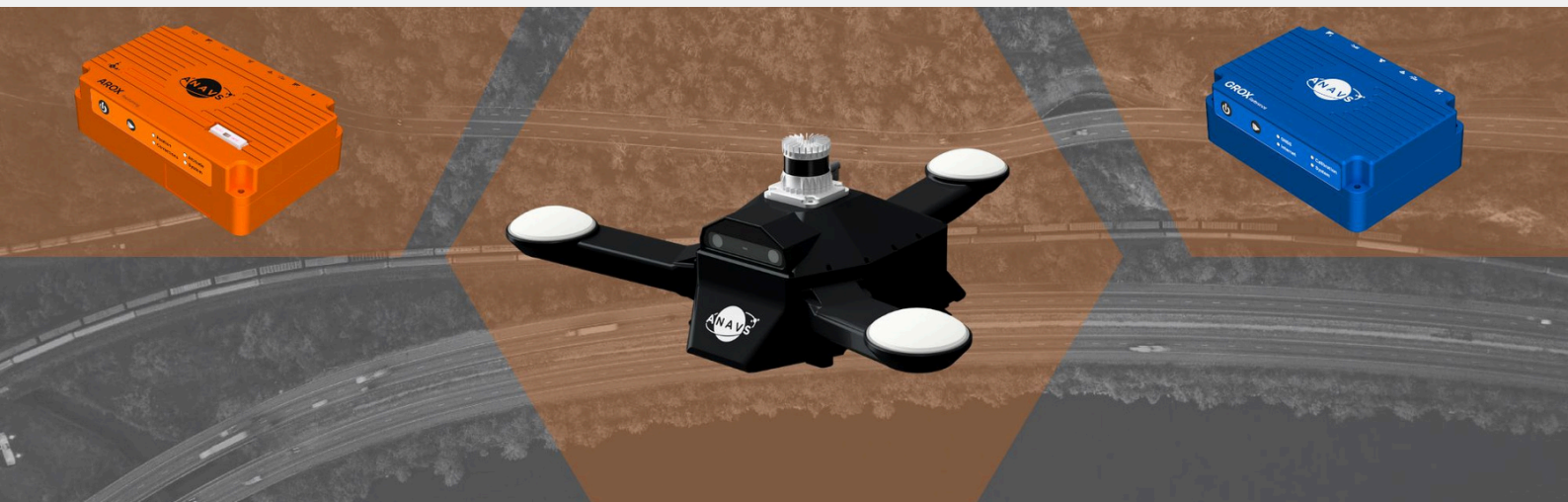




Advanced Navigation Solutions

INNOVATION TO THE POINT

ANavS - Newsletter - February 2025



Welcome to the ANavS newsletter!

Dear readers,

we are delighted to present you the first issue of our ANavS newsletter, which will be published monthly from now on. Our aim is to inform you regularly and comprehensively about the latest product innovations and current projects at ANavS.

In this issue, you can find exclusive reports on our new product A-ROX and the pioneering Galileo High Accuracy Service (HAS) development project for service level 2 (including atmosphere corrections), along with other exciting news from our company.

The ANavS newsletter is intended to be your reliable companion, not only providing you with insights and valuable information, but also inspiring you.

We invite you to shape the future of precise positioning together with us and look forward to providing you with monthly news.

Enjoy reading!

IN THIS EDITION

**OUR NEW PRODUCT:
A-ROX**

**OUR LATEST PROJECT:
HAUT2**

WELCOME ON BOARD

**STE2024-II MEETING AT
THE TECHNICAL
UNIVERSITY OF MUNICH**

Available
from March
2025

A-ROX



GNSS-INS tightly coupled positioning system

WITH HIGH-PRECISION POSITION, VELOCITY AND ATTITUDE INFORMATION

The A-ROX GNSS-INS tightly coupled positioning system is the real-time ground truth measurement equipment for dynamic automotive, railway and maritime applications.

