

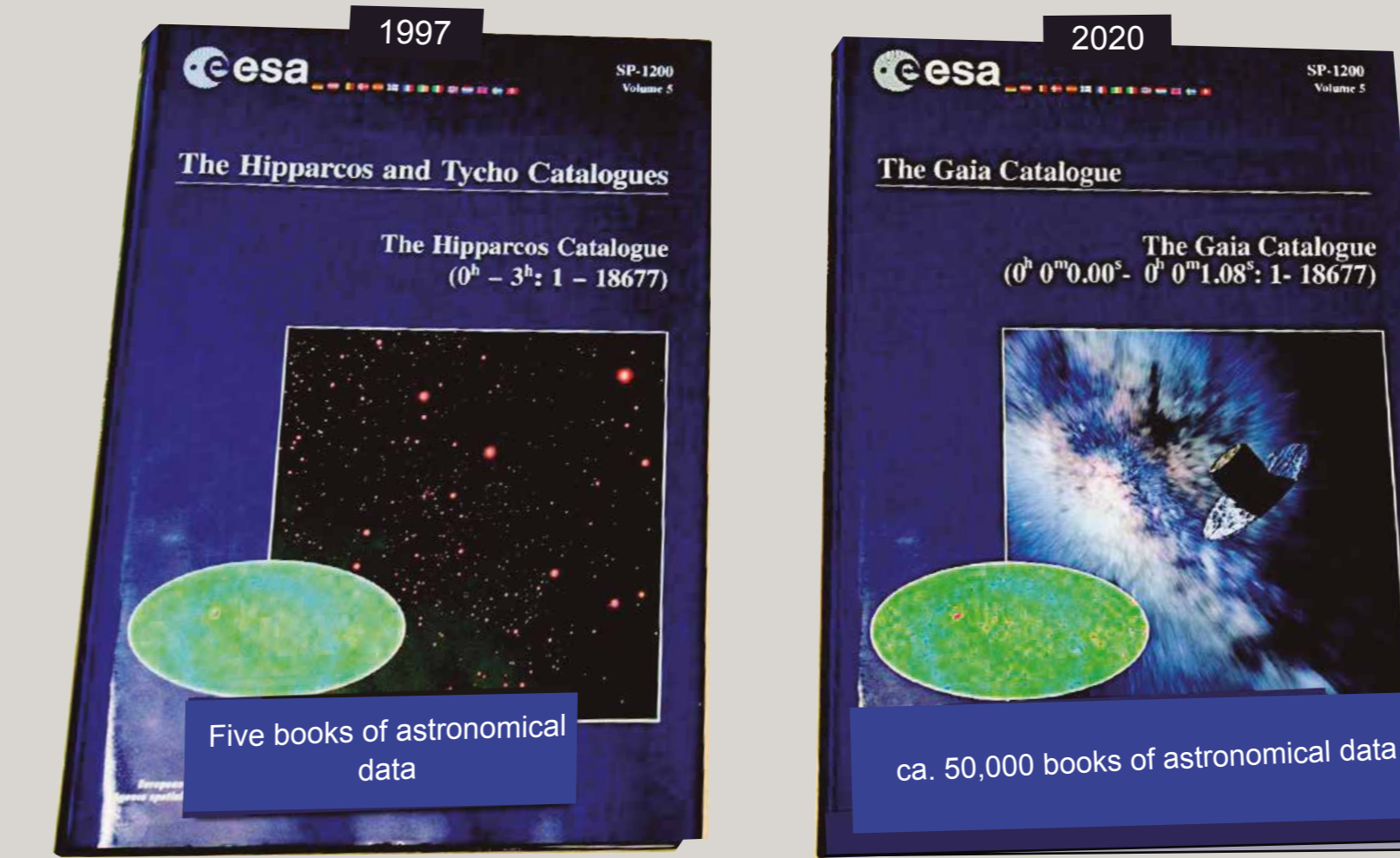
Data processing centres

The consortium responsible for the data treatment and analysis is composed of six data processing centres plus 400 scientists and engineers from 15 European countries.



Volume of data

- 3-8 Mbps, eight hours a day
- 60 GB daily: 600 million images
- 100 TB of data during the five-year mission, more than one trillion (10^{12}) images.
- 1 PB at the end of the mission, including telemetry and final data.



