

The e-HIMALAYA project aims at prototyping innovative GNSS-based core technologies and concepts, with the objective to build key Galileo differentiators in a multi-GNSS hybridized receiver.

Several markets are addressed with the main weight put on Mass-Market and transport, which represents the main Galileo receiver market.

The project will develop a list of key features to enable a higher penetration of Galileo compatible receivers on the market, and especially the SoC developed under Himalaya project. First of all it will develop a high accuracy technology made available even in bad reception conditions, thanks to a robust aided PLL processing tuned for the Galileo pilot channels.

It will also address a smart integrity function taking into account the local effects, through an (ultra) tight coupling with inertial sensors approach.

It also addresses improved performances thanks to an extensive improvement of telecommunication assistance dissemination. In particular, a robust anti spoofing function is also developed, prototyped and demonstrated.

The project will have several impacts. The first one is to build a ready to market localization solution based on an efficient use of Galileo. The second is to control key market levers technologies, and therefore propose a feedback both on standardization bodies, or future Galileo signal definition, and on the products roadmaps (GNSS SoC).

Finally, the project will develop an indoor technology that is today seen as a very promising one, blending GNSS measurements and LTE ones.