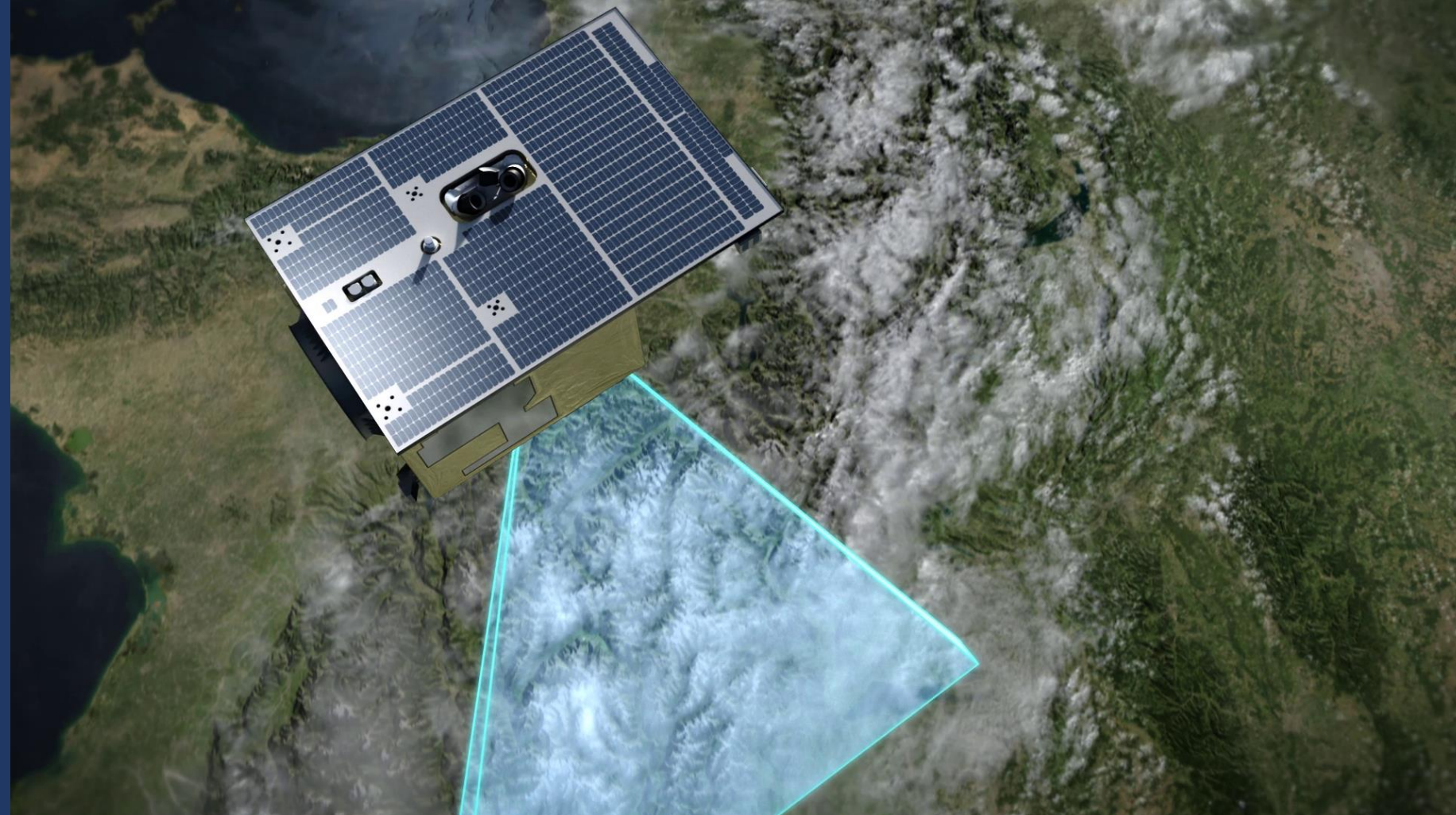


E. Carmona¹, M. Habermeyer², H. Mühle², M. Pato¹ and N. Pinnel²

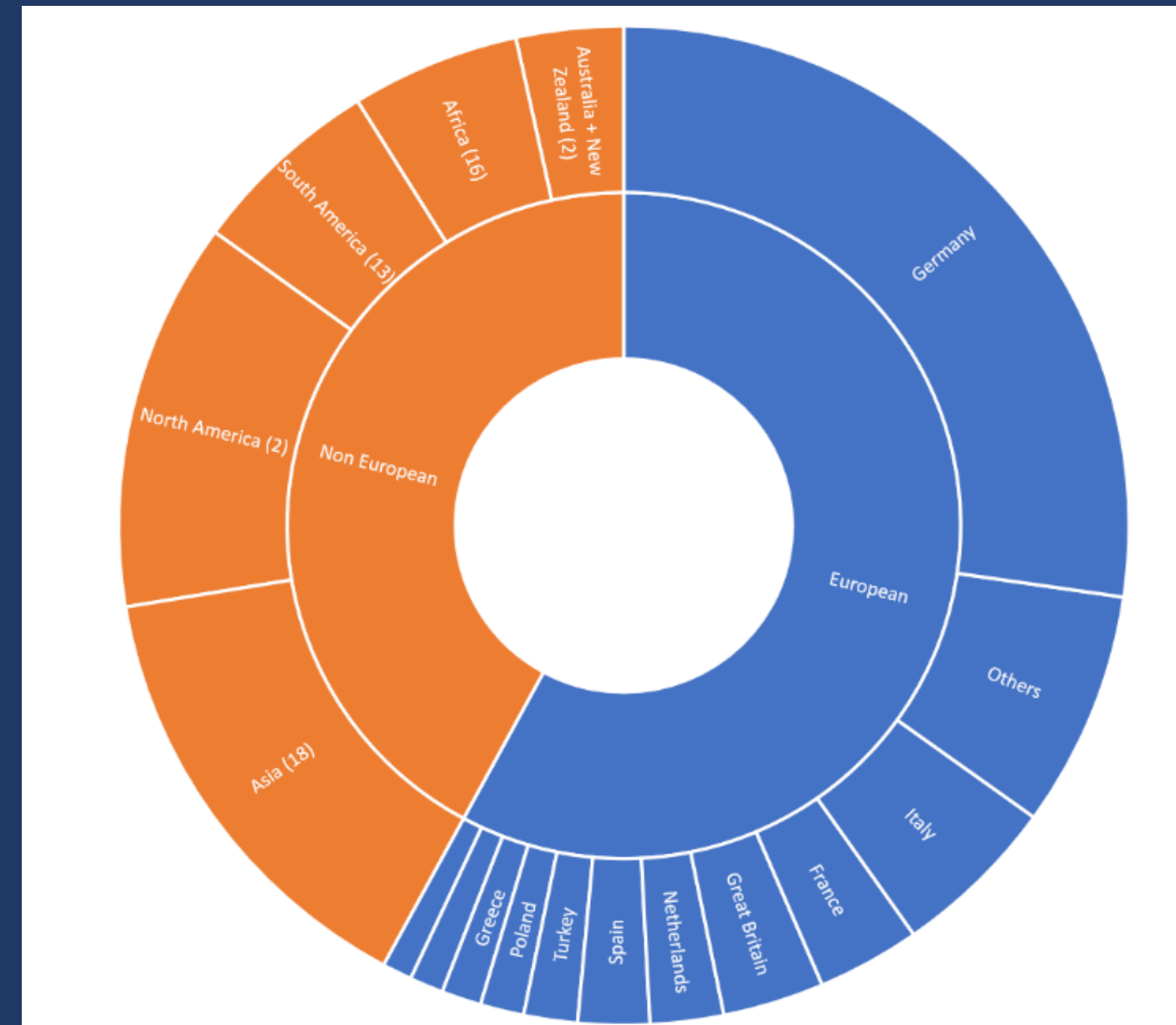
(¹) Remote Sensing Technology Institute, DLR, Oberpfaffenhofen, 82234 Wessling, Germany
 (²) German Remote Sensing Data Center, DLR, Oberpfaffenhofen, 82234 Wessling, Germany

13th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing

EnMAP Mission



- Total of 1584 users from 83 different countries since beginning of Commissioning Phase until 30.06.2023

