

PAVE-SCAN

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NEWSLETTER

■ THE PROJECT

The need, the vision, the mission, the work packages.

■ THE CONSORTIUM

Overview of project consortium and funding agency.

■ NEWSBRIEF

Project news and upcoming events & activities.



PAVEment SCANning with EGNSS technology for accurate assessment

This project has received funding from the European GNSS Agency under the European Union's Horizon 2020 research and innovation programme (Grant Agreement no. 101131910).

Started in January 2024, PAVE-SCAN is a three-year EUSPA-funded project that,

- aims the **development of an EGNSS-based hardware/software solution for the low-cost automated assessment of roadway transport networks** using low-cost sensors (vibration, gyroscope, OBD, lidar), participatory sensing, machine vision, and machine learning;
- is **in alignment to the 'European Transport R&I Policy' and to most EU-member national 'Smart Specialization Strategy' objectives;**



#EUSpace 



- is in response to, and **in alignment with, the Horizon Europe Call for the development and implementation of 'EGNSS-based technologies** in long lead time market segments such as road transportation... in response to the increasing mobility demands and emerging transport solutions', and with proposed activities expected to achieve TRL8-9;
- is **based on past scientific and applied knowledge** of the consortium's core technical partners, that has, to date, yielded a field-tested prototype of the proposed solution (TRL6-7).

The project aims for the **development to market (TRL8-9) of EGNSS-based integrated low-cost sensor technologies and artificial-intelligence-driven open-architecture software solution (ML/MV), for the detection, classification, and georeferencing of roadway pavement surface anomalies and for the low-cost assessment of roadway pavements using participatory sensing.** The proposed system is of practical importance since it provides continuous information about roadway pavement surface anomalies which are valuable for efficiently monitoring the transport infrastructure and for public safety.

■ CONSORTIUM PARTNERS

The PAVE-SCAN consortium comprises thirteen organisations (in seven countries), each bringing unique expertise, interdisciplinary & complementary skills, and experiences covering all aspects of the project. Further to spanning the entire quadruple helix (higher education institutions, enterprises, policymakers, and other interested organisations), the consortium is also geographically distributed across EU regions of variable needs and state of knowledge regarding the proposal's subject matter. More importantly, the research partners originate from different domains (scientific/applied research, transport infrastructure management, ICT, civil/environmental engineering, hardware/software development, system integration, and management), while the other partners have expertise in business development and product commercialization, operations and maintenance, and public policy.

- The University of Cyprus (Cyprus)
- Geoimaging (Cyprus)
- SignalgeneriX (Cyprus)
- ELECTI Consulting Limited (Cyprus)
- Nicosia Public Transport Services and Operations LTD (Cyprus)
- The Lefkosia Municipality (Cyprus)
- The Aristotle University of Thessaloniki (Greece)
- STAM SRL (Italy)
- Azienda Mobilità e Trasporti S.p.A. (Italy)
- Malta Public Transport Services (Operations) LTD (Malta)
- ALSA Grupo SLU (Spain)
- The Transport Department, City Administration of Tallinn (Estonia)
- Brimatech Research gGmbH (Austria)

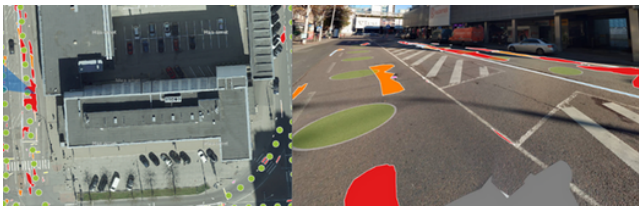
■ WORK PACKAGES

The project is based on eight Work Packages (WP) related to not only the development of innovative methods, techniques, and systems but foremost commercialization, training, and knowledge transfer.

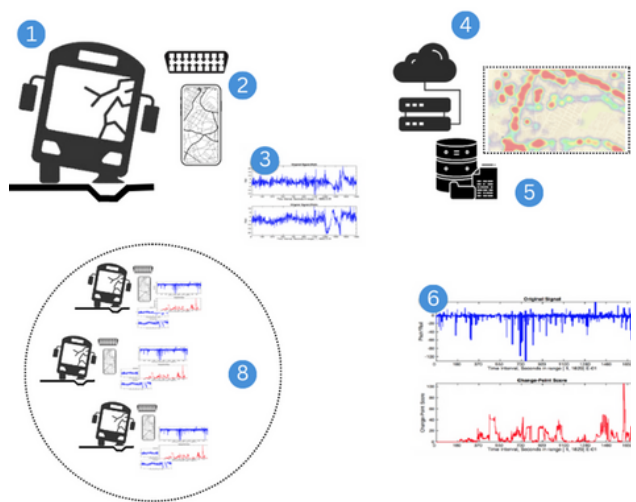
Central to the PAVE-SCAN platform development are five pilot implementations in Cyprus, Malta, Spain, Italy and Estonia.

