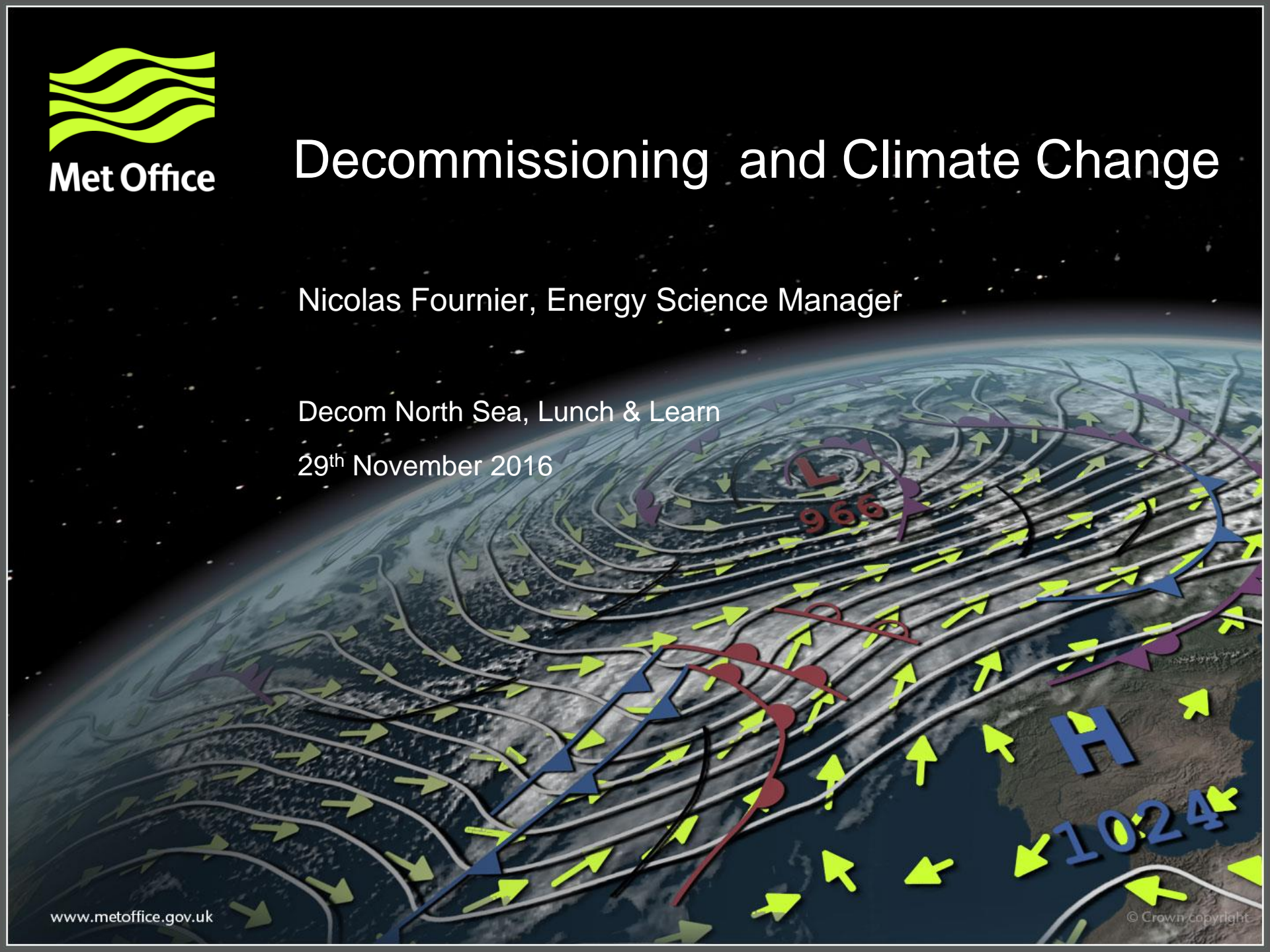


# Decommissioning and Climate Change

Nicolas Fournier, Energy Science Manager

Decom North Sea, Lunch & Learn

29<sup>th</sup> November 2016





# Context

Climate Change is a component of the DECC decommissioning guidelines

Main climate issues for operators:

- Non-stationary metocean conditions
- Decommissioned assets' future liability

How to support North Sea operators to deal with climate change ?