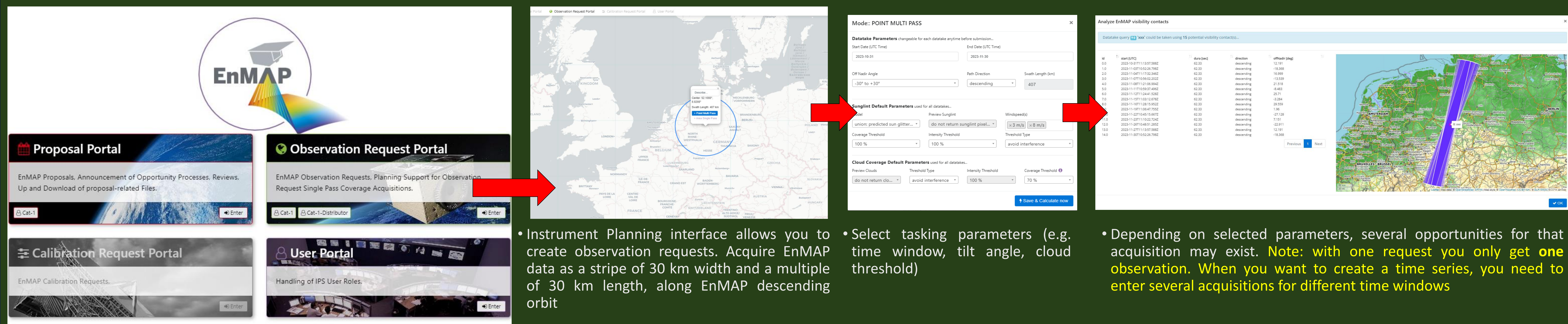


Topic	Proposals (released) since start of Routine Phase (02.11.2022 – 30.09.2023)				Total
	2022		2023		
	Q4	Q1	Q2	Q3	
ATMOSPHERE	3	1	5	1	10
CAL/VAL	6	4	5	4	19
GEO/SOIL	15	38	32	15	100
HAZARD/RISK	1	2	1	2	6
METHODS	1	4	3	3	11
SNOW/ICE	(-)	4	2	1	7
URBAN	(-)	2	2	4	8
VEGETATION	18	61	47	22	148
WATER	9	16	13	3	41
Total	53	132	110	55	350

(450 submitted)

- EnMAP Mission Quarterly reports (available at <http://www.enmap.org/mission>) provide more details on registered users, registered proposals and acquired data. Other useful contents of the quarterly reports are: calibration performance, processing software updates and data quality checks

Tasking EnMAP



- Instrument Planning interface allows you to create observation requests. Acquire EnMAP data as a stripe of 30 km width and a multiple of 30 km length, along EnMAP descending orbit
- Select tasking parameters (e.g. time window, tilt angle, cloud threshold)
- Depending on selected parameters, several opportunities for that acquisition may exist. Note: with one request you only get one observation. When you want to create a time series, you need to enter several acquisitions for different time windows

EnMAP Instrument Planning Portal (IPP)

<https://planning.enmap.org/>



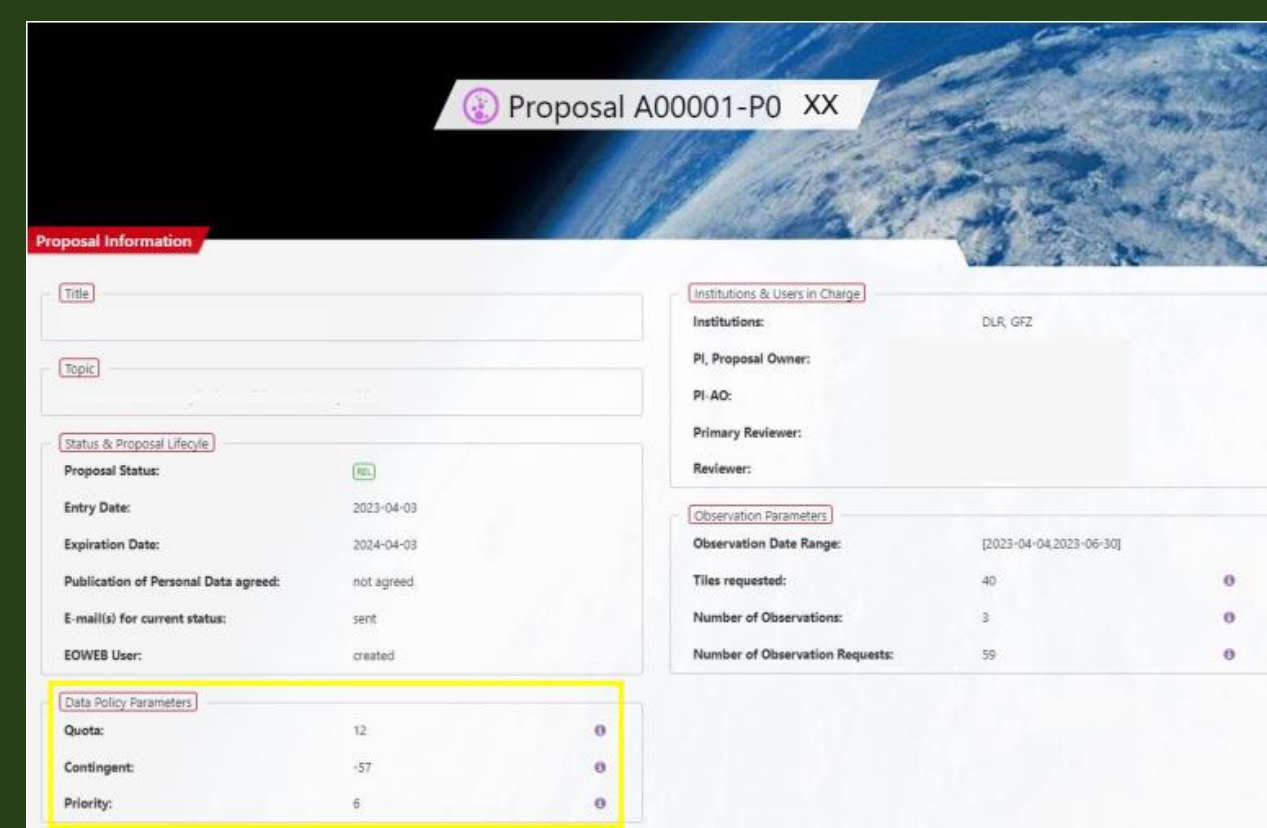
- Use IPP to register and access EnMAP Ground Segment services

