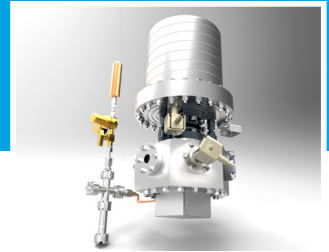


Active Hydrogen Maser for Space

2016-2019



Axe(s)

Space Appl. & Systems
Embedded Systems

Industries

Gillam-FEI
Polmans

Research Bodies

UCL
ULg

Total Budget

2,7 M€

Type

R&D

The project consists in the development of an embedded atomic clock. In GPS or Galileo navigation systems, atomic clocks that are onboard satellites are the essence of the system: they condition the accuracy of the geo-positioning. Those clocks are also used onboard various scientific satellites and are essential to the success of the mission.

In the SW_AHM project, the original idea is to develop and build a brand new type of atomic clock : with small dimensions and low weight, this new atomic clock based on active hydrogen maser could be sent in Space.

Compared with other current technologies, the proposed clock would propose a factor 3 in performance improvements.