IPMA Instituto Português do Mar e da Atmosfera

Adoption of Copernicus Services National Collaboration Programme Portugal

Rita Durão

1st Workshop DHEFEUS

IDL, FCUL, 13 November 2024

Atmosphere Monitoring

National Collaboration Programme

CAMS new approach to the CAMS **national institutional users**

- to enhance the uptake of CAMS products at national level by **co-designing and co-developing joint activities**
- to assess the quality and fitness for purpose of CAMS products over national domain (**user feedback & user needs**)

Country responsibilities:

- reinforce the use of CAMS products for fulfilling official national/regional mandates
- assess the quality and fitness for purpose of CAMS products over the national domain
- strengthen coupling between CAMS products and corresponding national products
- provide a gateway to reach the general public at national level and in national language

CAMS2_72PT | PARTICIPANTS

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CoLAB +ATLANTIC (ATL)

- **Ana Oliveira** *(First point of contact)*
- Inês Girão
- Luísa Barros *(Second Point of contact)*
- Rita Cunha

Agência Portuguesa do Ambiente (APA)

- Cláudia Martins
- Dilia Jardim
- Filipa Marques
- **Paula Meireles**

Instituto Português do Mar e Atmosfera (IPMA)

- Célia Gouveia
- Isabel Trigo
- Marta Santos
- **Rita Durão**

Universidade de Aveiro (UAVEIRO)

- Alexandra Monteiro
- **Ana Isabel Miranda**
- Carla Gama

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CAMS_72PT objectives

Integration of CAMS Products: **Enhancement the operational workflow** by incorporating CAMS AQ forecasts into the national AQ information system, **QualAr, improving public and decision-maker access to reliable AQ forecast information**.

Region/Local-Specific Application: Development and application of modelling techniques **to provide high-resolution AQ forecasts tailored to specific local conditions and environments**

Capacity Building and Training: Workshops to local & regional authorities on the use of CAMS products**, to improve understanding and uptake at all levels of public administration**.

Stakeholder Engagement and Feedback of key stakeholders, including health authorities and municipalities, **to ensure the project outputs are tuned to meet local needs** and improve AQ management.