- Proposal handling
- Instrument planning
- Data processing and download

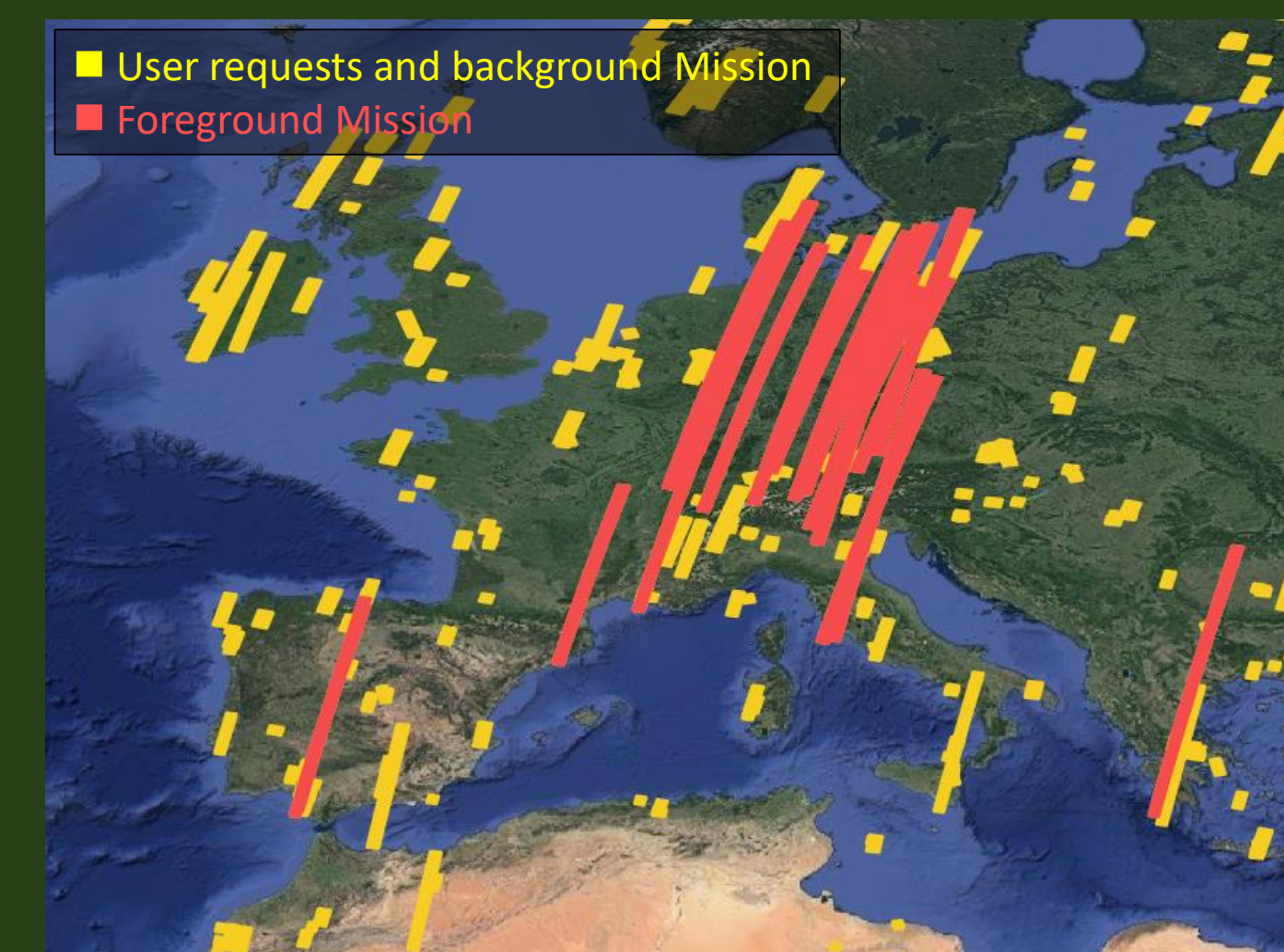
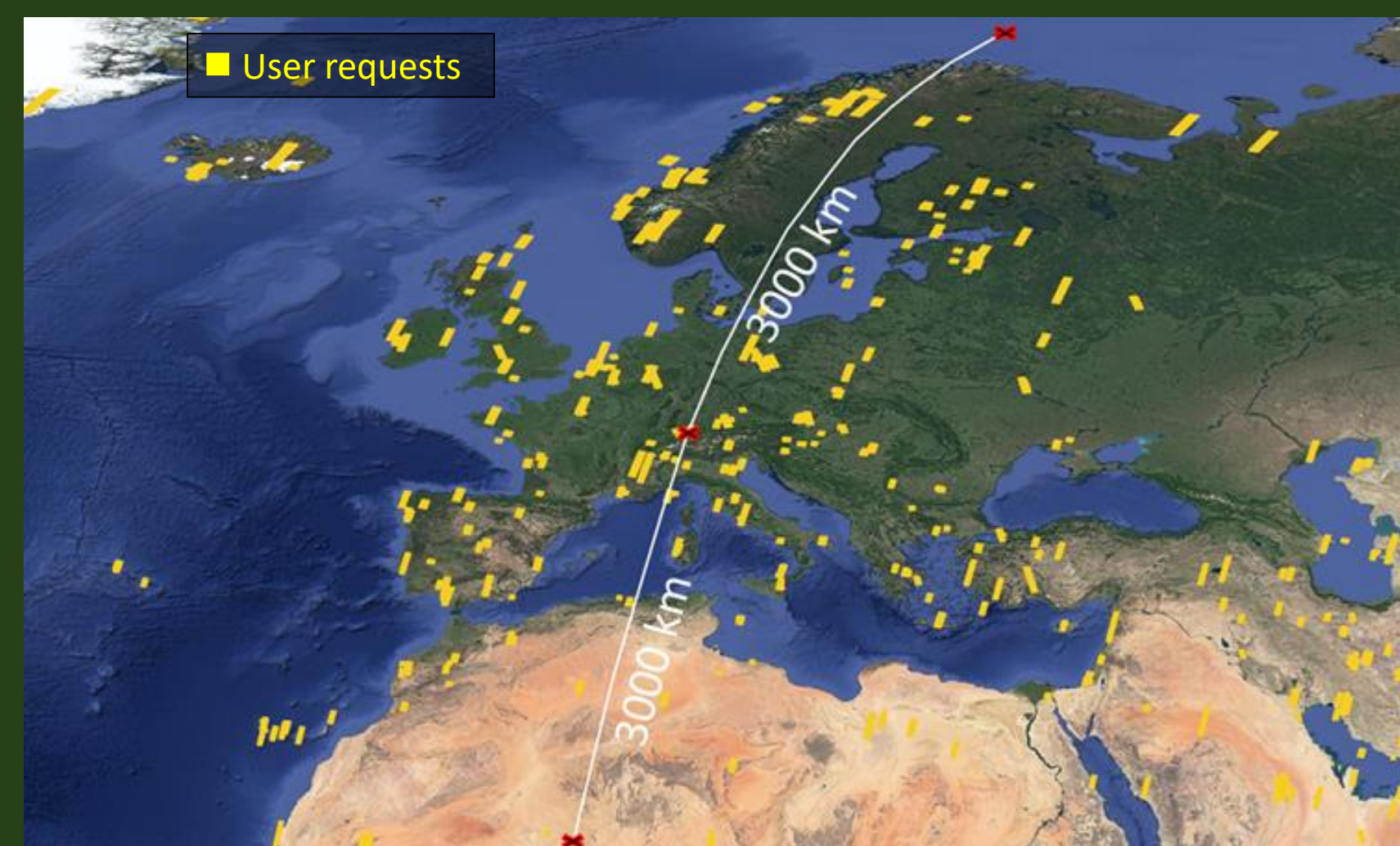
- Available User roles are:

- Cat-1 (Science)**. Upon proposal approval the instrument can be tasked (and catalogue orders placed). Three tasking priorities possible for tasking: high (7), normal (6), low (4) when quota consumed

- Cat-1 Distributor** (catalogue orders only). No proposal necessary. Can order any number of products from the Mission data archive



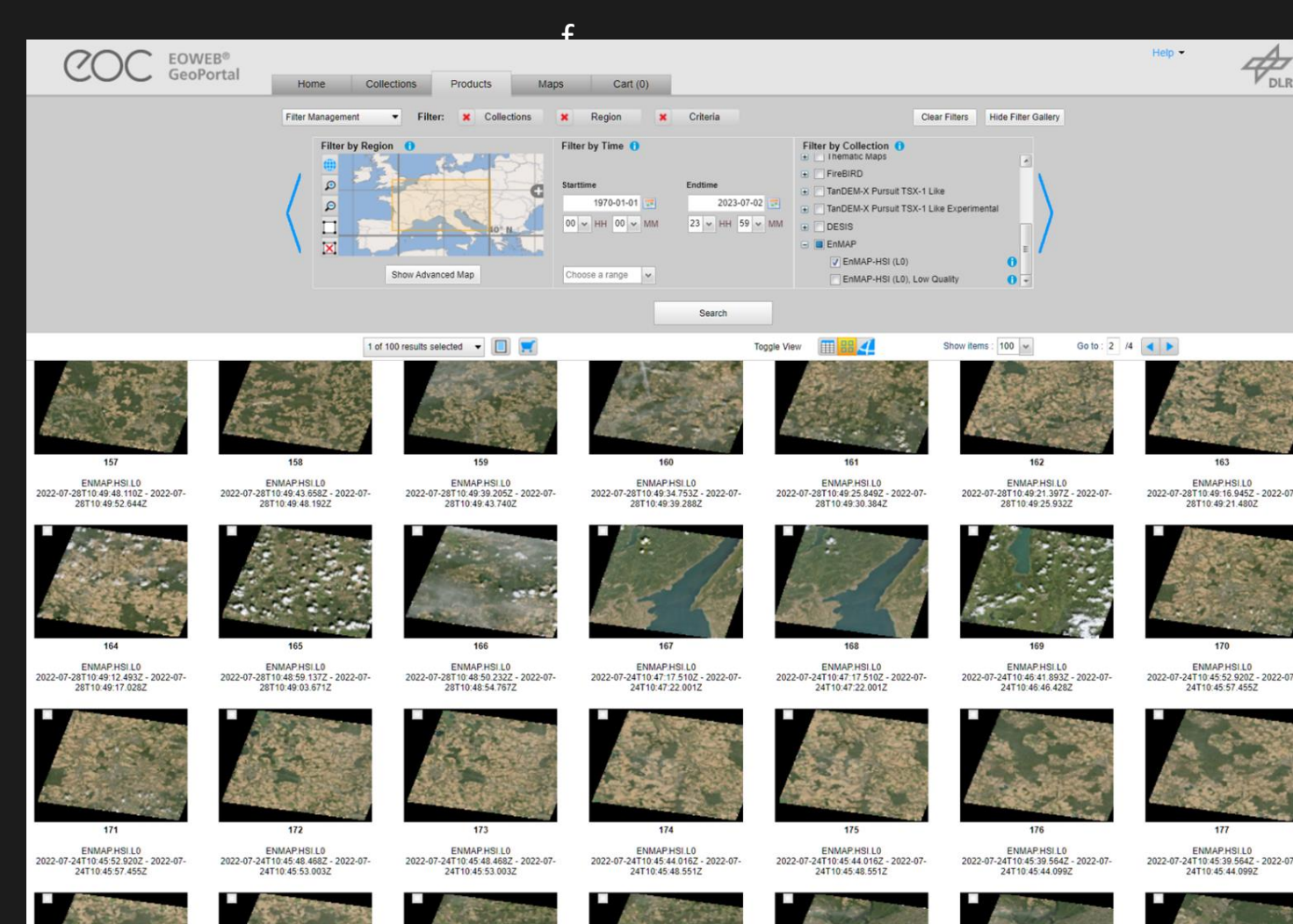
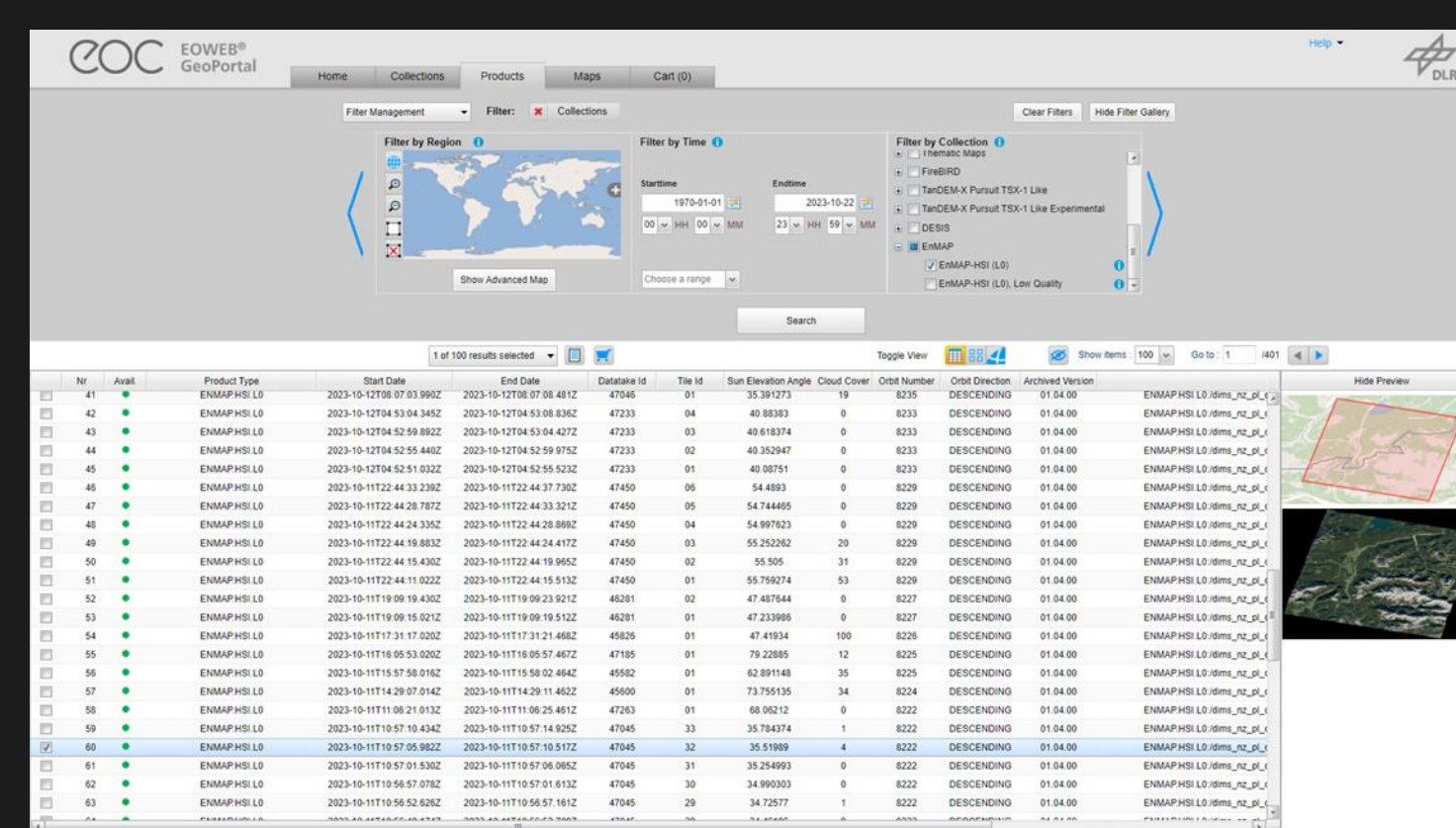
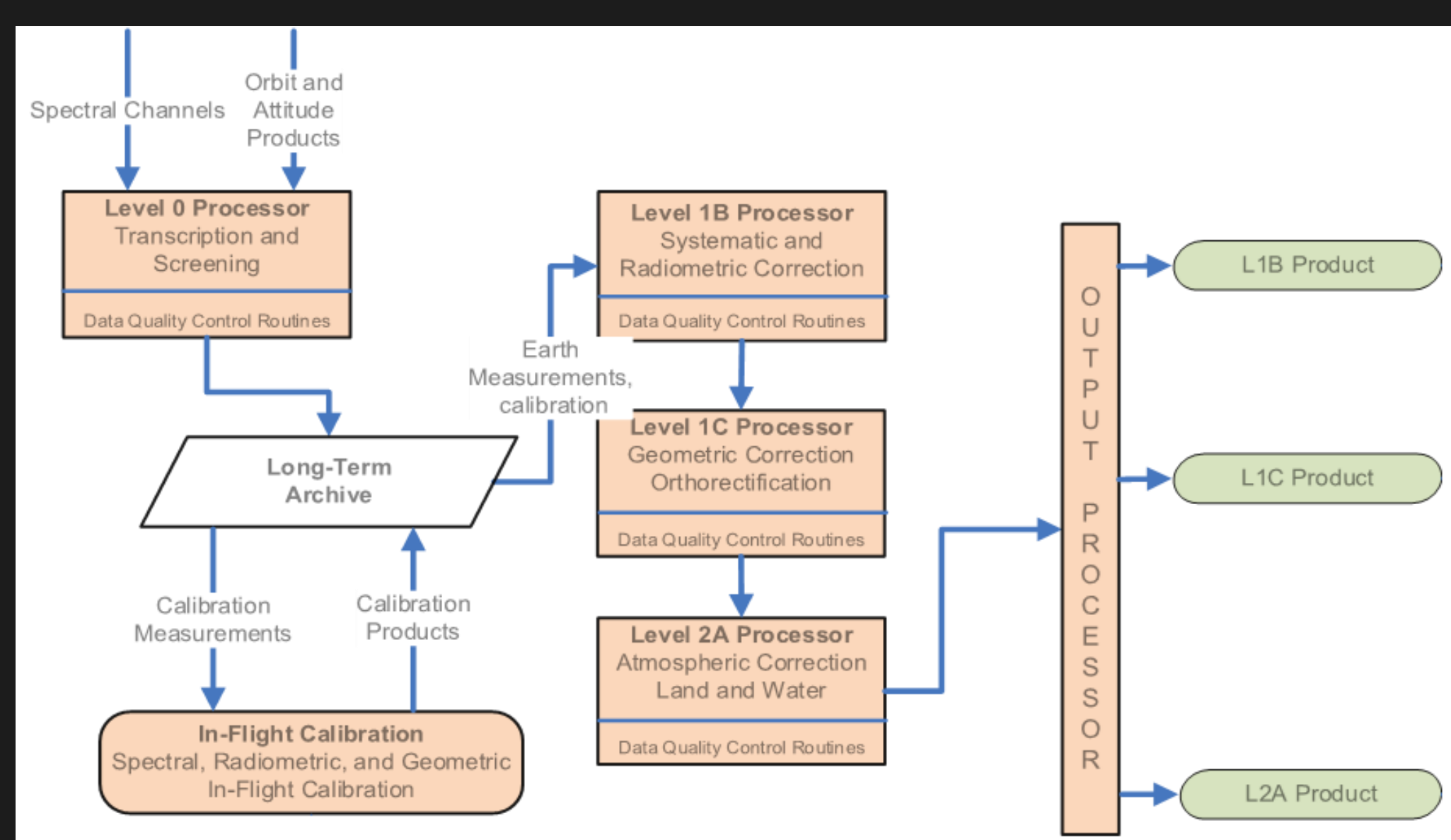
- Creating a request does not guarantee entering the satellite schedule. Tasking decision depends on cloud statistics and forecast, satellite restrictions, priority and quota as well as number of competing requests
- EnMAP can perform one observation, up to 1000 km long, every ~7 minutes. Most user requests are 30-90 km, limiting the data volume acquired