ESA Datalabs

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Archives and Data Science Division
European Space Agency
ESAC, Madrid, Spain

INTEGRAL Workshop ESAC
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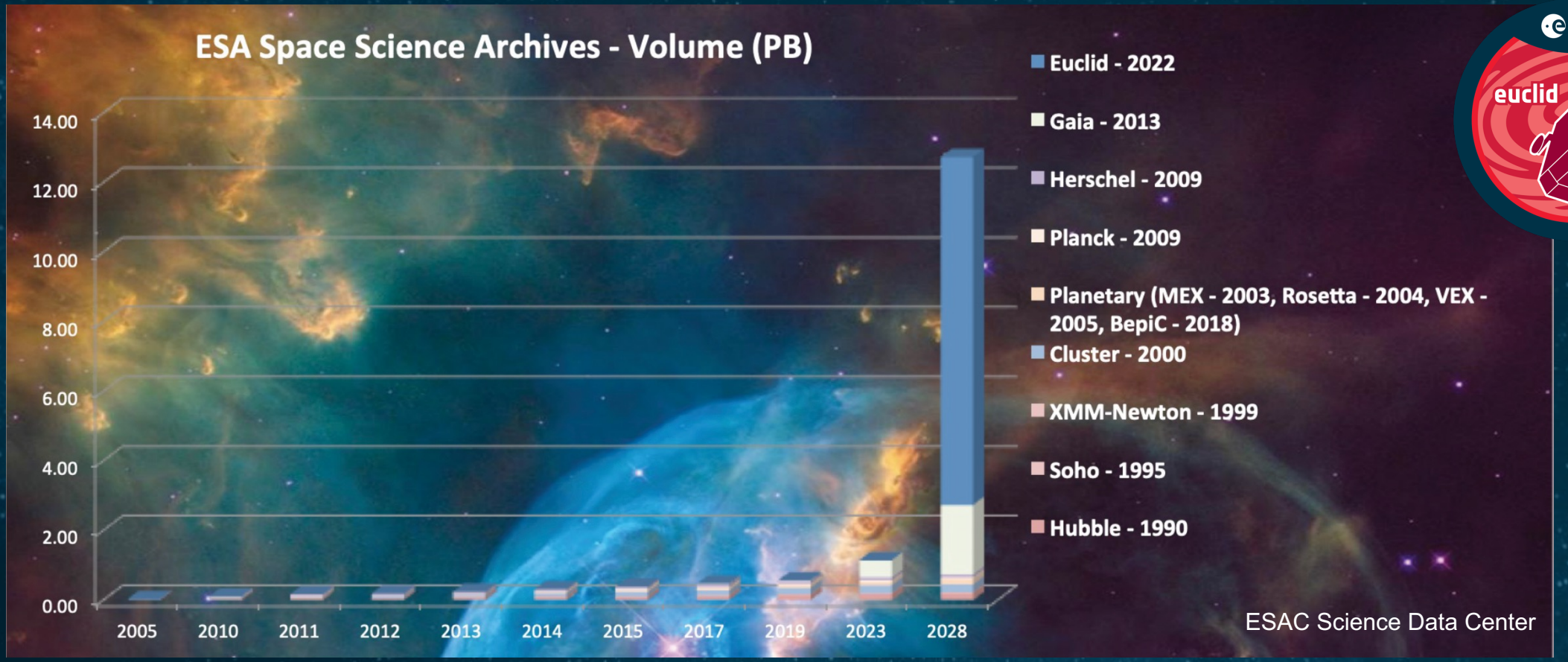
Increasing data volumes in the ESA Science Archives



