



Management Group ACCORD



NWP team : Other projects

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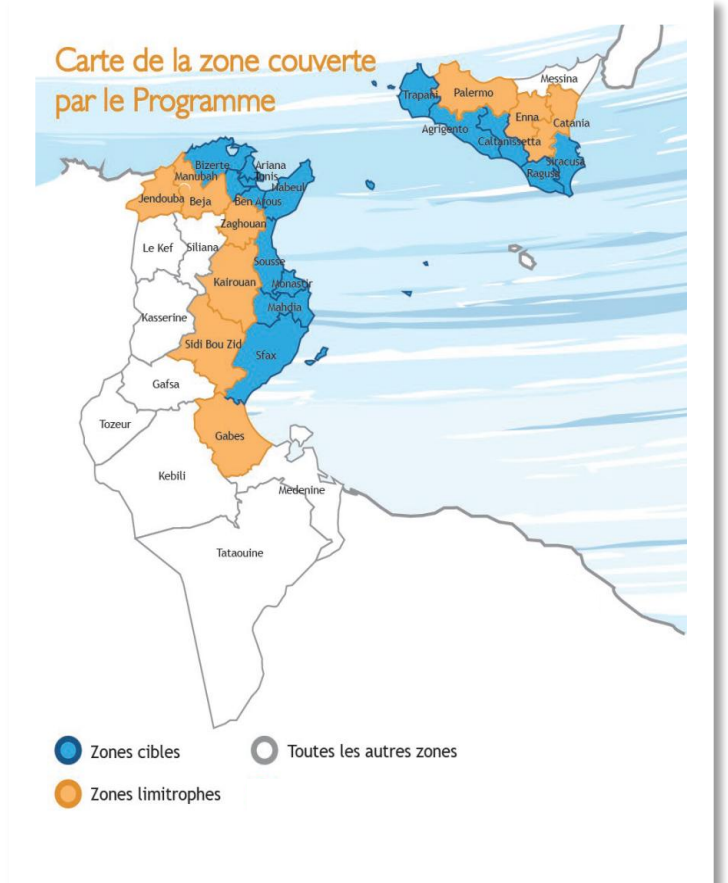


Outline

1. **NETTUNIT project : general context**
2. **Data provided by the NWP for the project**
3. **Air and marine pollution models installed at the INM**
4. **Work in progress**

1 . NETTUNIT project : general context

- NETTUNIT project is part of the **Cross-Border Cooperation (CBC) Italy-Tunisia** in the framework of its third Thematic Objective “Environmental protection and adaptation to climate change”.
 - Funded by the European Union through the European Neighborhood Instrument (ENI) program.
 - 6 Italian and Tunisian partners aim to improve cooperation between the two neighboring countries by carrying out joint actions for the protection of the environment
 - **Duration** : September 2020 – December 2023
- ➔ establishing an emergency plan that engages different stakeholders in both countries
- ➔ operational platform to ensure fast data and information exchange : **+ citizens** (mobile application)



