



AnaEE

So far 13 Participating countries



A European infrastructure for Analysis and EExperimentation on Ecossystems

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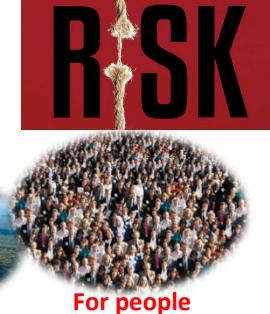
Complex challenges in the Anthropocene

- Feeding nine billion people within planetary boundaries
- Transitioning to low carbon societies
- Adapting to a warmer world
- Valuing and protecting ecosystem services and biodiversity
- Reducing disaster risks

For water resources and food production



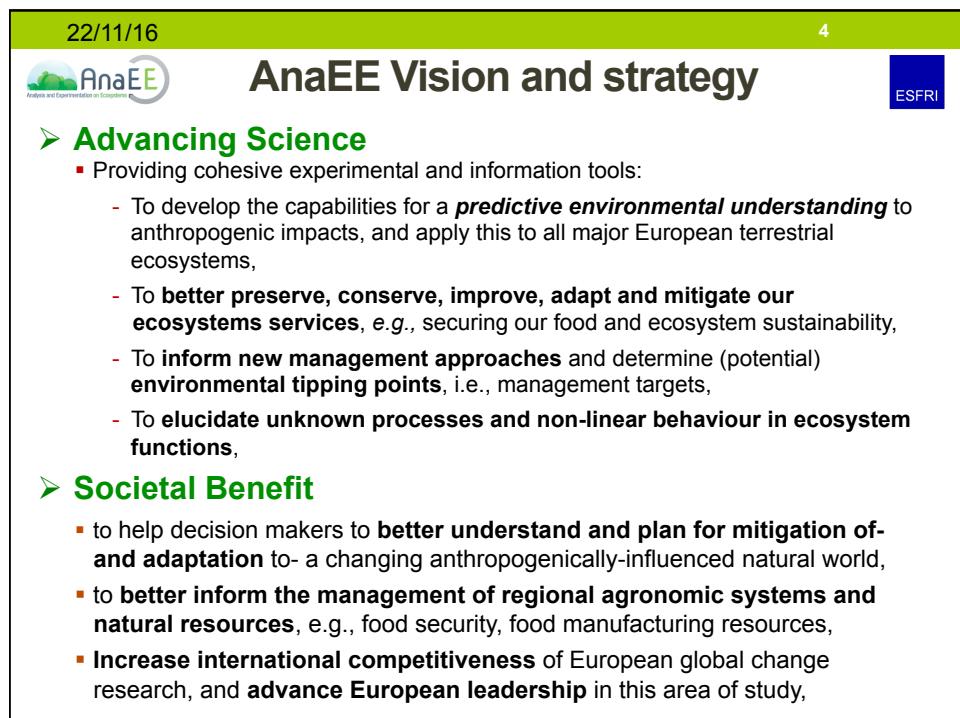
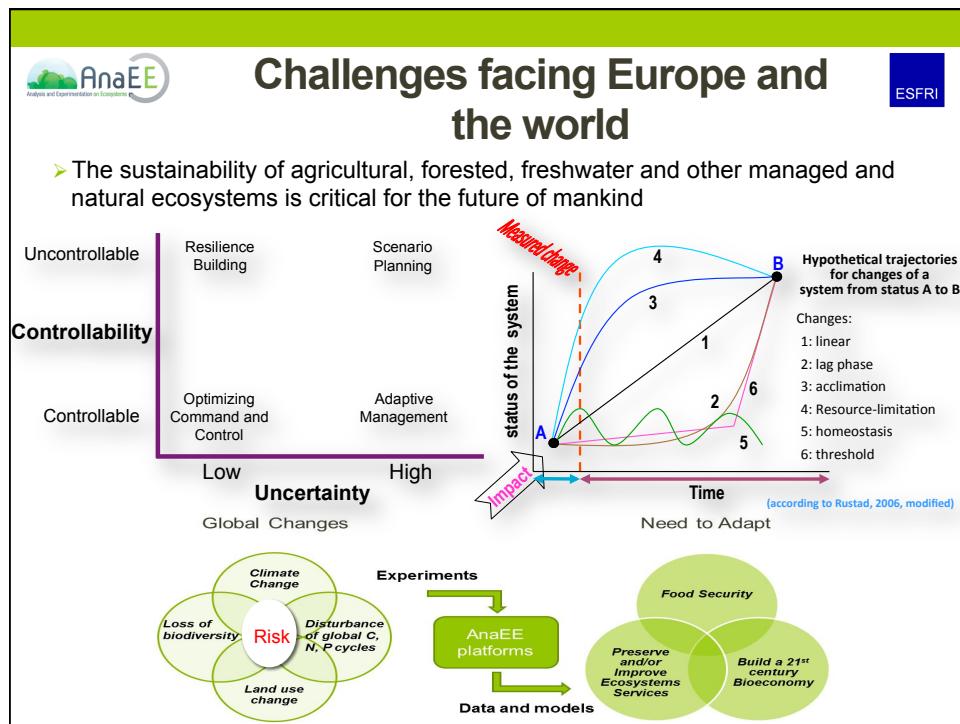
For ecosystems