The patented tightly coupled sensor fusion algorithms integrate survey-grade GNSS raw measurement data (multi-constellation, multi-frequency), RTK and PPP (HAS and terrestrial) correction data, inertial sensor data (FOG-grade MEMS IMU) and odometry data for a highly accurate position, velocity and attitude solution, even in challenging GNSS environments. A smart handover from RTK to PPP technology, based on the reception of correction data, provides a unique positioning performance.

A powerful Web-App with integrated forward-backward postprocessing engine completes the ecosystem of A-ROX. The new interface will make the system more accessible and user friendly. It will also open the door for its integration in fleet management systems, with the option to control all the devices in a centralised manner.

0.01m

Position accuracy

0.01km/h

Velocity

0.05°

Heading

0.02°

Roll/Pitch

Our features - Your advantage

Not just systems - but customised solutions that make the difference - for every application



Technology
Innovator



Easy system
integration



Web-App



Breakthrough
Pricing



Min. Warm-
up time



ACOM Data
Stream



ROS 2



HAS
Technology



OSNMA



Made in
Germany

Galileo HAS2



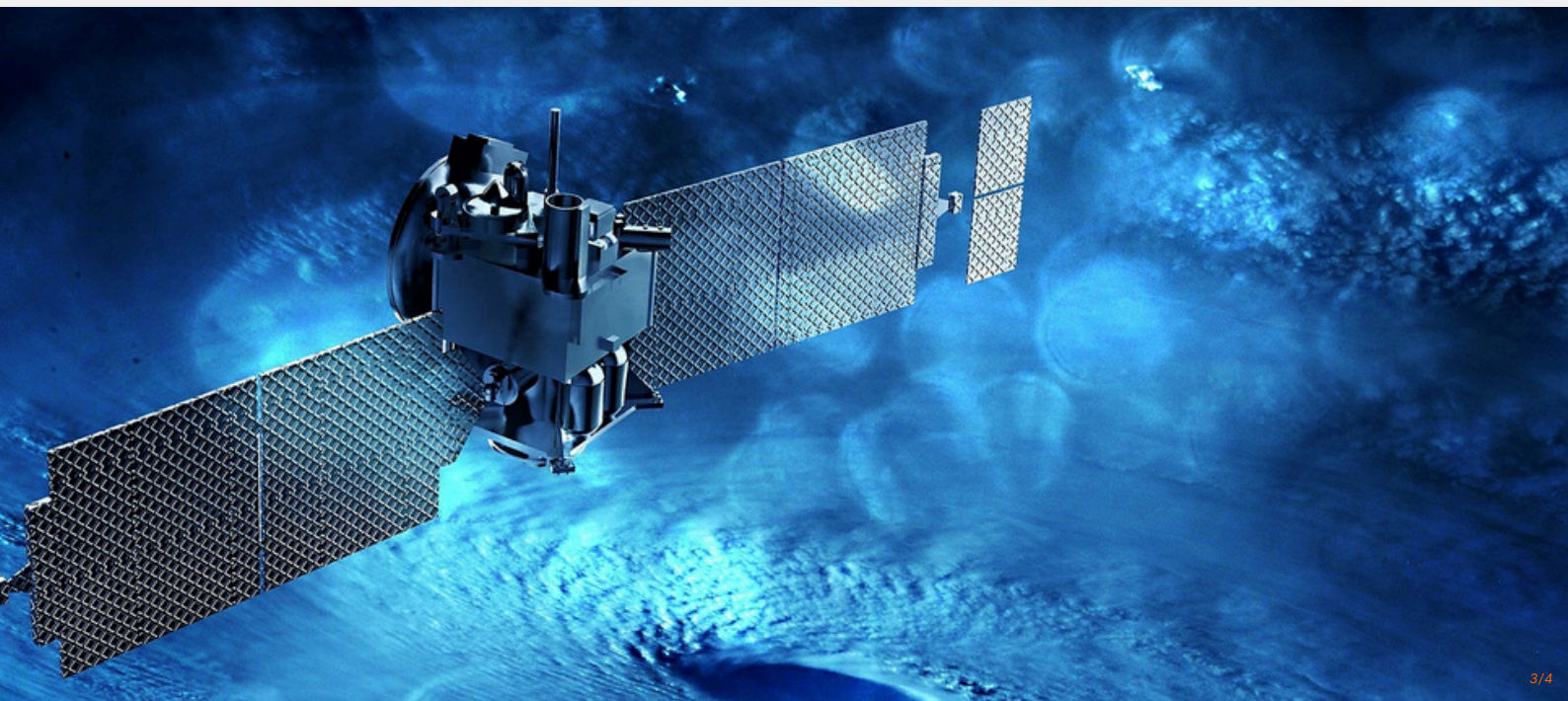
Galileo HAS Phase-2 Project: Reference PPP Algorithm with Reference User Terminal

