

Dust products for solar power industry in northern Chile

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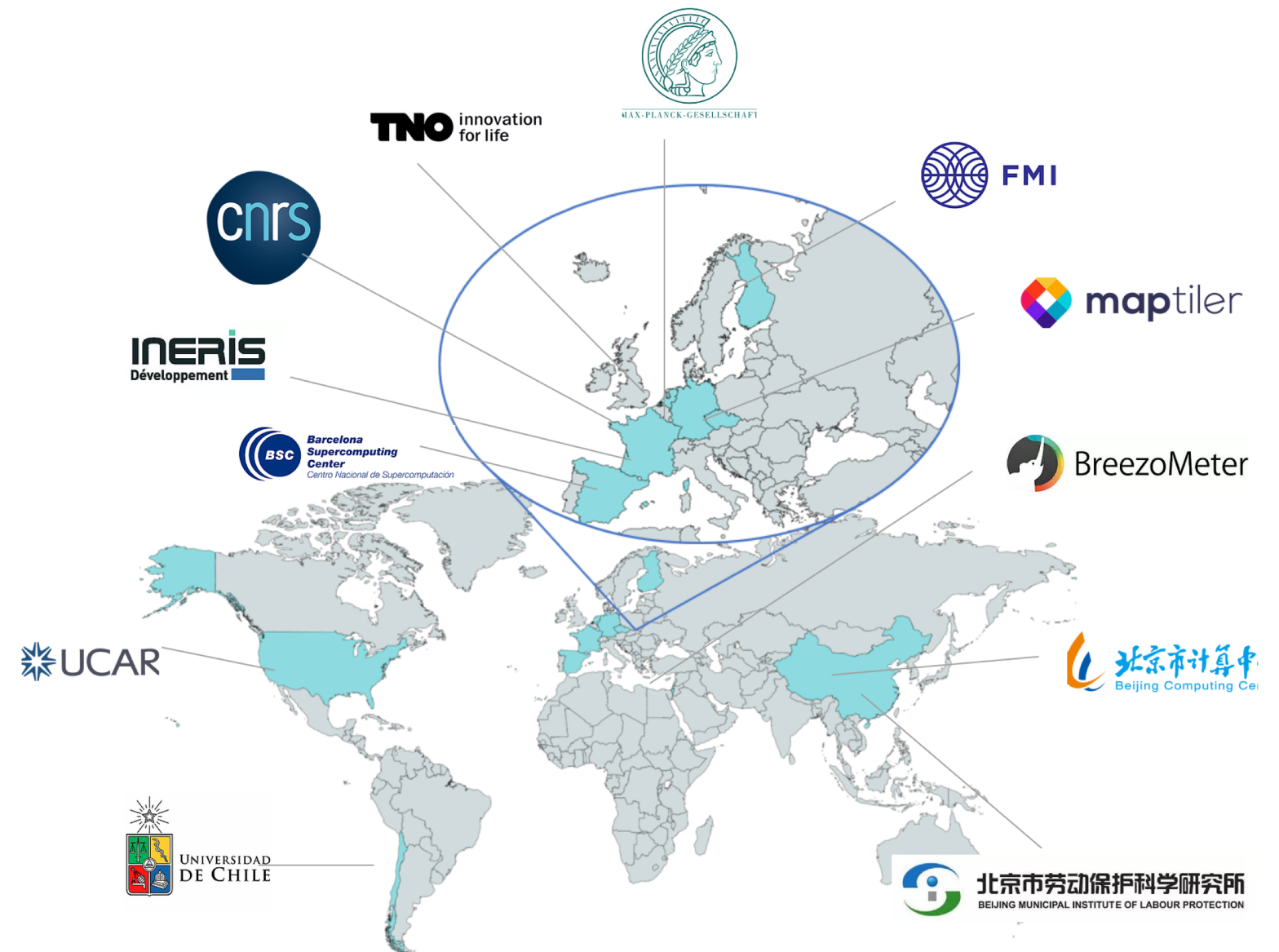
Air Quality: Worldwide Analysis and
Forecasting of Atmospheric
Composition for Health
AQ-WATCH

