

20^e édition

infoprodigital

Forum TERATEC 25

21 & 22 MAI 2025

Parc Floral, Paris

LE RDV des experts du supercomputing
HPC – IA – Simulation – Quantique

En partenariat avec

L'USINE NOUVELLE

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Space and IT in support of risk management

Grégoire BONHOURE – Pilote Pôle Data & Système
21 mai 2025 - Teratec

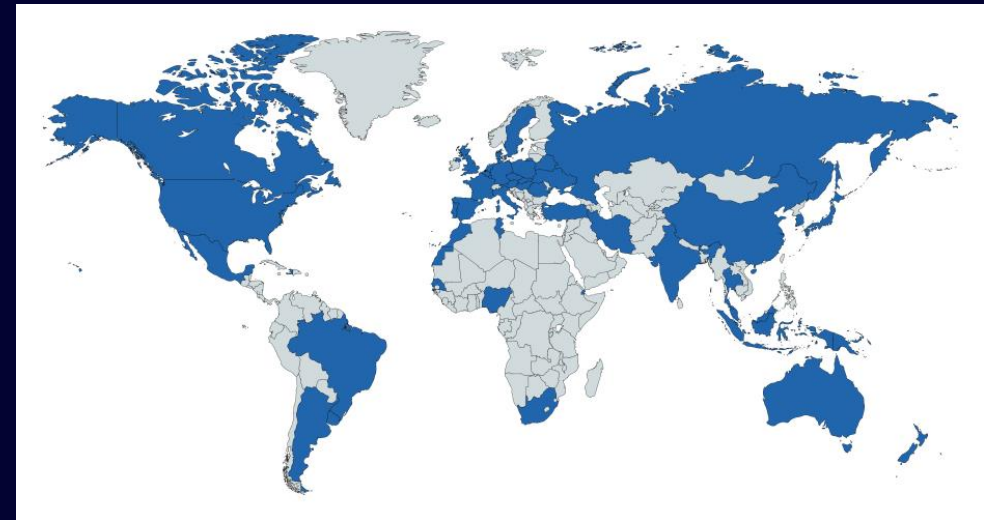


PREDICT Services

a French risk management expert

- **An innovative company created in 2006 by Airbus Defense & Space, BRL and Météo France**, combining hydrometeorology, telecommunications, space imagery and expertise in risk management to provide **real-time decision-making support facing natural hazards** (before, during and after the events).
- **A preventive service** for local communities (almost 30 000 over 36 000 in France), international companies, industries, insurance companies, national civil protection services and individual users.
- **A worldwide watch service launched in 2016** based on proven methods.

Countries where PREDICT Services already activated its solutions



- **A 24/7 monitoring service** for French homeland and overseas territories, **more than 350 industrial sites in 35 countries**, and an **international expertise** already applied in Argentina, Brazil, Djibouti, Haiti, Morocco, Nigeria, Senegal and Rwanda.



28 engineers specialists in risk management 24/7/365

Basics of an Early Warning System



Product of the COSPARIN R&D Project *:

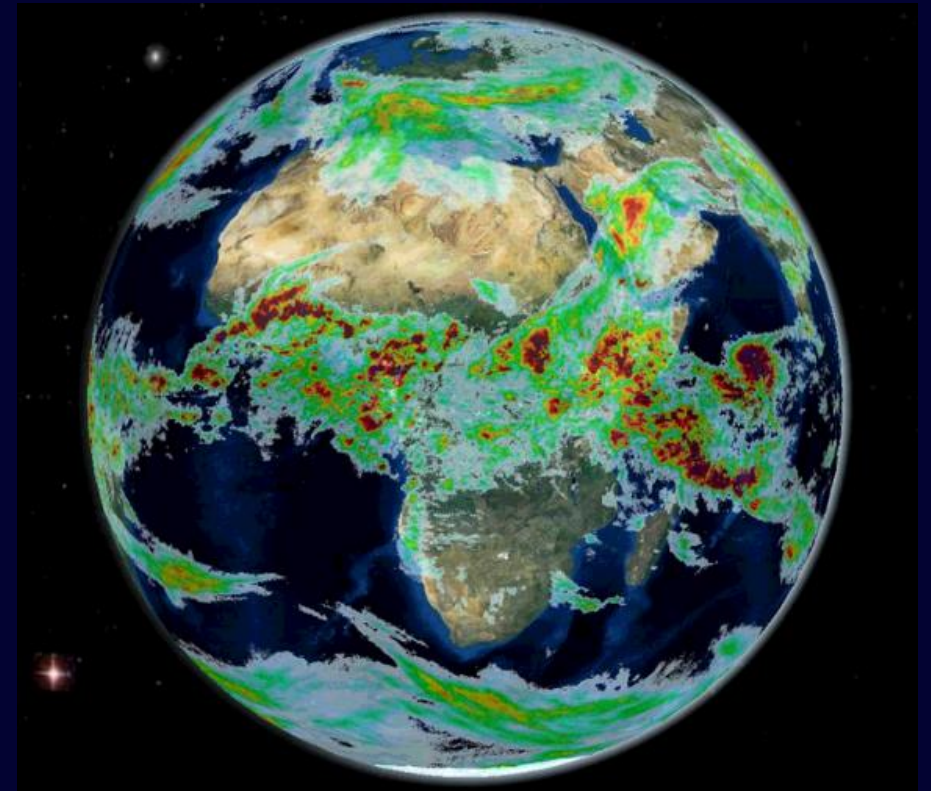
⇒ Continuous decision support for operational of flood risks

- **Rainfall estimation:** compiled for the entire globe using an artificial intelligence algorithm and a self-learning file. This data is refreshed every 30 minutes in a 5km by 5km grid.
- **Definition of flood zones:** calculated from a digital terrain model. It can be reproduced all over the world, enabling flood zones to be calculated very quickly, even for very small catchment areas over very large regions.



Flood prone area (COSPARIN project)

Global rainfall estimation by satellite (Predict Observer software)

