



GWFF

GEOSPATIAL WORLD FORUM

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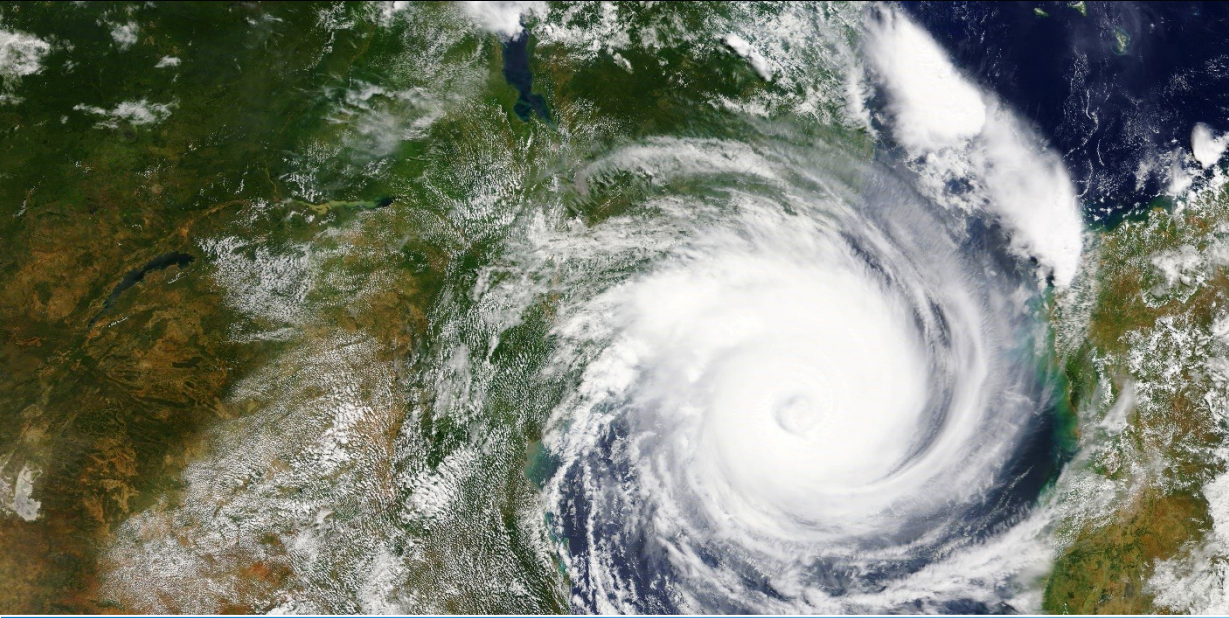


Modern GIS for meteorological and climate data

GEOSPATIAL WORLD FORUM 2024

Rotterdam

Alberto Meroni



The climate challenges our civilization every day!