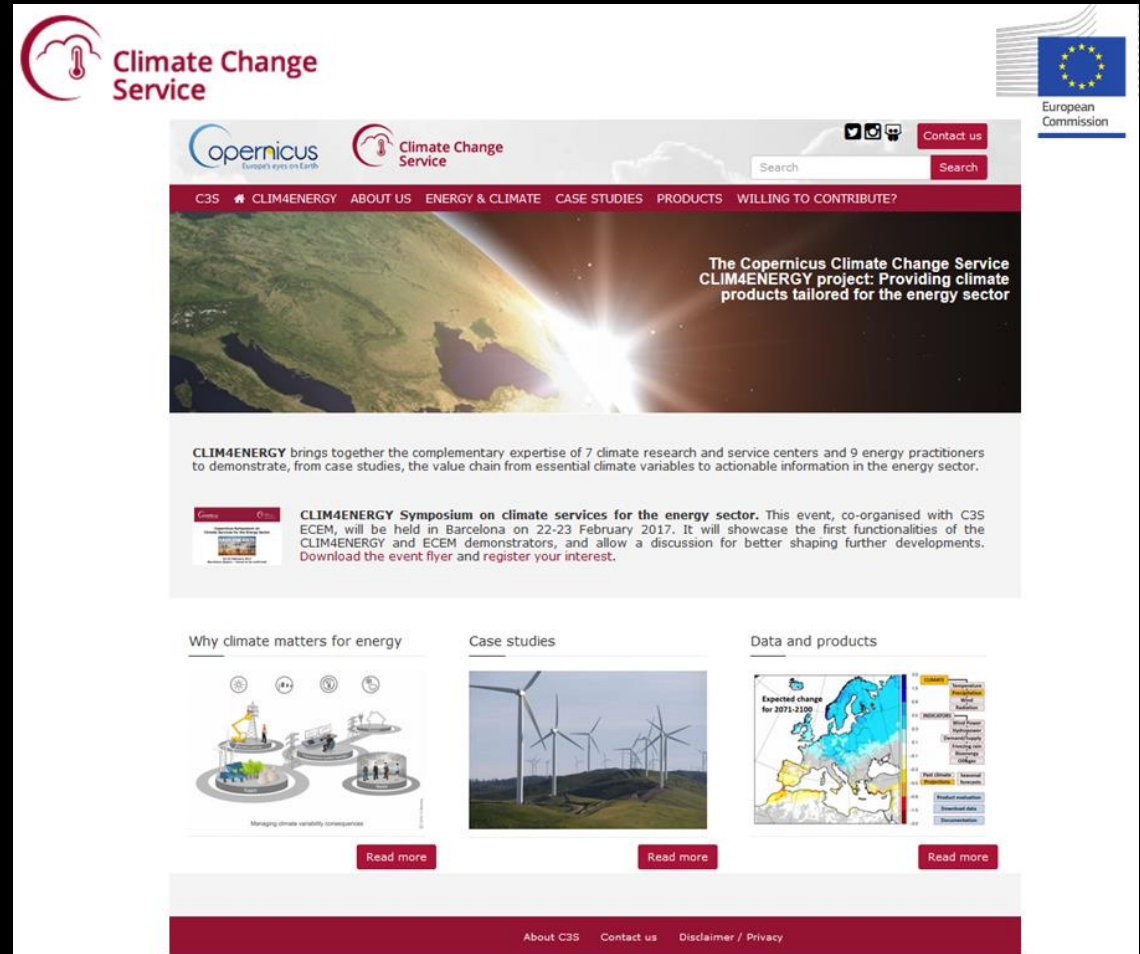
Illustration: **EU-funded climate project for the energy sector**

# Clim4energy Project

- EU funded 2015-2017
- Europe focus
- Energy sector
- Met Office : offshore component
- Industry co-designers

## Outcome

Public domain climate data and visualization



The screenshot shows the Copernicus Climate Change Service website. At the top, there is a navigation bar with the Copernicus logo and the text "Copernicus Europe's eyes on Earth". To the right, there is a search bar and a "Contact us" button. Below the navigation bar, there is a main banner with a satellite image of Earth and the text "The Copernicus Climate Change Service CLIM4ENERGY project: Providing climate products tailored for the energy sector". Below the banner, there is a paragraph of text: "CLIM4ENERGY brings together the complementary expertise of 7 climate research and service centers and 9 energy practitioners to demonstrate, from case studies, the value chain from essential climate variables to actionable information in the energy sector." Below this text, there is a section titled "CLIM4ENERGY Symposium on climate services for the energy sector" with a small image of a flyer and a "Read more" button. At the bottom of the page, there are three columns: "Why climate matters for energy" with a diagram of energy sources and a "Read more" button; "Case studies" with a photo of wind turbines and a "Read more" button; and "Data and products" with a map of Europe showing expected temperature changes for 2071-2100 and a "Read more" button. The footer of the website contains links for "About C3S", "Contact us", and "Disclaimer / Privacy".



