

ATMO-4CAST (A3)

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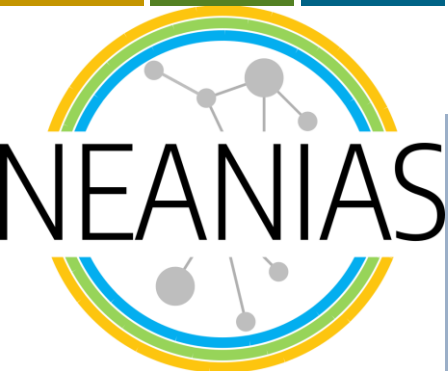
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ATHENA

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Novel EDSC Services for Emerging
Atmosphere, Underwater & Space
Challenges

NEANIAS receives funding from
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Goals of the service

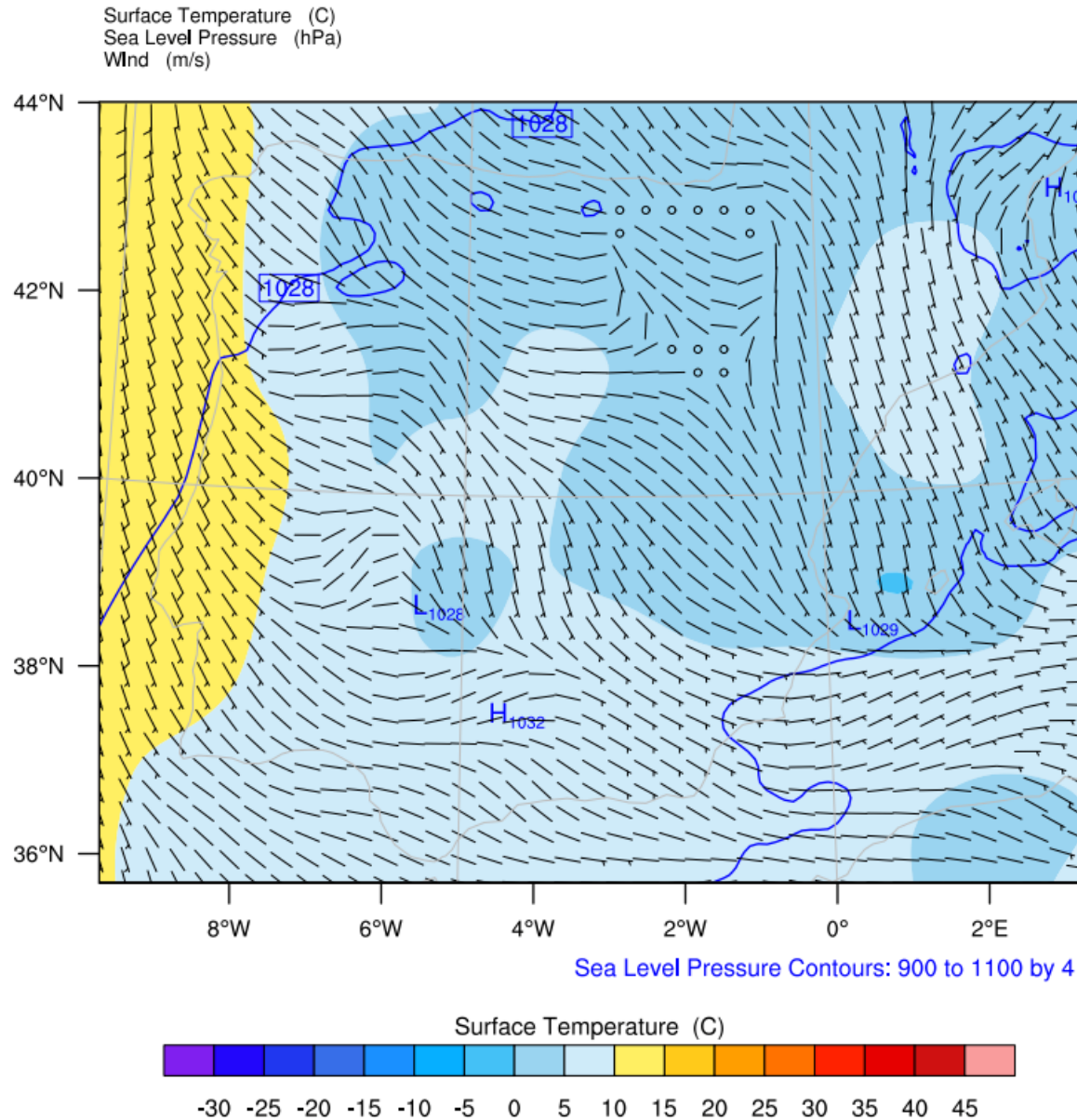
Air quality estimation, monitoring and forecasting (**Atmo-4CAST**)