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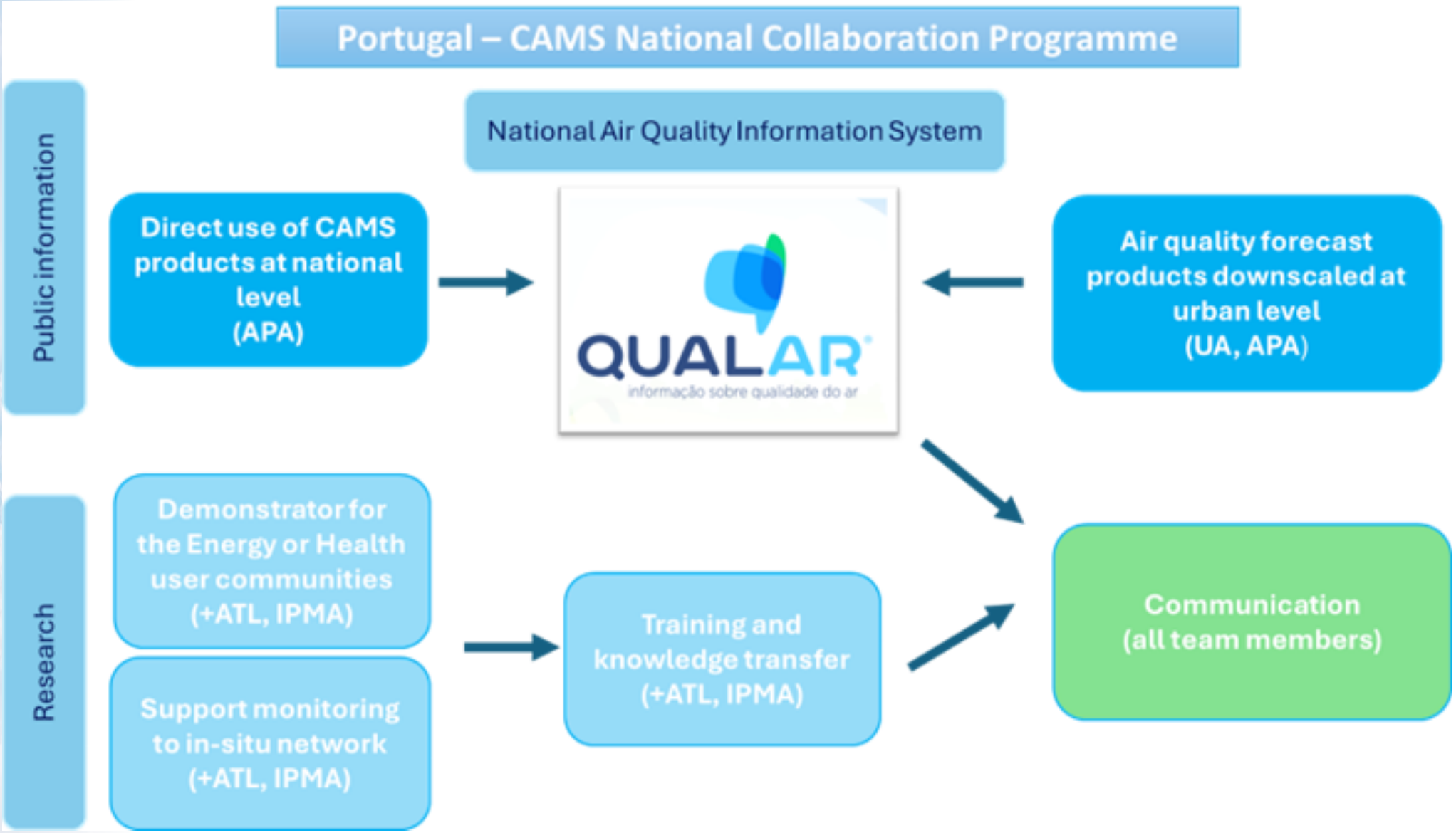
Portugal – CAMS National Collaboration Programme



CAMS2_72PT(2024 - 2027)

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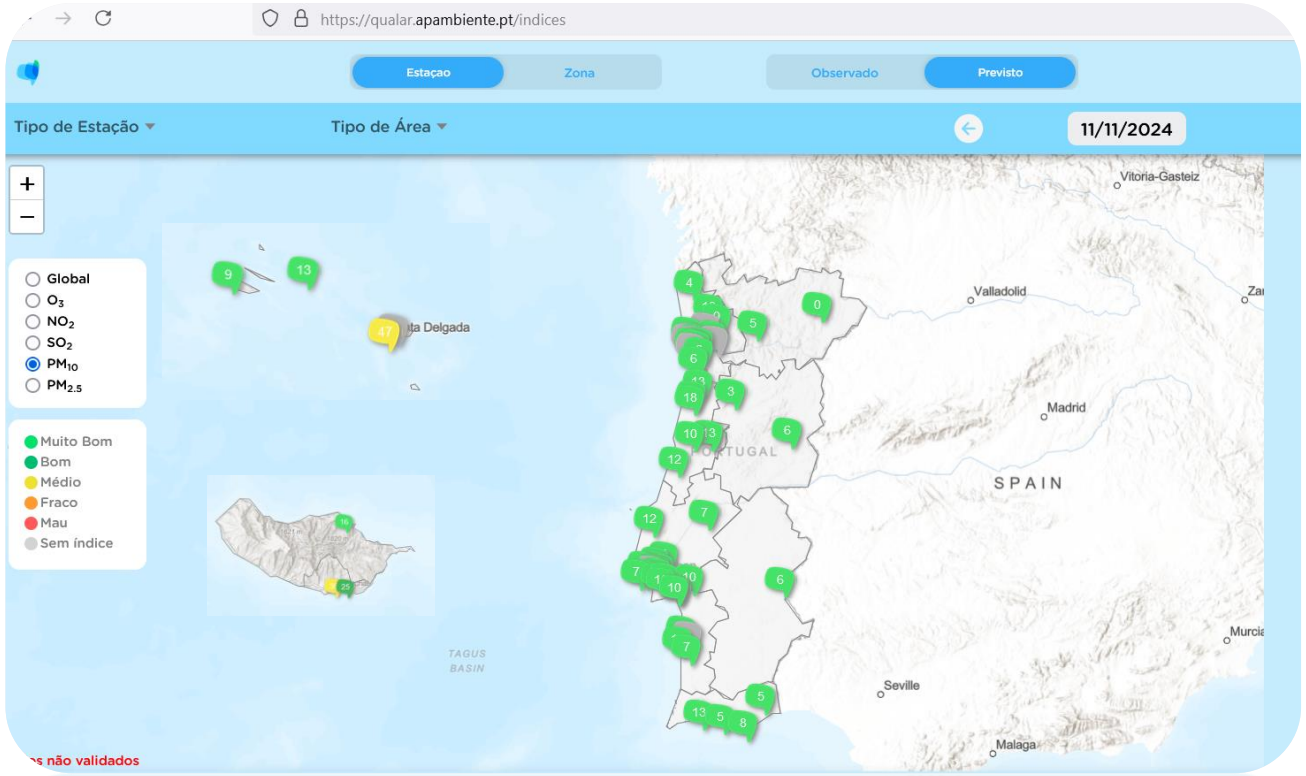
Work Packages Description

