

Archives in Post-Operations and Legacy

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12/02/2019

ESA UNCLASSIFIED - For Official Use

- Current missions in post-operations and legacy
- Scientific productivity of legacy missions
- How do we take care of the Legacy missions ?

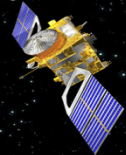


soho
Facing the Sun



Giotto

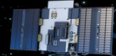
venus express
Studying Venus' atmosphere



bepicolombo
Exploring Mercury



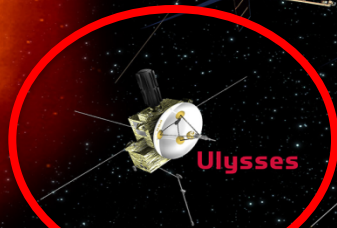
proba-2
Observing coronal dynamics and solar eruptions



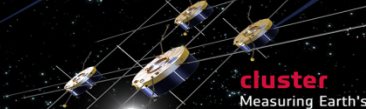
solar orbiter
The Sun up close



Ulysses



cluster
Measuring Earth's magnetic shield



mars express
Investigating the Red Planet



cassini-huygens
Studying the Saturnian system and landing on Titan



rosetta
Chasing a comet



→ ESA'S FLEET IN THE SOLAR SYSTEM

The Solar System is a natural laboratory that allows scientists to explore the nature of the Sun, the planets and their moons, as well as comets and asteroids. ESA's missions have transformed our view of the celestial neighbourhood, visiting Mars, Venus, and Saturn's moon Titan, and providing new insight into how the Sun interacts with Earth and its neighbours. The Solar System is the result of 4.6 billion years of formation and evolution. Studying how it appears now allows us to unlock the mysteries of its past and to predict how the various bodies will change in the future.

5 in Operations
3 in Develop.
1 in Post-Ops
4 in Legacy

→ ESA'S FLEET ACROSS THE SPECTRUM

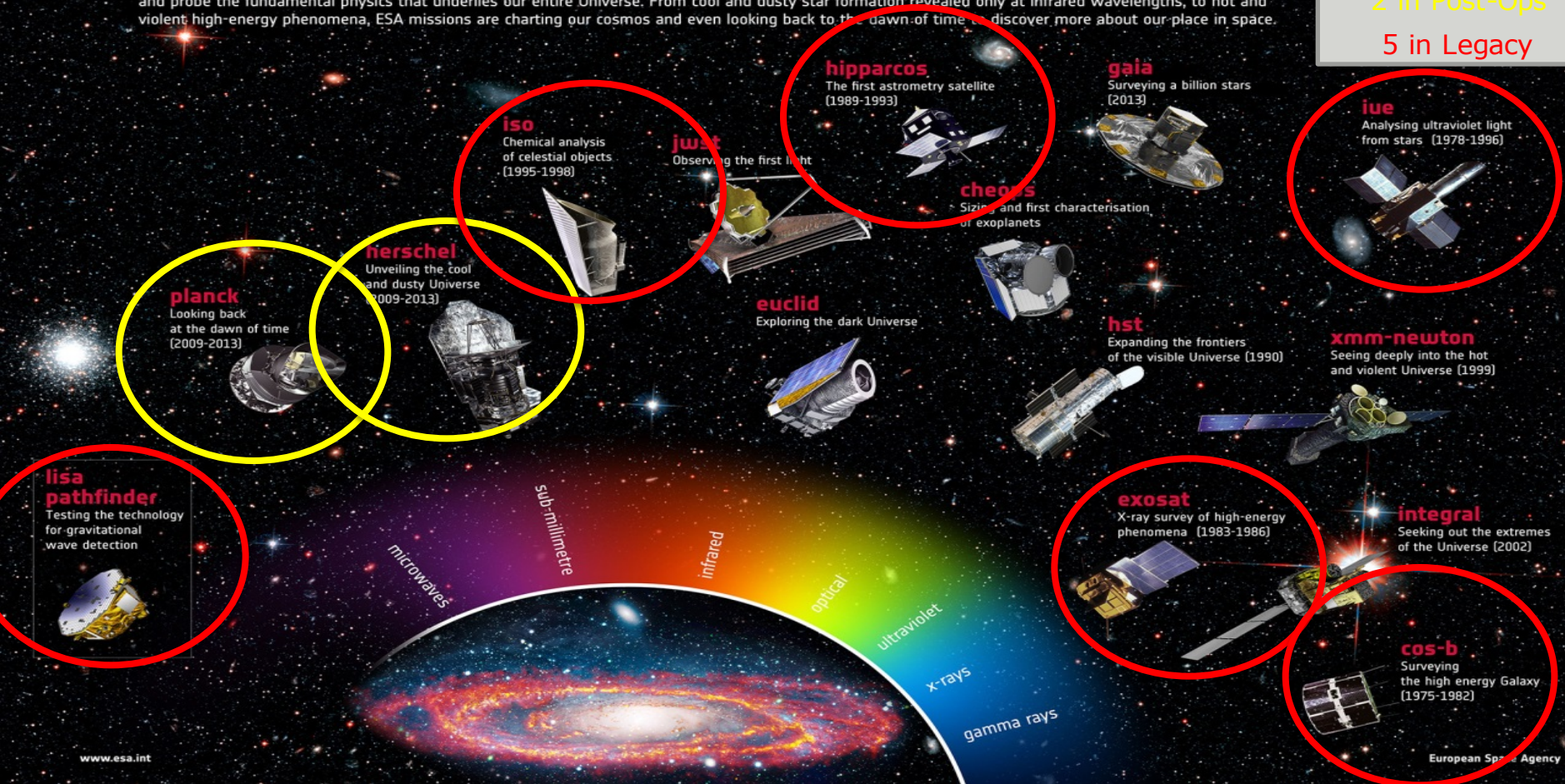
Thanks to cutting edge technology, astronomy is unveiling a new world around us. With ESA's fleet of spacecraft, we can explore the full spectrum of light and probe the fundamental physics that underlies our entire Universe. From cool and dusty star formation revealed only at infrared wavelengths, to hot and violent high-energy phenomena, ESA missions are charting our cosmos and even looking back to the dawn of time to discover more about our place in space.

