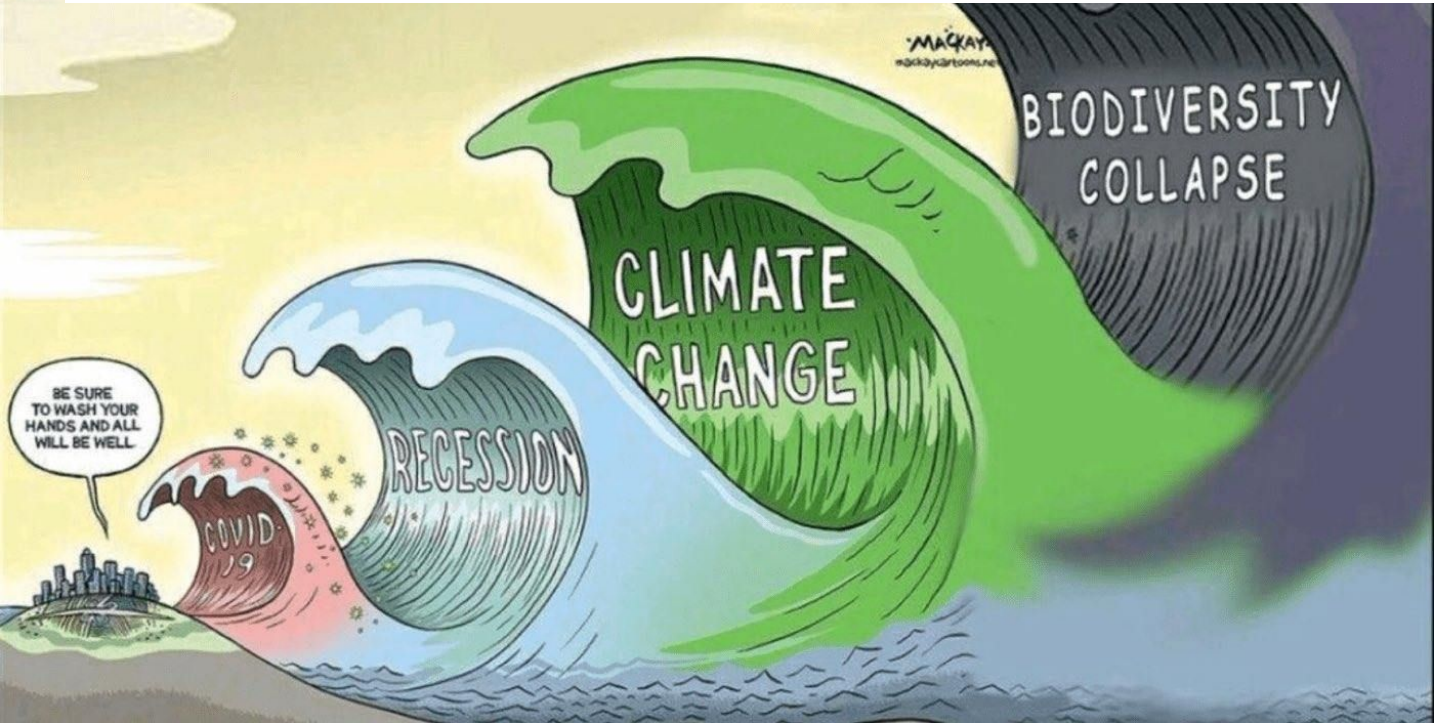
GeoEcoMar

IRSA CNR

Aim of ReSET

To develop **Environmental Intelligence** as a means of informing and testing green investments for their **environmental**, **economic** and **employment** outcomes, contributing to **effective sustainability solutions** building on the sophisticated policy support systems of PolicySupport.org (WaterWorld, Co$tingNature, Eco:Actuary) and RIKS (Geonamica, Metronamica)

But... environment, economy and employment are complex, interconnected systems. How do we model the detail but present the outcomes in a clear engaging way

