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EGU General Assembly 2022

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GEOSS APPLICATIONS FOR CLIMATE CHANGE

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Co-designing user stories for geodata applications to support climate action in 5 GEO Societal Benefit Areas

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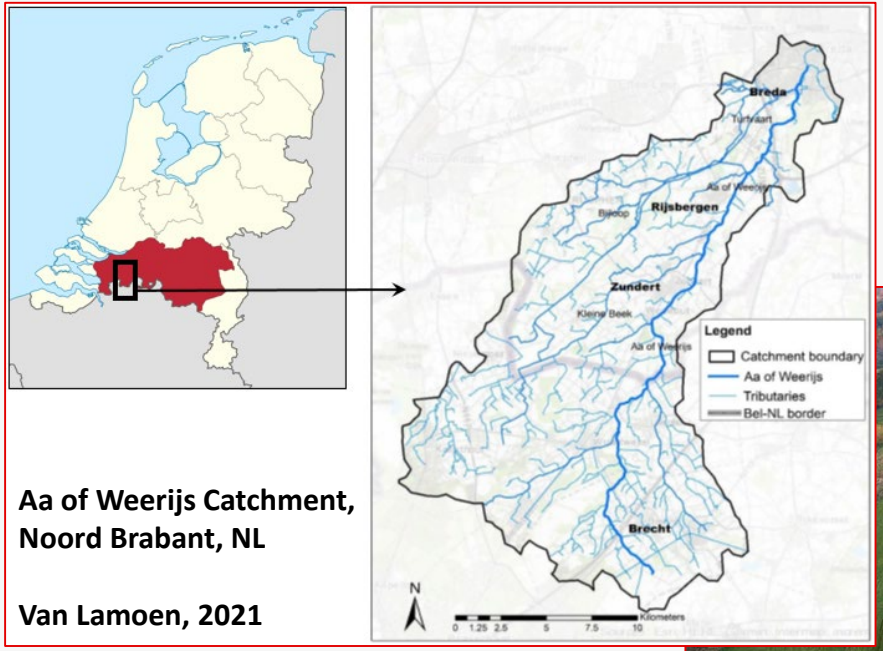
Who needs local data?



Aa of Weerijs Catchment, Noord Brabant, NL

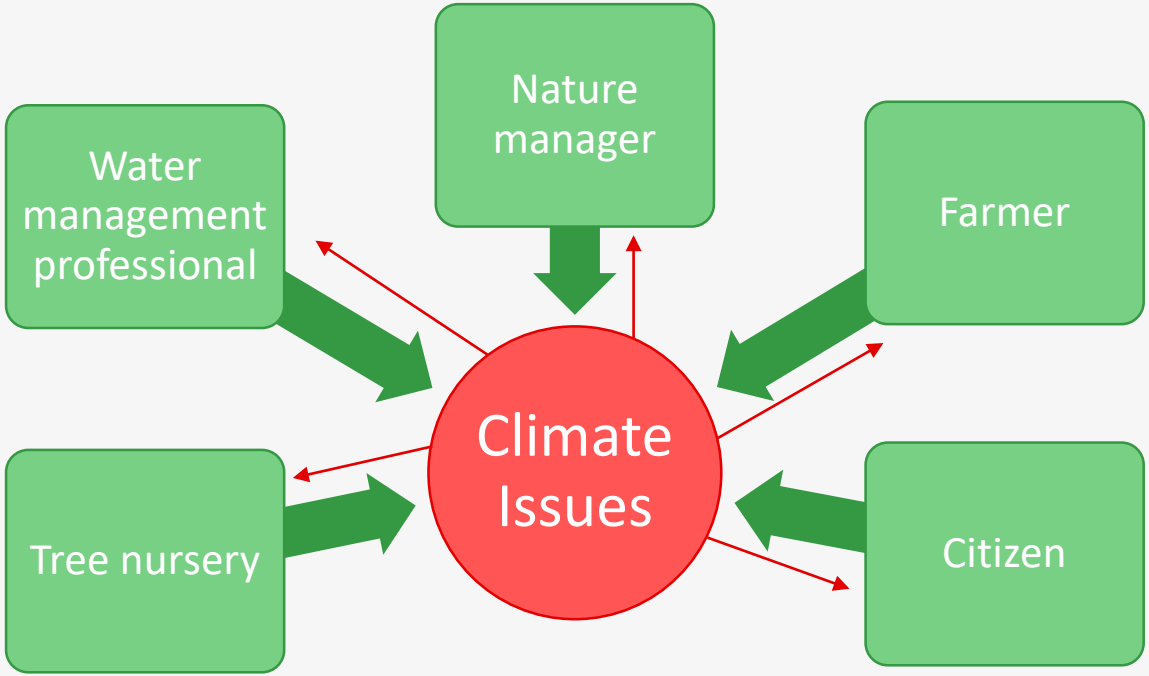
Van Lamoen, 2021

Pijnappels, 2019

Bogatinoska, 2022

Pijnappels, 2019

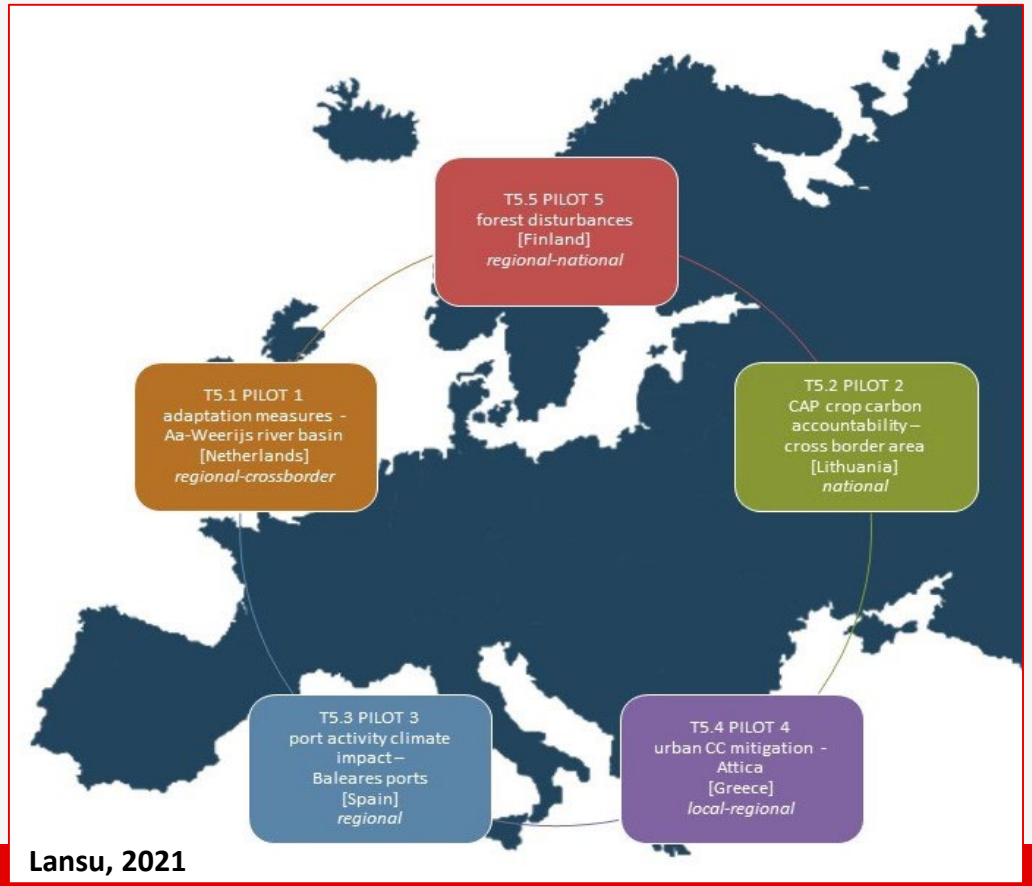
Concerns and perspectives on climate issues



How can we make sure climate services 'work' for everyone?

How should we design climate services?