- › Based on successful operational weather forecasting model WRF
- › Computation of Lagrangian and Gaussian dispersion scenarios for emission of air pollutants (worldwide coverage)

Technology

- based on **WRF** software ([UCAR](#))
- computes distribution of **atmospheric attributes** (2D maps)
- API implemented in **Python**
- **friendly UI** (work in progress)
- supports different **data sources** (GRIB / JSON files) and samples are available
- Integration of 2 Core Services (AAI and Logging) for tech support

Atmo-4CAST Service: Example



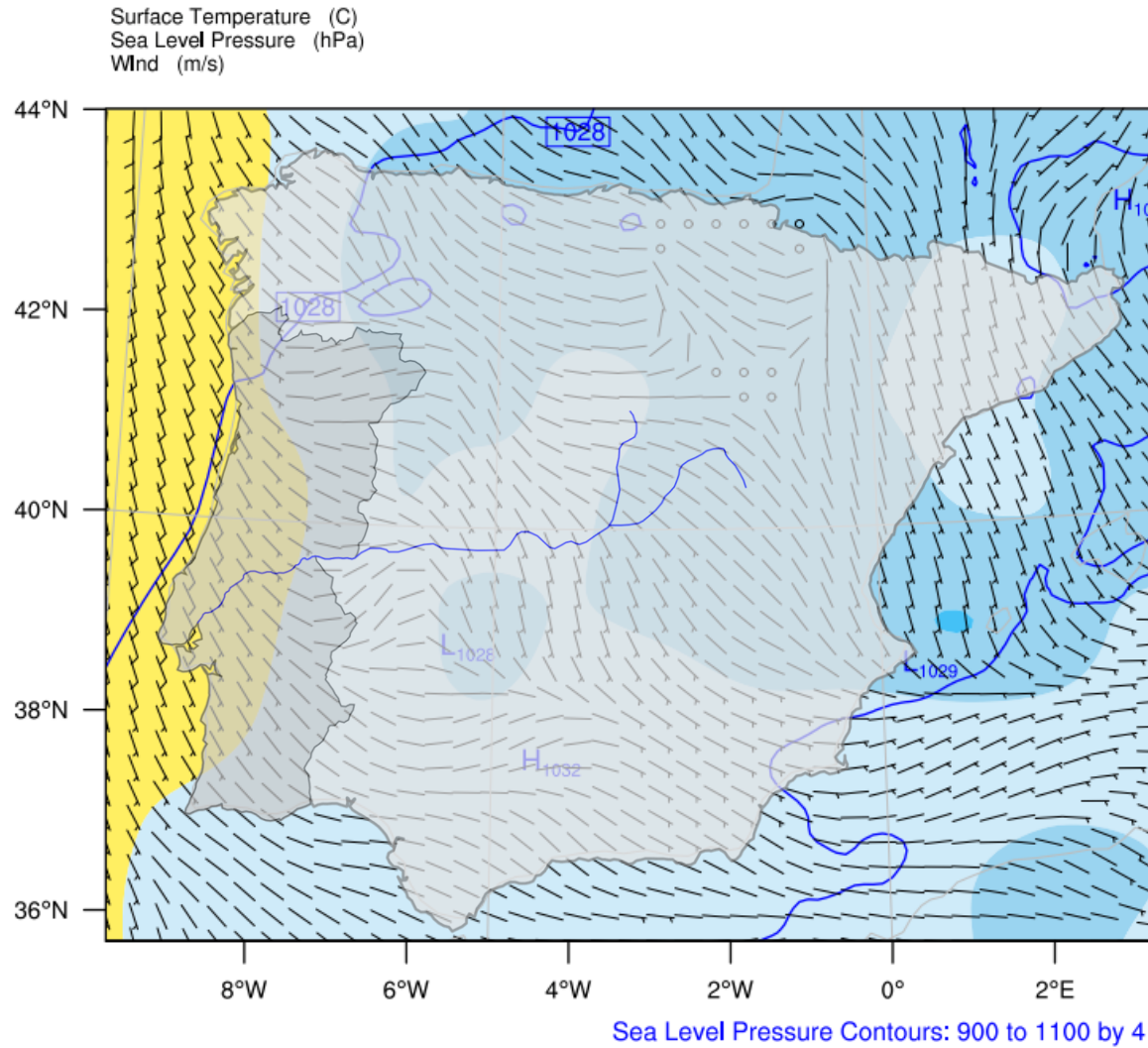
Input: GRIB or JSON files
(see samples)
Output: netCDF, JSON and
PDF plots (left image)

Available kinds of outputs:

- Surface temperature and pressure
- Wind speed and direction
- Precipitation
- And other attributes you can input

- > Up to one-week forecast
- > Validation/preview in PDF

Atmo-4CAST Service: Example



Worldwide coverage

Samples available for the Iberian Peninsula