5 in Operations

2 in Develop.

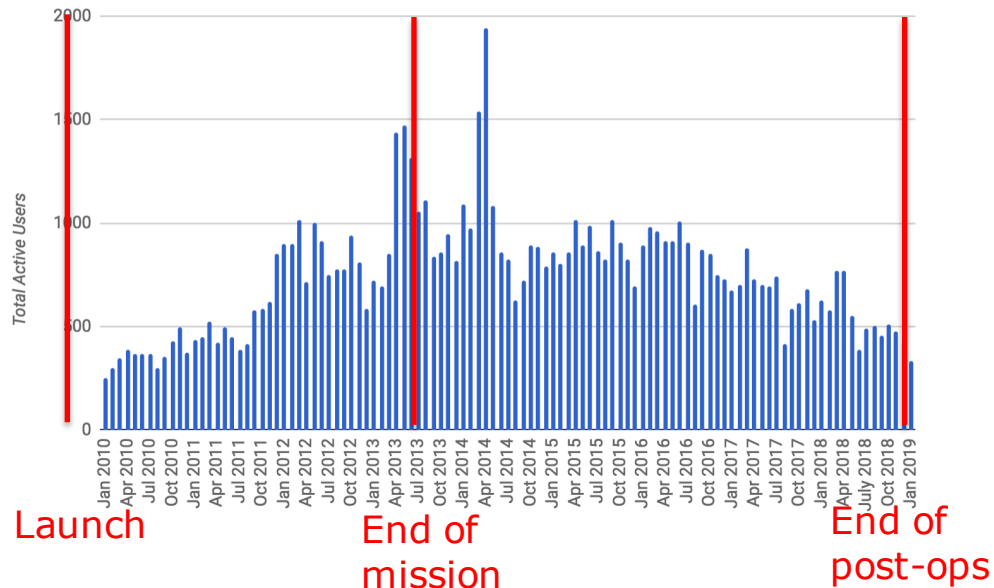
2 in Post-Ops

5 in Legacy

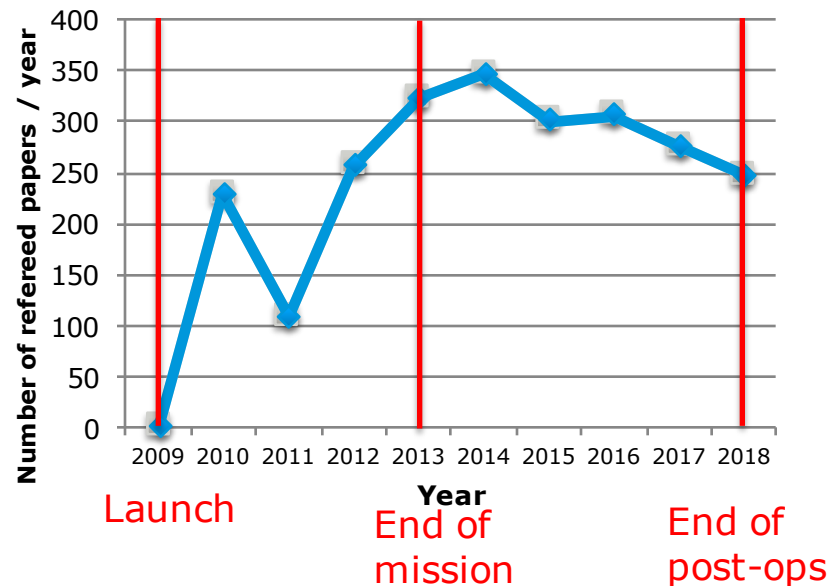


Scientific productivity of the Legacy missions

HSA Active Users downloading data per month

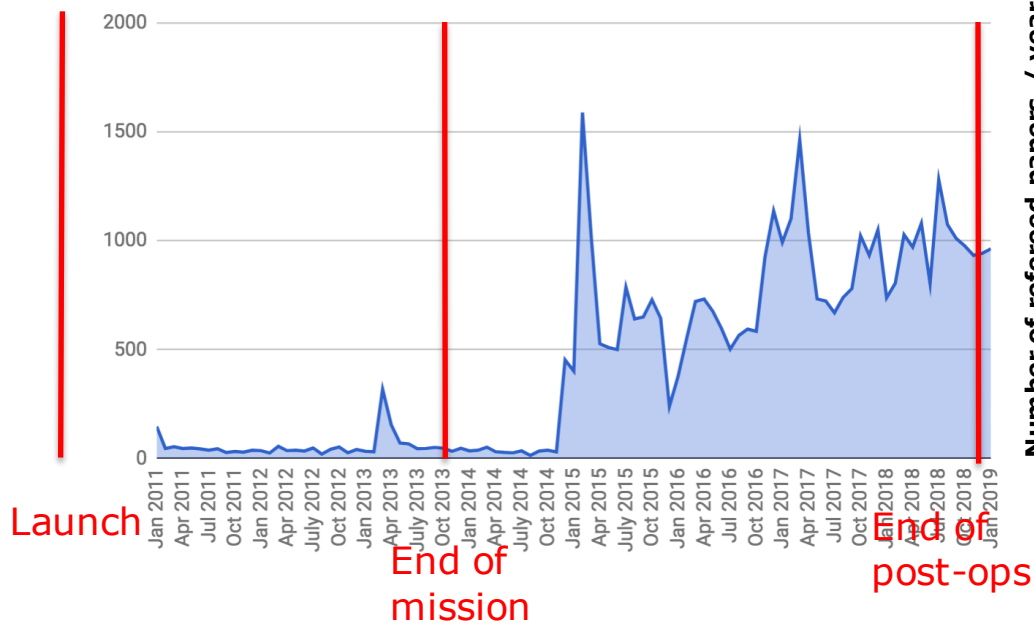


Herschel refereed publications

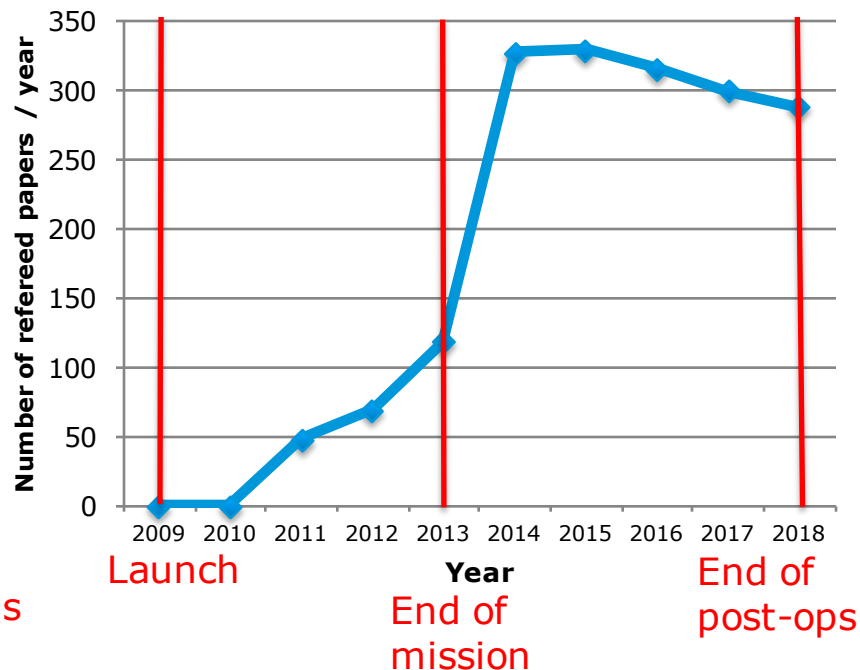


Scientific productivity of the Legacy missions

Active users downloading data from the Planck Legacy Archive

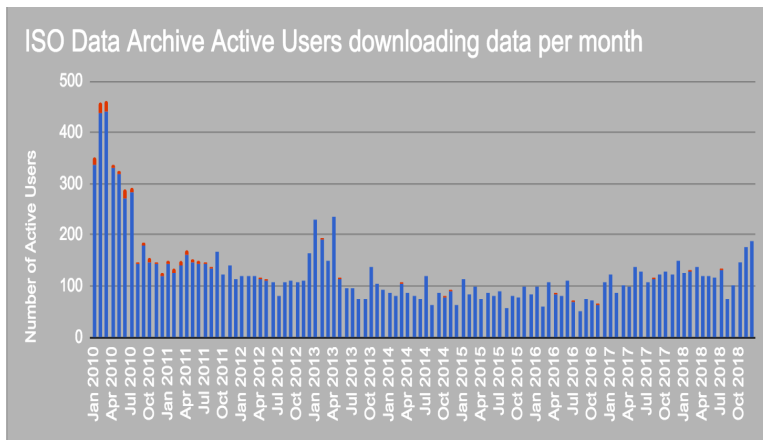


Planck refereed publications



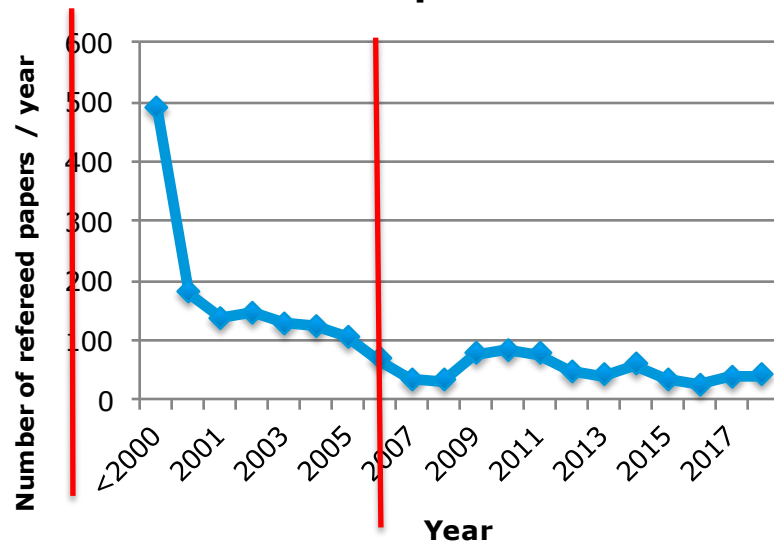
Scientific productivity of the Legacy missions

Active users downloading data from the ISO Data Archive



End of
post-ops
(2006)