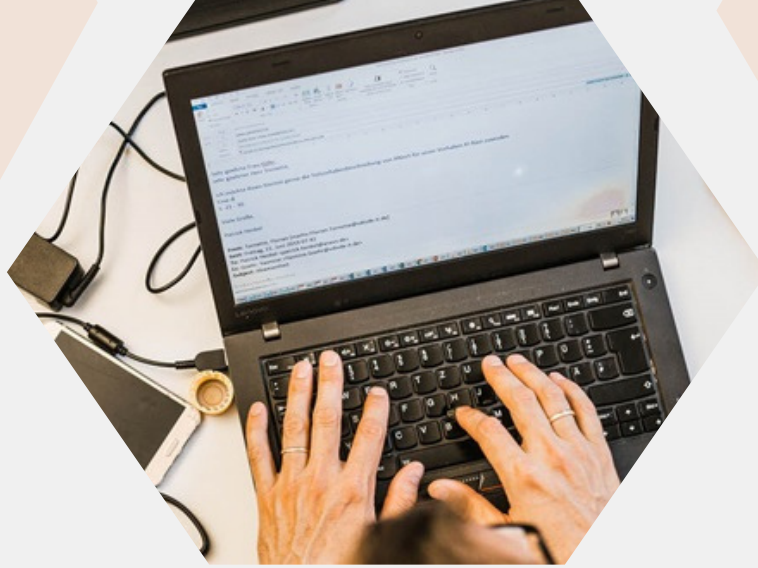
We are pleased to be contracted as the main development partner in the new EUSPA (EU Agency for the Space Programme) HAUT-2 project. The Galileo High Accuracy Service (HAS) will provide free of charge high-accuracy PPP corrections, in the Galileo E6-B data component and by terrestrial means, for Galileo and GPS (single and multi-frequency) to achieve real-time improved user positioning performances (positioning error of less than two decimetres in nominal conditions).

ANavS was already contracted for developing the HAS Reference User Algorithm and User Terminal for HAS Phase 1. Building on the success of HAS Phase 1 project, we will further enhance our PPP-Engine to Phase 2, bringing even higher accuracy and faster convergence through development of newer algorithms.

As part of this consortium, we are responsible for the following tasks:

- Development of a user algorithm that applies the future Galileo HAS2 corrections.
- Design and development of a Galileo High Accuracy Service User Terminal implementing the user algorithm developed in the frame of this Contract.





Welcome on Board!

Our team in the GNSS & Sensor Fusion Group continues to grow – welcome, Paula and Chenyu! 🧑🏫🧑🏫 Collaboration, diversity and respectful cooperation are our top priorities. It's great that you are now part of our team family – we are looking forward to the joint projects that lie ahead!



STE2024-II meeting at the Technical University of Munich

The ANavS GmbH has organized the STE2024-II meeting at the Technical University of Munich with more than 50 participants from 9.10.2024 to 11.10.2024. The STE2024-II included 4 plenary talks: Dr. Christoph Waldmann provided some very interesting insights into Jupiter's moon Europa. Prof. Martin Hilchenbach from MPI talked about the snatching of a sample from a near-Earth asteroid. Prof. Frank Schrödel from the Hochschule Schmalkalden presented the work of this team on autonomous robots. Oleg Gouscha from NASA talked about the return of humans to the moon in the upcoming Artemis missions. Moreover, the STE2024-II provided very interesting updates on various research projects funded by the DLR Space Agency.