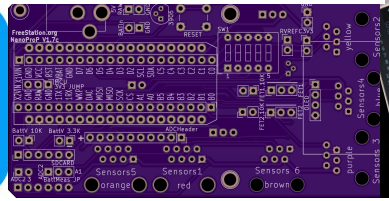


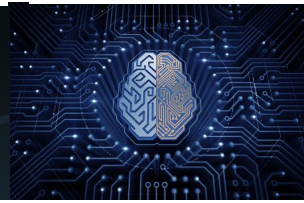
Environmental intelligence

Brings together multiple data streams (facts) from **ground-based, satellite** and **citizen** sources with cutting-edge **hardware, software and analytical technology** employing human reasoning and **machine learning** to better understand and manage the environment.

FreeStations | Copernicus | Crowd | Wearables | Models | ML







Environment → measure / problem → Data → processing / question → Information → analysis / solution → Intelligence

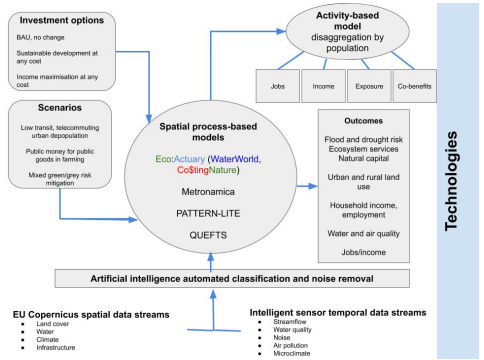
Investment, policy or regulation to increase sustainability

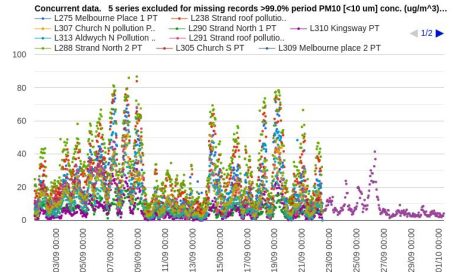
But how do we build systems for a diverse set of audiences?

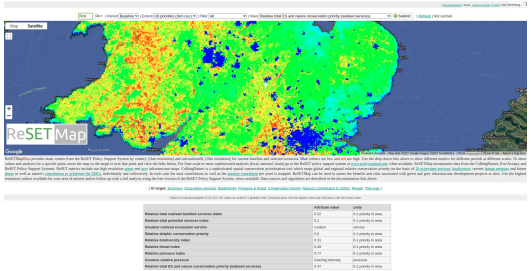
- Green/Grey, net zero and post-COVID recovery **investors**
- **Developers** with active urban and rural development projects
- Impacted **citizens** and citizen scientists
- **Farmers**, landowners
- Hazard, resilience **managers**
- **Insurers**
- **Conservation** and environmental orgs
- **Teachers** and their students

Solution: different interfaces for different users

- **ReSET green Investment Policy Support System (strategic investors)**
  - A fully fledged **dynamic, spatial green investment policy** support system focused on interactive spatial analysis of baseline and scenario **economic, employment and environmental status**
  - Capable of calculating the environmental, economic and employment **benefits of different options for green/grey investment** at scales from local to European
- //Smart: viz. and analysis interface: (problem solvers, effectiveness assessors)
  - A web interface and API for the collection, visualisation and analysis of **FreeStation monitored data**
  - Calculates temporal and spatial indicators **from archived and real-time station data**
- ReSETMap: (farmers, citizens, communciators, teachers, students)
  - Simple web-map visualisation interface linking static outputs of ReSET PSS, live //Smart: data and simple dynamic spatial indicators to **answer questions** on the following in demo areas and beyond:
    - baseline environmental status,
    - impacts of current and proposed **grey** infrastructure,
    - benefits of current and proposed **green** infrastructure scenarios,
    - Opportunities for **triple-win investments** for economy, employment and environment







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