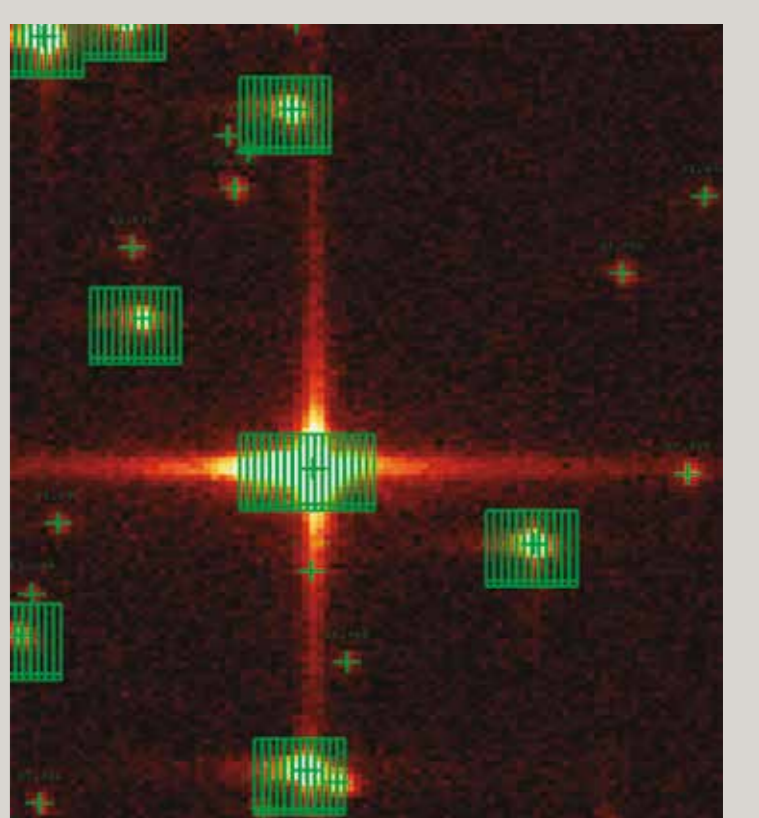
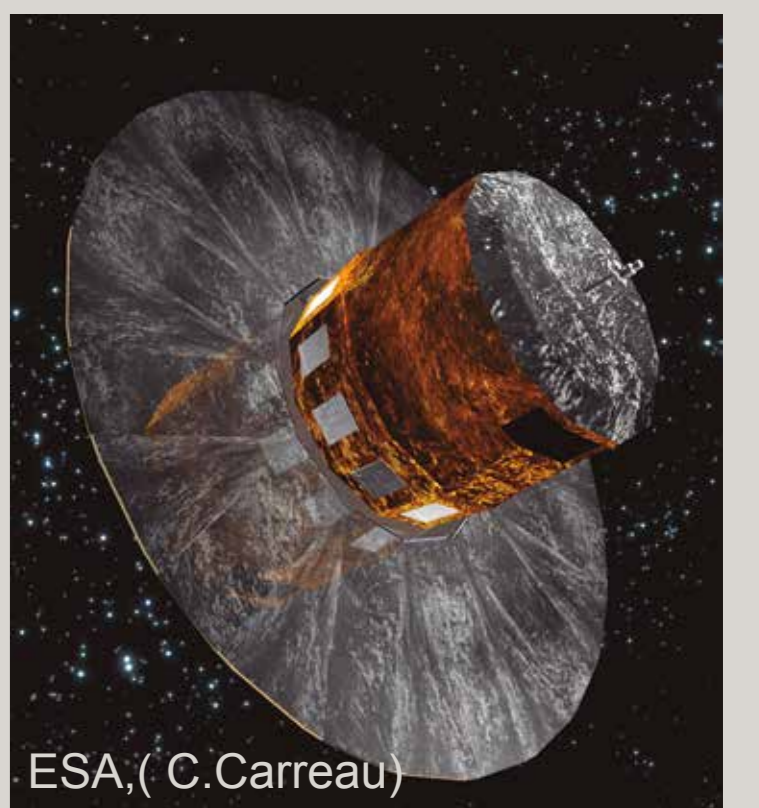
Did you know that a petabyte is the amount of space needed to store a movie with a run time of 50 years in HD quality?