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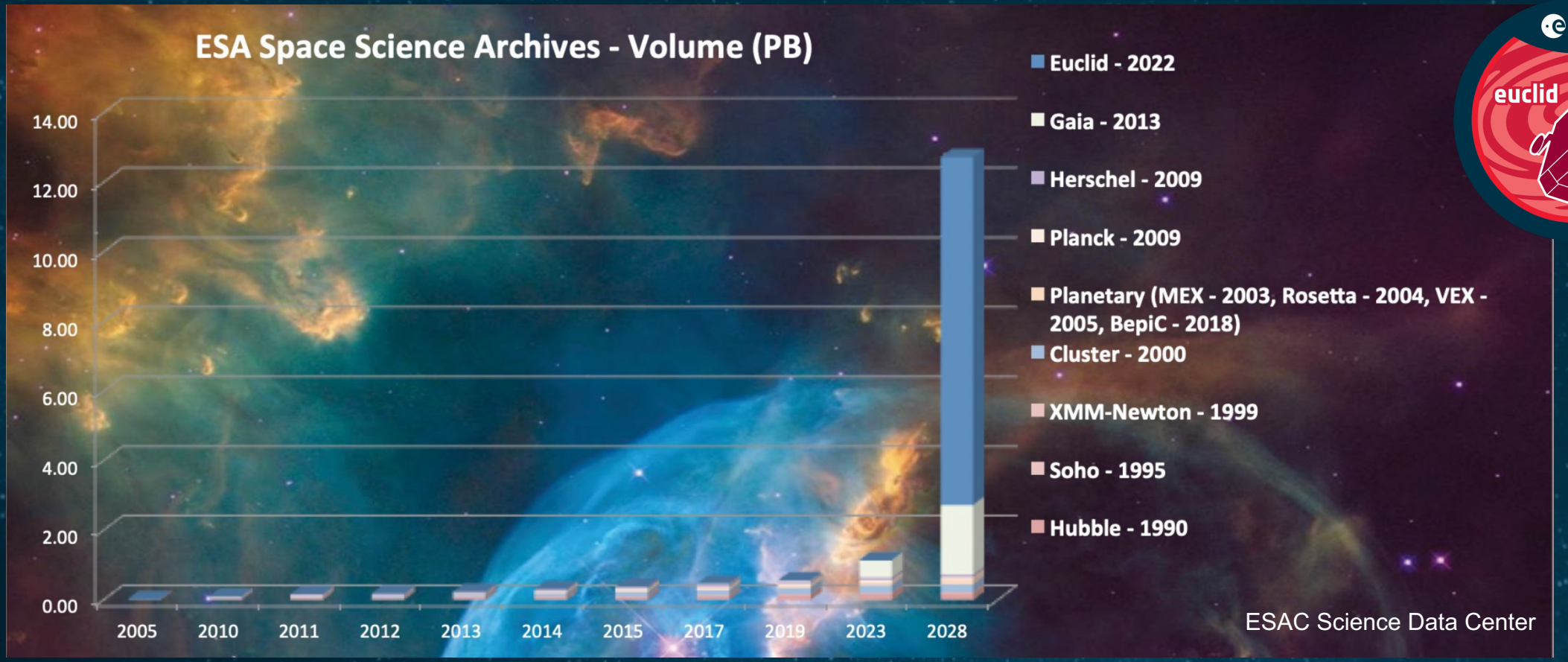
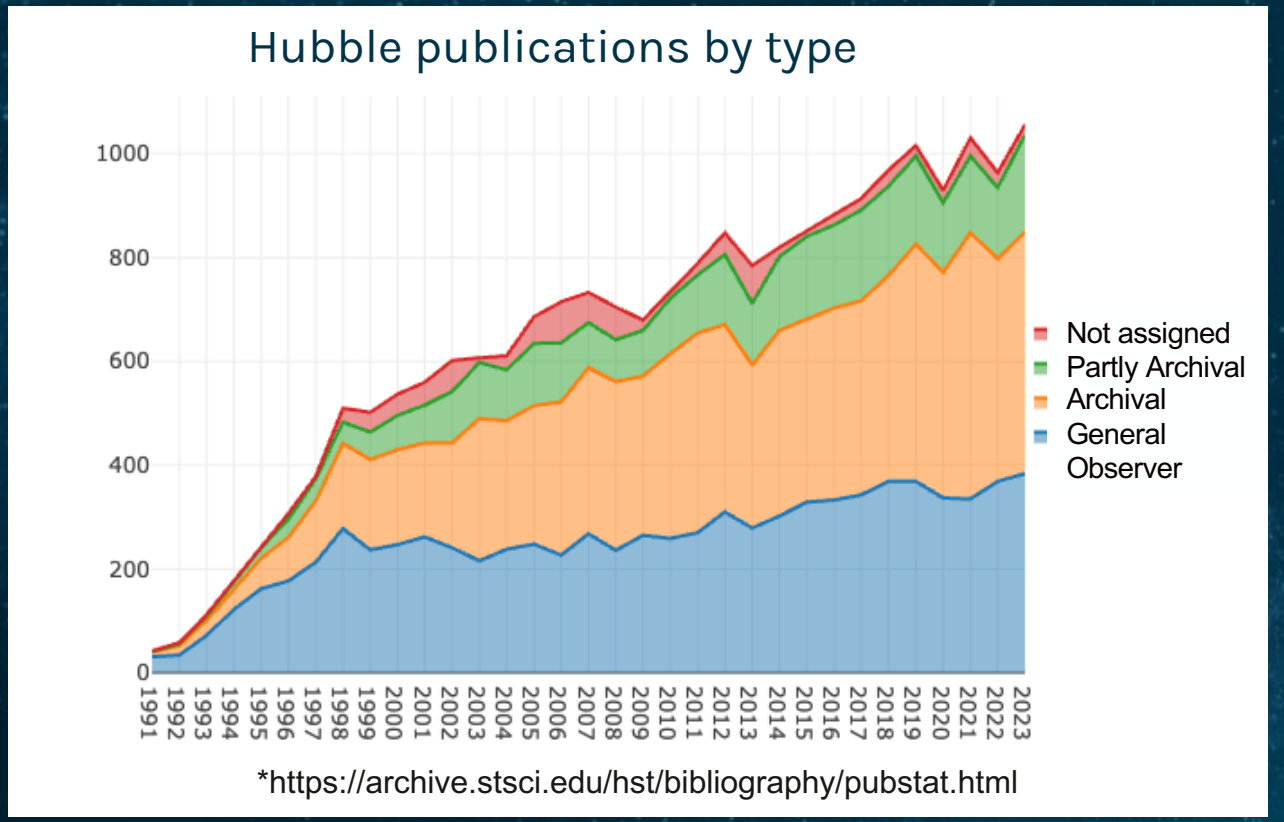


