HANAMI

International Collaboration and Accessible Science

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EuroHPC Joint Undertaking

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International Collaboration:
My research stay at JAMSTEC

See blog post: Is it possible to collaborate across continents (and cultures) in science?

A bit of context

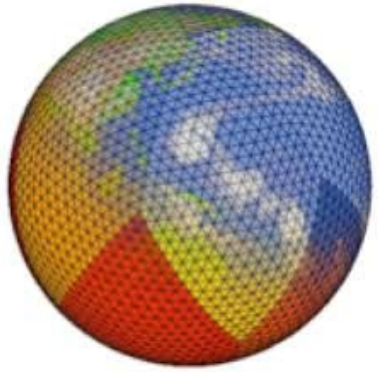
Earth Sciences Department | BSC Barcelona Supercomputing Center, Centro Nacional de Supercomputación → CES → Performance team

pyhanami

My job: Earth System Models scientific skill evaluation

JAMSTEC 国立研究開発法人 海洋研究開発機構 Japan Agency for Marine-Earth Science and Technology → CEMA → Chihiro Kodama & CRM-DAG

Their expertise: high-resolution models + extreme weather events



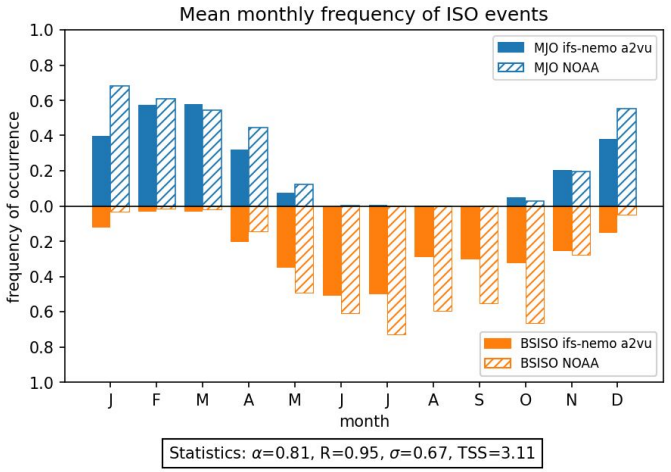
Impact on HANAMI and my research

Many **in person** discussions: with researches within and outside HANAMI

Big impact on my research: new diagnostics and research connections

Strengthen **collaboration**: continued in touch with the researchers

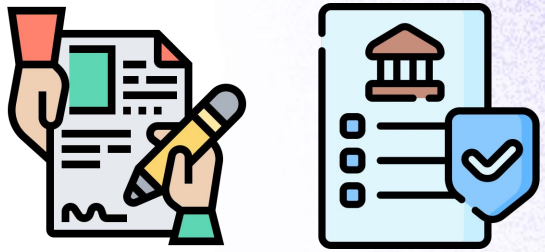
Dissemination in new scientific spaces: JpGU Meeting 2025, Workshop at Kobe, CEMA monthly seminar



AUTOSUBMIT

Last thoughts

One big challenge: getting there … (bureaucracy)



But it was **worth** every hurdle!

Special thanks to: Chihiro Kodama and all researchers at CRM-DAG (JAMSTEC) & Kai Keller (BSC)

Accessible Science:

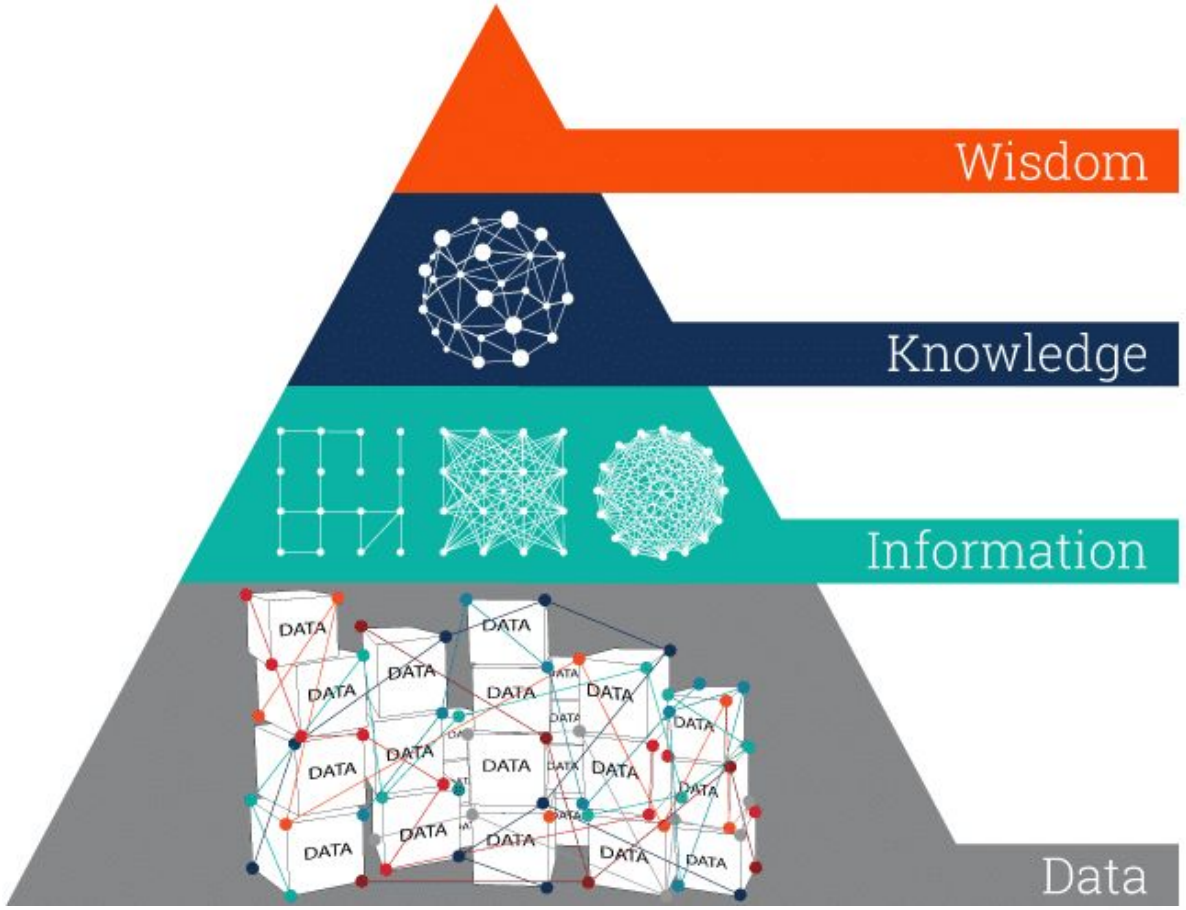
Turning research into real-world impact

The Gap between researchers and society

We generate more data than ever, why does so little reach society?

Why data is not enough?

Data has little meaning without **context or interpretation**

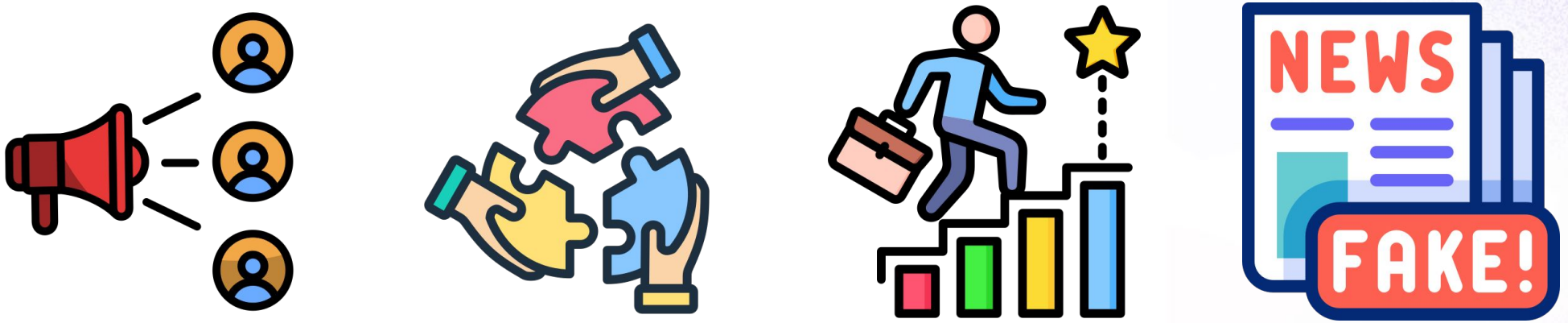


https://www.ontotext.com/knowledgehub/fundamentals/dikw-pyramid/

The importance of Accessibility

Science Accessibility: practice of making scientific information, research findings, and technological innovations available to a broad audience, including policymakers, community members, educators, and individuals with diverse backgrounds and abilities.

Accessibility is **beneficial** work:

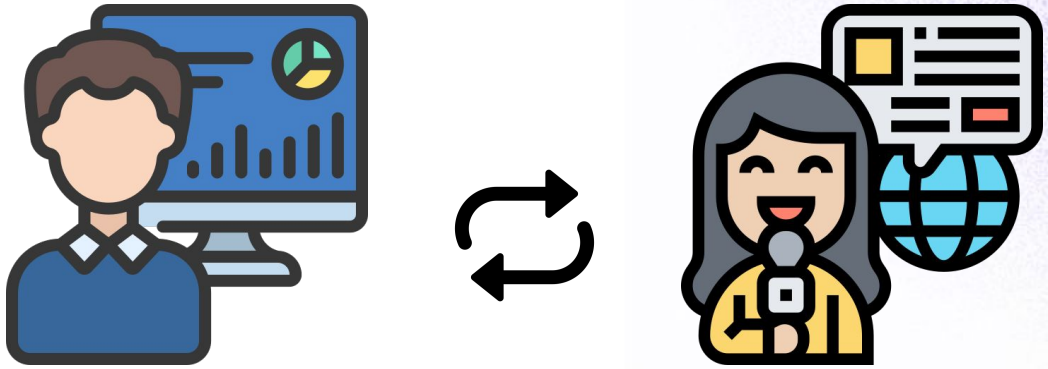


Institutions are demanding **social impact**, not just scientific output.

Where does the responsibility lie?

Not every researcher must be a communicator, but **institutions must have people who are**:

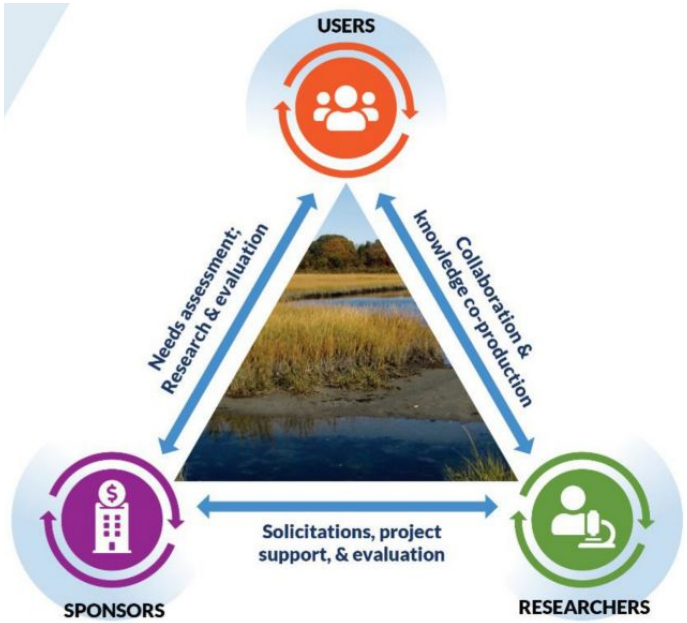
- Interdisciplinary teams
- Services teams
- Outreach units
- UI and UX specialists



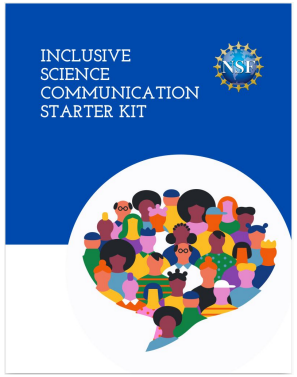
How to bridge the gap

We sometimes lack the tools:

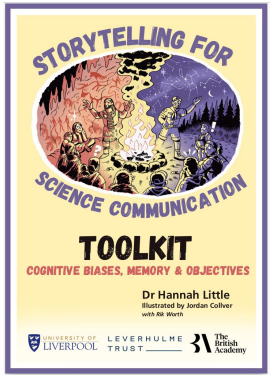
- Co-production
- Tell a clear story
- Choose what to show
- Think about the audience
- Keep inclusivity in mind



