



# Climate Advisory Group

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# Need for group:

- Many Climate and Climate-related Initiatives
  - SCOPE-CM
  - ESA's Climate Change Initiatives
  - Others at different scales
  - (basically all of Earth observation)
- Many existing Scientific Groups
  - IOCCG
  - GHRSSST
  - Sea surface topography
  - ...etc...
- Active CEOS Constellations
- We need a mechanism to ensure coherence of these initiatives and these scientific groups in relation to CEOS.

# CEOS Constellations - ECVs

- Which measurements (FCDRs or ECVs) the constellations are responsible for ?
- Identify which ECVs are not covered under any constellations.
- Address homeless ECVs
- Do we need one constellation for each ECV ?
  - Certainly not,
    - to take into account the overlaps between ECV
    - to simplify the reporting to CEOS

# CEOS Climate Advisory Group (i)

The CEOS Climate Advisory Group will :

- review, on behalf of CEOS SIT, the generation of FCDRs and derived ECV satellite products by Member Space Agencies,
- identify multi-agency implementation teams for each product and review their actions
- ensure that a coherent implementation plan exists for each product,
- ensure coordination of climate product generation with other relevant international initiatives,

# CEOS Climate Advisory Group (ii)

The CEOS Climate Advisory Group will :

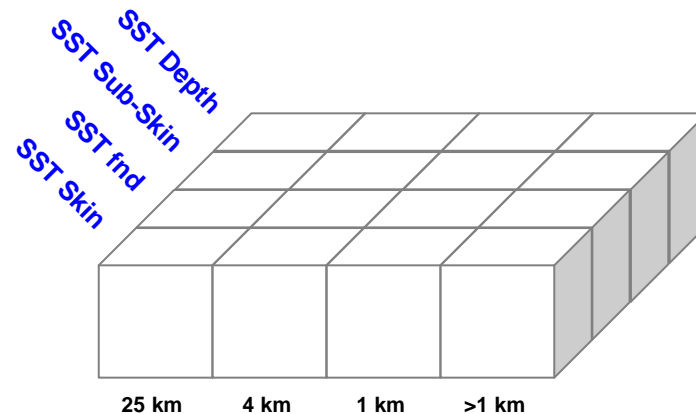
- make recommendations to above teams and receive recommendations from them, for transmission to the SIT,
- ensure compliance of satellite products with GCOS Climate Monitoring Principles and with the “Guideline for the Generation of Satellite-based Datasets and Products meeting GCOS Requirements” (GCOS-128), and
- undertake any other relevant activities as instructed by CEOS/SIT Chair..

# CEOS Climate Advisory Group – implementation

- The CEOS Climate Advisory Group shall comprise 6-8 members, nominated by CEOS Agencies so as to cover the technical scope of work, plus representatives of GCOS and WCRP as observers, and shall meet annually, about one month before SIT. It shall report bi-annually to SIT.
- The Chair of the CEOS Climate Advisory Group is nominated by the CEOS SIT Chair, who will also decide on membership.
- An initial lifetime of three years of the group is proposed, with extension foreseen. It will be supported by the CEOS Climate SBA Coordinator and the CEOS Systems Engineering Office.

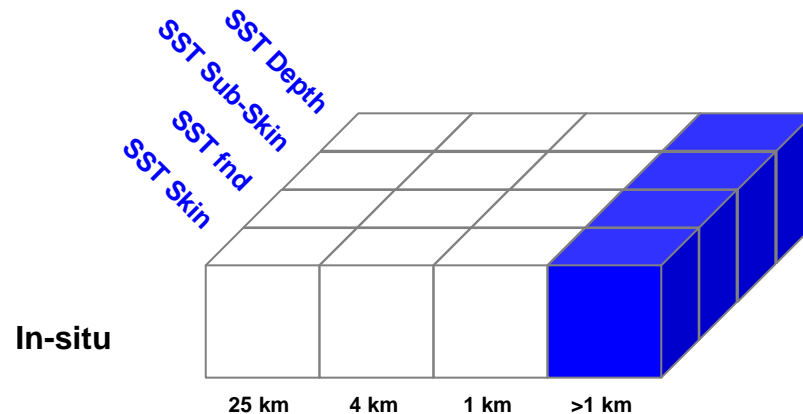
## O.3 – Sea surface temperature

- For one ECV, the various FCDR's are of different natures in terms of
  - type of parameters
  - resolution



