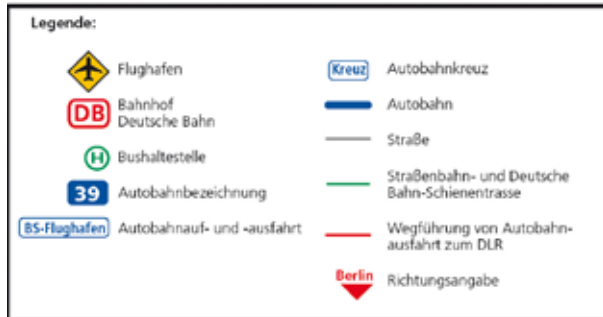
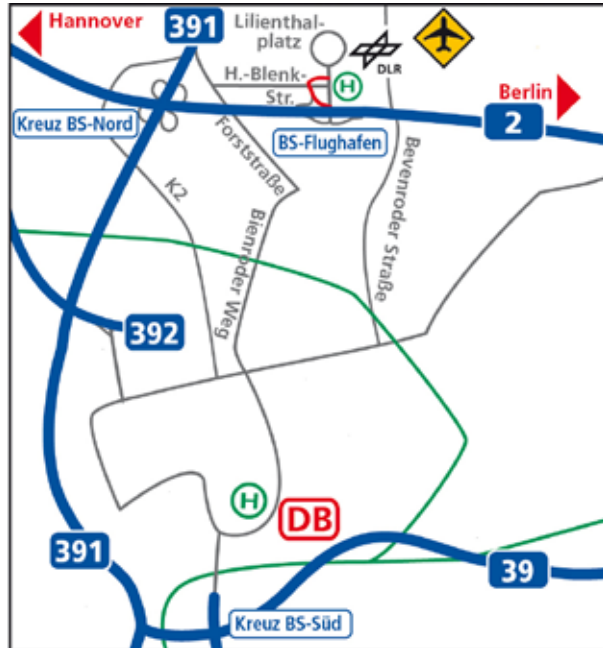


Venue

Deutsches Zentrum für Luft- und Raumfahrt
(German Aerospace Center)
Institute of Transportation Systems
Lilienthalplatz 7
38108 Braunschweig
Germany



Registration

Fax: +49 531 35406-74
E-Mail: info@test4rail.org

Further Information

The conference language will be English.

www.test4rail.org
Contact: test4rail@dlr.de

Payment by bank transfer after receipt of invoice.
Terms and conditions are available on the website.

Conference Fee

I hereby register as

Participant: 300 €

Last Name _____

First Name _____

Title _____

Company _____

Address _____

Phone _____

Fax _____

E-Mail _____

Place, Date _____

Signature _____

Media Partner



Test4Rail

Symposium Test4Rail

Testing of safety-critical,
software-based railway
systems

29 and 30
October 2013

Deutsches Zentrum für Luft- und
Raumfahrt (DLR)



Objective

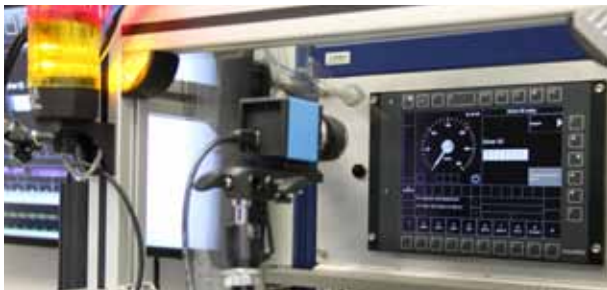
The objective of the symposium is to identify new approaches for the optimisation of tests of safety-critical, software-based railway systems. To this end, representatives from science, rail industry and operation will give presentations on their view of the topic, to stimulate discussions and identify promising new directions.

The focus of the symposium is

- Requirements related to the quality of the test results from the perspective of the operators, authorities and the EU
- Experience related to testing from the industrial practice
- Technologies for testing – new approaches along the whole testing life cycle
- Conformity Tests – lessons learned and perspective

Evening Reception

Technical visits will show the laboratory RailSiTe® of the DLR which is designed for functional testing of Train Control Systems as well as for studies on innovative human machine interfaces and assistance systems.



Tuesday, 29 October 2013

12:00 Registration and Coffee

Opening

- 13:00 Welcome
Prof. Dr. Karsten Lemmer (DLR, Germany)
- 13:15 [Keynote 1: Testing and Economics](#)
Karel Vinck (European Commission, Belgium)
- 14:00 Coffee Break

Industrial Practice

- 14:15 RBC Product Test
Dr. Klaus Jaschke (Thales, Germany)
- 14:45 Our West-Side-Story – Setting PTC on Track
Dirk Meyer and Prashant Pattanshetty
(Siemens Industry Inc, USA)
- 15:15 ERTMS/ETCS Operational Scenarios and Interoperability Testing
Stefano Geraci (EEIG ERTMS Users Group, Belgium)
- 15:45 Coffee Break

Laboratories

- 16:15 [Keynote 2: Securing the Goals of Standardization by Efficient Conformity Testing](#)
Dr. Michael Leining (DB, Germany)
- 17:00 Development of Test Automation Tools for ETCS
Dr. Alexandre Girardi (Multitel, Belgium)
- 17:15 Early Verification of Concepts on the Example of openETCS
Marc Behrens (DLR, Germany)
- 17:30 Laboratory Tests for Track-Train Integration
Dr. Jaime Tamarit (CEDEX, Spain)
- 17:45 Discussion on Test Laboratories
- 18:15 Evening Reception

Wednesday, 30 October 2013

- 08:00 Registration and Coffee
- 08:30 [Keynote 3: ETCS Test Experience and Future Trends from the Industrial Point of View](#)
Olaf Mense (UNISIG, Belgium)
- 09:15 Coffee Break

Scientific Approaches

- 09:45 Time and Cost Optimization in ATP, ATO, ATS ... Systems Commissioning Through Simulation-Based Testing
Dr. Jose Manuel Mera (Technical University of Madrid, Spain)
- 10:15 Model-Based Test of Semi-Formal Specifications
Dr. Oliver Lemke (Berner & Mattner, Germany)
- 10:45 Modular Conformance Testing of Track-Side Equipment
PD Dr. Hardi Hungar (DLR, Germany)
- 11:15 Automated Conformance and Interoperability Testing – New Technologies and their Application
Prof. Dr. Ina Schieferdecker (Fraunhofer FOKUS, Germany)
- 11:45 Lunch

Approaches in Other Application Domains

- 12:45 Verification of Software According to the DO-178B Development Process
Ottmar Bender (Cassidian, Germany)
- 13:15 Model-Based Development and Testing of Safety Related Automotive Software using UML
Dr. Marc Lettrari (BTC-ES, Germany)
- 13:45 Coffee Break

Testing and Authorisation

- 14:00 ETCS Testing – Legal Framework and Ongoing Developments
Pio Guido (European Railway Agency, France)
- 14:30 Application of Subset-076 for the EC Conformity Assessments
Heiko Saalbach (Movares, Germany)
- 15:00 Testing Activities in the Authorisation for Placing in Service
Beatriz Sierra (INECO, Spain)
- 15:30 Conclusion and Farewell
Prof. Dr. Karsten Lemmer (DLR, Germany)

Programme is subject to alterations