

# PROCESSING LINES AND OPERATIONAL SERVICES COMBINING SENTINEL AND IN-SITU DATA FOR TERRESTRIAL CRYOSPHERE AND BOREAL FOREST ZONE

### **SEN3APP**

PROJECT COORDINATION:

**BUDGET INFO:** 

**Total amount: 2,916,586 €** 

% EC Co-funding: **2,212,191** €

**DURATION: Start: 01/12/13 - End: 01/12/16** 

**PROJECT'S IMPLEMENTORS:** 

**Coordinating Beneficiary: FMI** 

Associated Beneficiary(ies): SYKE, VTT, GAMMA, ENVEO

















SEN3APP is concerned with the development, implementation, operationalization and validation of Sentinel data processing lines for cryospheric (terrestrial) and land cover/phenology applications.





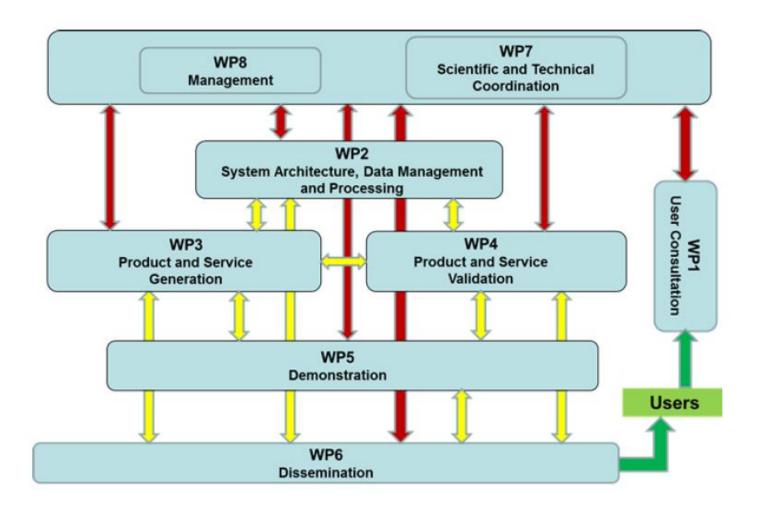




























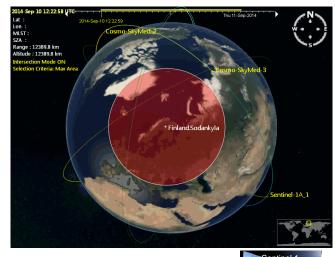
### Finnish Collaborative GS Initiative

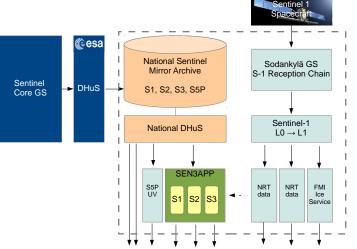
#### 1. Collaborative Acquisition Station

- Local reception of Sentinel-1 Direct Broadcast
- Focus on NRT and Quasi-Real-Time products
- Special Interests:
  - S1 -> Baltic Sea Ice monitoring, Oil spill monitoring, Artic ocean sea ice

#### 2. Collaborative Archiving Centre

- National Sentinel mirror site
- Provision of Sentinel data to Sentinel data users
  - S1, S2, S3, S5P
  - Users in Finland, Estonia, etc.
- Long-term data archive
- Automated data processing lines for specific and local area products
- Hosting of processing services







## Sodankylä National Satellite Data Centre







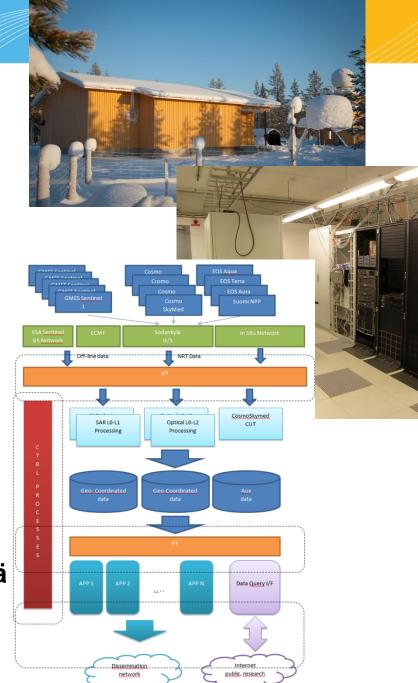


National satellite data center providing satellite data reception and data processing services to Finnish and international partners



# Computing facilities at Sodankylä

- Full scale computer building for processing of satellite, in situ (CAL-VAL) and ground based remote sensing data
- Security and Safety standards according to ESA data processing requirements.
  - UPS + backup generator
  - Dual cooling and airconditioning
  - Fire extinguisher system
- High speed 10 Gbit /s network connection between Sodankylä and Helsinki
- Open data delivery systems



#### **MAIN PROGRESSES:**

- Demonstration started in July 2015 and is still ongoing
- 11 SEN3APP products of the 4 categories land cover, snow, glacier and lake ice participate in the demonstration phase
- Demonstration products are generated and provided to (key) users for testing purposes (ongoing)
- SEN3APP portal is in progress
- Providing selected products through online geoportals is in preparation
- Product descriptions & access are ready for 11 demo products
- SEN3APP project will have a stand at the European Space Solutions Conference in Hague, 30 May-3 June, 2016.

















#### **FUTURE WORK:**

- Continue on collecting end-users' feedback on product and services
- Validation of products with the available satellite data
- Demonstration of the products will be continued
- Demonstration products are provided to selected key users for testing purposes
- Demonstration products will be disemminated via SEN3APP Portal