# O.3 – Sea surface temperature

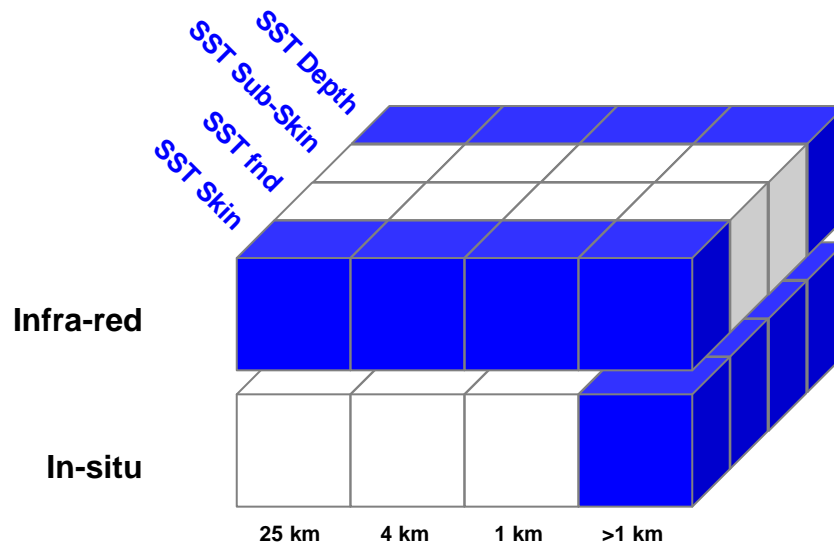
- As example in-situ measurements are covering
  - All type of parameters
  - At very low resolution





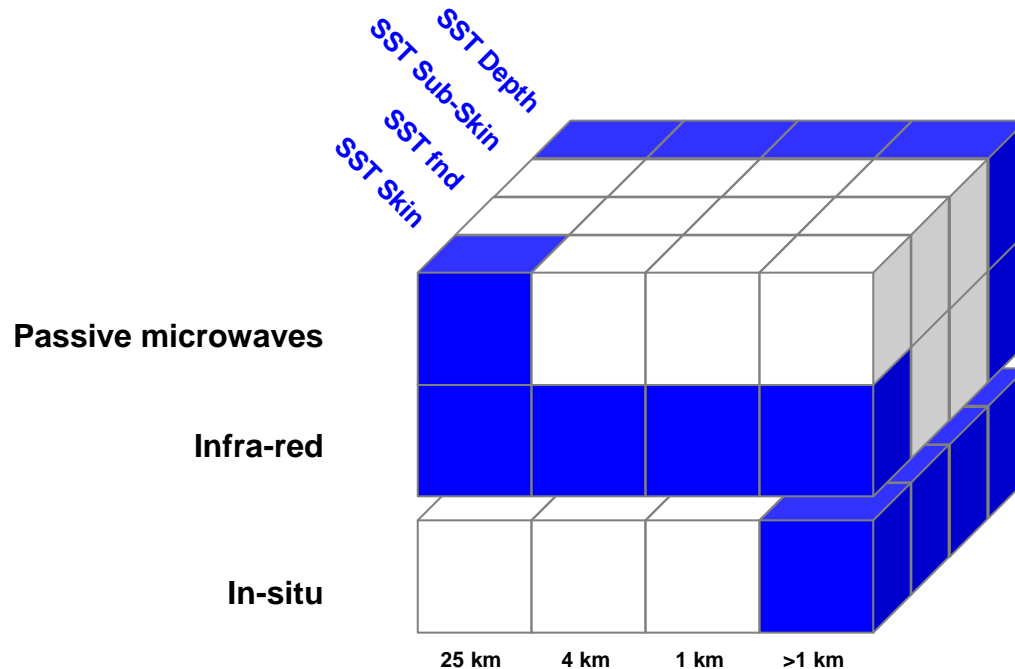
# O.3 – Sea surface temperature

- In the vertical axes, one can add the type of sensor
  - First infra-red with their own characteristics