GIS has even more potential to Understand Climate Challenges

Applying The Geographic Approach

Creating Solutions for a better Future



However,
We Need to Scale Up Our Collective Efforts . . . Exponentially



Addressing Climate Change

Cuts Across All Sectors,

Impacts All Regions

**...But Requires
Understandable Data and
Shared Knowledge**

The Geographic Approach is Empowered by GIS

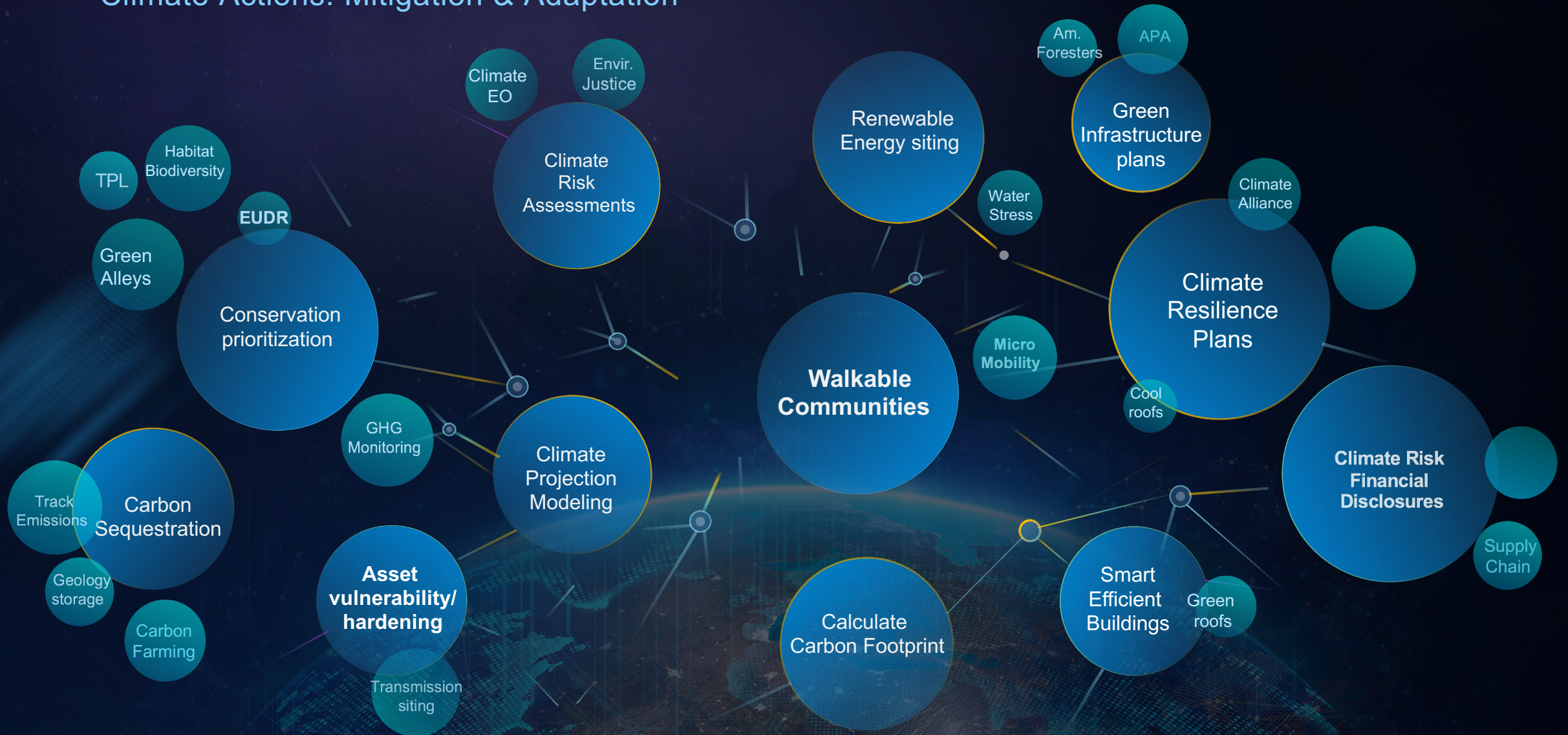
A System for Managing, Sharing and Applying Geographic Information



*"Geography provides the science and language.
GIS provides the technological tools."*

GIS Has Been Proven Effective Against Environmental Challenges . . .