<https://www.aq-watch.eu>



Partners

1. **Germany:** Max Planck Society (Project leader)
2. **Israel:** Breezometer
3. **France:** CNRS
4. **Finland:** Instituto Meteorológico Finlandes
5. **Spain:** Barcelona Supercomputing Center
6. **France:** INERIS
6. **Netherlands:** TNO
7. **Czech Republic:** OctoGEO s.r.o.
8. **Chile:** Universidad de Chile
9. **EEUU:** UCAR
10. **China:** Beijing Computing Center
11. **China:** Beijing Municipal Institute of Labour Protection



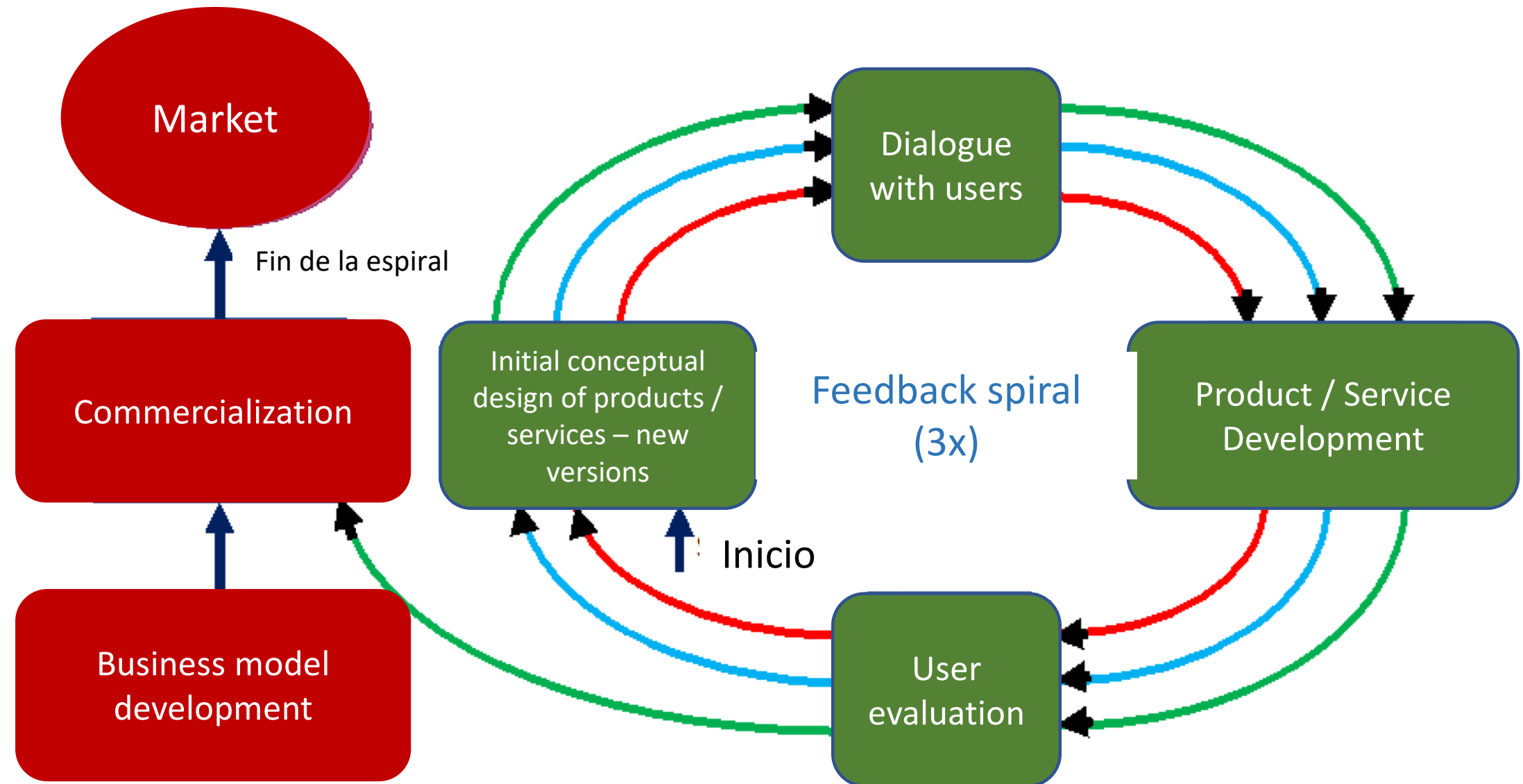
AQ-WATCH products



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The spiral process

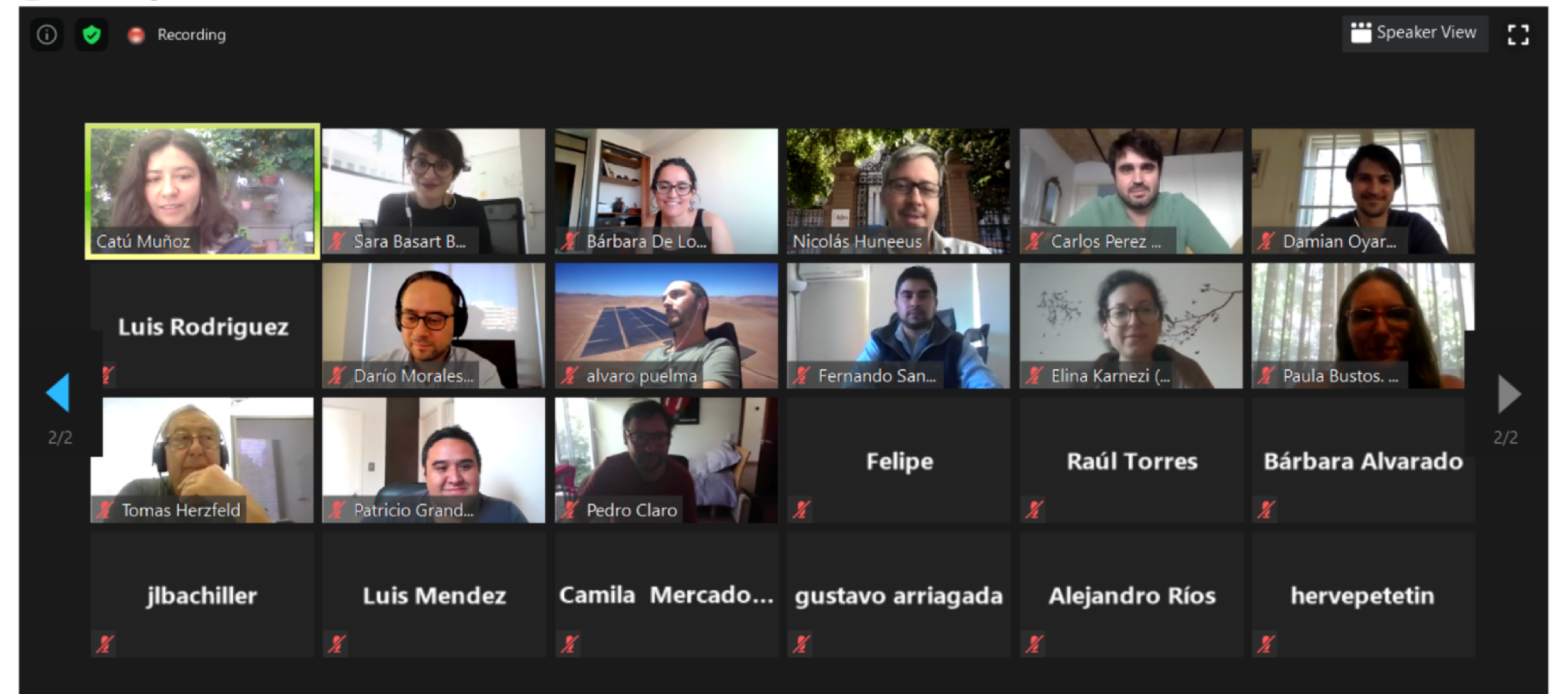
Successively collect feedback from key users during the product / service development phase



Workshop December 2020

Meetings with stakeholders:

- Chilean Association of Renewable Energies and Storage (ACERA) – December 2020



Survey conducted to participants:

1. Who is currently using air quality (AQ) information?
2. Who imagines using AQ information if the platform is operational?
3. What is missing from the platform to make it useful for your project?
4. What information from AQ would be useful for your project?
5. Who is interested in/uses the past-time AQ information?