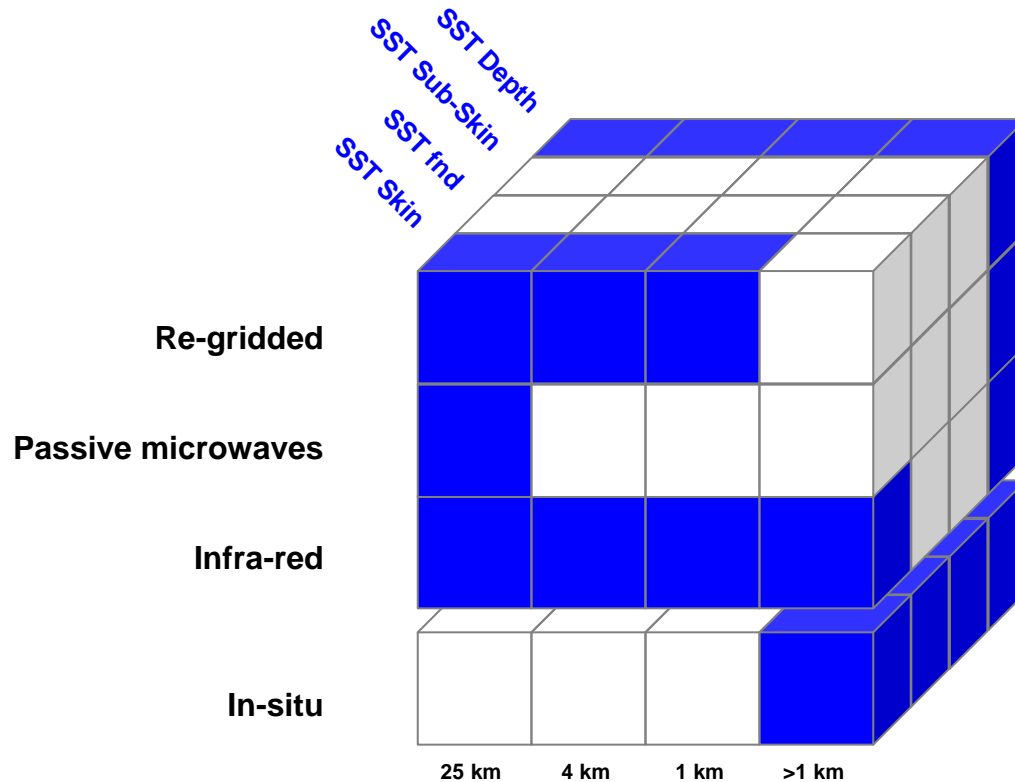
# O.3 – Sea surface temperature

- In the vertical axes, one can add the type of sensor
  - First infra-red with their own characteristics
  - Then the passive microwaves



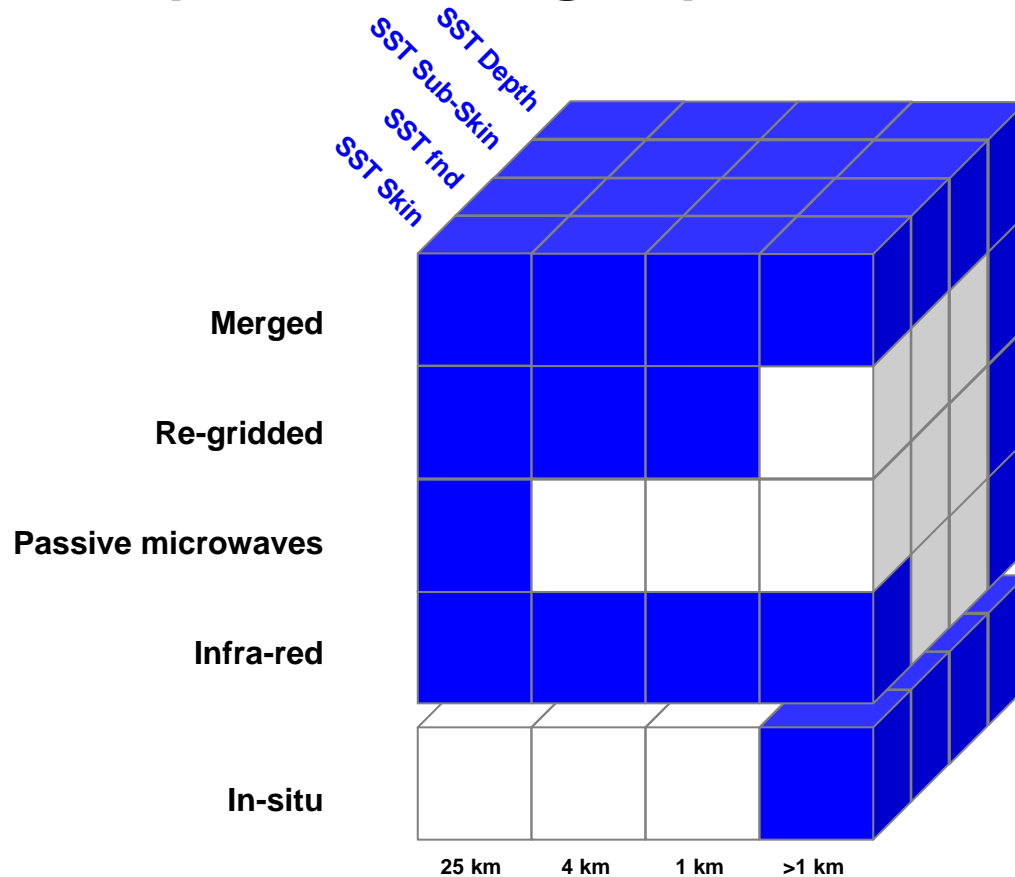
# O.3 – Sea surface temperature

- From there one can build re-gridded products ...

