Production of demo data and assessment

Objectives:

The objective of this work package is to prepare prototype datasets to demonstrate the capabilities of the processing schemes developed in WP1 and WP2 and the new data products and processing chains defined in WP3.

Task 4.1 Processing of Cryosat-2 ocean data. (Starlab)

Task 4.2 Processing of Cryosat-2 land data. (DTU/UNEW/Starlab)

Task 4.3 Preparation of prototype data sets (CLS)

Task 4.4 Development of multi-satellite and in-situ validation and long term referencing data set. (Starlab and DTU)

Task 4.5 Assessment of Cryosat-2 ocean prototype data. (DHI)

Task 4.6 Assessment of Cryosat-2 land prototype data.(Starlab/UNEW)

WP 4 Deliverables

Delive-rable Number [61]	Deliverable Title	Lead benefi-ciary number	Estimated indicative person-months	Nature [62]	Dissemi-nation level [63]	Delivery date [64]
D4.1	Processed ocean SAR data	2	7.00	P	PU	18
D4.2	Processed land SAR data	6	10.00	P	PU	18
D4.3	Prototype data sets for ocean and land applications	4	8.00	P	PU	21
D4.4	Dataset for validation and long term referencing	2	6.75	P	PU	21
D4.5	Report describing results from the assessment of the prototype data sets	2	8.00	R	PU	24
		Total	39.75			

WP4.1

Processed ocean SAR data – Open ocean

Area name	Geographical Coverage	Temporal coverage
N.E. Atlantic	13W – 15E, 48N – 59N	1st May 2012, 30th April 2014
Bay of Singapore	98E – 121E, 4S – 25N	1st May 2012, 30th April 2014
Adriatic Sea	12E – 20E, 40N – 46N	1st May 2012, 30th April 2014

Processed ocean SAR data – Open ocean

Area name	Geographical Coverage	Temporal coverage
N.E. Atlantic	15W – 17E, 46N – 61N	1st May 2012, 30th April 2013
Adriatic Sea	10E – 22E, 38N – 48N	1st May 2012, 30th April 2013

- Level-2 ocean geophysical parameters from Cryosat-2 SAR-mode data
- Includes pseudo pulse limited (PLRM) estimates
- 1Hz and 20Hz measurements
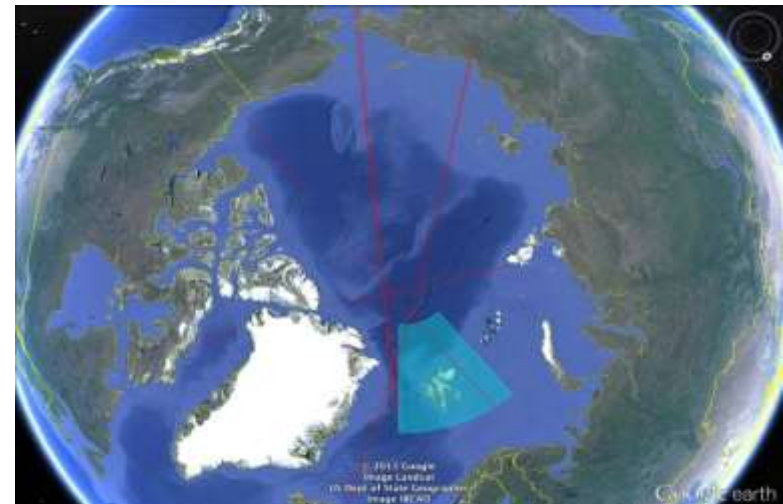- NetCDF files CF (Climate Forecast)
- Available: https://nas-ext.cls.fr/fbsharing/PRPt1Kuc

Processed ocean SAR data – Polar Ocean

Area name	Geographical Coverage	Temporal coverage
Svalbard	0E – 40E, 75N – 85N	201
North Pole tracks	Up to 88N	2011-2013

- Level-2 ocean geophysical parameters from Cryosat-2 SAR-mode data
- 20Hz measurements
- NetCDF files CF (Climate Forecast)
- Available: https://nas-ext.cls.fr/fbsharing/PRPt1Kuc

WP4.2 – Processing of Land

- **River and Lake**

Geographical name	Geographical coverage	Temporal covarage
Denmark	8E-13E ; 54.5N-58N	July 2010 – July 2014
Thailand/ Chao Phraya river	99E-102E ; 13.25N-17N	July 2010-July 2014
Amazon river	47W-61W ;5S-3N	Oct. 2012- July 2014
Brahmaputra river	89.5E-91.5E ; 21.75N-24.25N	Oct. 2012 - July 2014

- **Soil Moisture**

Desert	Lower Longitude Bound (Degrees)	Lower Latitude Bound (Degrees)	Higher Longitude Bound (Degrees)	Higher Latitude Bound (Degrees)
Simpson	135.0 E	28.0 S	139.0 E	24.0 S
Tenere	9.0 E	15.0 N	16.0 E	21.0 N
Kalahari	18.0 E	27.0 S	28.0 E	17.0 S

- **Snow Depth**
- Cryosat-2 + Envisat for North American/Canadian region.

WP4.4

Multi satellite and in situ reference datasets

Ocean/land product	Geographical Coverage
Open Ocean	In-situ (Anemometer, Wave rider), Altimeter (Jason-2), Models (CFSR, Mike)
Coastal Area	In-situ (Anemometer, Wave rider), Altimeter (Jason-2), Models (CFSR, Mike)
Polar Ocean	Satellite altimeter, Tide gauge
River and Lake levels	Satellite altimeter (Envisat, AltiKa), Airborne laser data, lake gauges, river gauges
Soil moisture	Satellite altimetry (Jason 2 LRM)
Snow depth	N.A.