Press Release

ESRIUM Successfully Concludes Workshop on Traffic Infrastructure Mapping and Automated Damage Assessment Systems

24th September 2021 - ESRIUM proudly conducted its **inaugural workshop** on **traffic infrastructure mapping and automated damage assessment**, a notable event that took place online within the framework of the 13th International Conference on Computer Vision Systems. Drawing the participation of **over 25 attendees from the scientific community and customers**, **the workshop served as a beacon of advancement in the realm of digital traffic infrastructure capture.**

The ESRIUM workshop primarily **showcased its concept, product vision, and introduced its alpha prototype to the audience. The principal objective of the gathering was to gather pivotal inputs through real-time online polls to shape the trajectory of the project's further development.** JOANNEUM RESEARCH steered the event with collaborative contributions from partners like ASFINAG, NNG, University of Applied Science Upper Austria, Virtual Vehicle Research GmbH, and ENIDE.

In the recent past, the digital acquisition of traffic infrastructure has emerged as a cornerstone for automotive manufacturers, traffic infrastructure providers, and large-scale map creators. This pressing need stems from two pivotal motives: the requirement of accurate digital twins to bolster autonomous mobility simulations and driving functions, and the essentiality of predictive maintenance alongside infrastructure asset management.

Delving deeper into the technological nuances, **the workshop addressed the myriad modalities spanning from road and rail to naval mobility.** These necessitate sophisticated mobile sensor systems that support extensive data capture, pinpoint geo-localization, automated 3D modelling, segmentation, and characterization of discrete entities, coupled with automated data and update management. Core discussions centred around sensors like cameras, LIDAR, radar, sonar, and their integration with computer-vision methods to facilitate pose estimation, 3D modelling, object segmentation, and damage recognition.

The workshop's meticulously planned agenda commenced with an introduction to the ESRIUM project. This was followed by deliberations on contemporary R&D approaches for Railway Asset Management, gearing up for infrastructure-supported automated driving, and an array of ESRIUM use cases. After brief interludes, deep dives into Sensor Technology, Data Platforms, Communications (C-ITS), and Driving functions were undertaken. The event concluded with an interactive session for feedback collection and closing remarks, ensuring a holistic engagement with all attendees.

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By focusing on the fusion of diverse sensor data with precision geo-localization, the workshop accentuated the significance of data synchronization, validation, storage, and updates, emphasizing the paramountcy of automation in the domain. **The core aim was to foster exchanges on research findings pertaining to mobile data capture, automated data processing, and management systems. This all culminated in the pivotal goal of digitizing traffic infrastructure while concurrently assessing their condition.**

For more information and insights from the workshop, visit ESRIUM's official website.

About ESRIUM

ESRIUM stands at the forefront of revolutionizing traffic infrastructure mapping and automated damage assessment systems. With a vision to harness technology for predictive maintenance and infrastructure asset management, ESRIUM is set to redefine the paradigms of digital spatial information.

You can follow ESRIUM on LinkedIn and Twitter to keep updated with its next developments.

Project Factsheet

Duration:	1 December 2020 - 31 November 2023
Total cost:	€ 3 410 893,75
EC contribution:	€ 3 000 000
Coordinator:	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH
Partners:	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH , VIRTUAL VEHICLE RESEARCH GMBH , AUTOBAHNEN- UND SCHNELLSTRASSEN-FINANZIERUNGS- AKTIENGESELLSCHAFT , MAANMITTAUSLAITOS, FH OO FORSCHUNGS & ENTWICKLUNGS GMBH, EVOLIT CONSULTING GMBH, ENIDE SOLUTIONS .S.L, NNG SZOFTVERFEJLESZTO ES KERESKEDELMI KFT, POLITECNICO DI MILANO

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