If you want to go deeper:



C.DiCenzo et al., 2021

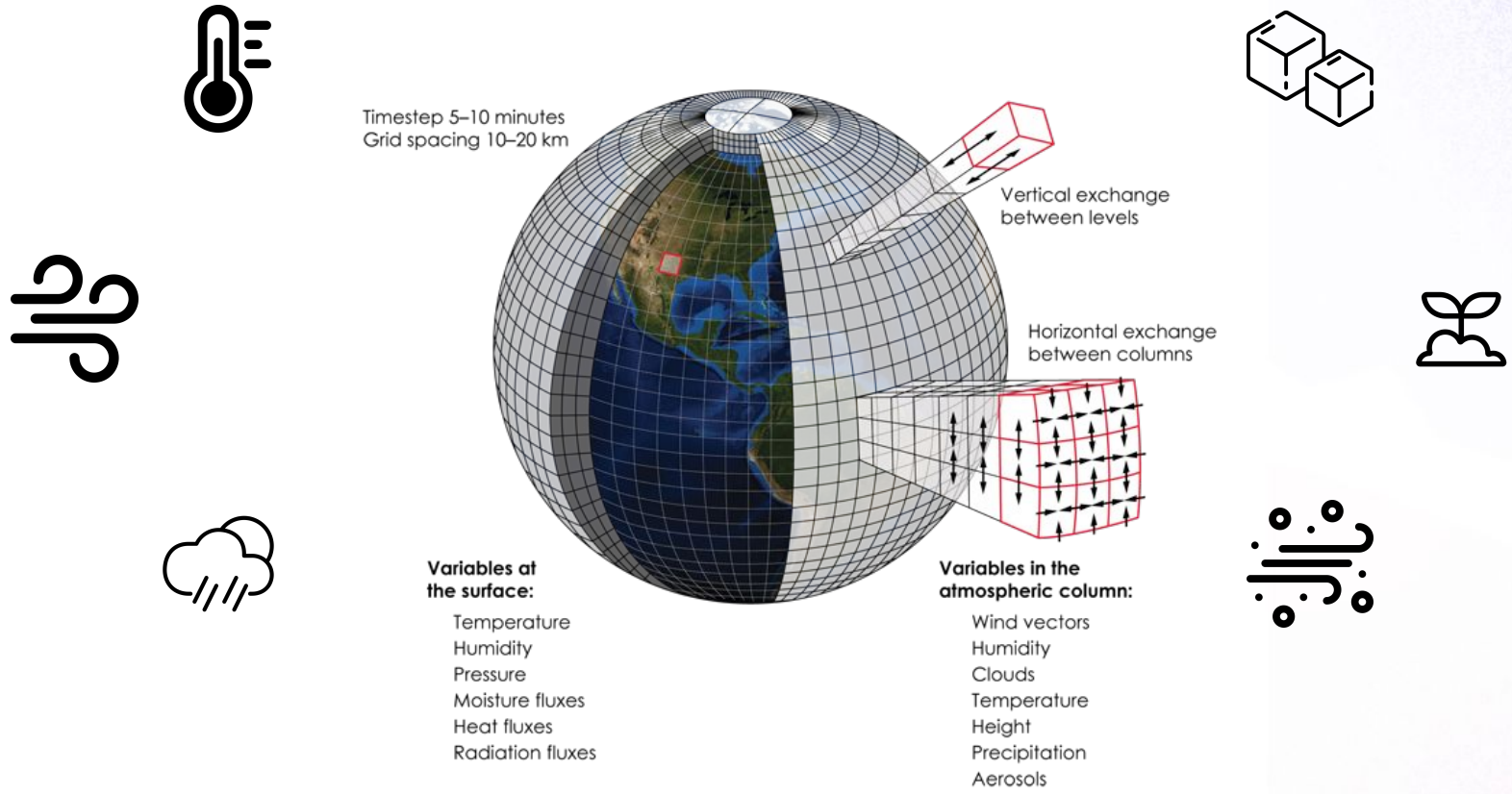


Dr. Hannah Little, Jordan Collver, Rik Worth

British Council Ireland

Use case: Climate Science

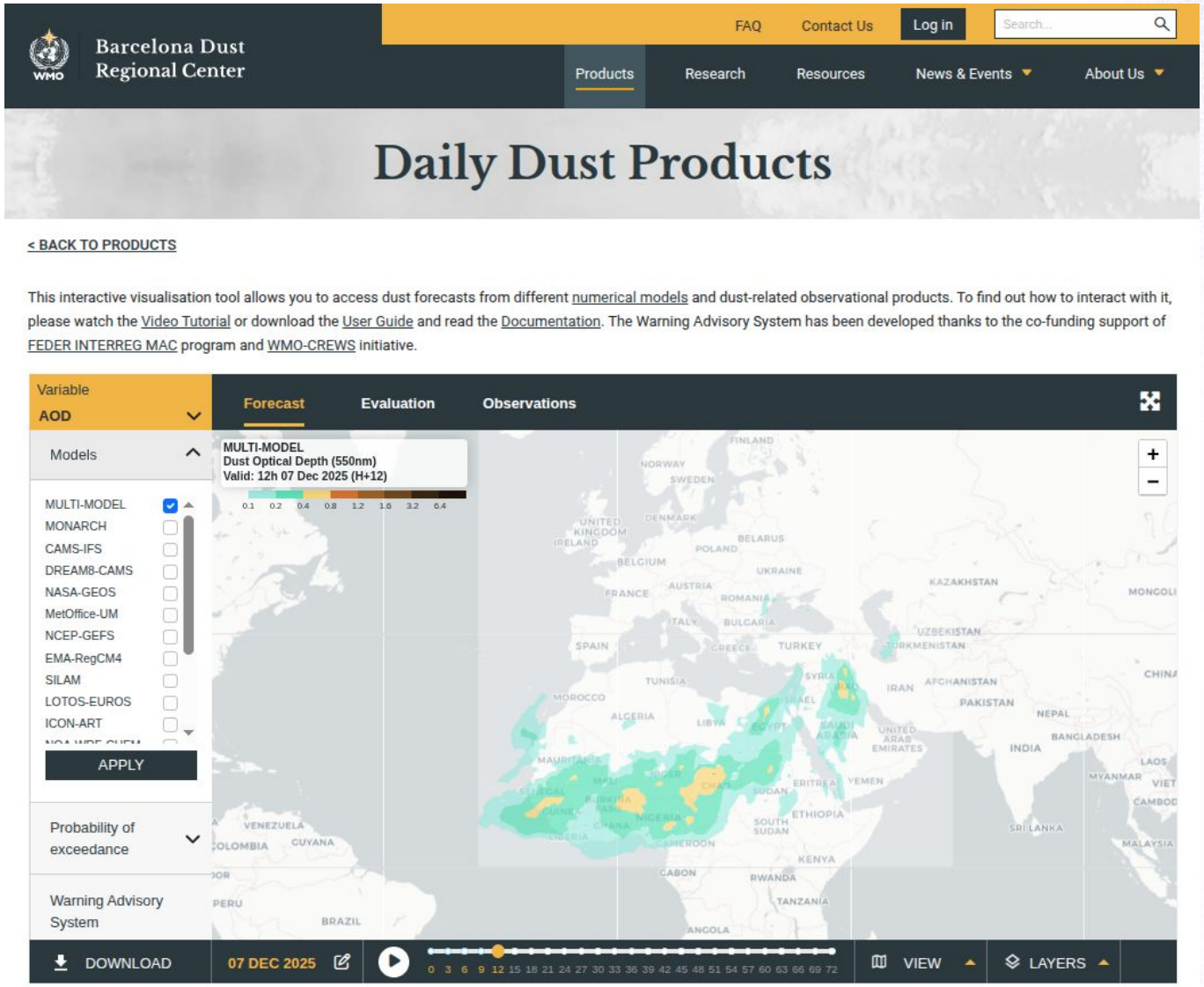
We can simulate tons of variables … but users only need a few **actionable indicators**



Use case: Air Quality Forecast

http://caliope-test.bsc.es/en/forecast?tab=forecast&zoom=6&lat=40&lon=0&pollutant=O3&date=20251207&step=6