over highly requested areas (e.g. Europe). To increase the data volume, high priority observations are being scheduled (Foreground Mission). Unused instrument time is assigned to background mission with lower priority. Currently background mission observations amount to 70% of acquired EnMAP data



Getting User Data Products

- Data archived as **L0** products with annotated metadata. Three on-demand processing levels available with a number of selectable options for each level:

- L1B**: Radiometrically corrected at-sensor TOA radiance. Includes geometric information as RPCs. Selectable output format
- L1C**: Radiometrically corrected orthorectified TOA radiance. Additional options for resampling method and image projection
- L2A**: Atmospherically corrected orthorectified BOA reflectance. Selectable atmospheric correction for land or water. Additional atmospheric correction options for terrain correction, haze removal, ozone values, season, water turbidity



German Satellite Data Archive through EOWEB Geoportale:

<https://eoweb.dlr.de/egp/>



- Browsable data catalogue. Filtering options based on geographic coordinates, date and selected metadata entries. Note: to activate more filtering options, you need to mark only one type of EnMAP product
- Re-processing of commissioning data on-going. Note: always use highest „Archived Version“ products for best VNIR-SWIR co-registration performance when more than one archived version exist for the same image
- By 30.09.2023 there are 39,000 EnMAP products (30x30 km tiles) ready to be ordered and processed on demand. Coverage is shown in the image below:

