EGSIEM

Title: ESA's Climate Change Initiative (CCI) projects for Antarctica and Greenland

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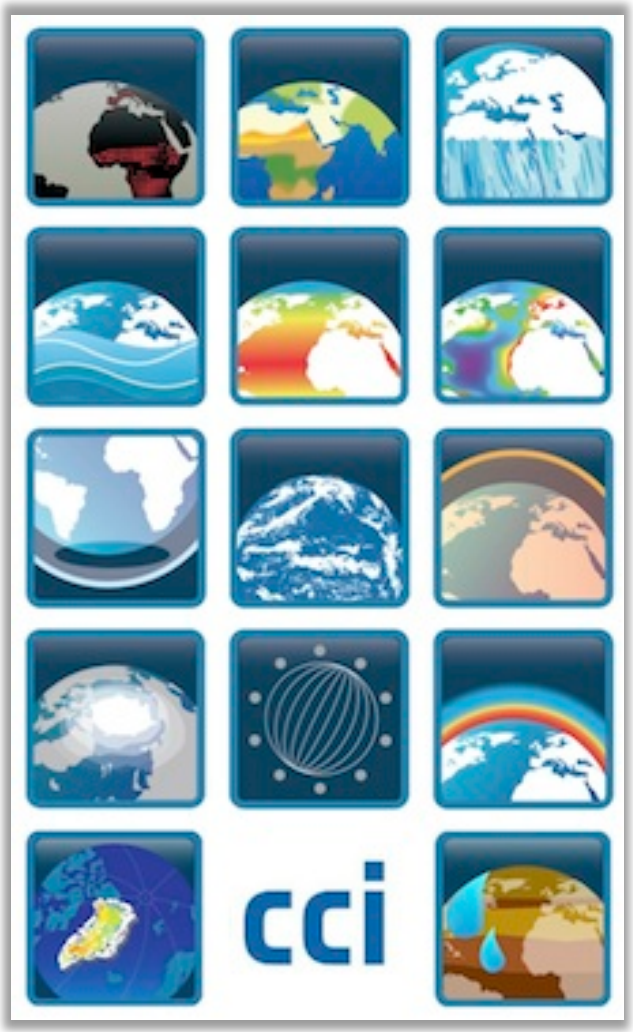
UNIVERSITÄT BERN · UNIVERSITÉ DU LUXEMBOURG · GFZ Helmholtz Centre Potsdam · TU Graz Graz University of Technology · Leibniz Universität Hannover · cnes · DLR · géode&cie · Horizon2020

ESA's Climate Change Initiative (CCI)

"making full use of Europe's Earth observation space assets to exploit robust long-term global records of essential climate variables"

Fire	Land cover	Glaciers
Sea Level	Sea Surf. Temp.	Ocean Color
Ozone	Clouds	Greenhouse Gases
Sea Ice	Climate Modeling User Group	Aerosols
Ice Sheets		Soil moisture



Ice Sheets CCI projects

Phase I: 3 years 2012 – 2014 (lead by DTU, R. Forsberg)

- Greenland only
- 4 parameters: ice velocity, surface elevation change, grounding line location, calving front location

Phase II: 3 years starting in early 2015

- Two closely coordinated projects:
  - Antarctica (lead by Univ. of Leads, A. Shepherd)
  - Greenland (lead by DTU, R. Forsberg)
- Gravimetric mass balance (from GRACE) as a new parameter.
  - Gridded mass changes
  - Mass changes of drainage basins

  Responsible: TU Dresden, DTU, TU Munich

Possible synergies

EGSIEM

- Evaluation of global time-variable gravity field series
- Provision of “the best” time-variable gravity field series
- Methods of mass change inferences (estimation approaches, filtering, handling of leakage, error assessment, …)
- Exploitation of, and feedback on, combined products for ice sheet applications

Questions / Comments welcome !