Downstream data usage

Potential users

- Group A: considerable background knowledge
  - Climate modelers
  - Other climate researchers
- Group B: little background knowledge
  - Impact researchers
  - Climate services providers

- Also differences in types of data needed between groups

Data requirements

- ESM/GCM climate model data
- RCM climate model data
- Re-analysis data

Climate researchers

- Other data sets?
- Bias corrected climate model data
- Observational data
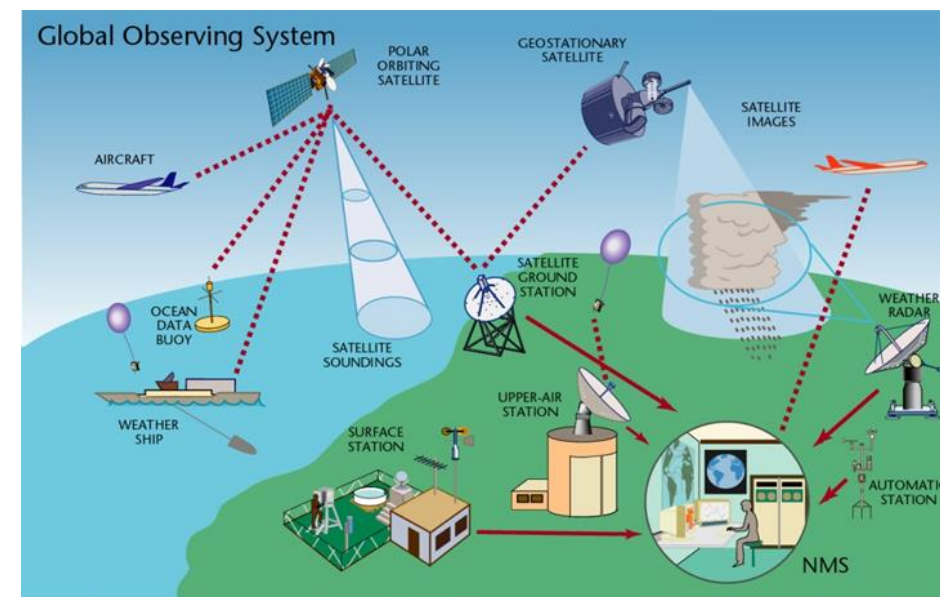
Impact researchers

Climate researchers

- Model evaluation (quality/skill)

- Determining potential changes in climate variables

- Analyses of processes in climate system

- Downloading climate data for analyses

- Processing climate data to calculate

indices, trends, etc.

- ………

Impact researchers, climate service providers

- Selection of limited number of climate models, data for past and future

- Selection of region and time period

- Downloading climate data as input for impact models

- Processing climate data, downloading, for impact assessments (e.g. to get monthly or annual data or other indices, correction for biases) or other products

- …….

(User) requirements

- From user point of view (services requirements)

  - access, downloading, processing of data

  - metadata and guidance material

- From provider point of view (technical requirements):

  - focus more on technical aspects

  - but also on how the data are presented,
    how tools work
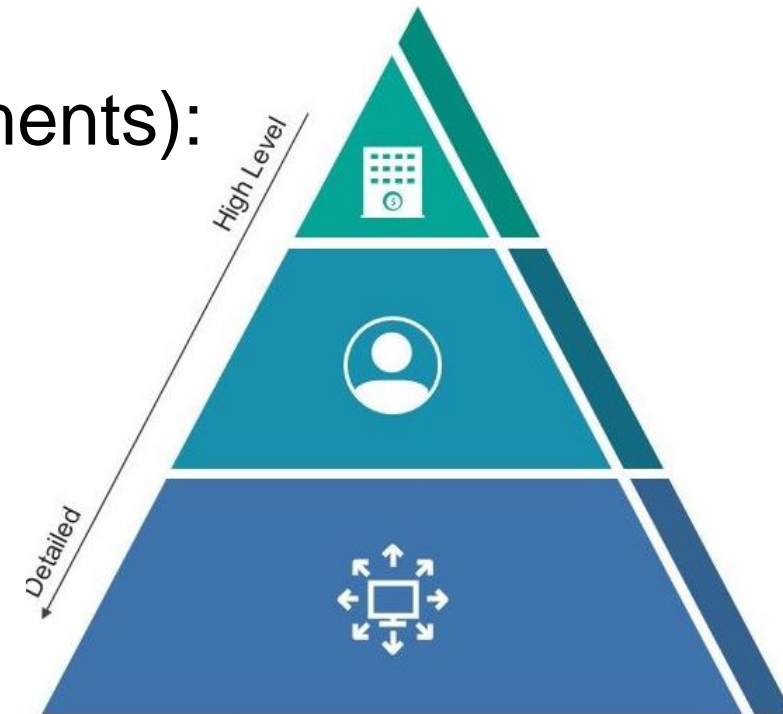
Challenges for climate researchers

- Different standards, provenance

- Large data volumes, processing time

- Sharing data analysis

- Access to all needed model data?

- ....

Challenges other users

- Understanding abbreviations and terms (for variables, models, etc.)

- Selection of data sources and selection of climate model

- Biases in model data: impact models calibrated with observations

- Existing ENES standards not always same as standards in user communities

- Provided time horizons do not fit user needs

- Quality indicators used do not match with how users define quality

- Lack of integration of information from different disciplines

What we do to help the users

- Update the C4I portal (make it work faster)
- Make new datasets available (e.g. bias corrected EUROCORDEX)
- Update and expand the guidance material
- Link to other sites with background information (e.g. factsheets PRIMAVERA,

C3S User Learning Services

Discussion points

- Ideas to help the users with their challenges?
- At what type of users do we have to focus especially?
- For what use should people go to C3S CDS and for what to C4I?
- Does easy access to all climate data also result in a lot of misuse and misinterpretation?

is-enes

INFRASTRUCTURE FOR THE EUROPEAN NETWORK FOR EARTH SYSTEM MODELLING

THE CONSORTIUM

Coordinated by **CNRS-IPSL**, the IS-ENES3 project gathers **22 partners** in **11 countries**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°824084

Our website
https://is.enes.org/

Follow us on Twitter !
@ISENES_RI

Contact us at
is-enes@ipsl.fr

Join the community on ZENODO !