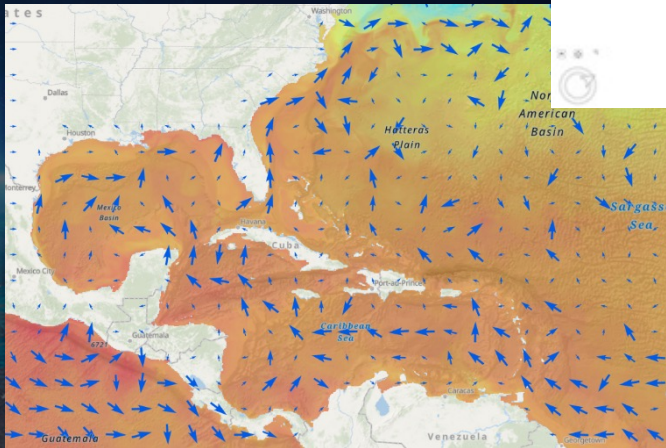
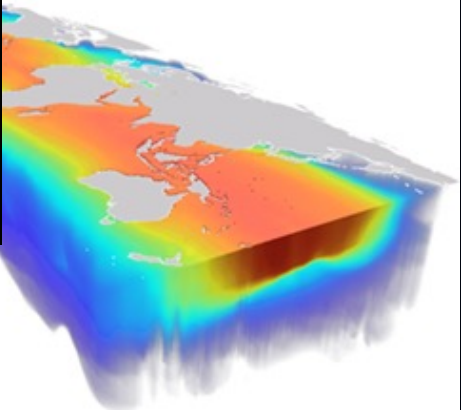
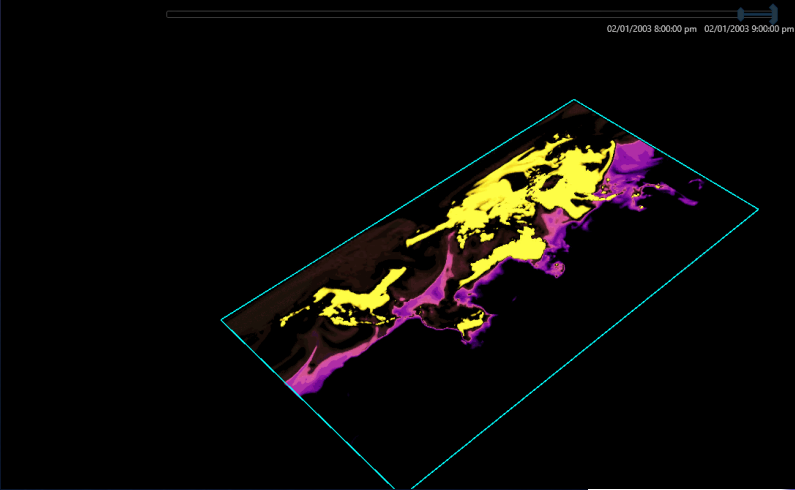
Climate Actions: Mitigation & Adaptation



GIS Translates Scientific Data into Understandable, Actionable Information

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Petabytes of netCDF

Web Accessible Interactive Maps and Apps

ArcGIS Brings Context and Usability to Scientific Data

Scaling use and raising awareness through easy access

ArcGIS

Living Atlas

Land Cover

Habitats

Biodiversity

Basemaps

Transportation

Landscape

Environment

Movement

Infrastructure

Hydro

Traffic

Business

Elevation

Boundaries

Demographics

Imagery

POI

Oceans

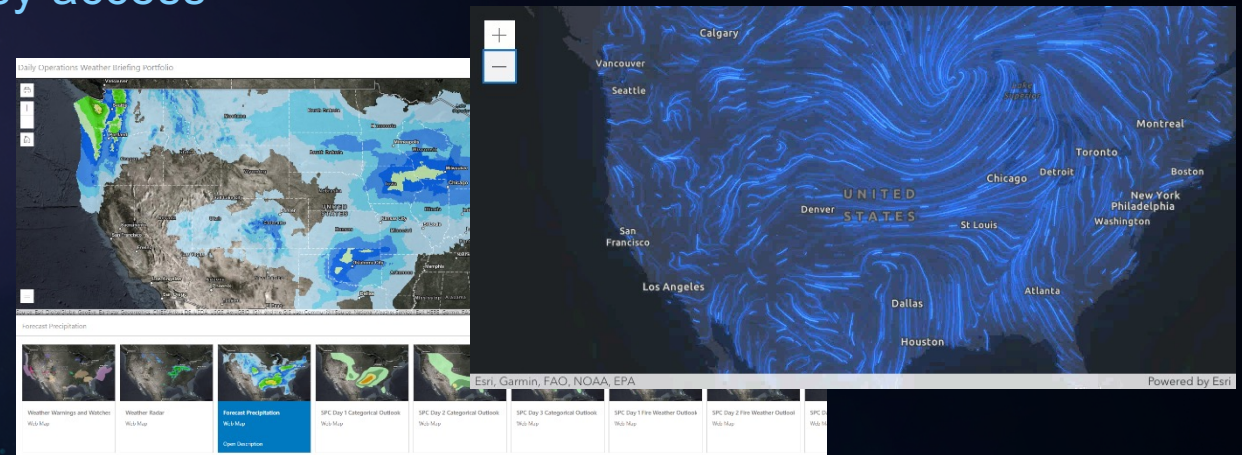
Hazards

Weather

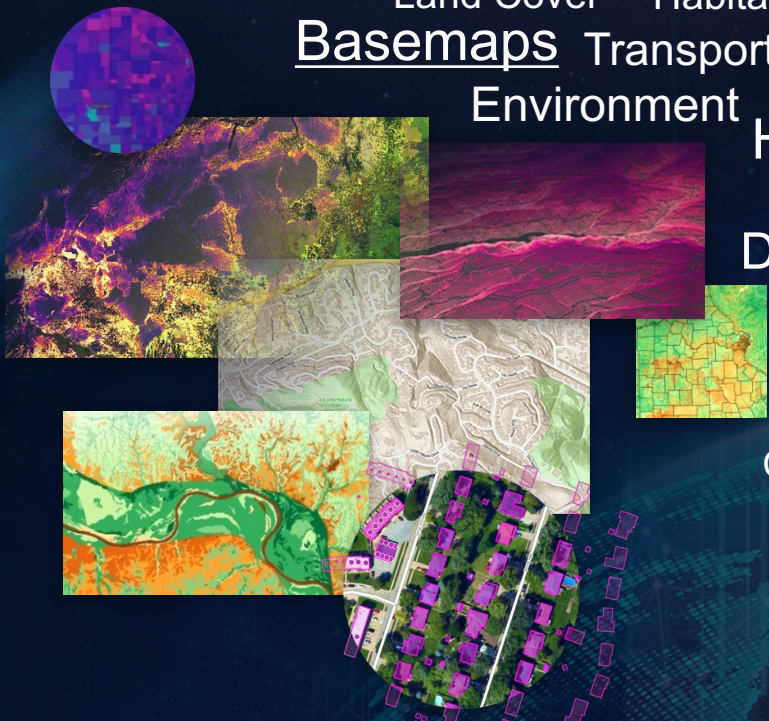
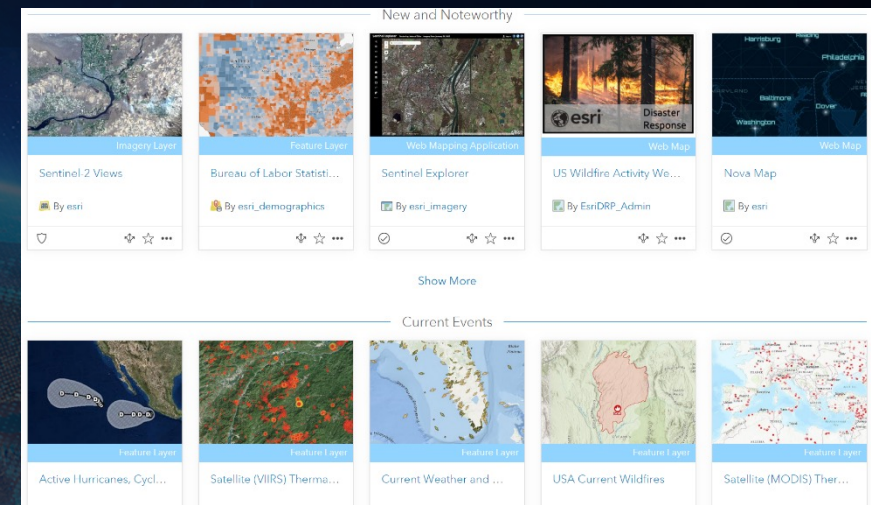
Soils

Authoritative

Community Content



Live Feeds of Weather Data



Living Atlas of the World

Adding Context and Usability to Scientific Data

Scaling use through Easy Access, Education and Raising Awareness

Openly Accessible Global Stream Predictions

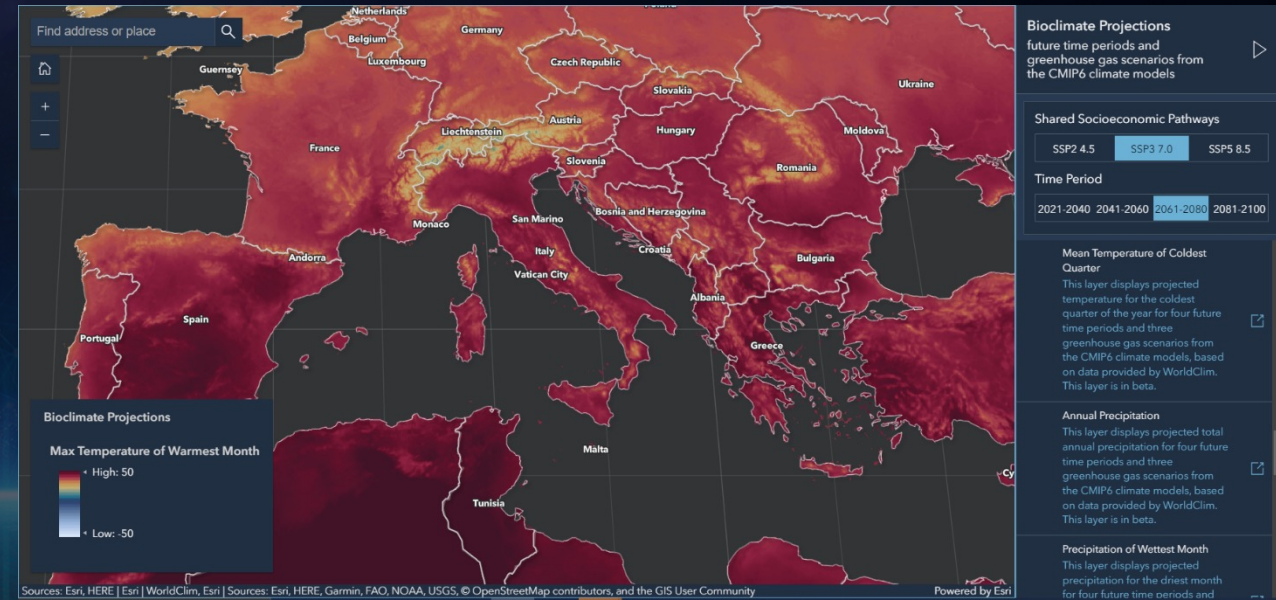
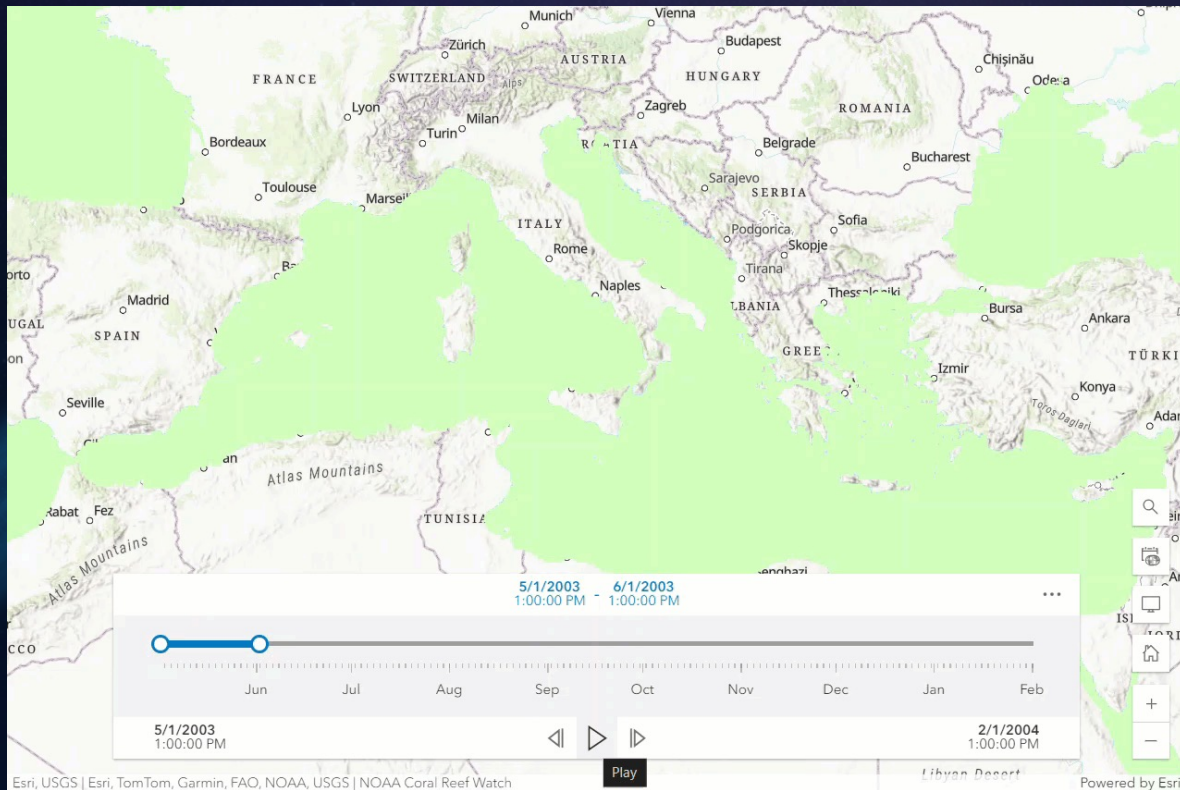


Scaling Impact: Education with Climate Data

The screenshot shows the 'Climate Change in the UK' teaching resources page. The page features logos for 'esri UK THE SCIENCE OF WHERE' and 'Met Office'. The main heading is 'Climate Change in the UK' with a subtitle: 'A detailed look at climate change in the UK created in partnership with the Met Office.' Below this is a section titled 'Teaching Resources' with the text: 'Everything you need to help your learners explore the current climate of the UK, how it could change over the course of the 21st century and the impact it will have on our lives in the UK.' The page displays three images illustrating climate change impacts: a wildfire, an industrial facility with smoke, and a flooded area. Below these images is a section titled 'Climate Change, Impact & Adaptation' with the text: 'Explore the impacts that climate change will have on our lives in the UK.' The page also features three more images illustrating climate change impacts: a wildfire, flooding, and agriculture.

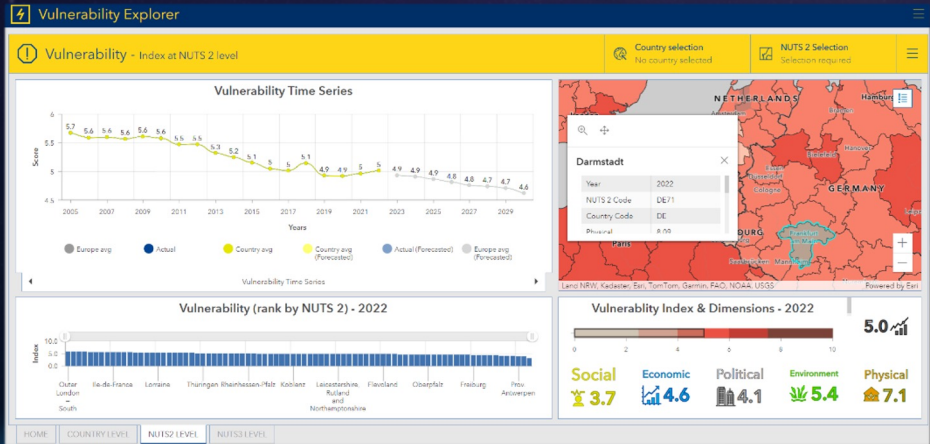
Mapping & Visualization Show Executives the Impact of Climate Change

Demonstrating the impact of climate change is essential to bring in businesses and private sector

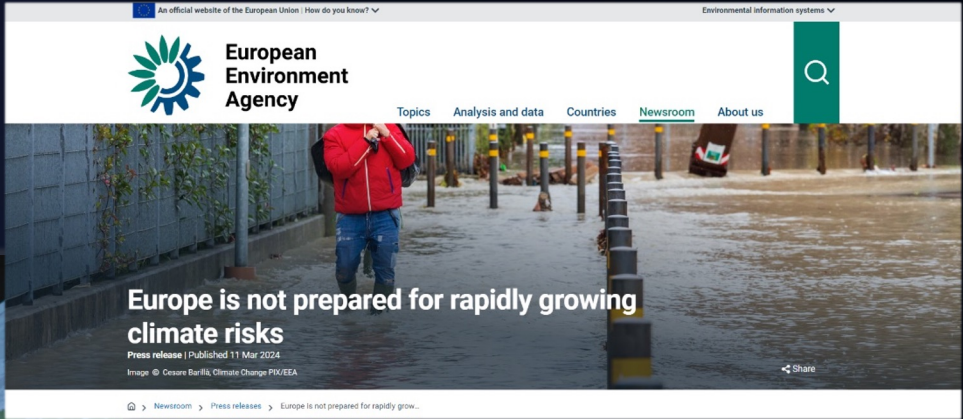


Coral Bleaching Alert Level

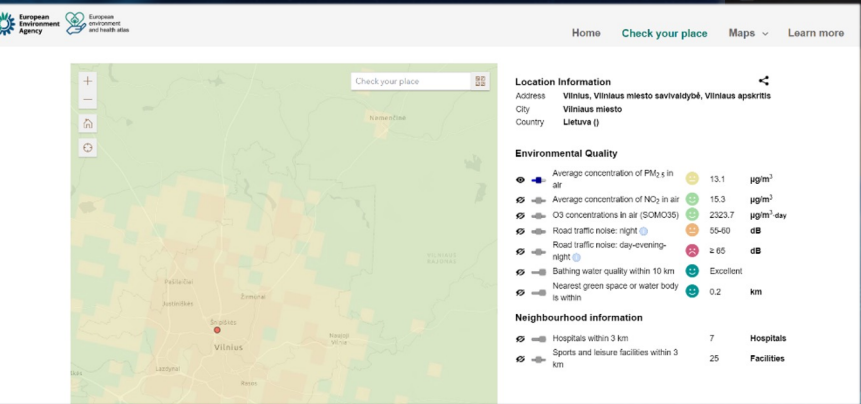
Transform complex data into decision support tools. . .



JRC Vulnerability Explorer

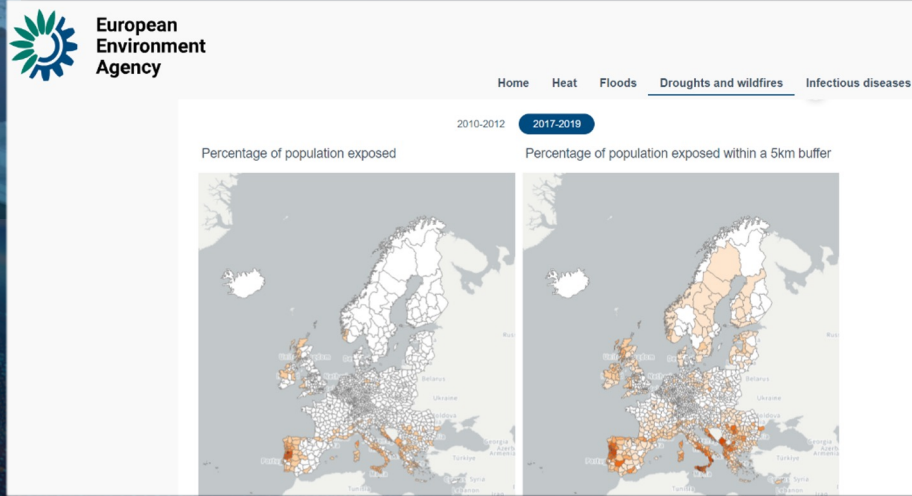


Climate Resilience Policy



Environmental Health Assessment tool

Local Innovation
(City of Prague Center for Architecture and Metropolitan Planning)



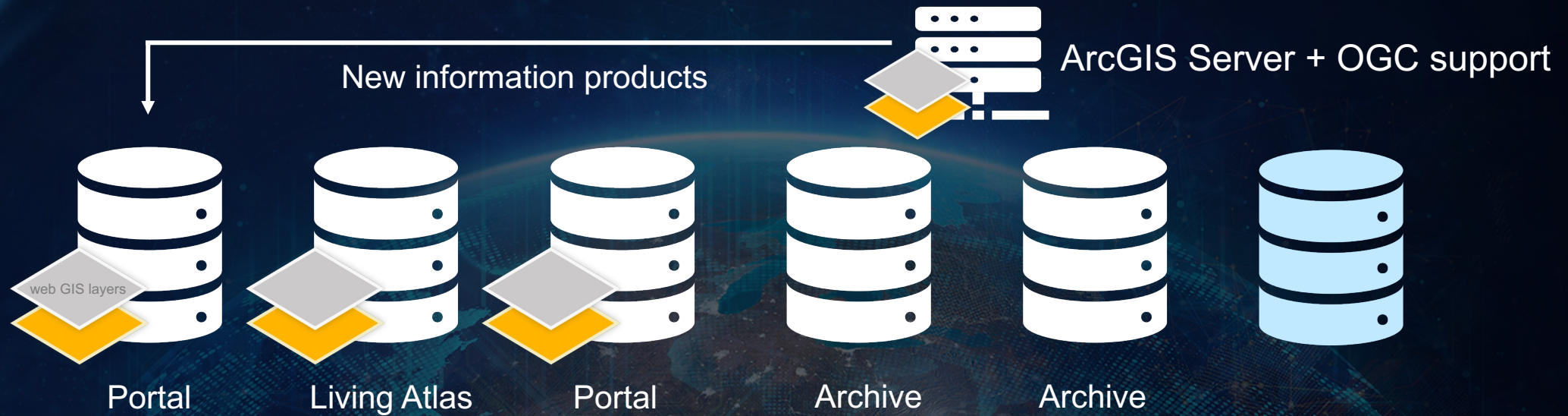
Climate Hazard Info

Embrace Open Data to foster new initiative . . .

Federate systems to build awareness



Organizing Hub: Data catalog, user guides, APIs, templates



Why Partner with Esri

Helping to tackle climate change, sustainability and conservation are at the core of Esri's culture

- ✓ 50+ years of experience in GIS
- 🤝 Trusted partner & advisor
- 📖 Building blocks for producing authoritative content
- 🎯 Open and standards compliant
- 📋 Established SI & Professional Services network
- 📈 Constantly innovating & evolving



Strong established presence
across all countries

...for individuals, communities and nations.

Thank you