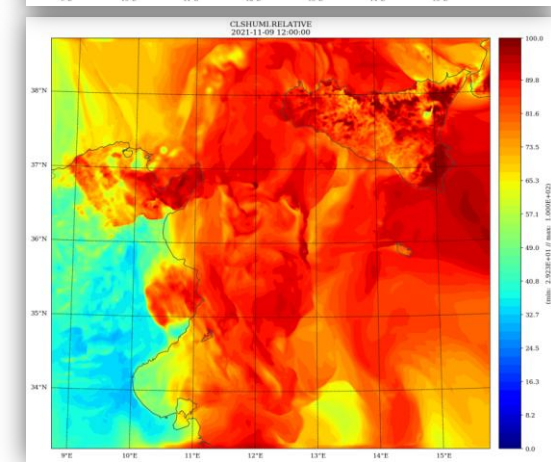
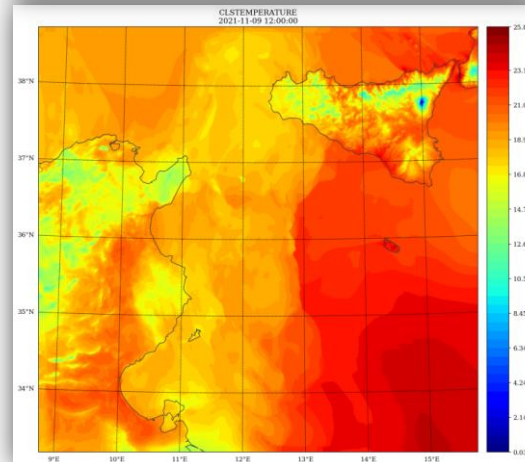
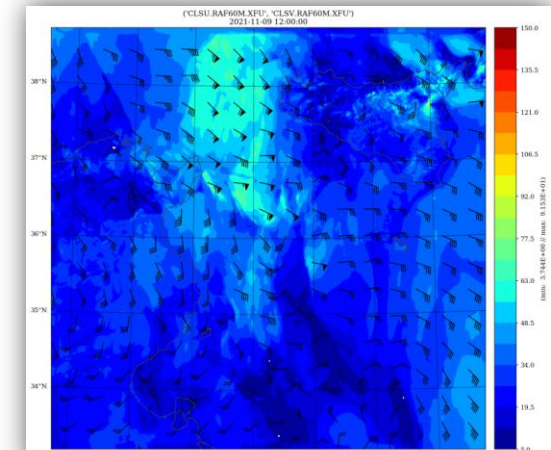
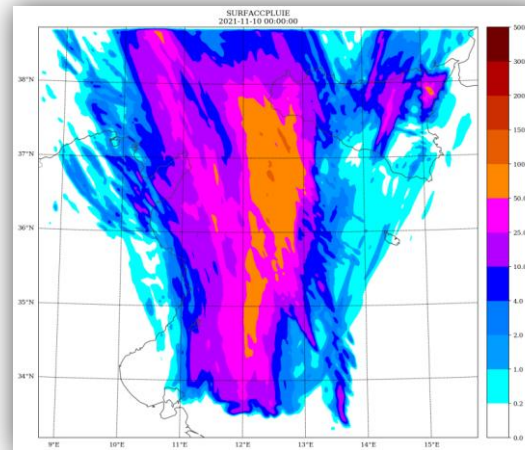
2. Data provided by the NWP for the project

Implementation of a new configuration of the AROME model covering the project domain

Example: situation of November 09, 2021

Characteristics of AROME-NETTUNIT:

- Cycle : 42op2.10
- Résolution : 1.3Km
- Coordonnées du domaine:
SW (lon 9° - lat 34°)
NE (lon 16° - lat 39°)
- Parameters to display on the platform:
CLSTEMPERATURE, CLSHUMIRELATIVE,
SURACCPLUIE , CLSURAF60M
- Ouputs format: GRIB

