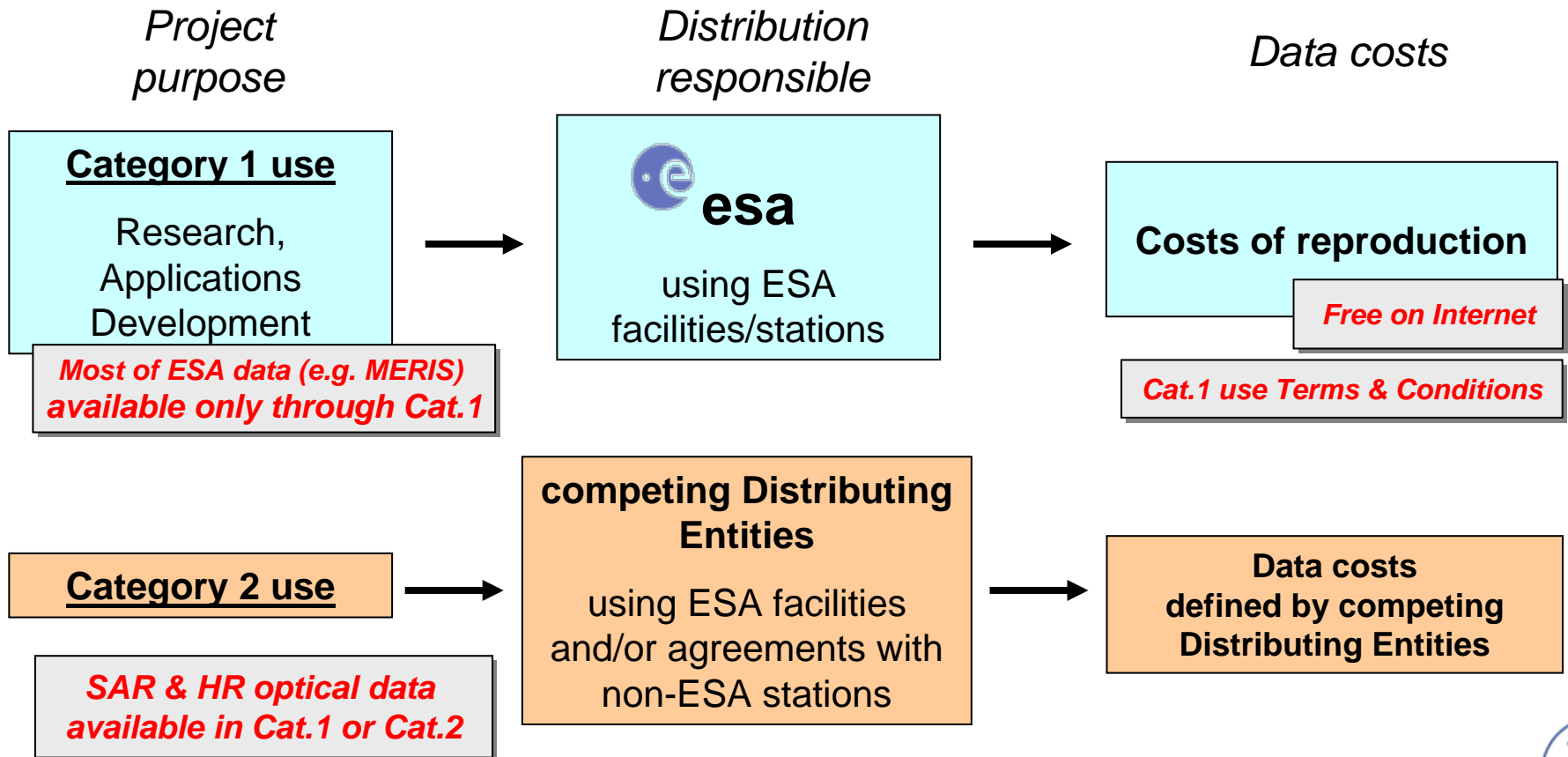


ESA and ESA TPM Earth Observation data: Sharing, access and lag-times

Presented by Francesco Palazzo

Data policy defined by ESA Member States:

- ❑ to stimulate a balanced development of Science, Public Utility and Commercial Applications, consistent with the mission objectives,
- ❑ to maximize the beneficial use of data from ESA EO satellites.