Developing new climate services in 5 SBA's



Lansu, 2021

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5 GEO Societal Benefit Areas:

1. Water and Land Use Management
2. Sustainable Agriculture
3. Transport Management
4. Sustainable Urban Development
5. Disaster Resilience

Goal: bring data closer to practitioners & stakeholders through co-designed climate services

- Co-design approach to application development
- Who are the users of applications and what do they want and need?
- Data collection through online co-design sessions with practitioners and developers

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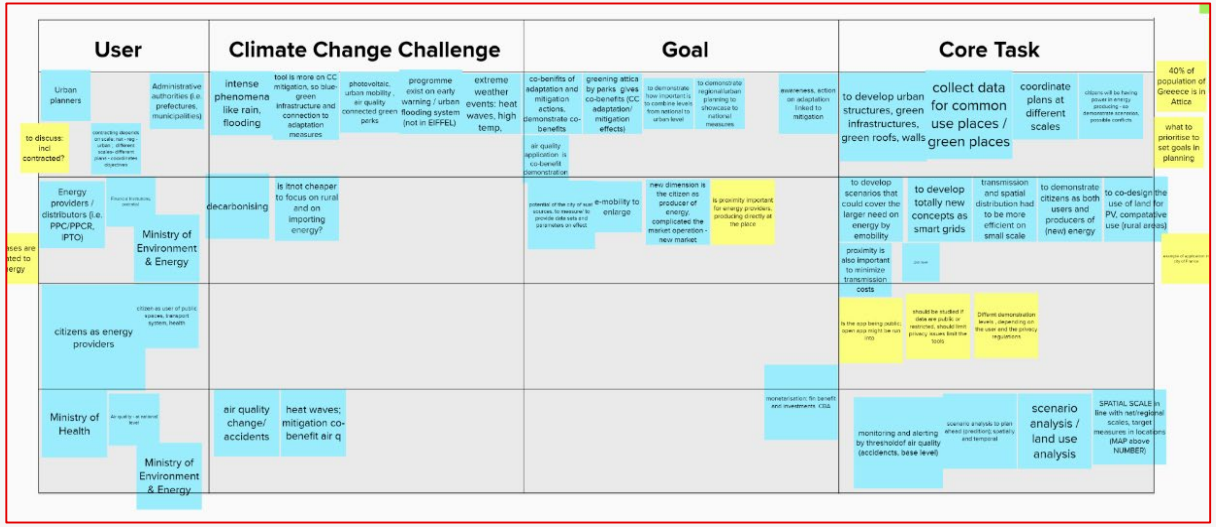
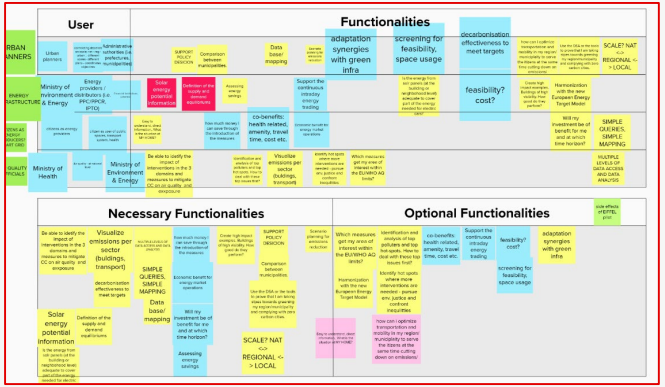
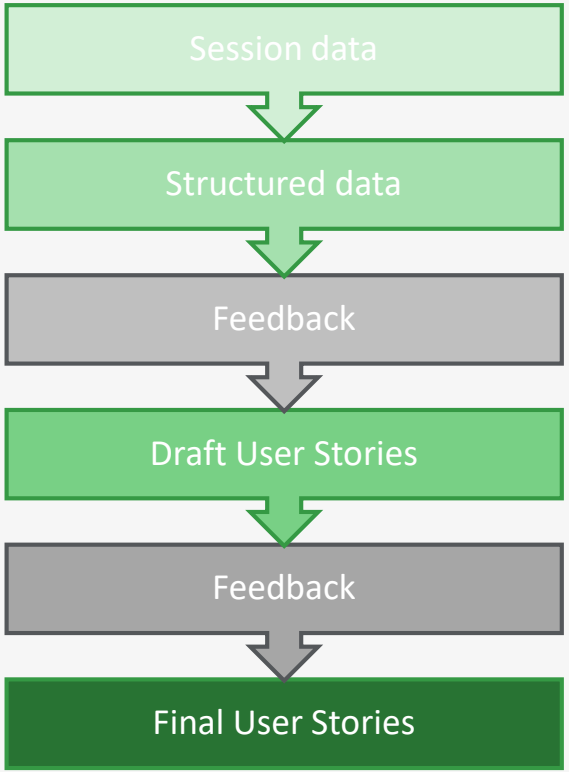