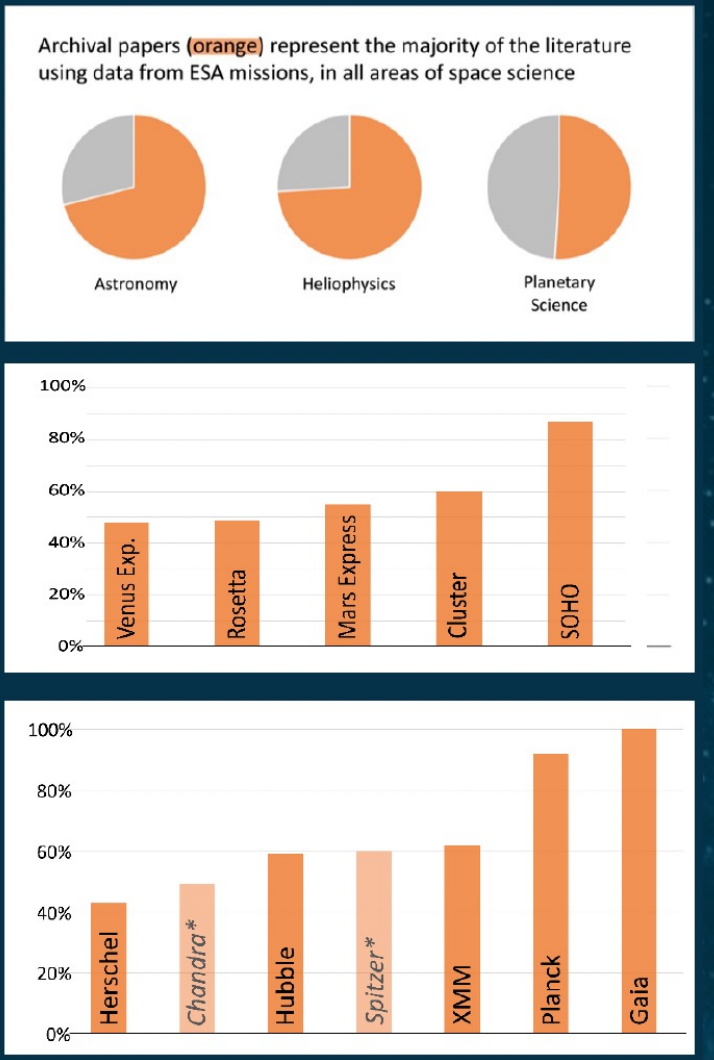
From *bringing the data to the user*

To *bringing the user to the data*

Increasing importance of archival research



Hubble Space Telescope publications statistics



de Marchi & Parmar, 2024

ESA Datalabs – datalabs.esa.int

→ THE EUROPEAN SPACE AGENCY

ESA Datalabs [0.7.0-3-G7FECB2D]

Log in

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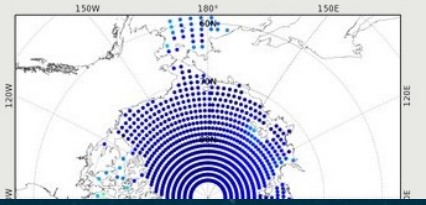
If you wish to apply for access, please submit your request here.

«YOU CAN EITHER MOVE YOUR QUESTIONS OR THE DATA. [...] OFTEN IT TURNS OUT TO BE MORE EFFICIENT TO MOVE THE QUESTIONS THAN TO MOVE THE DATA.»

Jim Gray, eScience: A Transformed Scientific Method

BRING YOUR QUESTIONS TO THE DATA

There is a new paradigm, opening completely new opportunities for discovery – a data-intensive approach to science. In many domains, we have entered what could be called the golden age of surveys, with several large-scale projects, spanning decades, between finished, ongoing, and planned activities. ESA is responsible, or is a major partner, in several of these initiatives.



1 A Platform Designed to Boost Research Productivity

You can start HERE!