Main points:

- to use the data provided for Category 1 use only **within the project team** (i.e. PI and co-PIs) and *only for the purpose described in the project proposal*
 - **i.e. no data redistribution outside the Cat.1 use project team**
- to widely **publish** the project results in **scientific publications** or presentations,
 - with data citation:
 - “*[mission or instrument] Data provided by European Space Agency*”
 - (to facilitate ESA web searching of publications, and subsequent reporting on mission/instrument achievements)

Note: for TPM data, additional restrictions may apply, based on the contents of ESA agreement with the mission owners

Each PI shall sign the Category 1 use Terms & Conditions.

Application for Category 1 use data access can be submitted to ESA at any time using the ESA Earth Observation Principal Investigator portal (<http://eopi.esa.int>)

<http://eopi.esa.int>

02-May-2007 UT Contact us

Data Access How to get data

- ESA Data Policy
- How to get data
- Open AOs
- Previous AOs
- Update & Reporting
- Results & News
- Results
- News
- Search
- Focus on PI
- PI Training
- Information
- About this site
- FAQ
- Related Links
- HOME

Products systematically available on Internet → Fast Registration

Free of charge products
Fast registration required, with no deadline for submission. [ESA Terms and Conditions](#) to be signed.

Products available on specific request → Category 1 Project Proposal

(e.g. i.e. specific instrument tasking, products not generated systematically, products not available on Internet)

Available at cost of reproduction ([ENVISAT](#), [ERS](#) and [Third Party Missions](#))
Project proposal required, with no deadline for submission, to be evaluated by the Category-1 Scientific Advisory Group

Specific restrictions to the use of data may apply for Third Party Missions
If accepted by ESA, [Terms and Conditions](#) to be signed

Products offered within an ESA Announcement of Opportunity (AO)
Available following the specific rules set in the Main Text of the AO (normally free of charge)
Project proposal required, fitting objectives, restrictions and deadlines of the AO, to be evaluated by the AO Scientific Advisory Group
If accepted by ESA, [Terms and Conditions](#) to be signed
Click the logo for information about open AOs

Announcements of Opportunity

the Living Planet

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Products available on-line: example with Envisat

DDS ←

DDS ←

DDS ←

Envisat <u>NRT & recent data</u>		availability	period	coverage
MERIS Red. Resolution (1200 m) ASAR Medium Resolution (75 m) ASAR Global Monitoring (1000 m)	Systematic (i.e. processing of all data) Product available within 3 hours from acquisition (95%)	Rolling archive of last 7 days	Worldwide coverage	
AATSR Altimetry				
SCIAMACHY, GOMOS				
MERIS Full Resolution (300 m) <i>Level 1 – Europe coverage</i>	Systematic	Rolling archive of last 20 days	Europe coverage	
MERIS Full Resolution (300 m) ASAR High Resolution (12.5 m)	On request	Few hours after acquisition	According to ins. planning	

Fast registration

Internet

Full proposal




Envisat <u>archived data</u>		availability	period	coverage
MERIS Red. Resolution (1200 m) Altimetry SCIAMACHY, MIPAS, GOMOS AATSR (<i>end 2007</i>)	Systematic (i.e. for each re-processing of the data)	Whole mission since mid-2002	Worldwide coverage	
MERIS Full Resolution (300 m) ASAR High Rate				