Co-design user stories

Explore application functionalities



Processing data: developing user stories



User | CC Challenge | Goals | Core Tasks

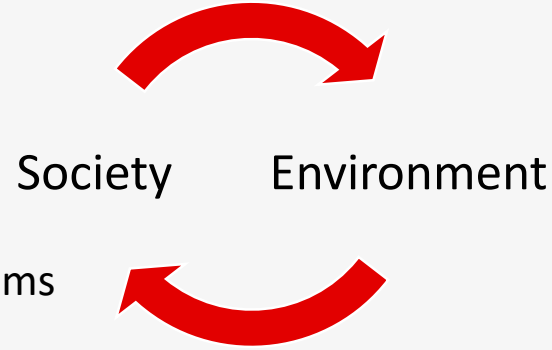
The central user in **User Story P5.1** is the Water Professional. This concerns *professionals working for the regional authority*, as well as *hydrologists*. Both are **primary stakeholders** in pilot 5. This user is dealing with various challenges related to changing water resources, with drought being the most important one. These challenges are also associated with longer and hotter summers. At the regional level, issues surrounding depleted water resources are experienced. Other challenges include over-sulphated soils and water quality issues due to severe rain and drainage. A challenge related to these issues is the changing of water use types (e.g., irrigation).

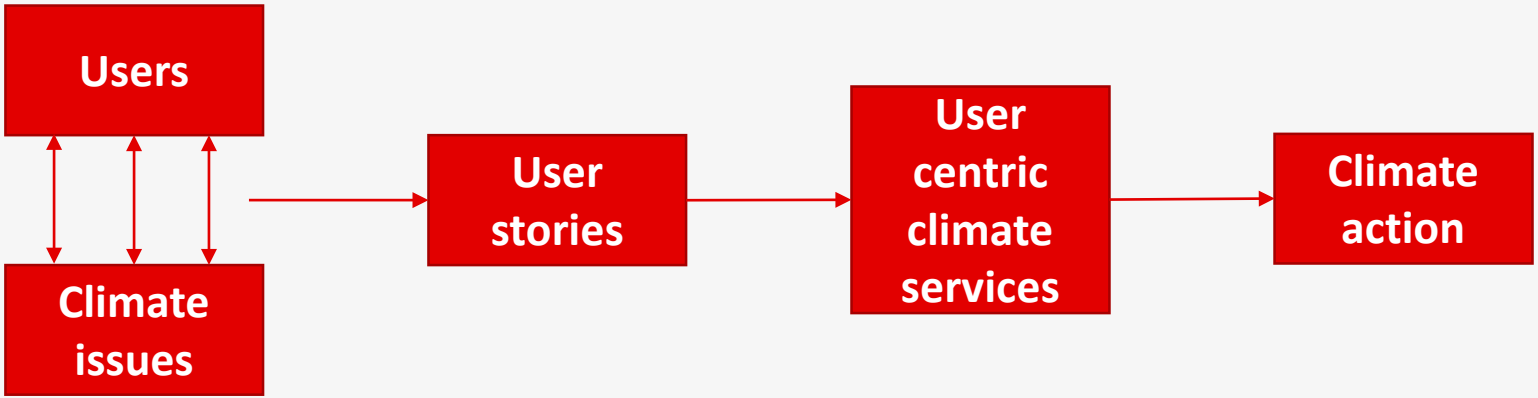
The user strives for advance warnings and to be prepared for water problems. Furthermore, the user wishes to be prepared for changes in water use that will inevitably result from the climate change challenges. More generally speaking, the user aims to adjust the water management to future water uses and climate conditions.

In order to achieve these goals, the user must take climate change and drought into consideration and take steps to be better prepared for drought, which is a relatively new challenge in Finland. The user must also discuss with other parties what specific measures must be taken. The user furthermore needs to incentivize utility companies to prepare for drought, including measures that these companies must take with regards to their pipe lines. The user must also consider drought mitigation plans of municipalities. As of yet, only one municipal plan exists, but more will be developed for the areas that are most prone to the climate change challenges.

Embedding new climate services in socio-ecological systems

- '~~Environmental problems~~' -> issues are socio-ecological
- Climate services must
  - Provide **accurate** & **up-to-date** data
  - Be **contextualized** -> local (cross-border) socio-ecological systems
  - Be **designed for users**





THANKS FOR YOUR ATTENTION

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