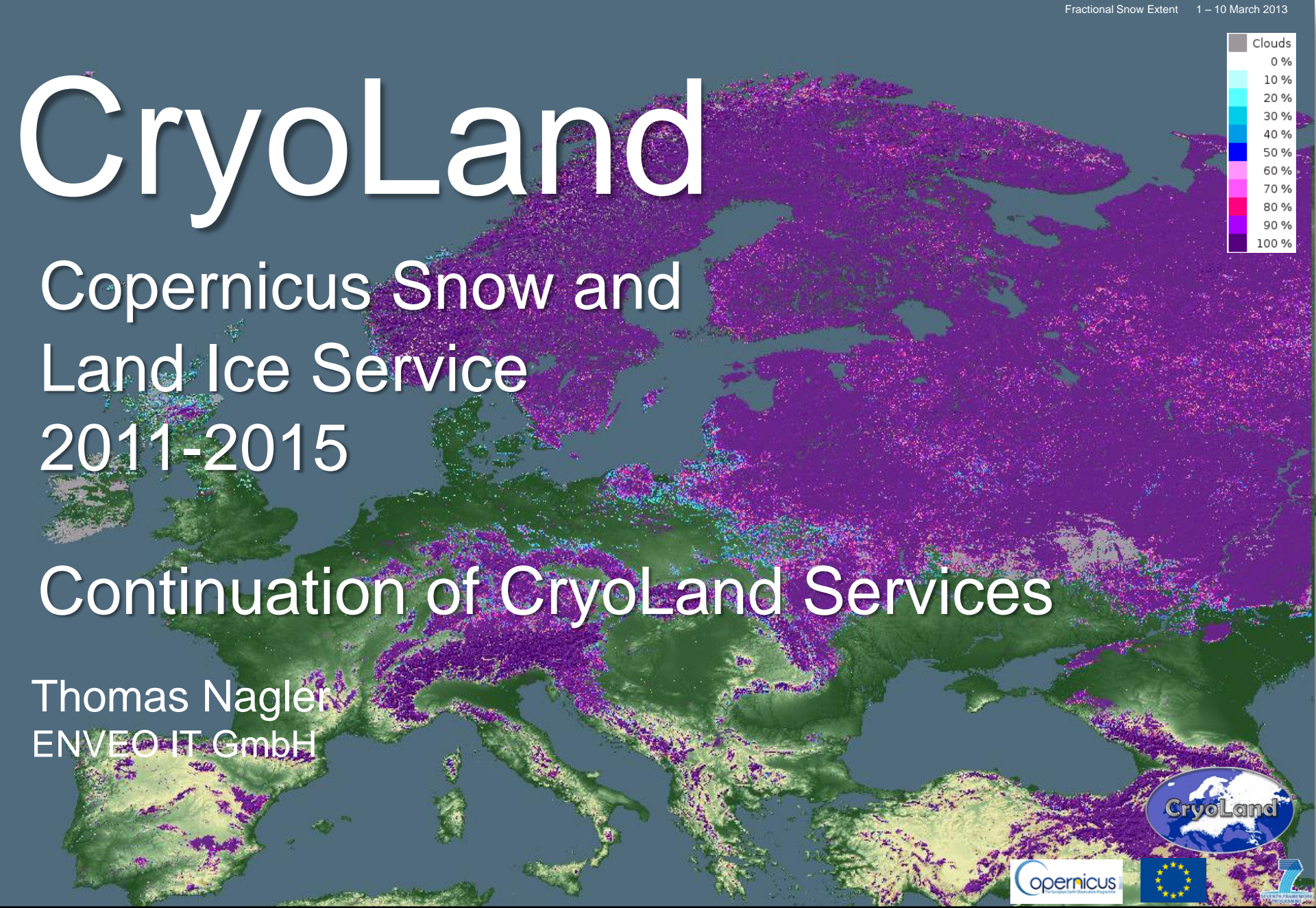


CryoLand

Copernicus Snow and Land Ice Service 2011-2015

Continuation of CryoLand Services

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Continuation of Pan-European CryoLand Snow Products and Services