Fast registration

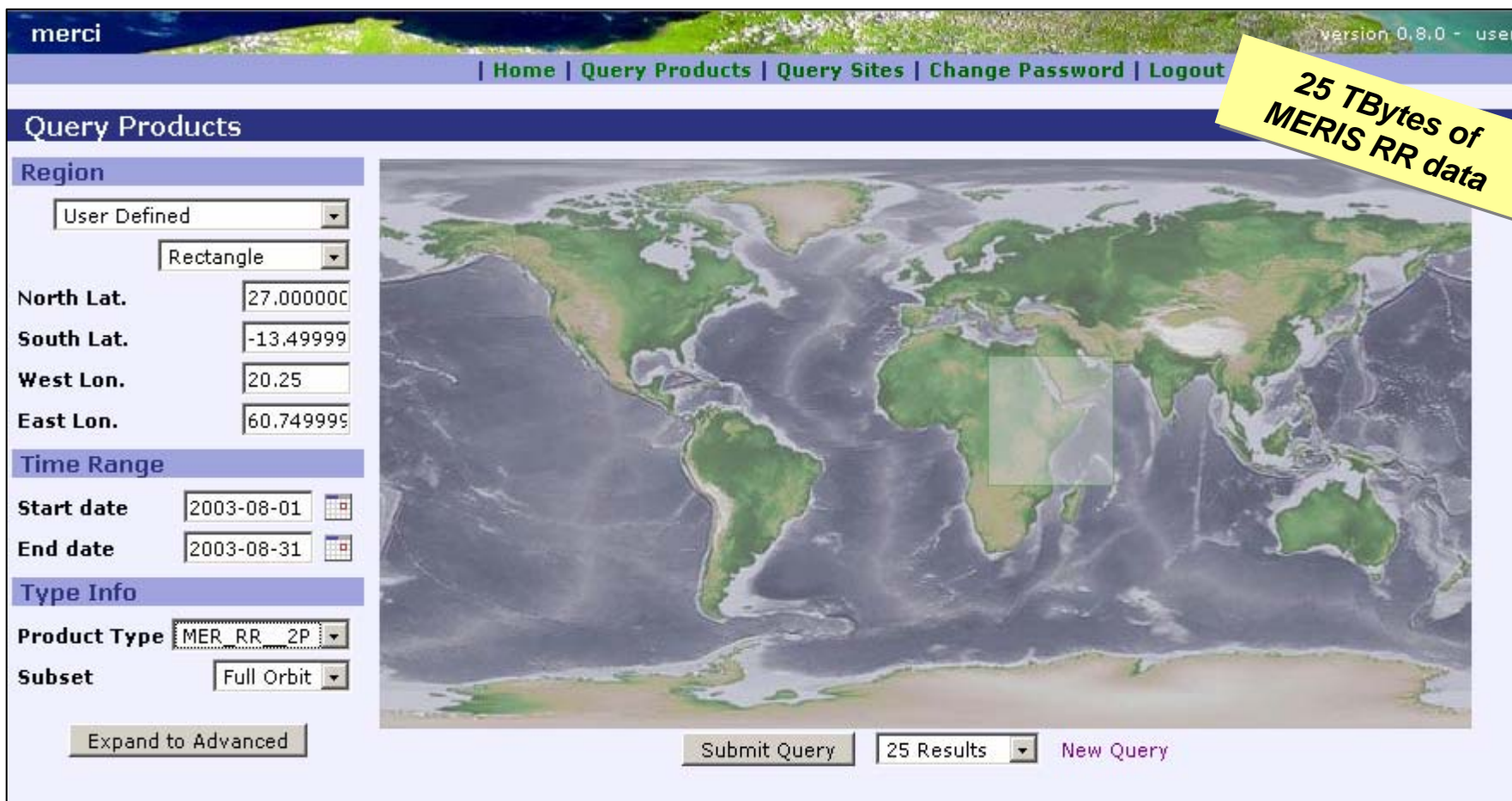
Full proposal

Data from ESA ERS and Third Party Missions are also available on Internet

Which systems for access to NRT and recent on-line data ?

Internet		Telecom satellite broadcast
 <p>7-days <u>Rolling Archives</u> (ftp or http)</p>	 <p>7-days <u>Web File Server</u> (http)</p>	 <p>Data Dissemination System (DDS) broadcast</p>
Same dataset for both		
<ul style="list-style-type: none"> • Complete product (e.g. MERIS orbit) • Each acquisition station has its own rolling archive 	<ul style="list-style-type: none"> • Geographical selection (with product subset to decrease data volume for download) • One unique web site for all acquisition stations 	<ul style="list-style-type: none"> • Europe reception coverage • Cost: 350 € + 1.2m antenna • Africa reception coverage (larger antenna size)
Suitable for users requesting small or infrequent dataset		Suitable for users requesting systematic and large dataset

MERCI web interface, giving access to global MERIS Reduced Resolution data archived since mid-2002



The screenshot shows the MERCI web interface. At the top left is the 'merci' logo and 'version 0.8.0 - user'. A navigation bar contains links for 'Home', 'Query Products', 'Query Sites', 'Change Password', and 'Logout'. The main section is titled 'Query Products' and features several filter panels: 'Region' with a 'User Defined' dropdown and a 'Rectangle' shape selector; 'Time Range' with 'Start date' (2003-08-01) and 'End date' (2003-08-31) fields; and 'Type Info' with 'Product Type' (MER_RR_2P) and 'Subset' (Full Orbit) dropdowns. A 'Submit Query' button is at the bottom. A world map is displayed in the center, with a semi-transparent rectangular box highlighting a region in the Indian Ocean. A yellow callout box in the top right corner of the map area contains the text '25 TBytes of MERIS RR data'. Below the map, there is a '25 Results' dropdown and a 'New Query' link.

MERCI web interface will be used also for Envisat/ERS (A)ATSR archived data (end 2007)

ESA Catalogues, giving access to all ESA and ESA TPM data

The screenshot shows the EOLI-SA ESA Catalogue interface. The top navigation bar includes 'File', 'App', 'Result Set', 'Map', 'View', and 'Help'. The main interface is divided into several sections:

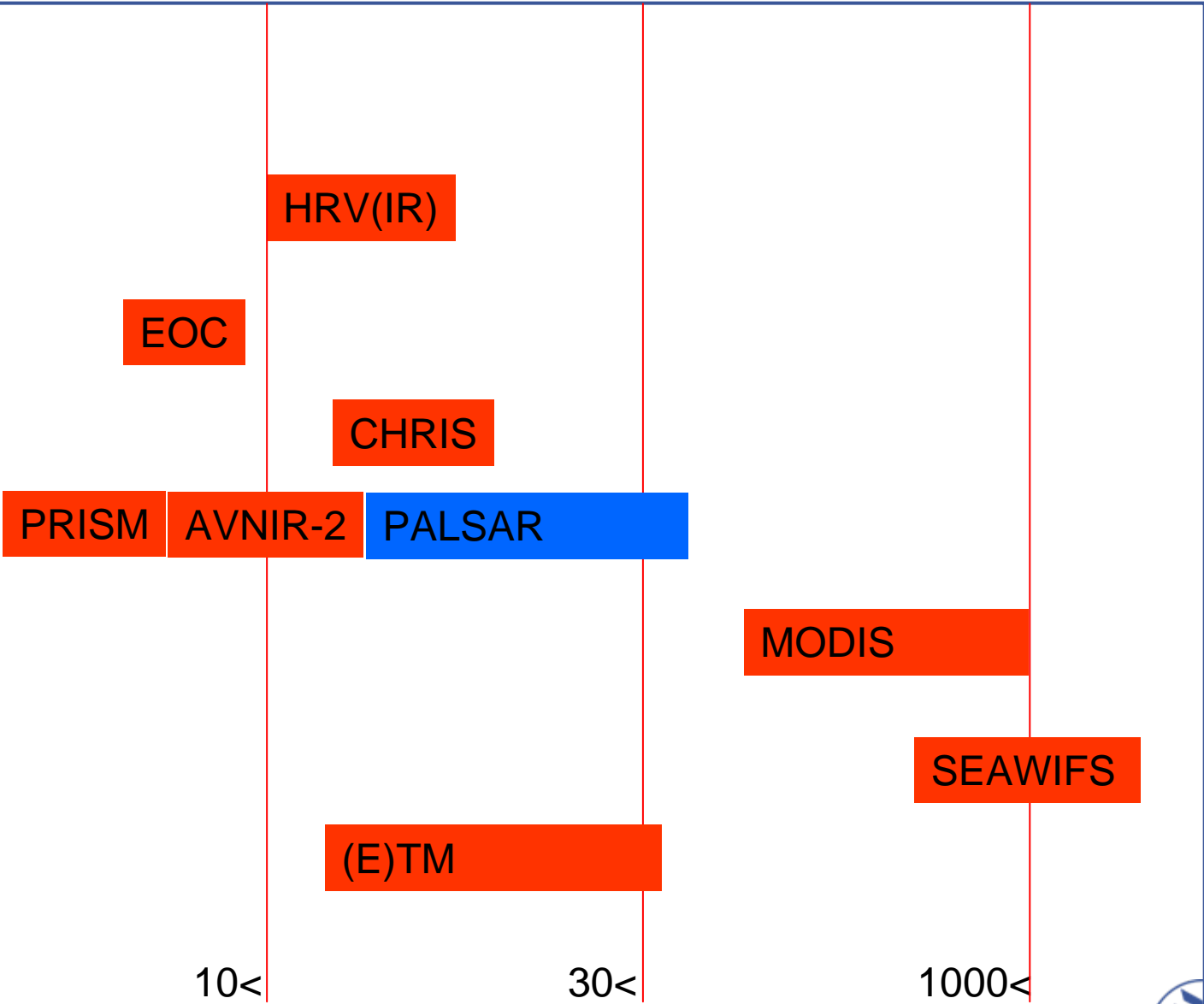
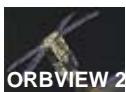
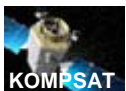
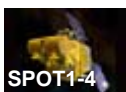
- Collections:** A list of satellite missions with checkboxes. Selected missions include ENMSAT, SPOT, and Terra/Aqua. A note indicates '3 Collections selected'.
- Query Mode:** Set to 'Advanced'.
- Date:** Search range from '08-Jul-2006' to '13-Jul-2007'.
- Area:** Search area defined by 'Center Lat/Lon (dd:mm:ss)' as 41:52:46, 12:30:27 and 'Height/Width (Km)' as 28.91, 29.35.
- Map:** A map of Italy showing satellite footprints (red lines) and selected data points (orange dots). Navigation controls like 'Navigate', 'Set Area', and 'Footprints' are visible.
- Data Table:** A table listing search results with columns: Id, Mission, Sensor, Product, Status, and Start. The table shows 9 items, all with 'Archived' status.