Direct use of CAMS products
WP1 Leader: (APA)

- **Additional forecast products in QualAr** (dust daily mean forecasts for D, D+1, D+2 and D+3).

- **Application of a global index**, with classification levels given by the predicted pollutant concentrations (PMx, NO2, O3) at district/municipality level, based on CAMS regional forecast products.

- **Explore the possibility** of including hourly forecasts available on the QualAr website.



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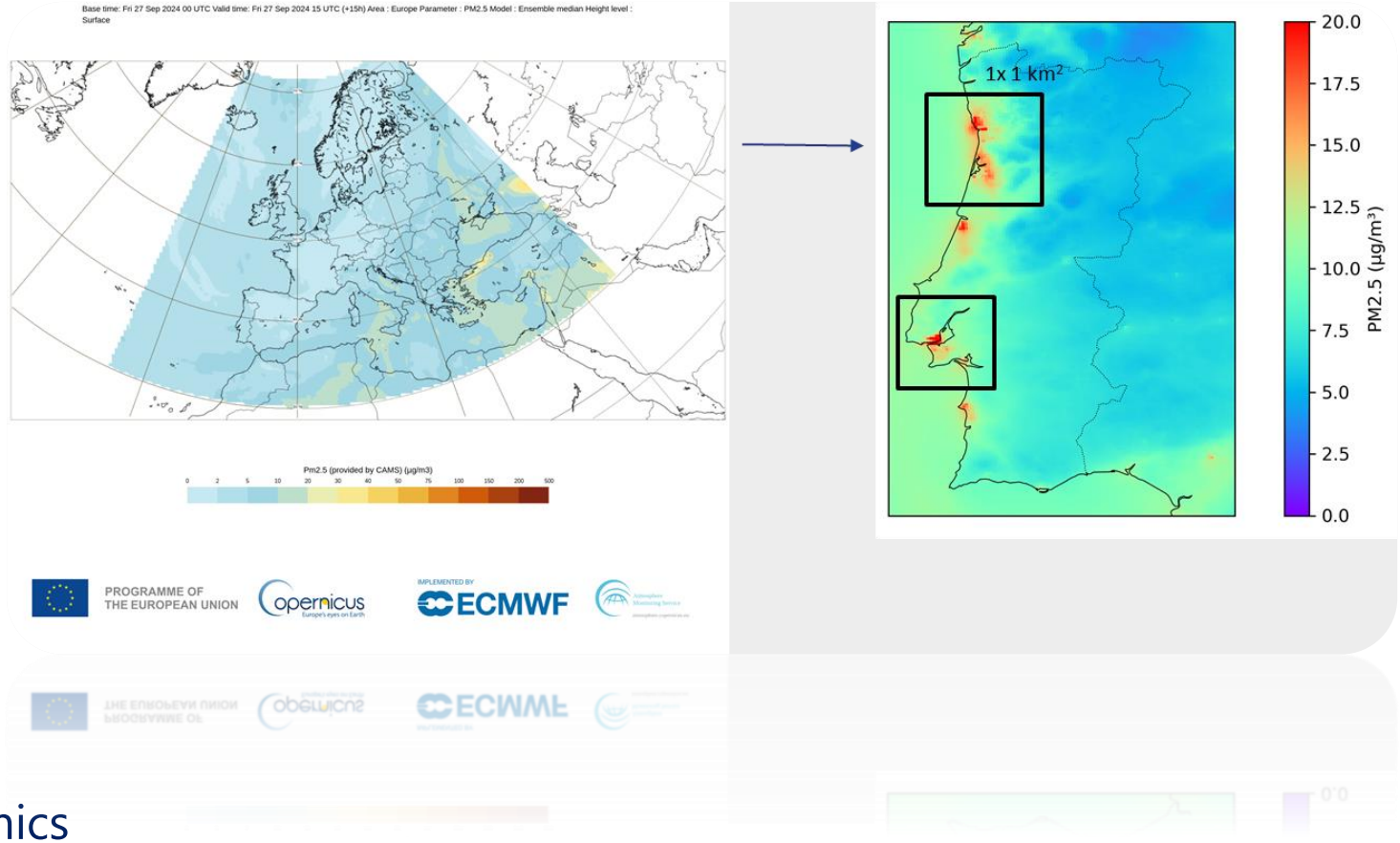
Work Packages Description