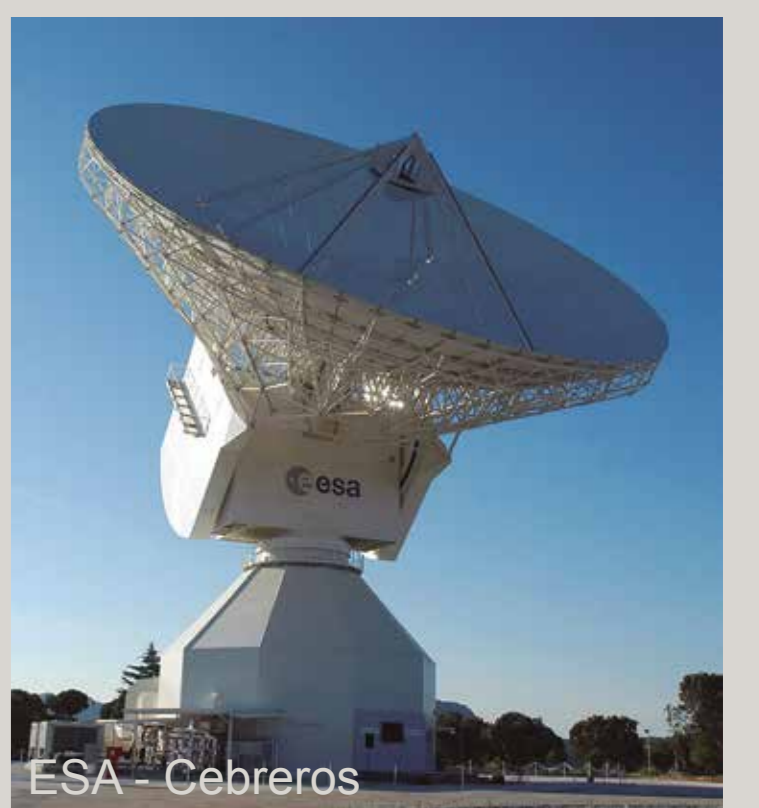
Barcelona Supercomputing Centre

Processing chain

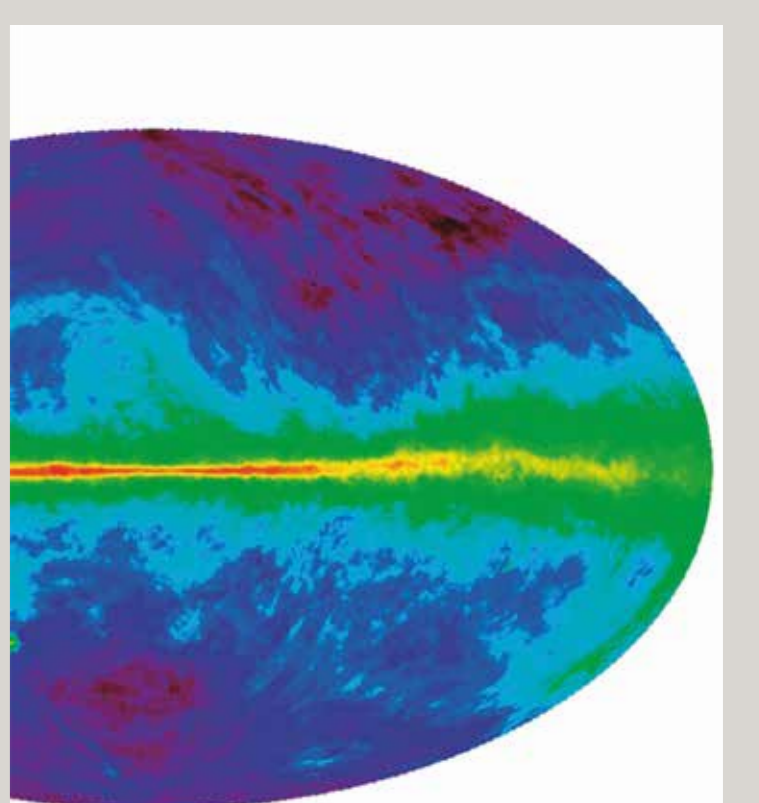
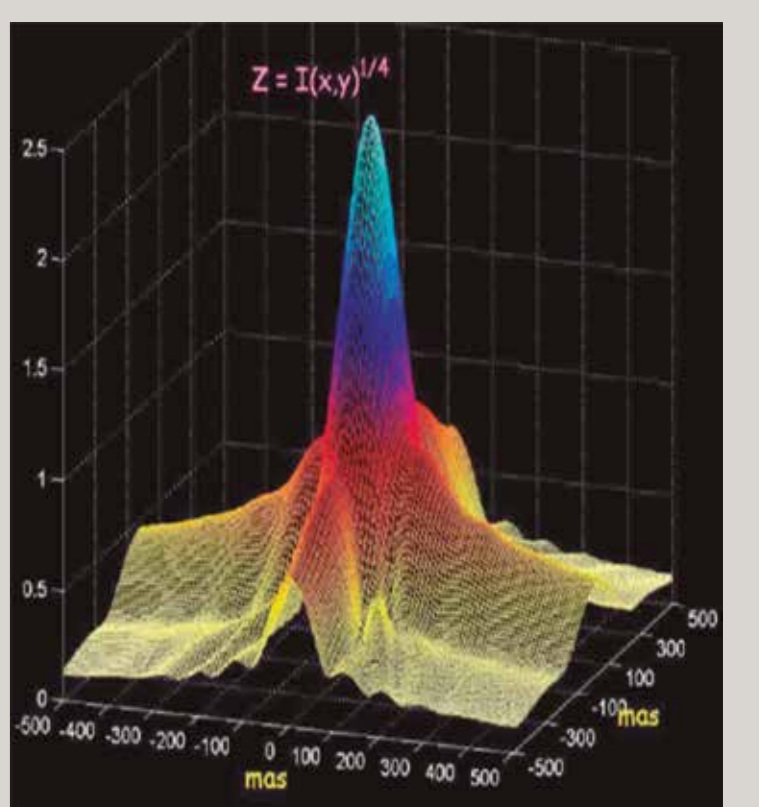
The data transmitted daily from the satellite needs an initial data processing and quality check in less than 24 hours. Every six months all gathered data are reprocessed with improved calibration.



The microarcsecond accuracy of the final data and the large data volume generated during the 5 years of the mission require a highly sophisticated system of software packages which run on computer clusters and supercomputers.



If it took one second to process each of the one trillion stellar images the final catalogue would be ready in 31,000 years. The actual date for the publication of the final catalogue is in the early 2020s.



The Galaxy in a petabyte

The processing of data transforms the images of the stars captured by the satellite into final scientifically usable data.