Id	Mission	Sensor	Product	Status	Start
1	SPOT-4	HRVIR	Mul20mIIA	Archived	2006-09-06 10:21:58.88
2	SPOT-4	HRVIR	Mul20mIIA	Archived	2006-09-06 10:32:07.38
3	SPOT-4	HRVIR	Mul20mIIA	Archived	2007-03-13 10:16:34.51
4	Envisat	ASAR/IM	ASa_IM	Archived	2006-07-08 20:53:34.83
5	Envisat	ASAR/IM	ASa_IM	Archived	2006-07-24 20:50:44.63
6	Envisat	ASAR/IM	ASa_IM	Archived	2006-07-27 20:56:26.27
7	Envisat	ASAR/IM	ASa_IM	Archived	2006-08-06 09:24:52.67
8	Envisat	ASAR/IM	ASa_IM	Archived	2006-08-25 09:27:41.02
9	Envisat	ASAR/IM	ASa_IM	Archived	2006-09-16 20:53:29.92

Cat.1 registration requested to <http://eopi.esa.int>

A selection of ESA Third Party Missions

Satellite



Resolution (m)

10<

30<

1000<

- ❑ **ESA & ESA TPM Data sharing:**

 - Not allowed redistribution of received products

- ❑ **ESA & ESA TPM data access:**

 - Research and applications development:* ESA via Category-1

 - Commercial:* competing Distributing Entities based on agreements with ESA/receiving stations

- ❑ **ESA & ESA TPM data lagtimes:**

 - Systematically processed products: a few hours after acquisition*

 - On demand ESA products: available for ordering 1-2 days after acquisition

* Up to 24 hrs for MERIS FRS in European coverage

❑ **NASA Data sharing:**

“NASA commits to the full and open sharing of Earth science data obtained from NASA Earth observing satellites, sub-orbital platforms and field campaigns with all users as soon as such data become available.”
[No restriction on data re-distribution.]

❑ **NASA data access:**

“There will be no period of exclusive access to NASA Earth science data. Following a post-launch checkout period, all data will be made available to the user community. Any variation in access will result solely from user capability, equipment, and connectivity.” *[NASA strives for a 3-6 month period of post launch check out and calibration, may be longer depending on the complexity of the instrument.]*

“NASA will enforce a principle of non-discriminatory data access so that all users will be treated equally...”

❑ **NASA data lagtimes:**

Varies by data set and data product. Can be as little as 2-4 hours or less if user receives the data directly.

* Source for quotes: EOS Data Reference Handbook - 2006