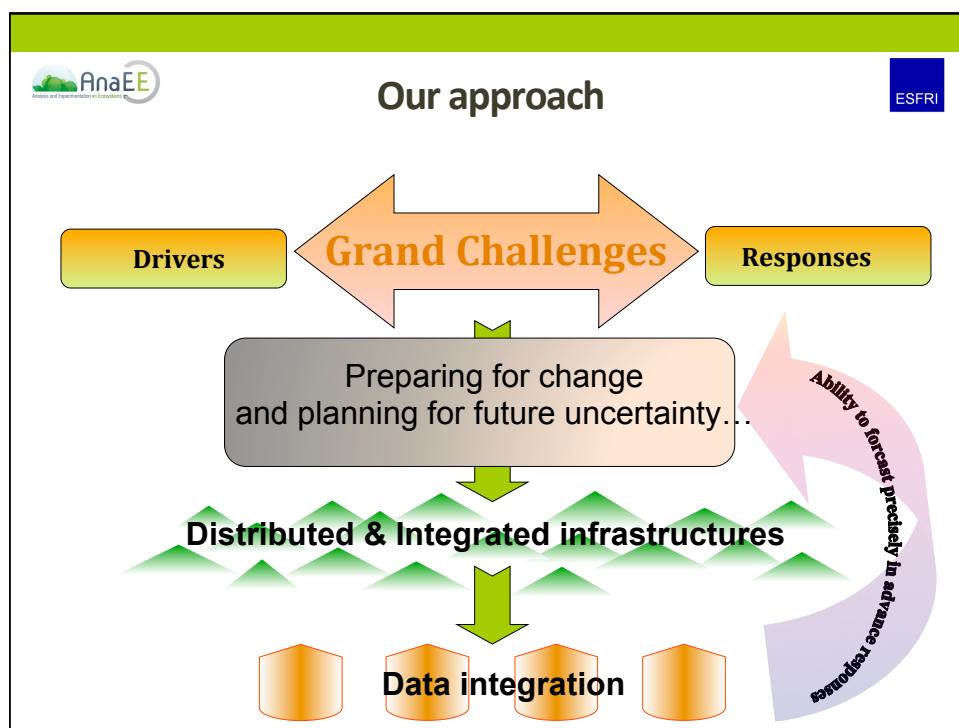
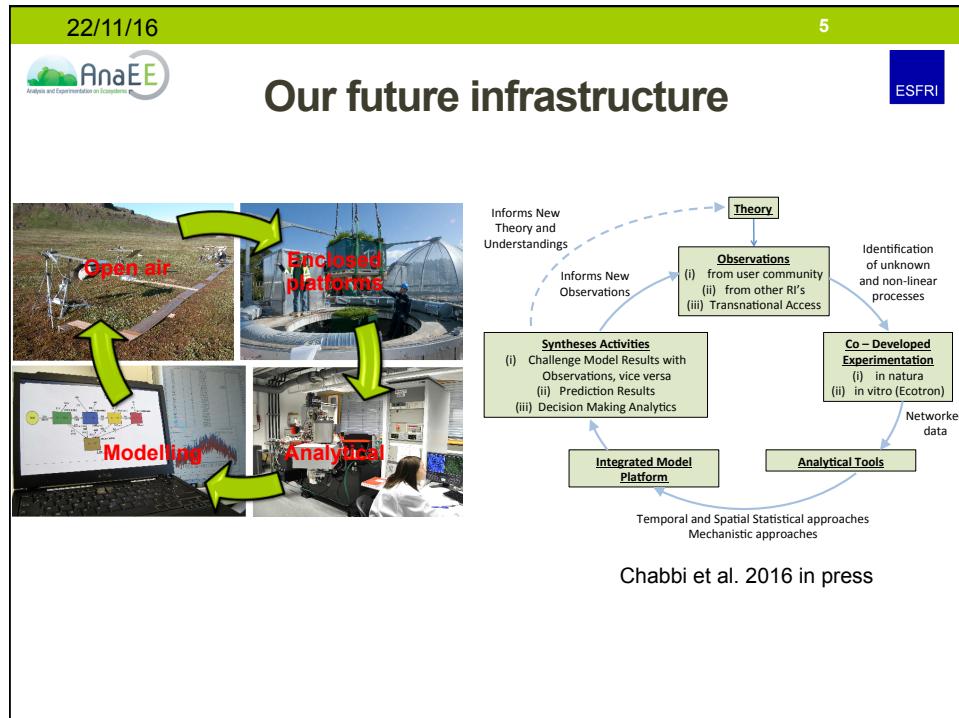


