

# The CEOS (Virtual) Constellations - A Contribution to GEOSS

*A view on the concept and  
organization of Virtual Constellations*

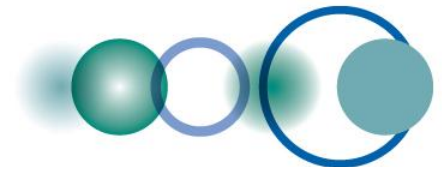


## CEOS Satellite Constellations for GEO

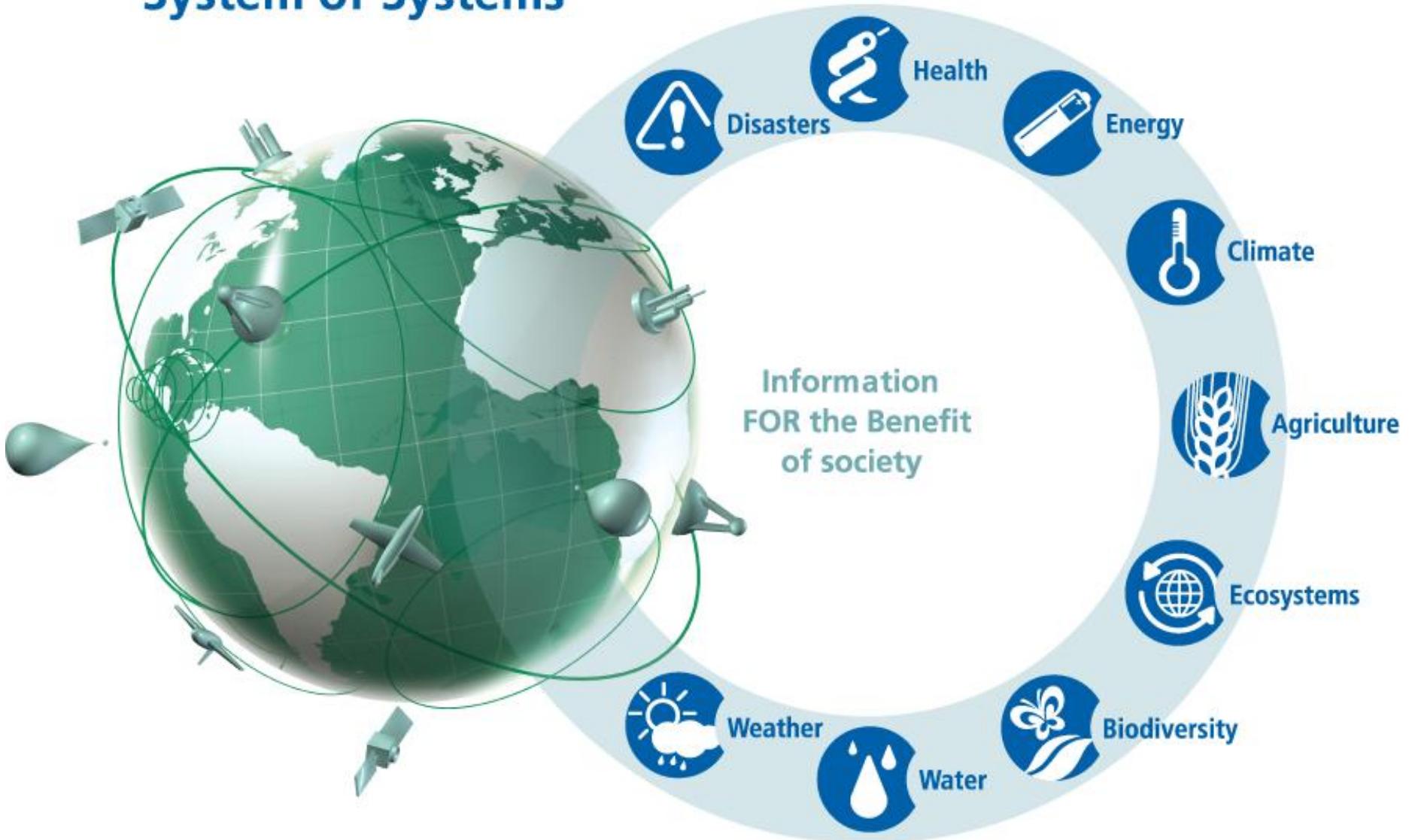
***Virtual constellation:*** A range/ number of satellites, the observations of which, if coordinated in their operation/exploitation have the potential for integration/merging, to contribute to a quantitative analysis/measurement goal. Components/satellites of a virtual constellation can either be already in independent operation or in the planning stage for a mission. In the virtual phase, however, their observations are yet un-coordinated (Examples for LSI are Landsat SPOT, CBERS, ALOS-PRISM).