Product type	Spatial resolution	Temporal Coverage	Coverage	Latency time	EO sensors
Snow extent, Pan-European	500 m	Daily, full year 2000 -> Today NRT since 2012/13	35 N – 72 N 11 W – 50 E	<1 day	MODIS, Sentinel S3
Snow Water Equivalent	25 km	Daily, dry snow season 2011 → Today	35 N – 72 N 11 W – 50 E	<2 days	SSM/I/S, AMSR2

Until 2017: Near Real Time Pan-European Snow Services will be provided by ENVEO/SYKE/FMI with best efforts using MODIS (VIIRS) data as input. Technical adaptations for transition to use Copernicus Sentinel-3 data (launch Q3/4 2015) are carried out by project partners.

Snow Services within Copernicus Land Monitoring Services:

Pan-European Snow Services (FSC, SWE) are part of the Copernicus Working Programme / 2014 and are planned to be implemented and funded within the Copernicus Land Monitoring Services.

CryoLand Regional Snow Products and Downstream Services



Product type	Spatial resolution	Temporal Coverage	Coverage	Latency time	EO sensors	Provider
Snow extent, regional	250 m – 500 m	Daily, full year	Alps	<1 day	MODIS Sentinel S1, S3	ENVEO
Melting snow area	100 m	2-5 days Spring/Summer/ Fall/Winter	Alps	<1 day	Sentinel S1 (ASAR arch.)	ENVEO
Snow extent, regional	250 m – 500 m	Daily, full year	Scandinavia	<1 day	MODIS Sentinel S1, S3	KSAT
Melting snow area	100 m	2-5 days Spring/Summer/ Fall/Winter	Scandinavia	<1 day	Sentinel S1 Radarsat-2 (ASAR arch.)	NORUT / KSAT
Snow extent, regional	250 m – 500 m	Daily, full year	Baltic Sea area	<1 day	MODIS Sentinel S3,	SYKE / FMI
Snow Surface Wetness and Temperature	1000 m	March - June	Southern Norway	<1 day	MODIS Sentinel S3,	NR

Downstream Services will continue to operate until mid of 2016

Please contact the product provider for long term continuity and adjustment of services to your needs.

Glacier Downstream Services



Product type	Coverage	Grid / Projection	Latency time	Sensor
Glacier outlines	Local, regional (on user request)	Lat/Lon / WGS84, UTM / WGS84	-	High resolution Optical, SAR
Snow/ice area on glaciers	Local, regional (on user request)	Lat/Lon / WGS84, UTM / WGS84	-	High resolution Optical, SAR
Glacier Ice velocity	Local (on user request)	Lat/Lon / WGS84, UTM / WGS84	-	SAR
Glacier lakes	Local (on user request)	Lat/Lon / WGS84, UTM / WGS84	~10 days (quick analysis, few hours in case of emergency)	High resolution Optical, SAR

Glacier products can be generated around the globe, using Sentinel-2 and Sentinel-1 SAR data as input. ENVEO and GAMMA generate the products on the request of users.

Downstream Lake / River Ice Services for Northern Countries



Product type	Coverage	Grid / Projection	Latency time	Sensor	Provider
Lake ice extent (4 classes)	Daily Baltic Sea area (operational)	Lat/Lon / WGS84	< 3 days	MODIS/Terra, Sentinel-3	SYKE
River ice jam, flood inundation area	on user request Scandinavia	Lat/Lon / WGS84	< 3 days	High res. SAR (1-30 m)	NORUT

Lake ice services are provided operationally for the Baltic Sea Area by SYKE.

NORUT provides river ice products on demand of users. Quick processing is possible in the case of ice jams and flooding.

Downstream Services will continue to operate until mid of 2016

Please contact the product provider for long term continuity and adjustment of services to your needs.

Extending the Operation of the CryoLand Server and Geoportal



ENVEO commits to operate the CryoLand Server and Geoportal with best efforts at least until 2017, supporting the provision of services and delivery of products generated by CryoLand partners.