- WP1 - Project Management and Dissemination (M01-M36)
- WP2 - Functional Requirements and System Architecture (M02-M06)
- WP3 - Hardware Development (M04-M24)
- WP4 - Software Development (M06-M24)
- WP5 - System Integration (M12-M28)
- WP6 - Citizens Lab (M18-M30)
- WP7 - Pilot Implementation, 'Living Labs' and Capacity Building (M24-M33)
- WP8 - Exploitation and Commercialization (M01-M36)





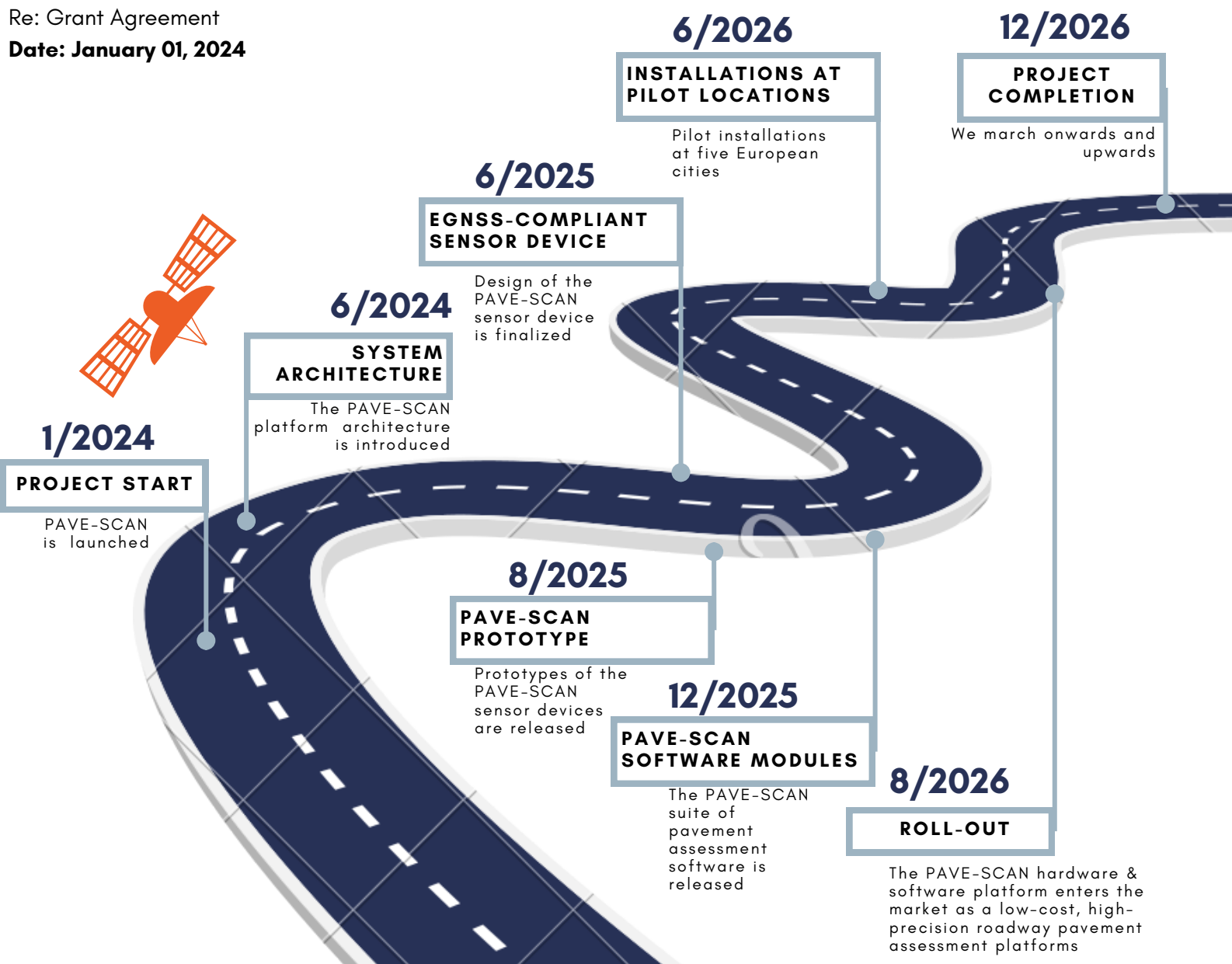
The project will use probe vehicles/buses [1], OBD devices [2], PAVE-SCAN-proprietary multi-sensor devices [3], spatial databases [4], AI, MV & VR technologies [6], and participatory sensing [8], to assess roadway pavements and map pavement anomalies to a GIS-based web platform, decision support and pavement management system.



PAVE-SCAN

Project Milestones

Re: Grant Agreement
Date: January 01, 2024



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The project kick-off meeting was held on Jan. 9, 2024, at the EUSPA Headquarters in Prague. Present were representatives of all consortium partners and the Project Officer.

TOP PROJECT NEWS THIS MONTH

01.01.2024 - Formal project start
09.01.2024 - Project kick-off
09.01.2024 - 1st consortium meeting
15.01.2024 - Disbursement of funds
22.01.2024 - Website design start



■ CONSORTIUM WORKSHOP

The project kick-off meeting served not only as an opportunity for the consortium to be offered guidance by the Project Officer, but also as a venue for our first project consortium workshop. Among the topics discussed were: project governance and management, WP/tasks, 1st-quarter deliverables, and technical issues and constraints.



■ PROJECT SET IN MOTION

The project governance structure and the consortium agreement are established and the project is set in motion.

A dedicated project website, a SharePoint team collaboration digital platform, and the first project deliverables are soon to follow.



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