Met Office

# Clim4energy Project

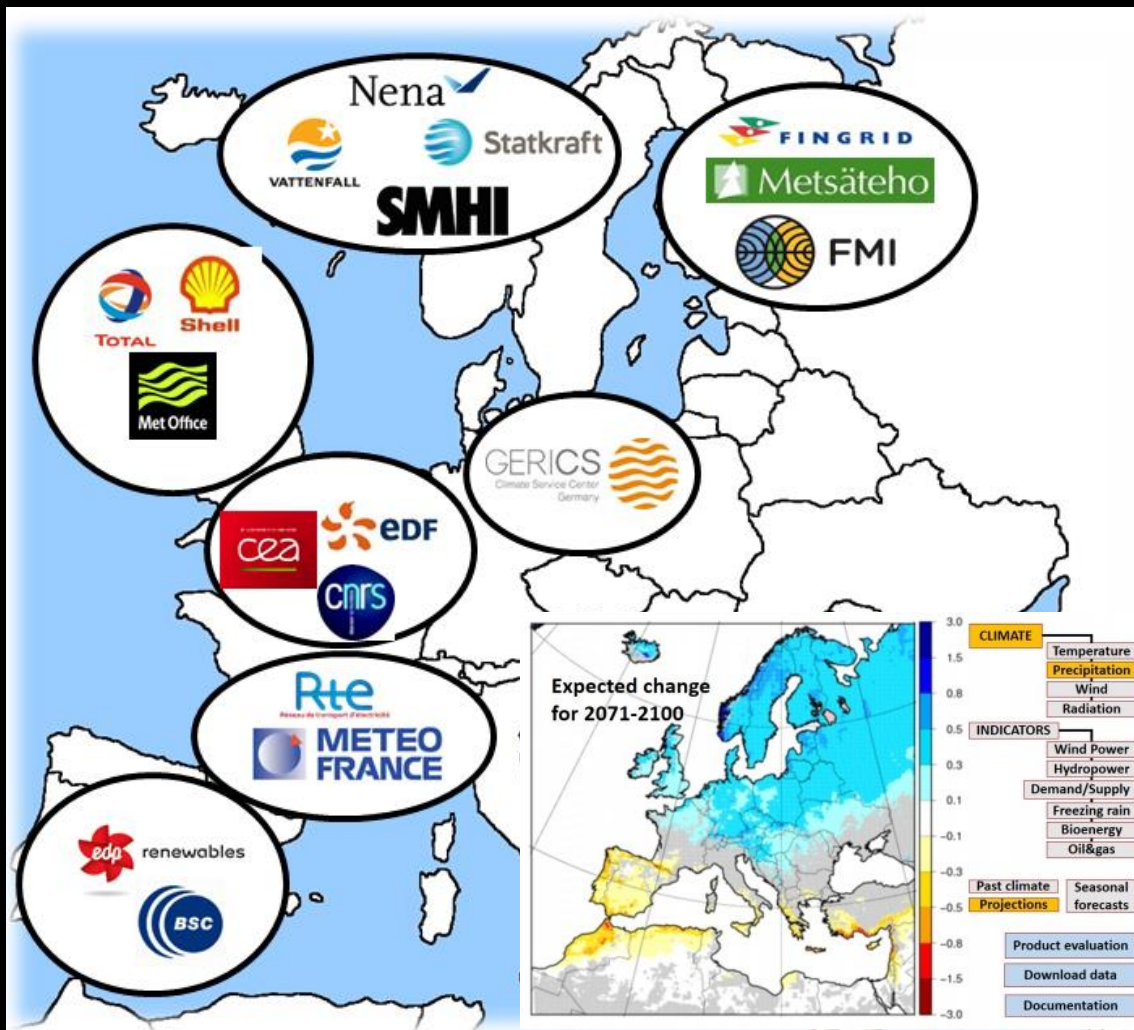
## Academic partners:

CEA	France
SMHI	Sweden
FMI	Finland
Met Office	UK
Meteo-France	
BSC	Spain
GERICS	Germany

## Climate Information:

Historical and future climate (2006-2100; ~10km resolution):

