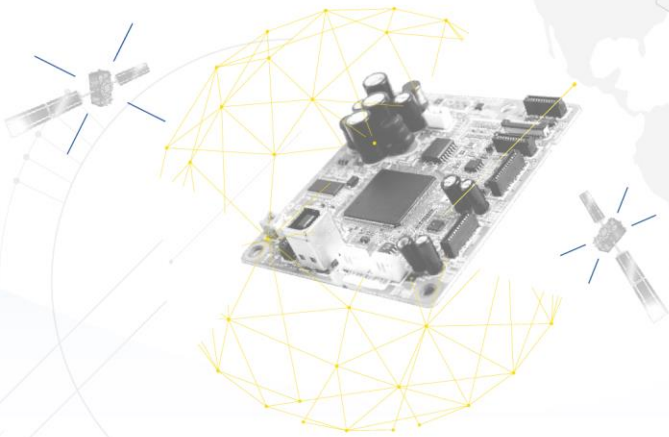

COBALT

COBALT

Context and motivation

The Galileo Return Link Service (RLS) was declared operational on 21 January 2020. The service, a joint effort between Cospas-Sarsat and the Galileo programme, is free of charge and available to all Cospas-Sarsat RLS-compatible beacons. The Galileo satellites are able to pick up emergency signals emitted from distress beacons at a frequency of 406 MHz and transmit a Return Link Message (RLM) signal back to the beacon through the Galileo Navigation Message (I/NAV E1).

Due to the recent introduction of the Galileo RLS, the number of compatible SAR distress beacons available is still limited. Therefore, efforts have been set in place in order to increase the development and availability of such devices. In this context, the **COBALT project developed and marketed a Cospas-Sarsat compliant 406 MHz Personal Locator Beacon (PLB),** designed addressing maritime and land capacity, and increasing the survival solutions market offering.

Targeted GNSS innovation
ELT/ PLB

Targeted Product
MEOSAR PLB

Scope

COBALT delivers a significant increase in features and benefits to end-users by providing a system improvement through a new technology. This satisfies a developing market requirement and removes the limitations of existing products on the market, both of which have previously been barriers for existing PLB users in adopting the 406 MHz technology and COSPAS-SARSAT system. The **continuous promotion of the sMRT Rescue unit throughout the development and production phases of the project will serve as a platform to increase user awareness of the integration of Galileo into COSPAS-SARSAT and the benefits the system offers**.

Challenge & technical solution

By **integrating the innovative GNSS solution with state-of-the-art radio technology** that maximises the benefits offered by the Galileo MEOSAR system, the sMRT Rescue PLB (i.e., the COBALT prototype) offers unrivalled features and performance for its users.

The resulting PLB is a **compact, lightweight and uniquely designed unit for distressed users in both a maritime and land capacity.** The sMRT Rescue unit will increase chances of location and survival by improving the relay time of the distress alert, increasing the signal location accuracy, improving the signal detection in difficult conditions, and providing user reassurance thank to the return link service.

Key facts

Full name
COBALT

Funding
622 296,86 EUR

Market segment
Maritime

Project call number
GSA/GRANT/02/2017

EU contribution
435 607,80 EUR

Project start/end
01/03/2018 – 31/12/2022

Project call
Development of MEOSAR Beacons (MEOSAR)

Topic
Maritime

Galileo differentiators
Galileo RLS