ISO refereed publications



End of
mission
(1998)

End of
post-ops
(2006)

ESAC Science Data Centre Structure



PRESENTING, PROMOTING AND PRESERVING
RELIABLE SPACE SCIENCE DATA



B. Merin

H/ESDC



G. De Marchi

Archives
Mission Scientist

Astro Archive Group



D. Baines

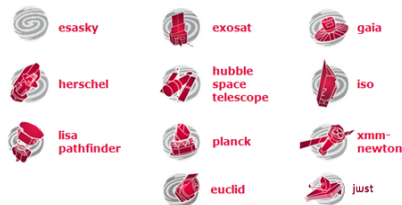
Astro Archives
Science Lead



J. Salgado

Astro Archives
Technical Lead

Astronomy Science Archives



PSA Group



S. Besse

Planetary Archives
Science Lead



I. Barbarisi

Planetary Archives
Technical Lead

The Planetary Science Archive



Solar Helio Archive Group



A. Masson

Solar Helio
Archives
Science Lead



B. Martinez

Solar Helio
Archives
Tech. Lead

Heliophysics Science Archives



Archive Software Engineers
Common software libraries and tools repository

Astro

SOCs/SGSs

Planetary

SOCs/SGSs

Solar Helio

SOCs/SGSs

How do we take care of the legacy missions ?



- No development is foreseen in Legacy archives
- Small operational costs to keep archives running are absorbed by the active and development missions
- The Long-Term Data Preservation+ (LTDP+) ESA-wide activity allows for external contracts to:
 - Provide data in Planetary Science Archive with geometric information
 - Support the development of “valorisation” tools like ESASky
 - Migration of old ISO archive into a new interface (future)
 - Provision of added-value science products in ESA archives (future)