- Air temperature
- Rainfall
- Radiation
- Wind
- Wave
- Sea level





Met Office

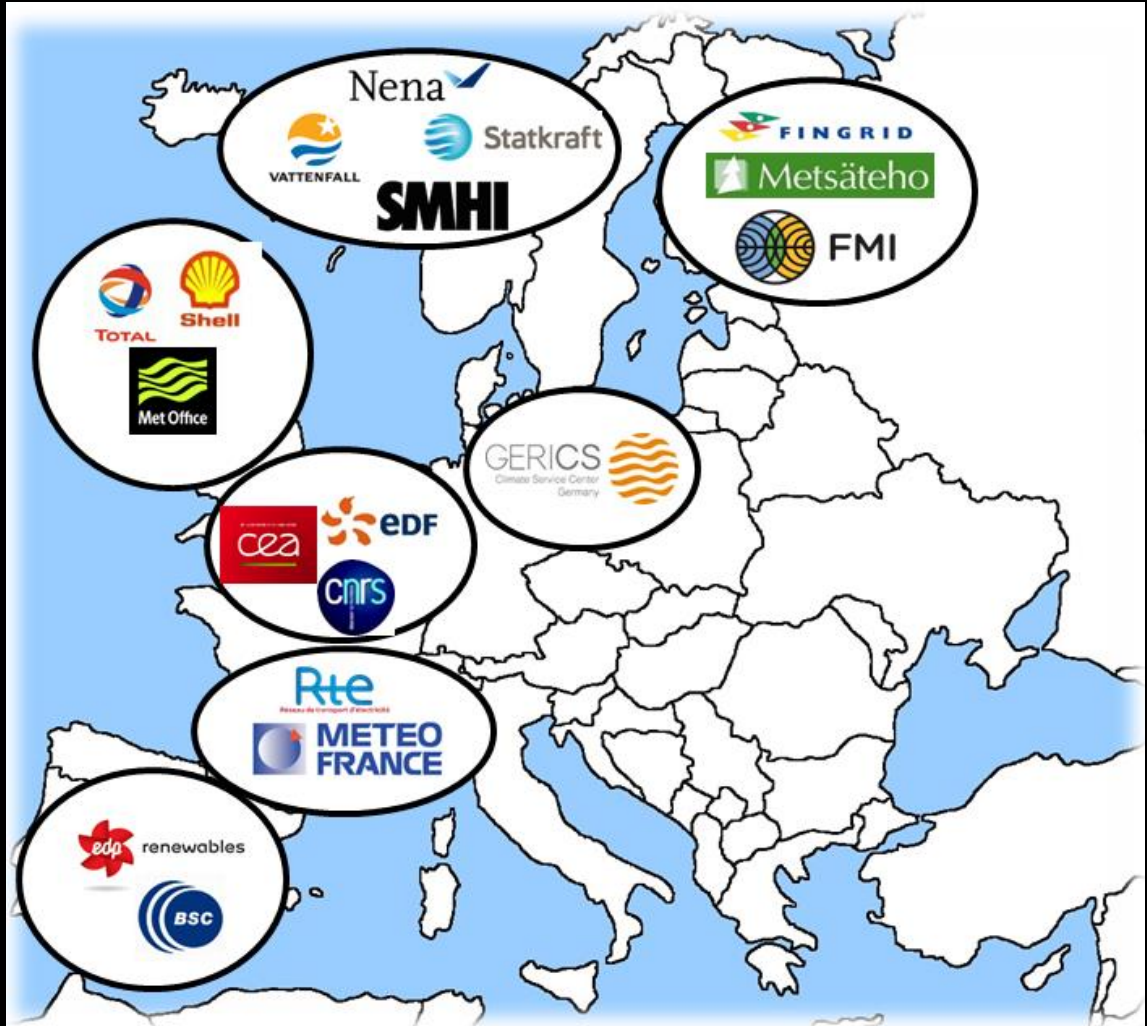
# Clim4energy Project

- **Industry co-designers:**

- EDF
- EDP
- **Shell and Total**
- RTE
- Vattenfall
- Statkraft
- Nena
- Fingrid

- **Energy sectors:**

- Wind energy providers
- Wind energy traders
- Hydropower
- Grid operators
- **Oil & Gas operators**
- Energy policy makers





Met Office

# Clim4energy Project : offshore focus

Academic partner:  
UK Met Office

Climate Data:

- Wave
- Regional sea level rise

Industry co-designers:

- Shell and Total

Met Office Climate Change Risk Screening Tool

Case Study 2017: climate conditions for new asset to be decommissioned in 2065



**Met Office**

# Next Step: Call for Action

- Operators specific climate needs for decommissionings EIA or derogations to removal ?
- Operators involvement as co-designer in next EU-funded (2018-2020) CoP for developing the associated operational services:
  - No cost for industry co-designer
  - Shape the deliverables : regions of focus; climate parameters; output format...
  - Attend our end-user workshops:

## **Copernicus Symposium on Climate Services for the Energy Sector**



**22-23 February 2017  
Barcelona (Spain) – Venue to be confirmed**



Met Office

Thanks for listening