Science Development

System Development

IT Development

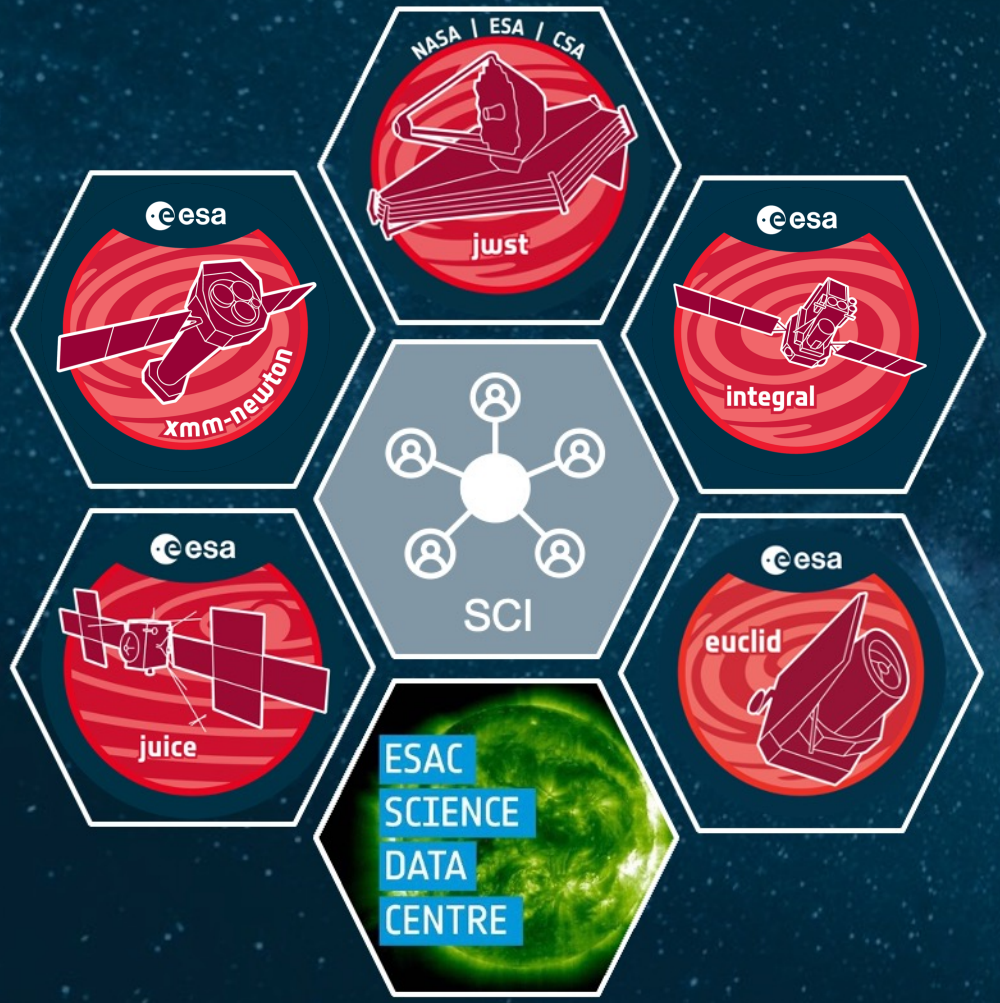
SaaS

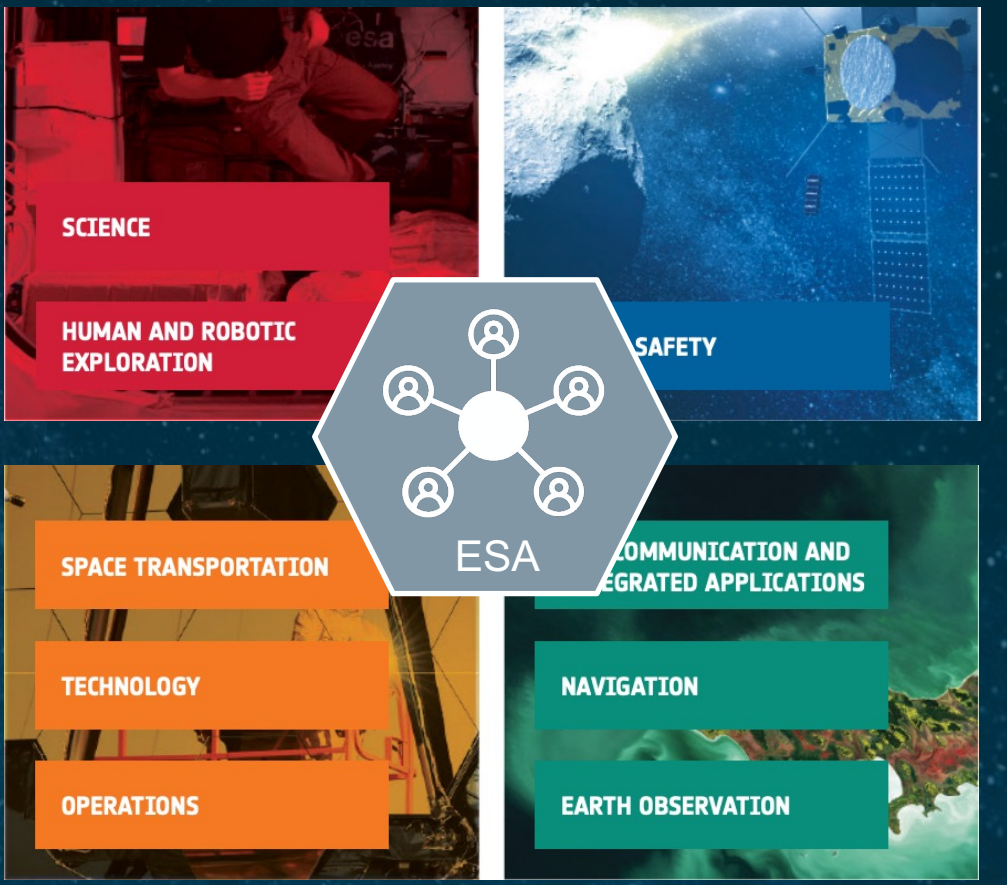
PaaS

IaaS

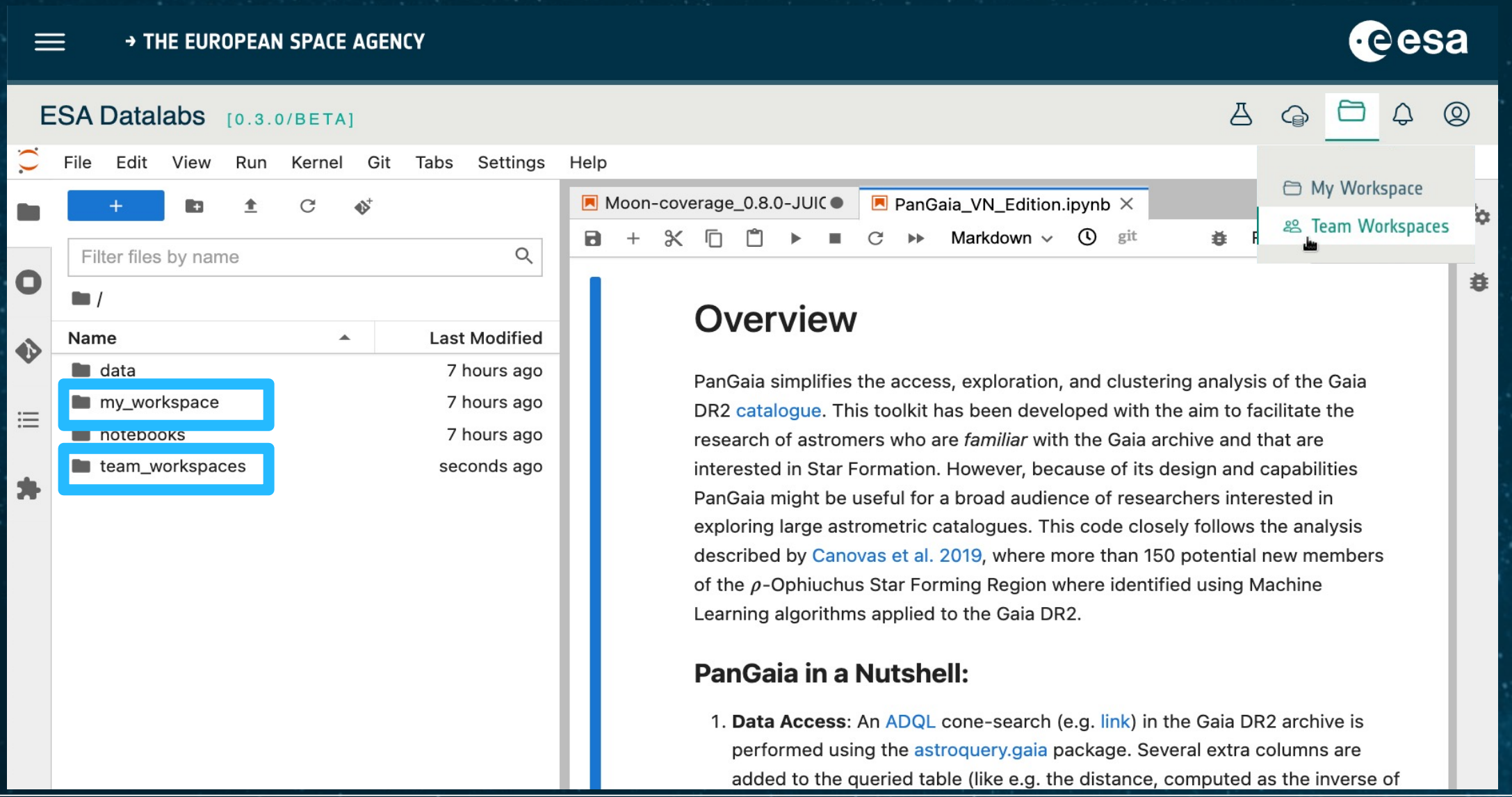
"The tools we use have a profound influence on our thinking habits, and, therefore, on our thinking abilities" Edsger W. Dijkstra (Turing award)

2 A Platform Designed to Boost Access to Data

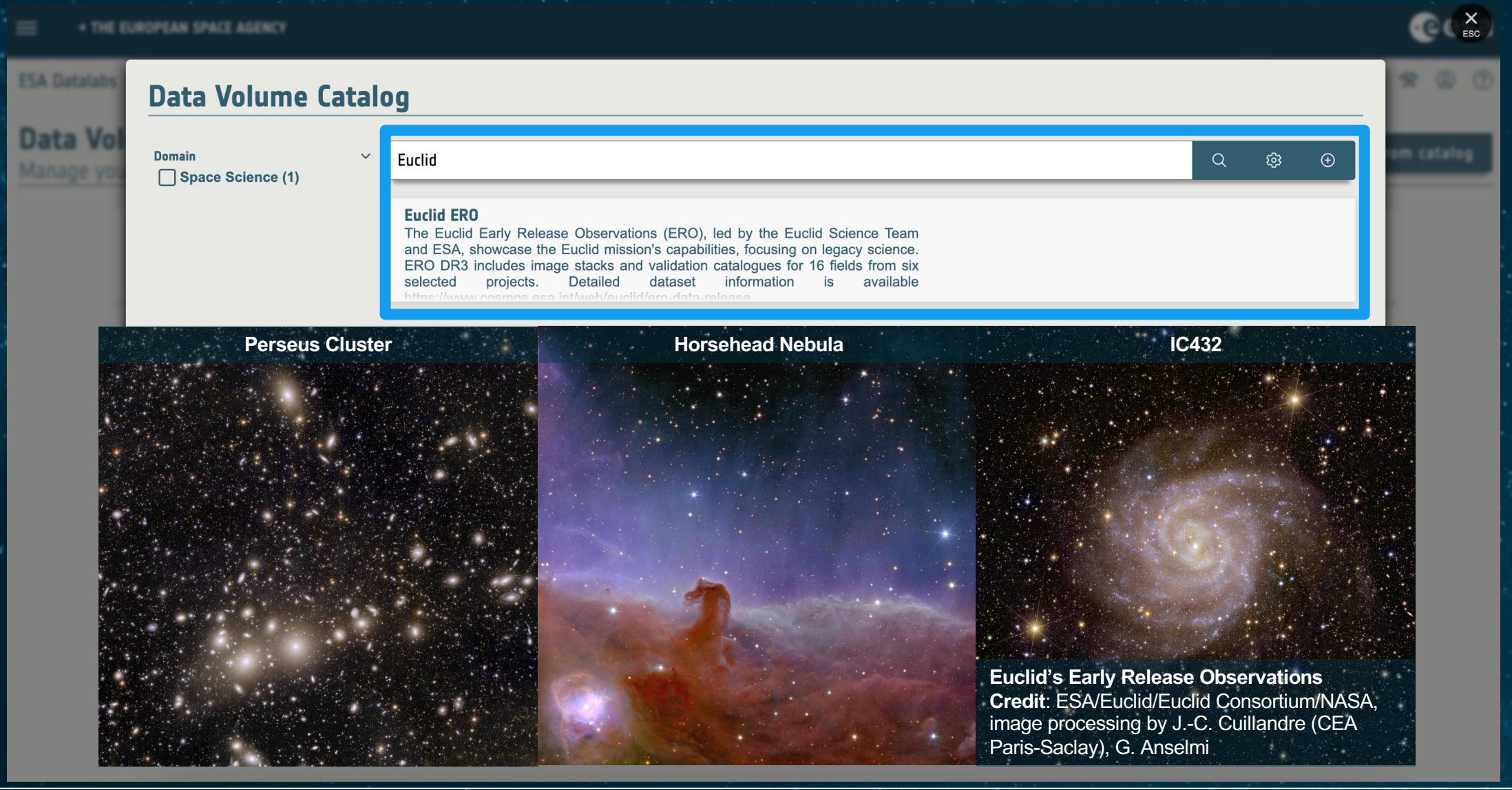




A Platform Designed to Boost Science Collaboration



