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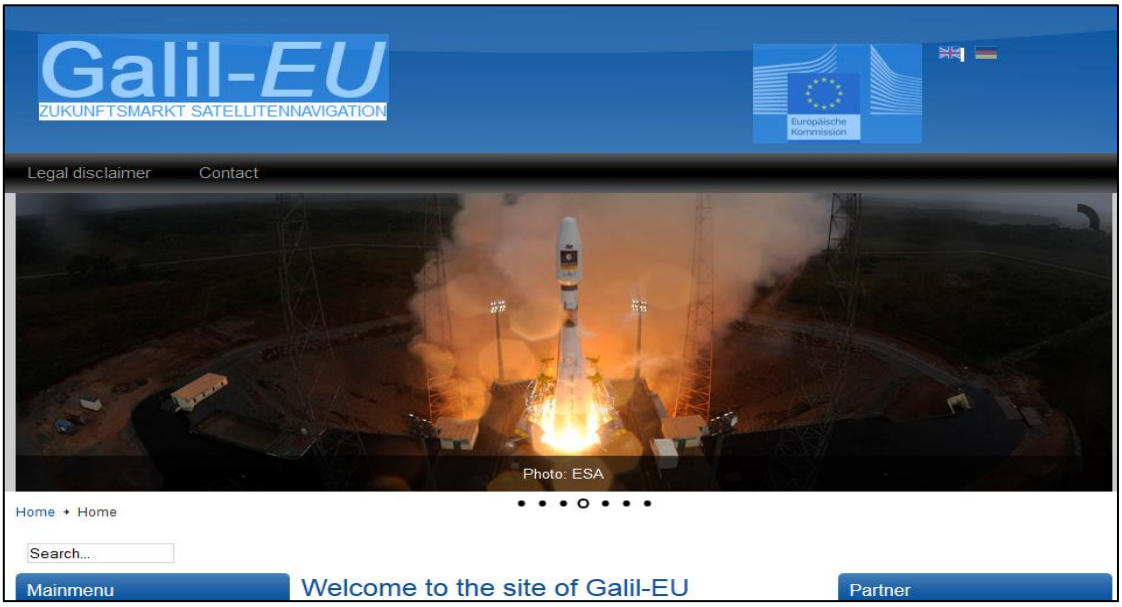
EUROPEAN GMES / GNSS PROJECT (CIP Programme)



Galil-EU: "Future Satellite Navigation – using synergies from geodesy to transportation for new solutions and products"

At the Aachen-area/Germany, two terrestrial test beds have recently been installed to allow for development, testing and validation of Galileo-based vehicular systems and applications already today by using the physically original satellite signals: the **automotiveGATE** and the **railGATE**.

The new EU-funded project **Galil-*EU*** is pursuing the usage of modern satellite navigation technology. At geodesy highly accurate positioning solutions are standard already today.

At transportation there is a growing demand for applying this accuracy but in combination with supporting highly dynamical and high volume systems.

Within the project **Galil-*EU*** the usage of the synergies will lead to new solutions and products on both sides: at geodesy and in transport engineering. This will gain additional R&D-projects, too (e.g. Horizon 2020, etc.). The major subjects are focusing on future safety- and assistant systems at transportation on road and rail, the data management of the infrastructure, the sensing of roads, streets and tracks, etc.

The objectives

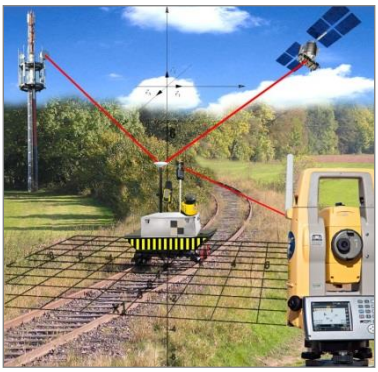
- Strengthen the development and international visibility of the regional industry using GMES, Galileo and EGNOS
- Work out the mutual opportunities and benefits of using GMES/GNSS in land transport and in geodetic with all relevant stakeholders and players in the region (NRW & EMR)
- Expand on current policy objectives and their implementation (automotiveGATE, railGATE, Galileo Application Center) by including the geodesy sector
- Make use of the specific geodesy know-how and demand for high accuracy applications
- Re-apply this technology back to transport, i.e. rail and road
- Requirements from vehicle industry, e.g. to realize upcoming safety assistant systems based on geo-information.

Reference and Calibration Tracks

At the Siemens Proofing and Validation Center Wegberg-Wildenrath (PCW) an appropriate part of the rail tracks has been selected to set up a measurement- and calibration course in order to conduct dynamic investigations on satellite navigation systems. This 3D quasi-invariant-in-space system is forming the basic structure for manifold investigations and applications as accuracy, availability, reliability and many other criteria important for modern hard- and software-development.

Gang Car

is a special designed electrical driven rail vehicle which is being built as transportation platform to carry the measurement equipment as well as the devices under test (DUT). At the reference- and calibration tracks, moving and accelerating targets can get tracked, measured and documented. Finally, various calculations and error analysis can be realised efficiently.



The Galil-EU project team:

- **AGIT mbH** – Aachener Gesellschaft für Innovation und Technologietransfer (Coordinator) represented by its business unit Automotive & Rail Innovation Center (ARIC).
- **GEOhaus –** House of Geo-Information at Mülheim/Ruhr;
- **Bochum University for Applied Science,** subject area geodesy
- **ITAPS Sp. z o.o.** at Wroclaw/Poland

Read more on: www.Galil-EU.eu

http://www.agit.de
http://www.aric-aachen.de
http://www.geohaus.de/
http://www.hochschule-bochum.de/
http://www.itaps.info/

Gefördert durch die EU

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We invite you to participate! Together we can specify precisely your ideas and proposals for further testing and verification. Just contact us!

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