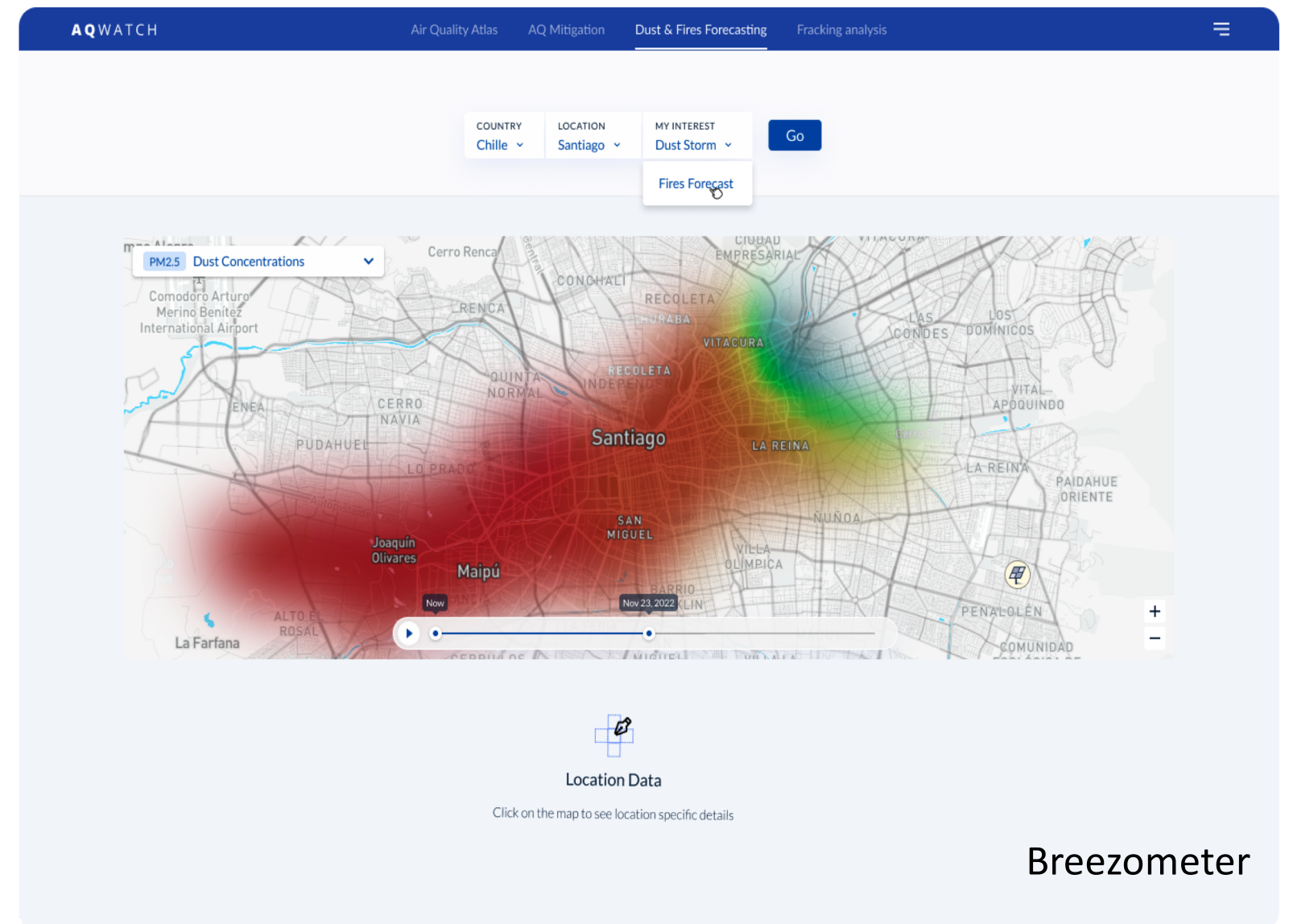
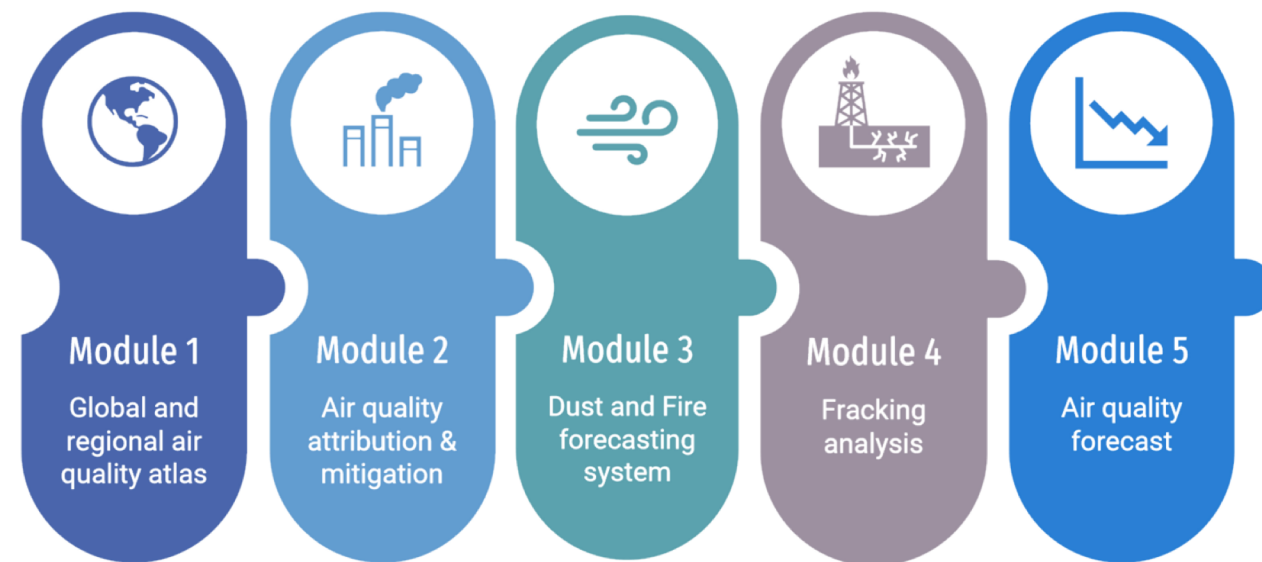