Computing & Data Colocation: Accessing Data Volumes



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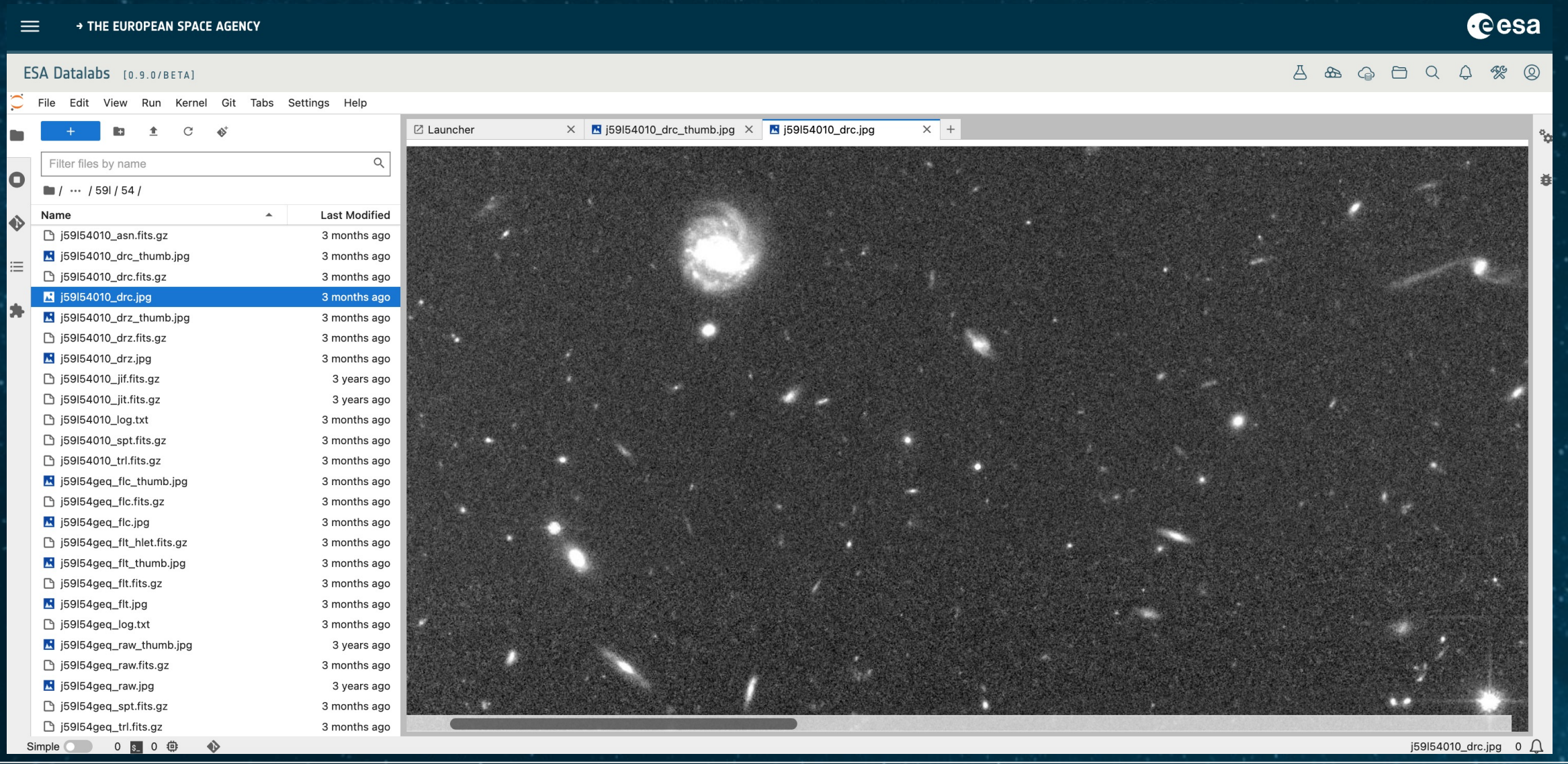
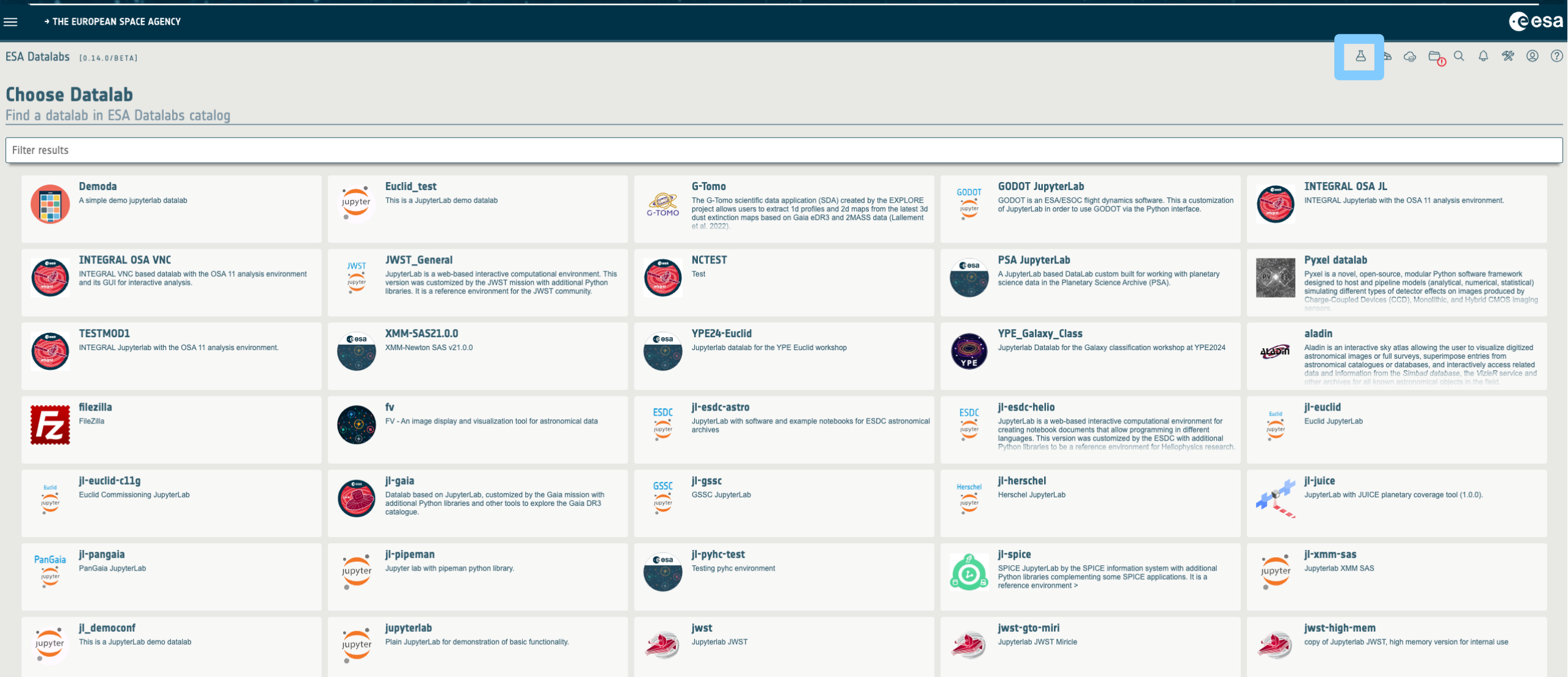