Use case: Daily Dust



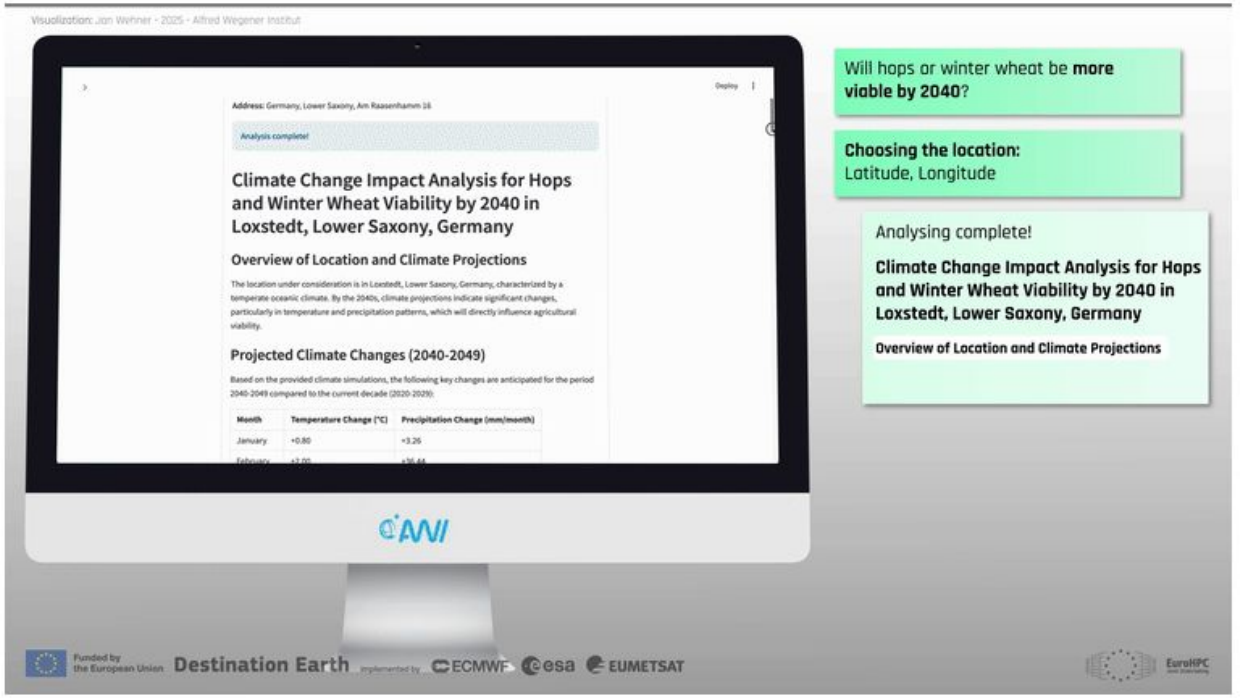
https://dust.aemet.es/products/daily-dust-products?tab=forecast&var=aod&model=median&date=20251207&view=light&step=12

Use case: Taking advantage of AI

ClimSight

ClimSight is an advanced tool that integrates Large Language Models (LLMs) with climate data to provide localized climate insights for decision-making. ClimSight transforms complex climate data into actionable insights for agriculture, urban planning, disaster management, and policy development.

The target audience includes researchers, providers of climate services, policymakers, agricultural planners, urban developers, and other stakeholders who require detailed climate information to support decision-making. ClimSight is designed to democratize access to climate data, empowering users with insights relevant to their specific contexts.



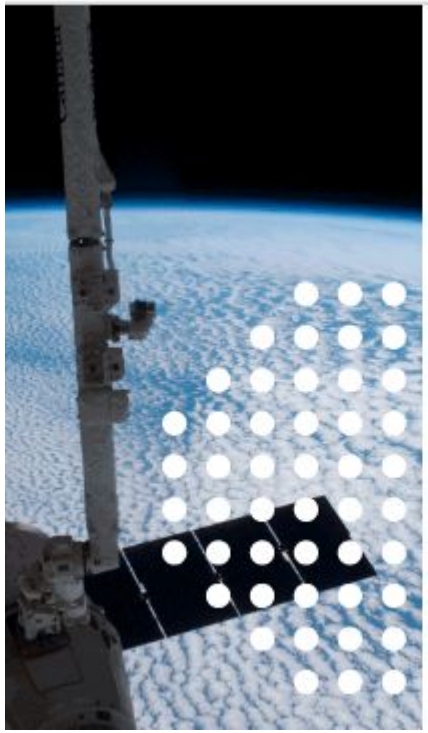
https://github.com/CliDyn/climsight?tab=readme-ov-file