- Currently no service or dust products are available => operation based on local experience
- No intense dust events => use of products more oriented for yearly planning (cleaning, maintenance, pricing)



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Dust prediction tool



Dust prediction tool



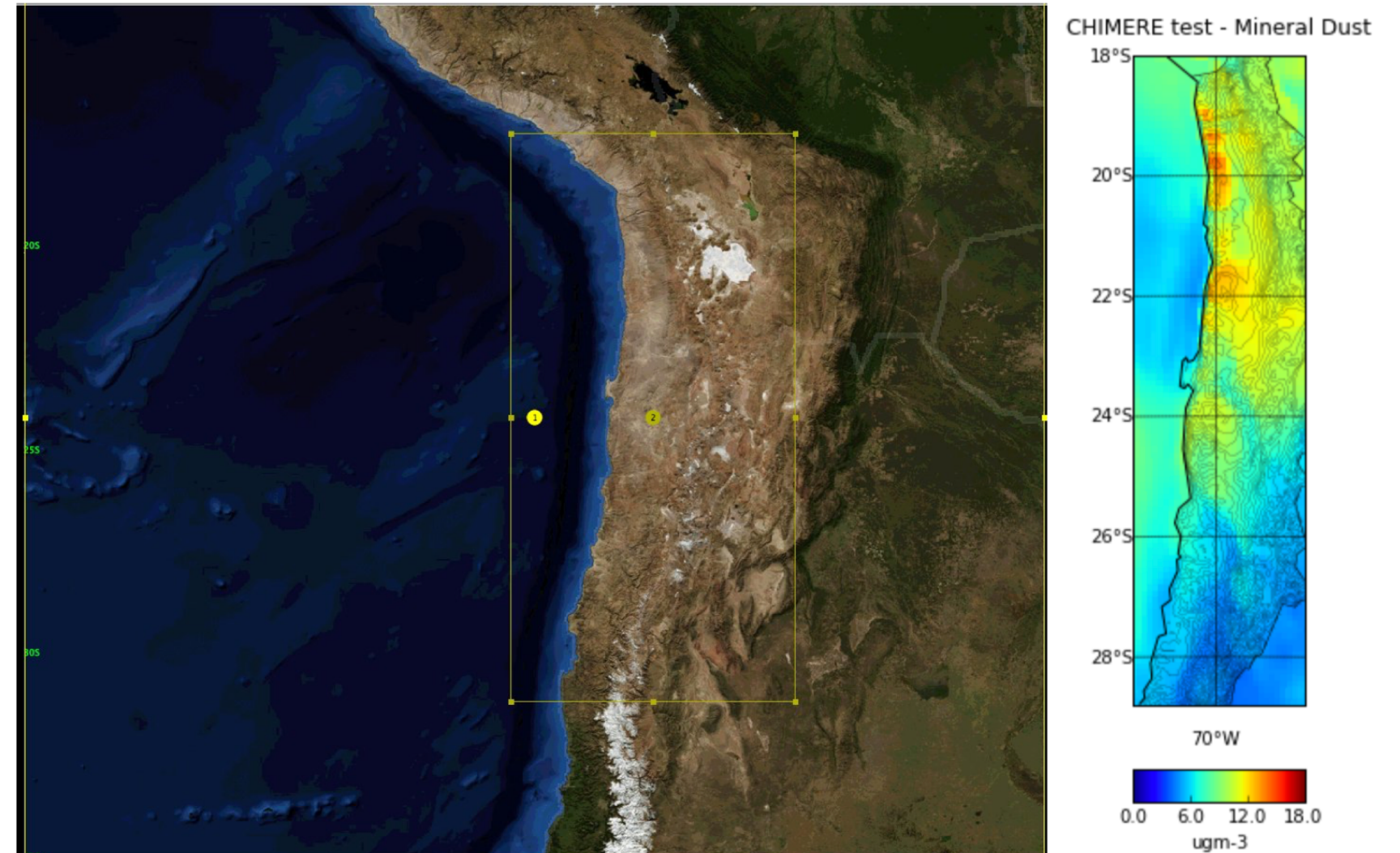
Breezometer [Export Data](#)