RISK

For people









AnaEE
Analysis and Experimentation on Ecosystems

ESFRI

Platforms for Talking Science Challenges



9

 **What could AnaEE RI provide?** 

➤ **Process understanding and model validation**

- Network of experimental climate change studies on crop and grassland systems:
 - Better understand and get a handle on processes, as well as the manner in which interactions occur
 - Increase comprehension of factors that allow for greater production with same inputs and the risks and factors that could endanger this production
- Monolith studies (intact soil blocks) transplant experiments across sites
 - Anticipating the effects of climate change on agriculture e.g. understanding of crop responses to extremely high temperatures

 More research towards
Soil-based mitigation in the global climate vision 

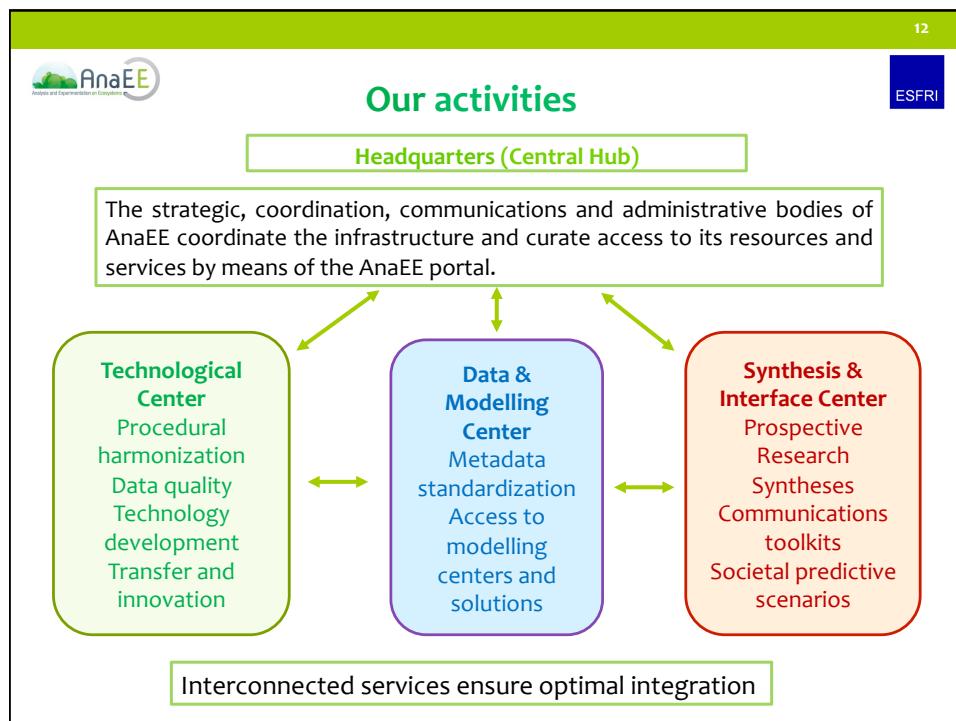
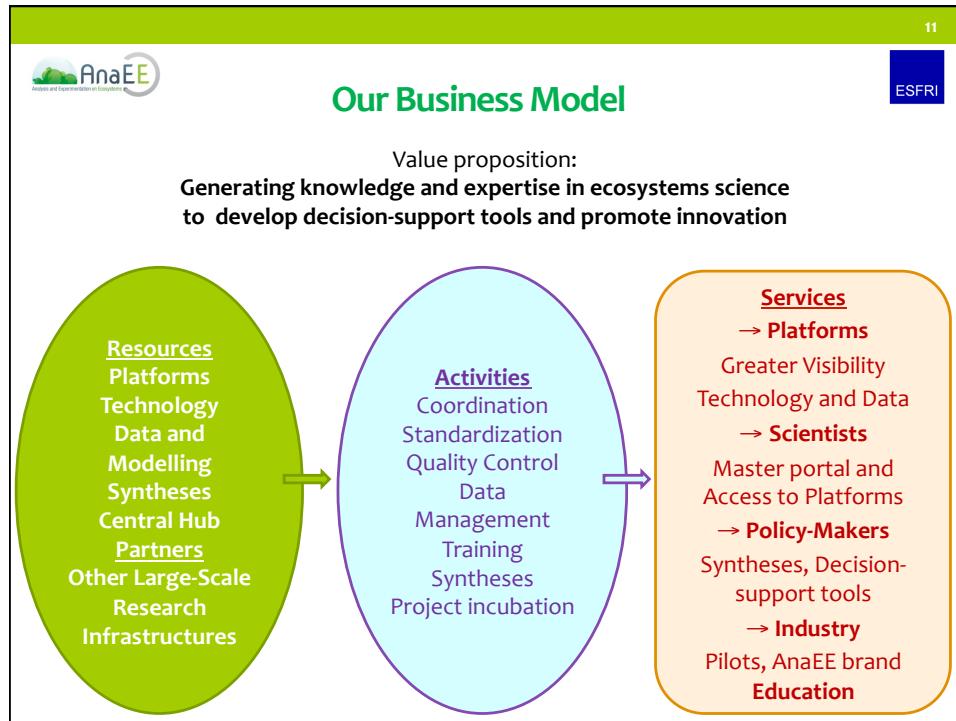