Air Quality Downscaling
WP2 Leader: Carla Gama (UA)



- **Action Plan Creation** for dynamical downscaling with a chemical transport model using AQ forecasts as boundary conditions: definition of modelling domains; gas-phase chemistry mechanism, meteorological forecast & atmospheric emission data.

- **Test & Evaluation** of the selected downscaling methodology, ensuring its effectiveness in capturing local AQ dynamics upon successful validation, feed data into APA website.

- **Dissemination** of the achieved results to regional authorities for daily management purposes.

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Work Packages Description

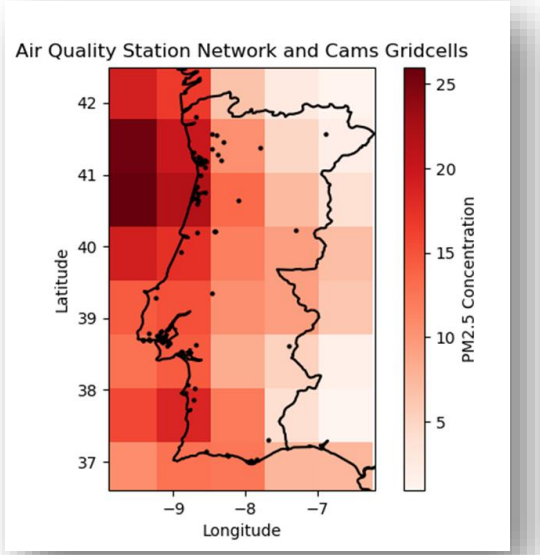
Support Monitoring to in-situ network

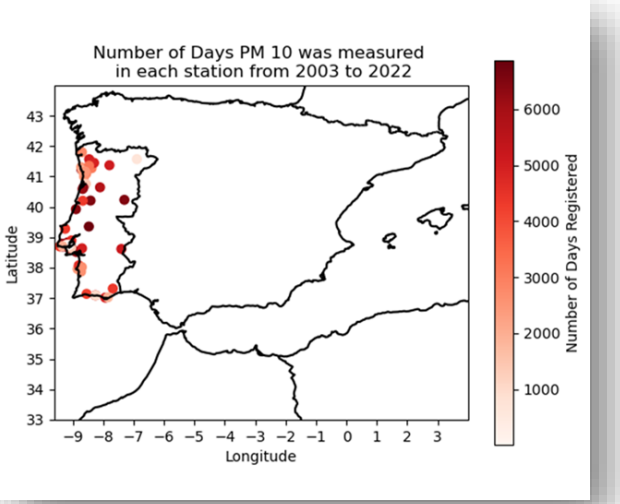
WP3 Leader: Rita Durão (IPMA)