Use case: Viticulture

Warning over 'extremely low' wine production in Europe due to bad weather

Industry body head warns there is 'no vaccine' against climate change and winemakers must adapt with 'urgent necessity'

Pinot Meunier grapes are harvested on a vineyard in West Sussex on 12 October, 2021, as world wine production is expected to fall to one of its lowest levels on record. Photograph: Andrew Matthews/PA



VITIGEOSS

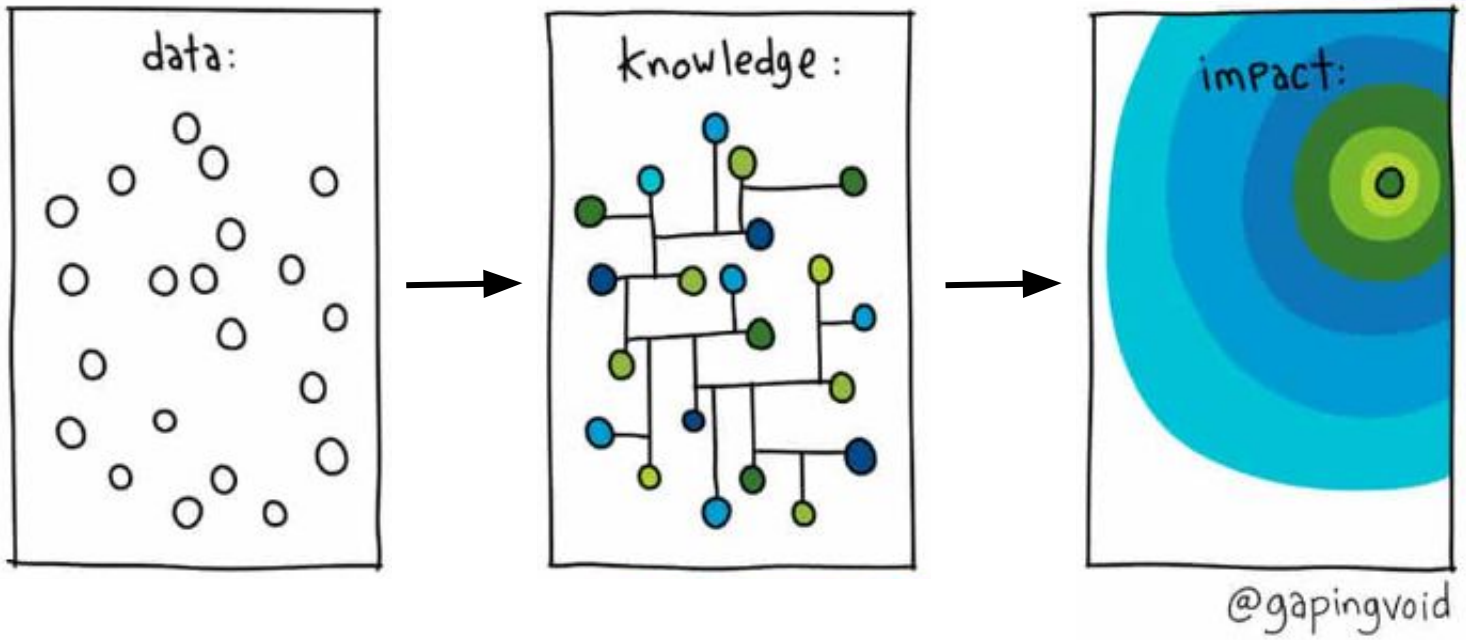
Vineyard innovative tools based on the integration of Earth Observation services and in-field sensors

VitiGEOSS interdisciplinary consortium was made up of **9 partners from 4 European countries**:
4 research institutions, 2 technological companies and 3 wine producers

https://www.theguardian.com/food/2021/nov/05/warning-over-extremely-low-wine-production-in-europe-due-to-bad-weather
https://vitigeoss.eu/

Take home message

Data becomes valuable only when we turn it into **knowledge**



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ありがとうございます，thank you!

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