ESA Datalabs Catalogue: Interactive Analysis



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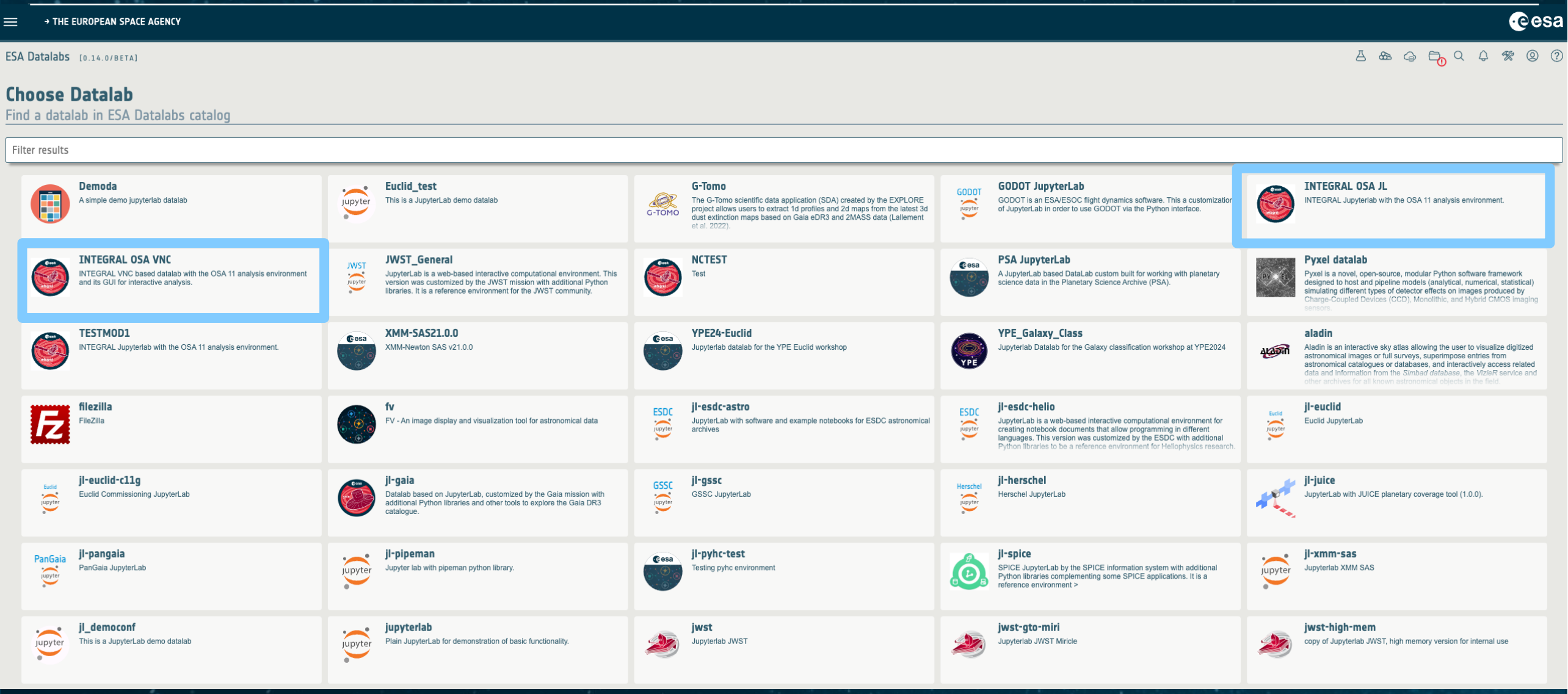
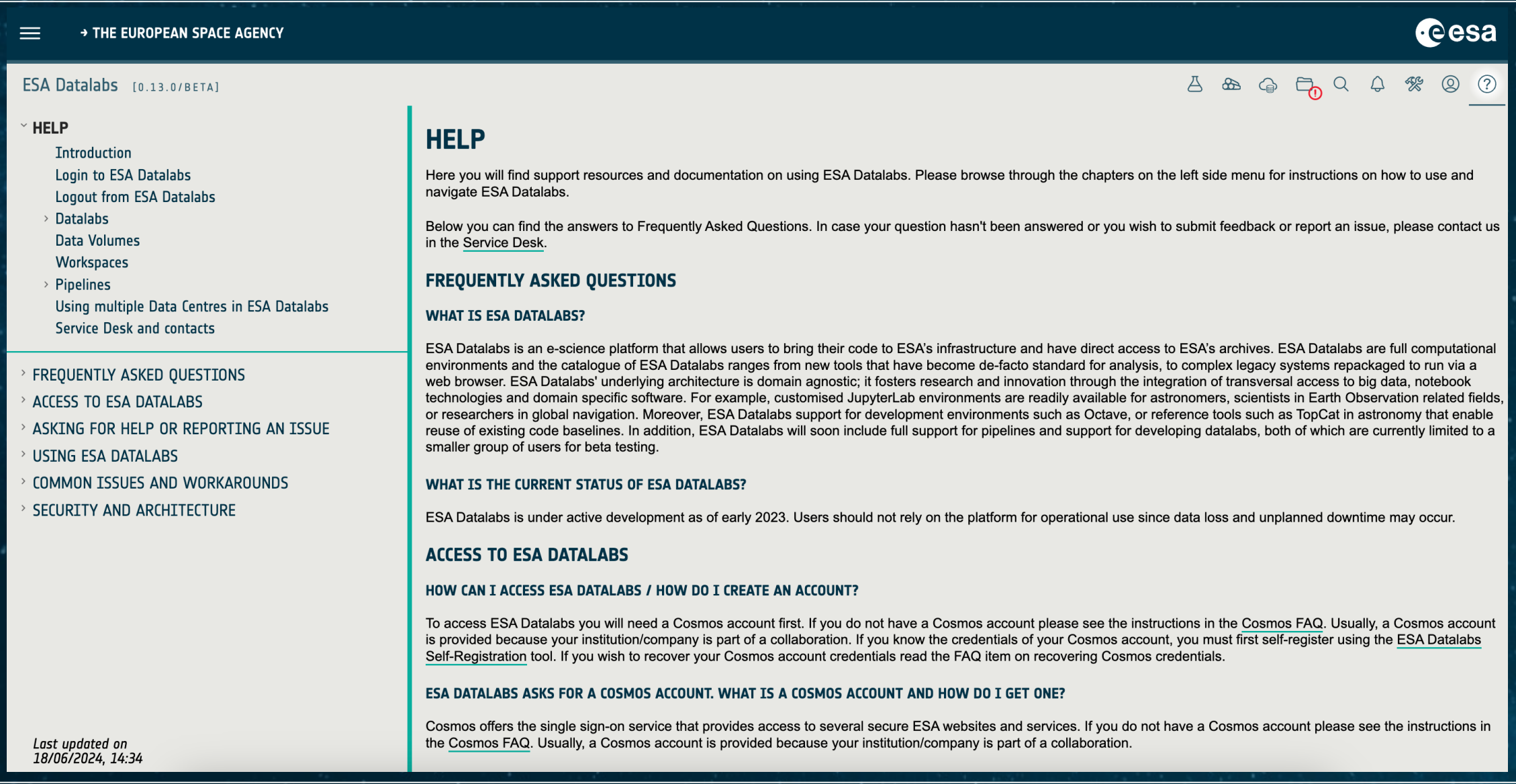


ESA Datalabs: Help pages and Service Desk



ESA Datalabs Community – Today

1200 Registered users

950 Beta Users

60 daily users

ESA Datalabs Hackathon, Jan 2025
NLP for Space Science Workshop, Sep 2024
.Astronomy 13, ESAC 23-26 April 2024
Masterclass on JWST, ESAC 12 Dec 2023
JWST Summer School, Heidelberg 4 - 8 Sept 2023
Euclid Workshop, Copenhagen 21 - 22 Jun 2023
ESA Datalabs Workshop, ESAC 24 - 25 Nov 2022