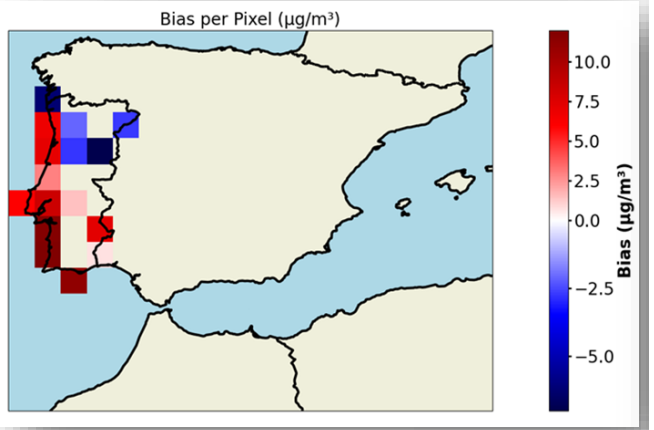
- **User requirements from national, regional and local stakeholders** to define their needs and cases studies on sector-specific needs

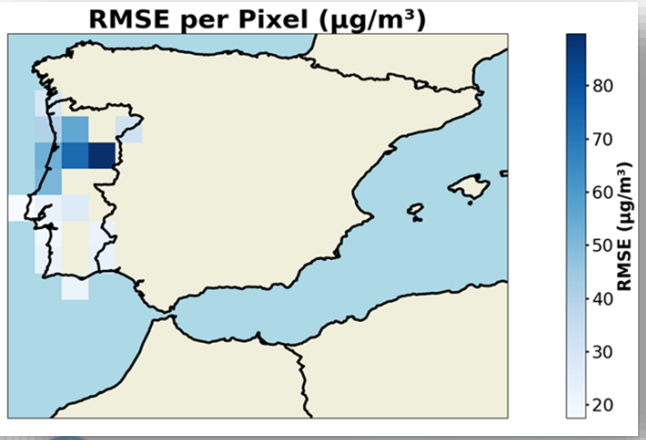
- **Assessment** of in-situ data and complementarity of CAMS products, identification of the most uncertain areas, assessment of the representativeness of the National network and CAMS data, as well as the characterization of different environmental influences

- **Academic collaboration** (research cases; master thesis).