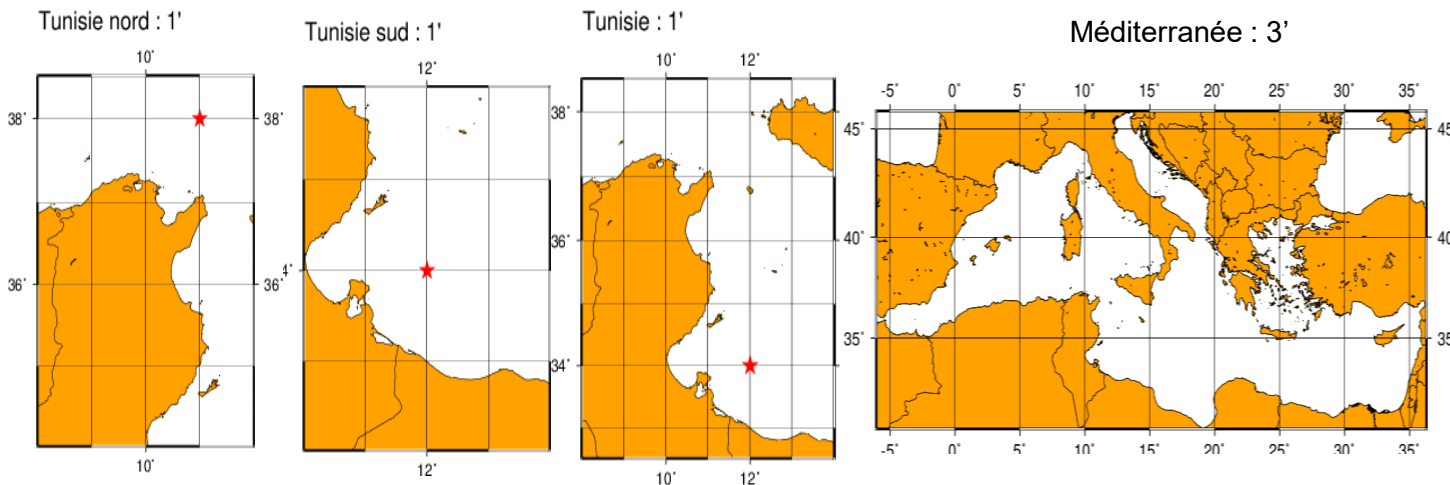


3 . Air and marine pollution models installed at the INM

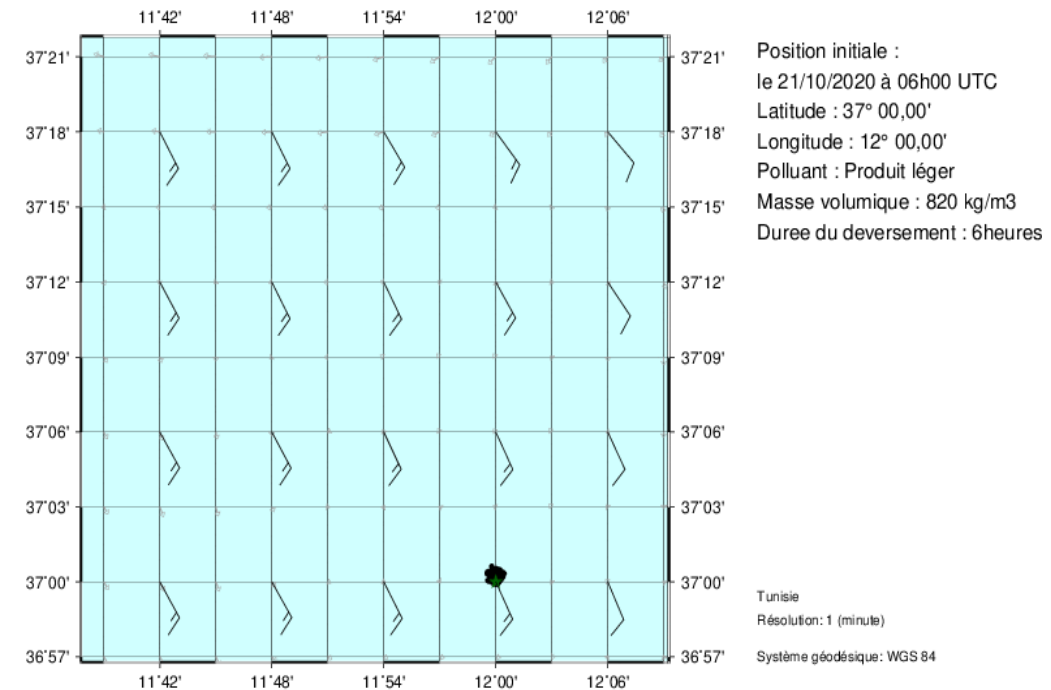
Acquisition of atmospheric pollution model **MOCAGE** and marine pollution model **MOTHY** from Météo-France within the framework of bilateral cooperation → installation of MOCAGE and MOTHY on the HPC

Example: a fictive scenario of accidental water pollution

MOTHY domains:



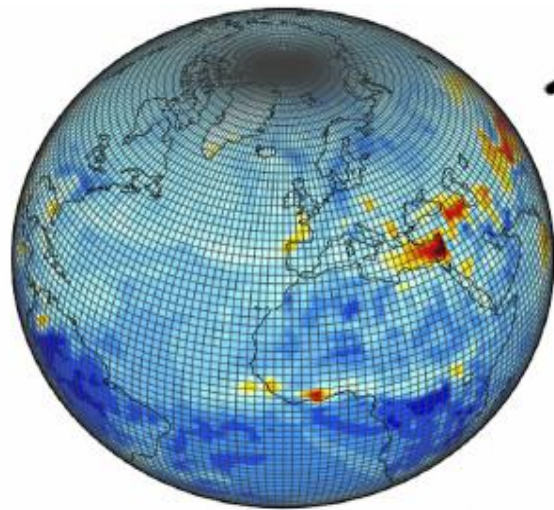
MOTHY/ARPEGE MFS DIRECT : Prévion pour le 21/10/2020 à 07 UTC



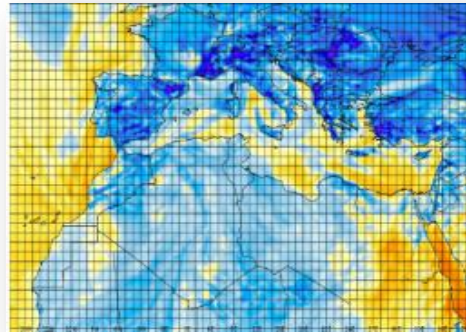
3 . Air and marine pollution models installed at the INM

MOCAGE model in its accident configuration : chemistry is disabled

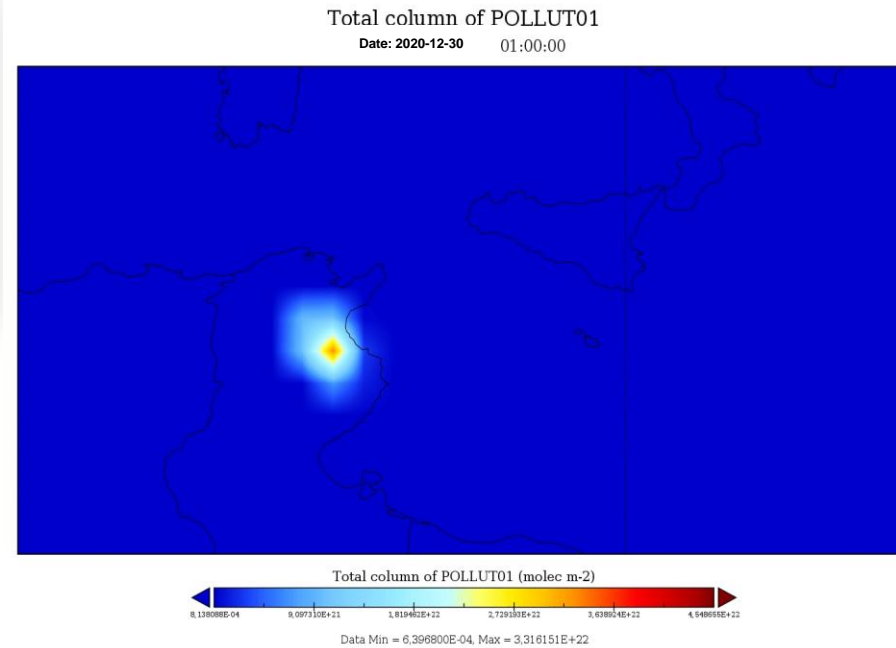
Temporel + geometrical characteristics of the release



Global domaine 2*2°



Mediterranean domain 0.2*0.2



Example: a fictive scenario of accidental air pollution

- Lat-Lon: 36-10
- Durée: 24h
- Heure du rejet: 00h15m
- Quantité: 10^{10} g
- Couche: 0-5000 m
- Type :CHIMIQUE Passif
- Coupleur: ARPEGE

4 . Work in progress

Simulation of a reference scenario for an accidental pollution

- Evaluation of cross-border cooperation in terms of data exchange through the software platform:
(<https://nettunit.jixel.eu/users/login>)
 - Meteorological information
 - information about the accident pollution
 - Models simulations results

- Evaluation of the emergency procedure already setting up and its execution time.

Thank you

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