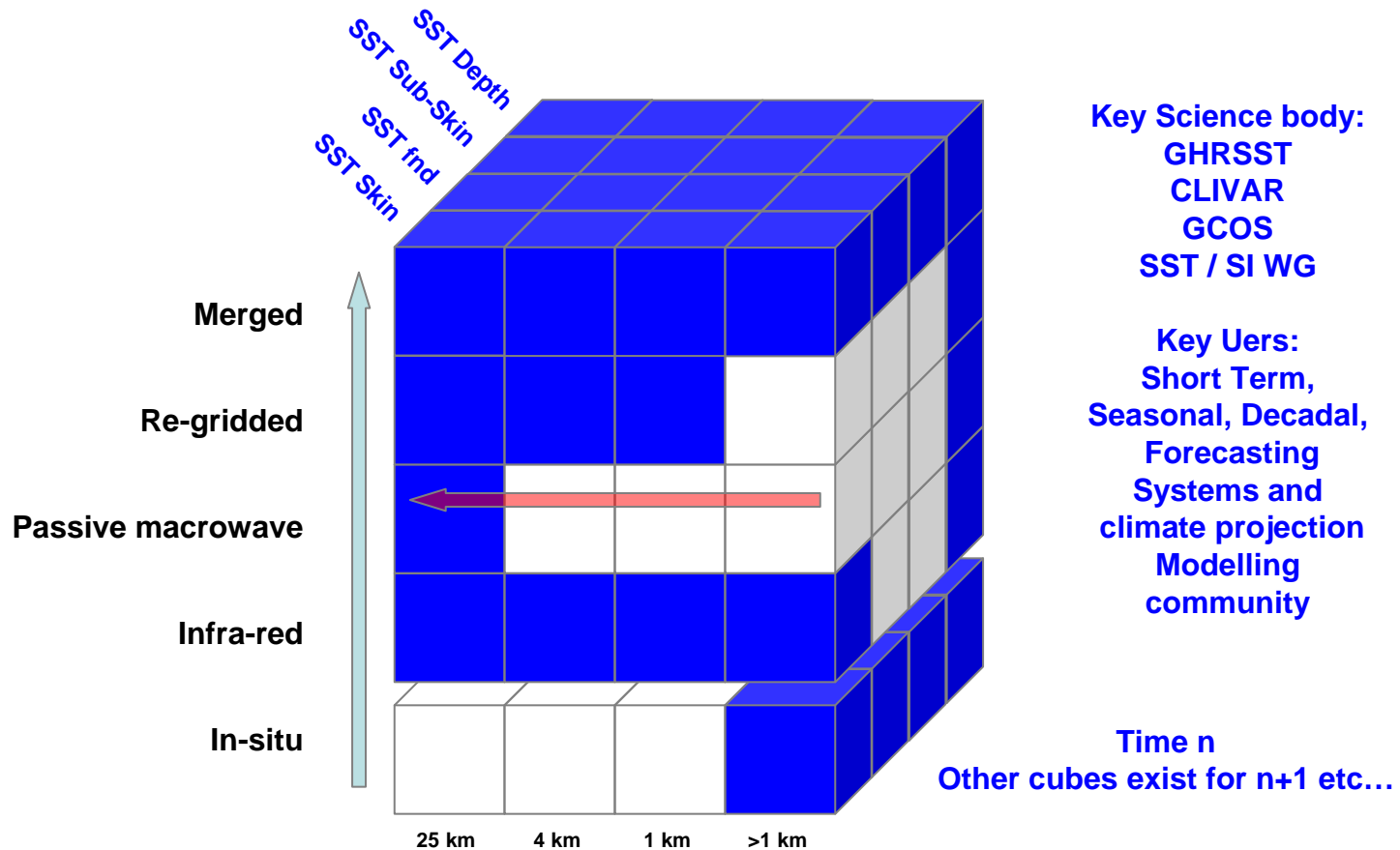


# O.3 – Sea surface temperature

- ... and process merged products



# O.3 – Sea surface temperature



 **Merging routes across instruments**

 **Spatial aggregation**

Note:

The purpose of the group is to coordinate the implementation of relevant actions and programs among agencies. It is not to define new requirements - these come from GCOS.

The group should ensure the more coherent production of FCDR/ECVs among agencies in response to the defined needs of GCOS. It is hence a working group, but given CEOS nomenclature the terminology as a new permanent “Working Group” was not proposed.