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Work Packages Description

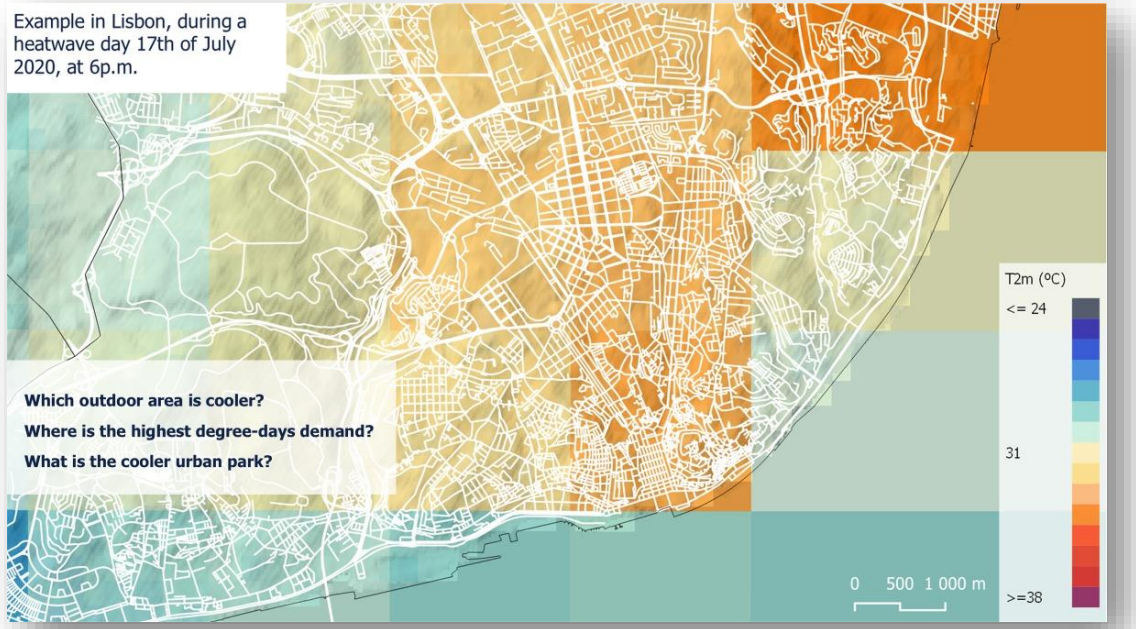
Development of a demonstrator for Energy or Health user communities

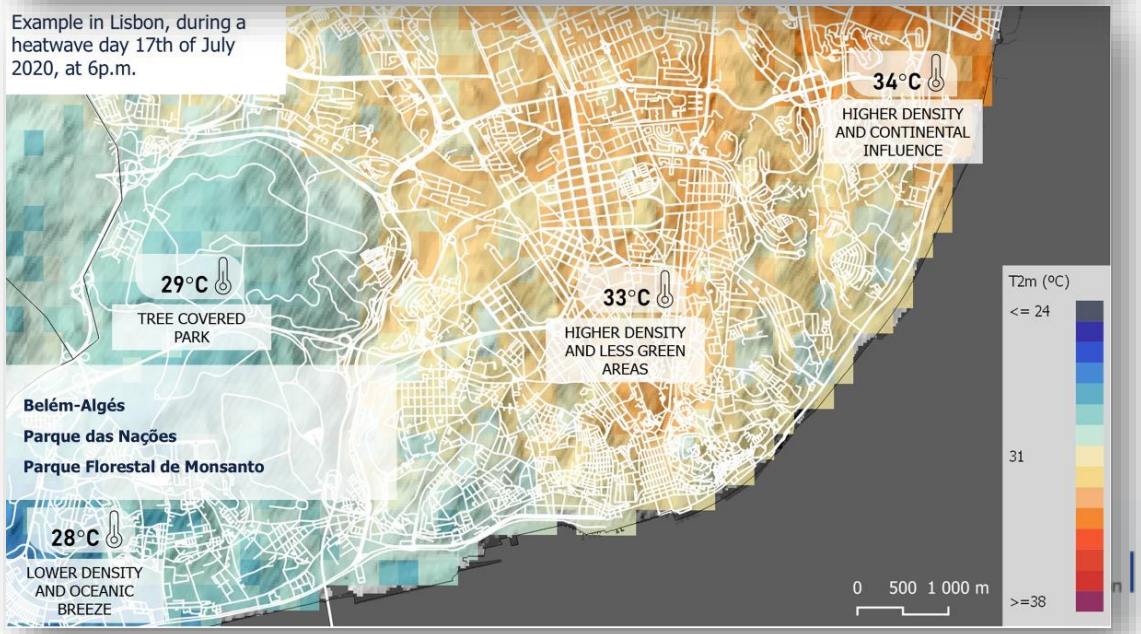
WP6 Leader: Ana Oliveira (ATL)

- **User Requirements Analysis** for demonstrator's design, i.e. gathering specific requirements from national, regional and local Stakeholders to define application needs.

- **Development** of the demonstrator for the use cases, i.e., intercomparison and identification of the most relevant areas

- **Results Exploitation and analysis**





Thank you!

Rita de Melo Durão

rmdurao@ipma.pt