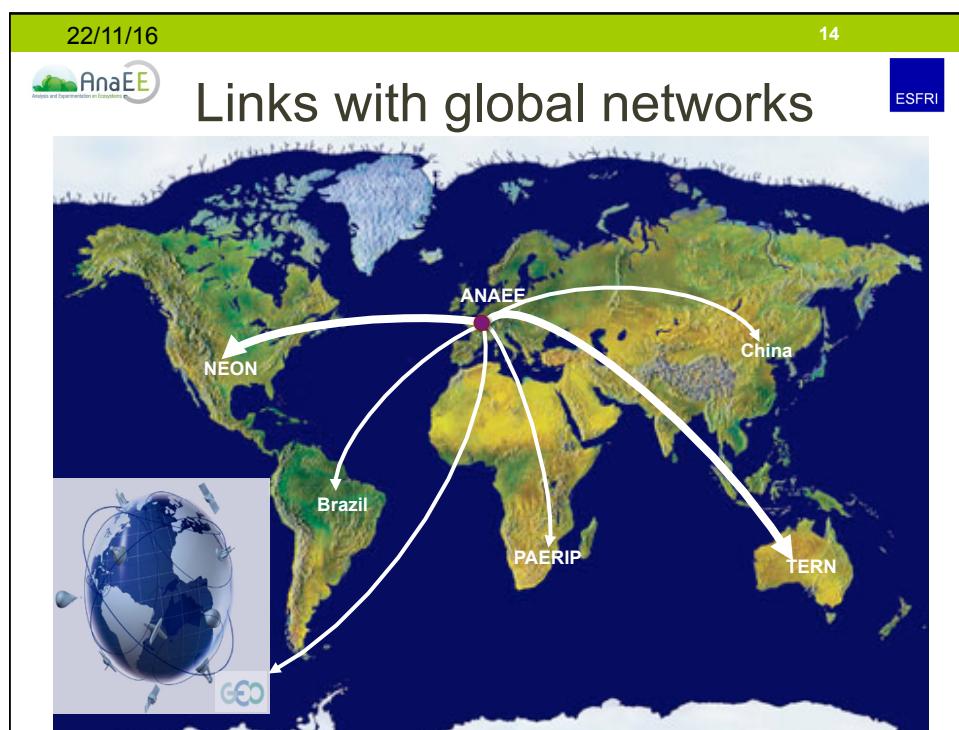
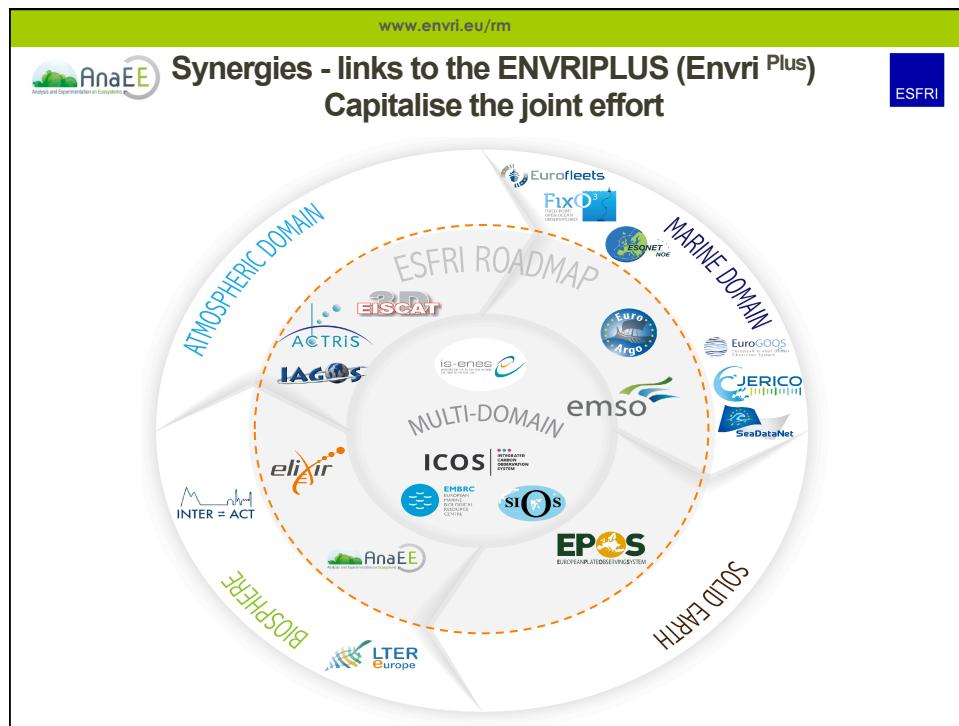
Stéphane Le Foll, French Minister of Agriculture, Agrifood and forestry

The proposal, made by the French authorities ahead of COP21, to store annually 4 per mil (4‰) of the soil organic carbon stock to offset current anthropogenic CO₂ emissions is confronted to state-of-the art scientific understanding.

BUT WE NEED TO KNOW

- What is the physical and biological processes to convert plant-derived C into the soil matrix?
- Which soils are best suited to augment their C content?
- What are the biogeochemical feedbacks with water, and phosphorous and nitrogen cycling?
- ...





22/11/16

15

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Analyses and Experimentation on Ecosystems

Key messages

ESFRI

- AnaEE will offer cohesive physical and information tools for scientists and other stakeholders to understand how terrestrial ecosystems function now and in the future
- Help mitigate the risk for society
- Leverage innovation and economic growth
- AnaEE as a game-changer : big opportunities and big responsibilities