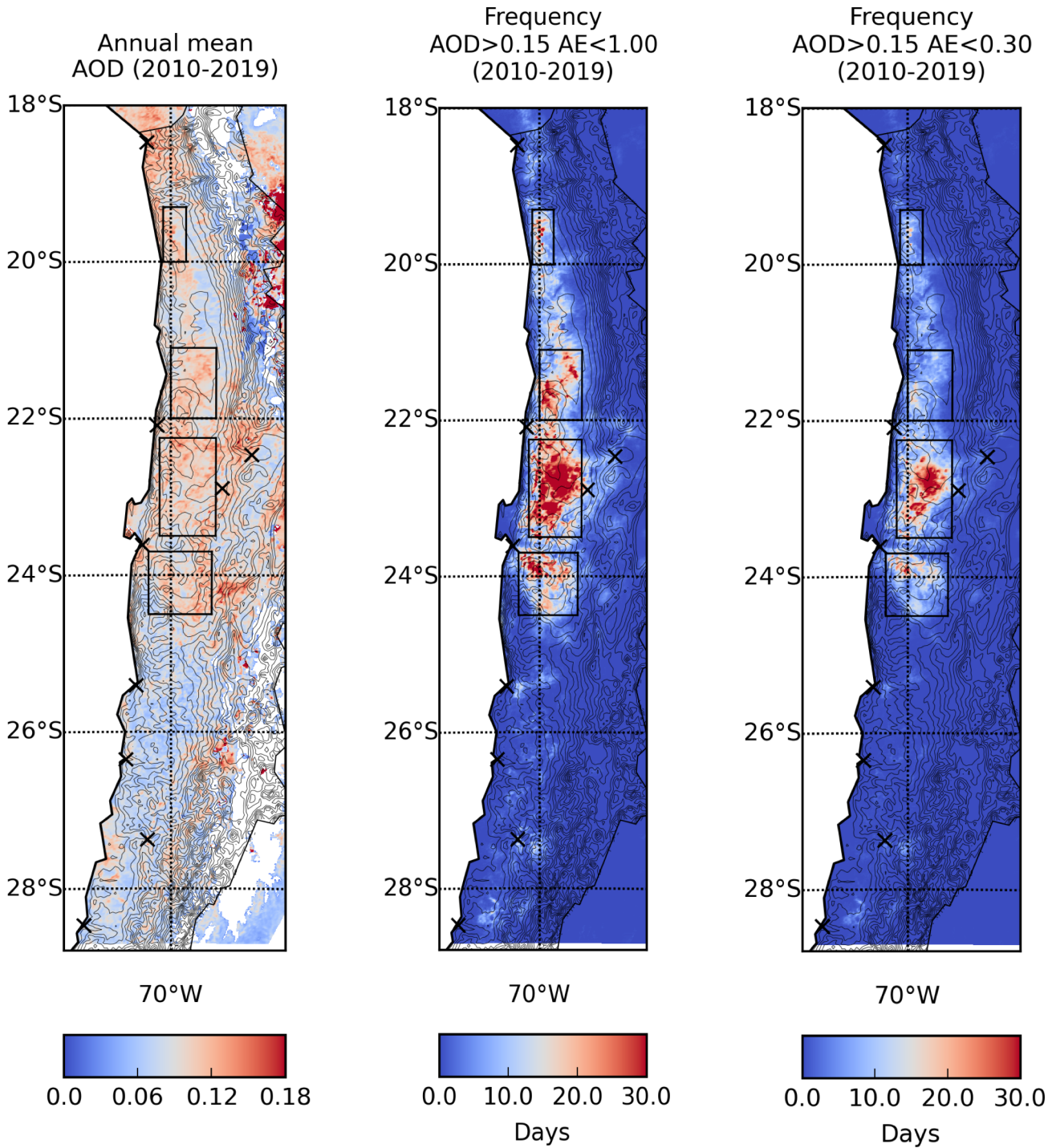
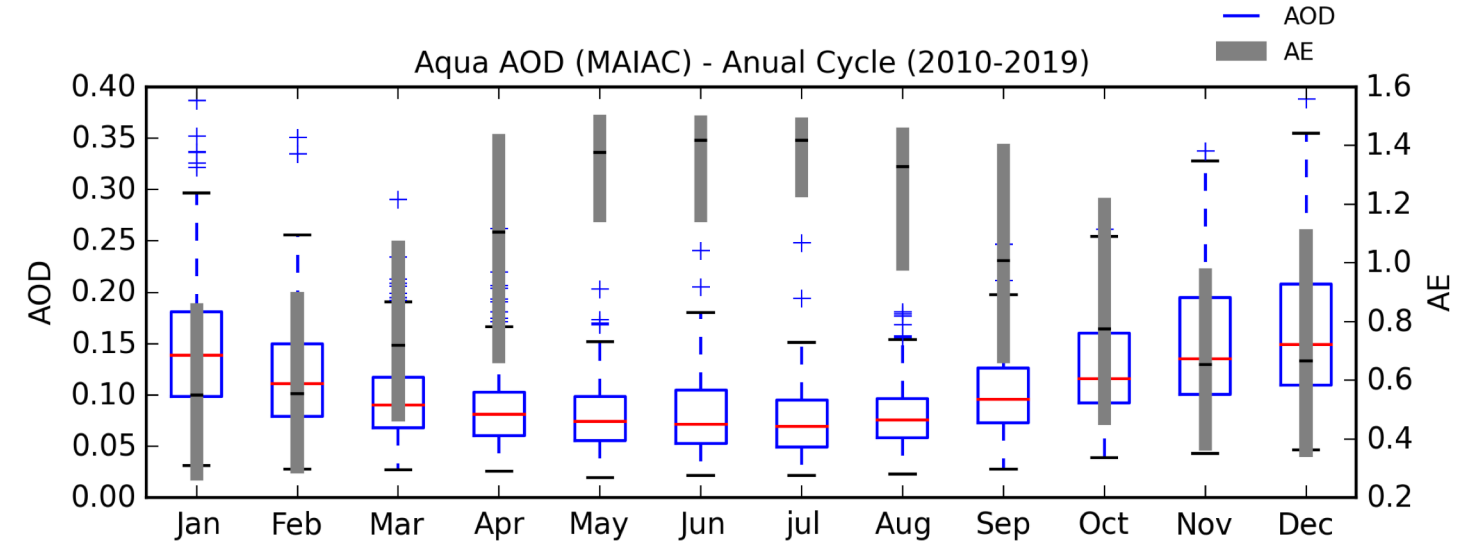
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Implementation of a model for dust forecasting

- WRF: weather simulation
- WRF-CHIMERE dust forecasting (Uchile)
- Test runs, parameterisations tests
- MONARCH dust forecasting (BSC)



Mineral Dust Satellite Characterisation – Atacama Desert 2010-2019



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Thank you!

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