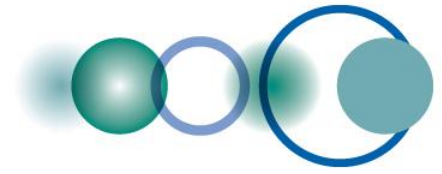
As opposed to that a “real” constellation could be:

***(Real) Satellite constellation:*** A range/number of satellites contributing with their observations to a common geo-biophysical analysis/measurement goal in a contemporaneous and measurement completing/ complementary fashion. Such “real” constellation can contribute to one or more disciplines, applications and as such be cutting across SBAs (Examples: A-Train)



# THE Global Earth Observation System of Systems

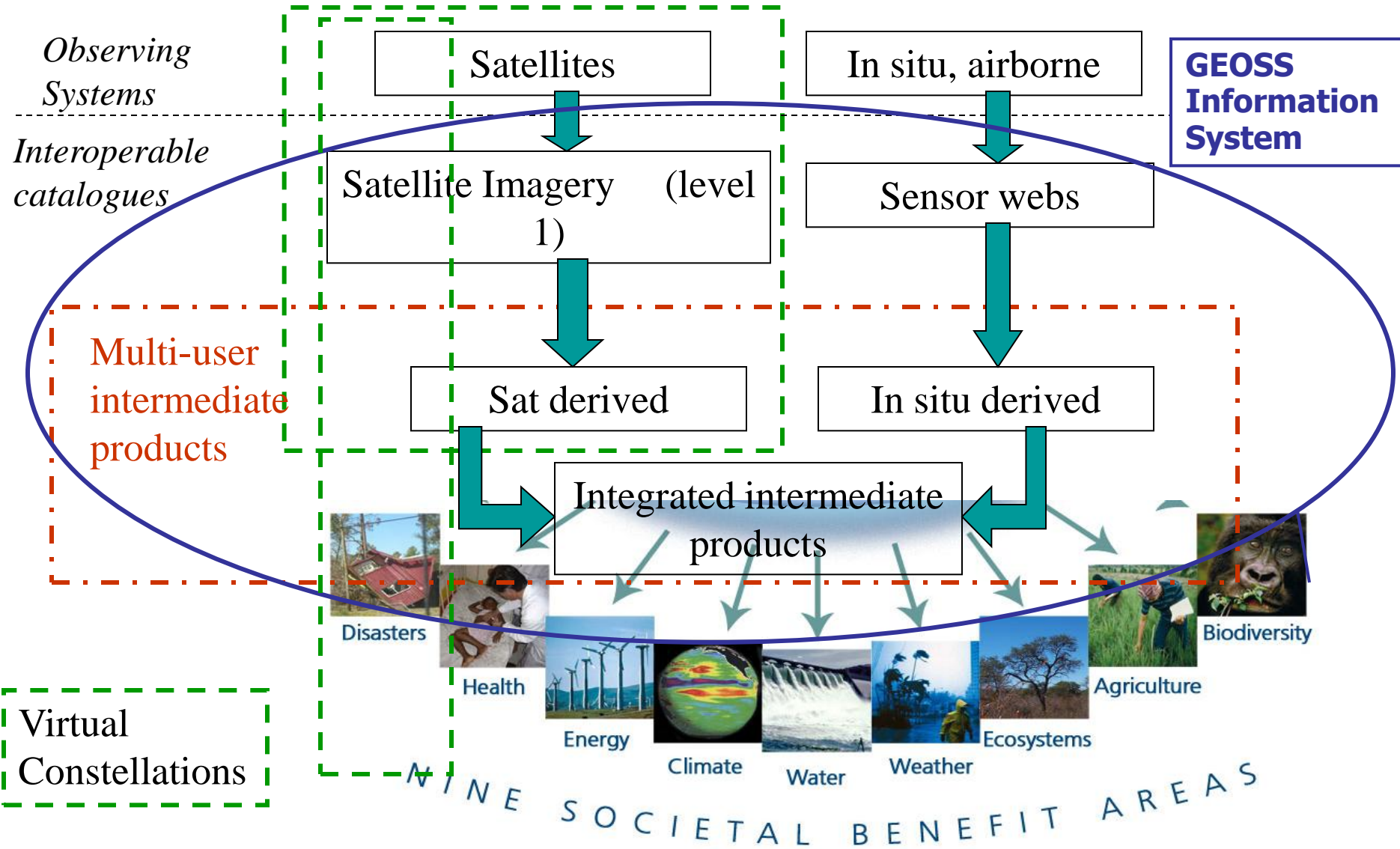






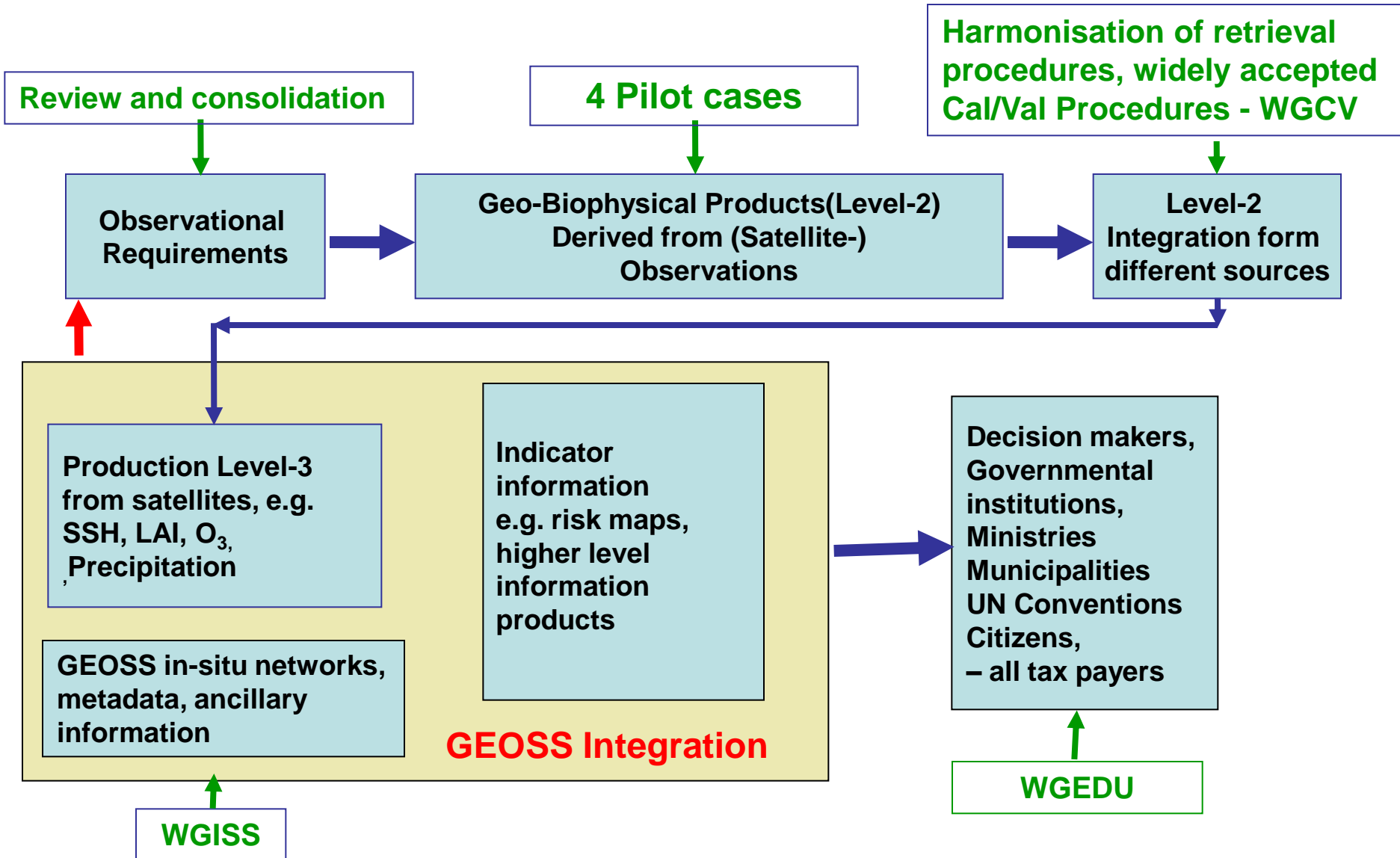


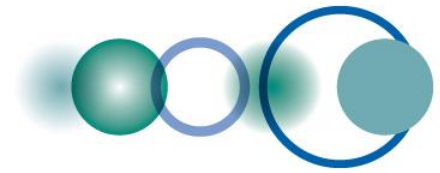
# Virtual Constellations within GEOSS





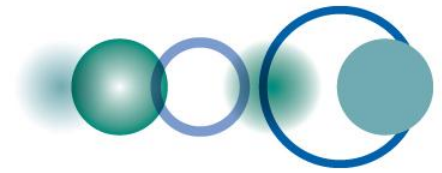
# CEOS – areas of potential emphasis for the future





# Conclusions

- **The concept of Virtual Constellation is a well suited space contribution to GEOSS**
- **The CEOS role, as a key actor in this process, and the associated responsibilities are acknowledged and understood**
- **The cross-cutting Dimensions of the various Constellations must be established and utilised**
- **New/emerging constellations must complement existing ones and fill the gaps in the utilisation of Space data for E.O.**
- **The three CEOS WG's have a role to play at several levels in the value chain.**



# **CEOS Contribution to the GEO 2009-2011 Work Plan**

**The Virtual Constellation Concept should be proven through end-to-end demonstrations. These should involve the whole GEO Community in order to encompassing the complete value chain from providers to final “beneficiaries”**