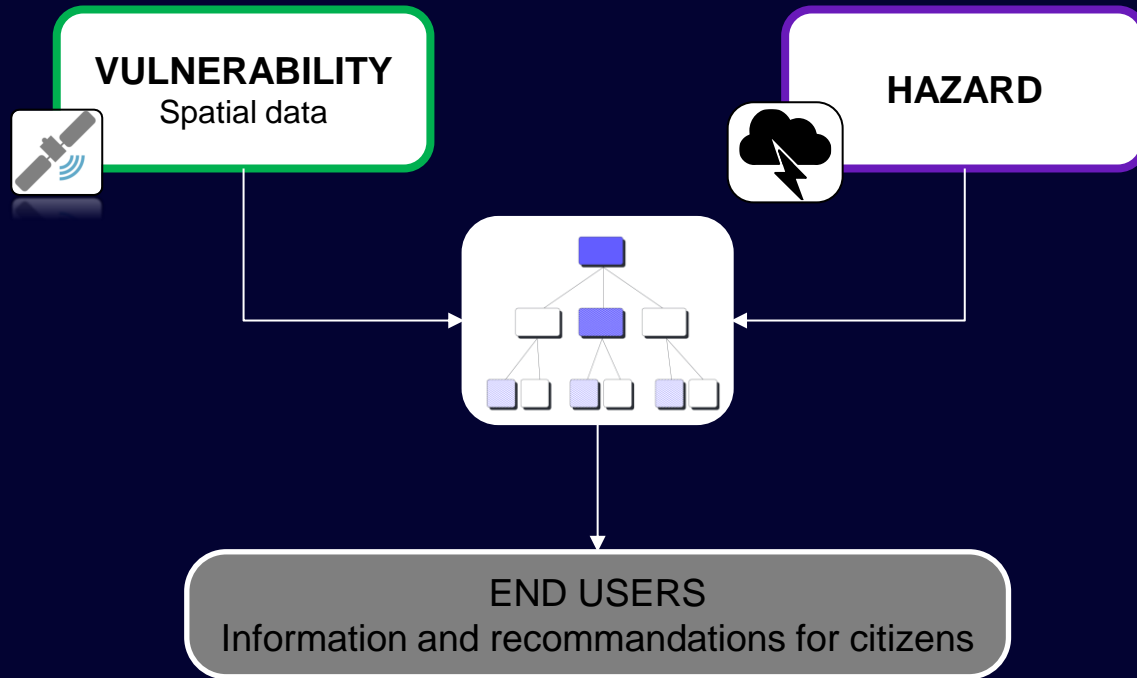


***COSPARIN** (Contribution du Spatial à l'Analyse du Risque Inondation) : Project initiated by Predict in 2018 with the support of CNES and ESA (European Space Agency)

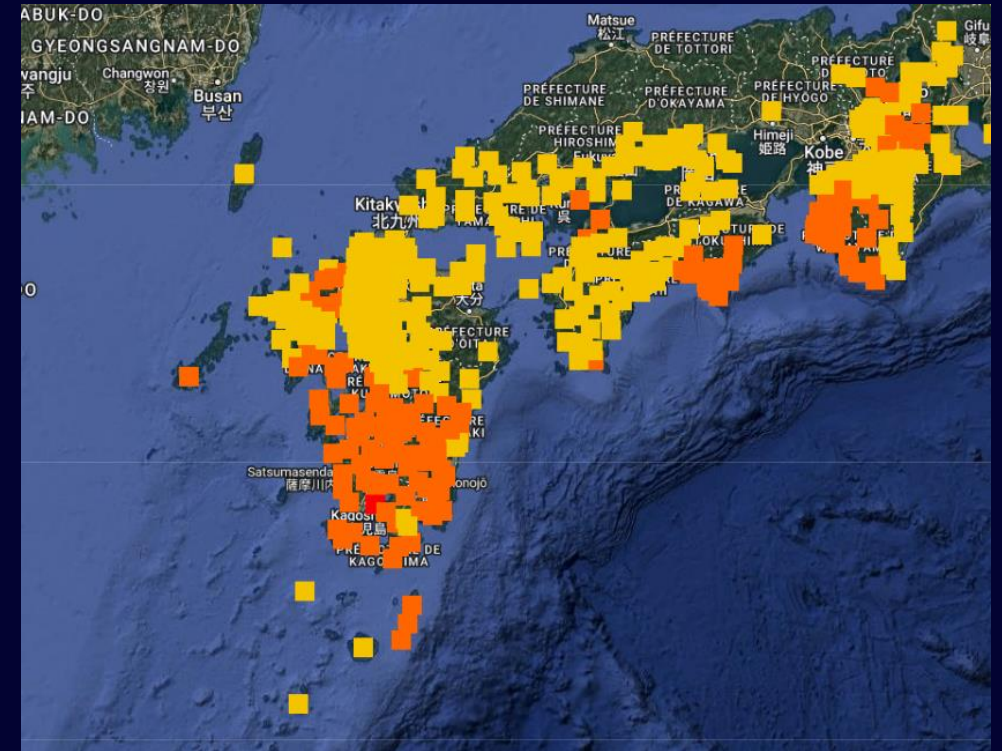
MHIA

⇒ Multi Hazard Impact Assessment

- **The MHIA** is a tool for real-time qualification of hydrometeorological risk levels on a global scale. It provides pre-assessed assistance and also serves as a decision-support tool at various levels of natural risk management. This assistance is delivered through the issuance of operational warnings to a wide range of users.

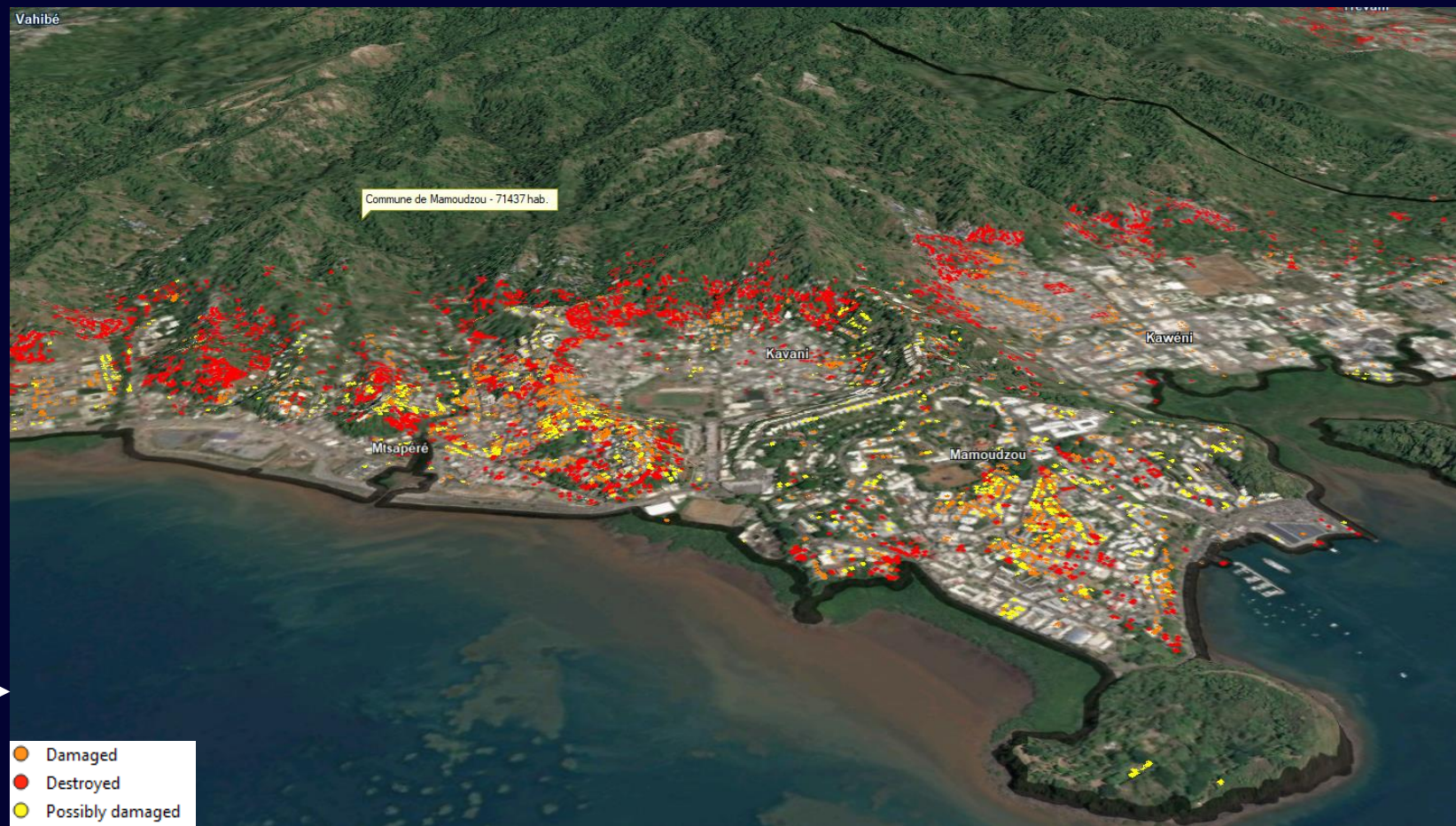
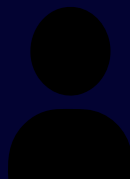


MHIA (Multi Hazard Impact Assessment) on Japan for a risk of flood.



A cross-analysis between vulnerability and hazard is performed in near real-time to assess a risk level—not just a hazard level.

Analysis using satellite images of buildings in Mayotte as of December 16, 2024, after the passage of intense cyclone CHIDO.



Thanks for your attention

predict 

