

Press Release



IfEN GmbH · Press Office

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GATE test bed - The German GALILEO Test Environment -

Poing, Germany – Currently the European satellite navigation system GALILEO will be developed, with a planned operational availability round 2008. Therefore the development of GALILEO based applications and products becomes more and more important. With GATE, a ground based, realistic test bed will be developed, especially covering the needs of receiver manufacturers and application developers.

Under leadership of IfEN GmbH, a consortium has been formed to develop and build the GATE test bed. This consortium is composed of enterprises (EADS Astrium GmbH, Kayser-Threde GmbH, VEGA IT GmbH, VCS AG, Telematica e.K.) and research institutes (DLR-GSOC, DLR-Institute for Communication and Navigation, Fraunhofer Institute for Integrated Circuits and the Institute for Geodesy and Navigation of the University FAF Munich).

The GATE definition phase was closed in June 2003 with a successful Preliminary Design Review. The start of the development phase is scheduled for May 2005. GATE will then be operational around Mid 2006 for receiver manufacturers and application developers.

The GATE test bed cornerstones are 6 ground transmitter, emitting the GALILEO signals towards the GATE test area. Inside this test area, which is located near to Munich, test receivers can receive these signals and perform positioning.

The core of GATE is the 'Virtual Satellite Mode'. In this operational mode, the signal transmitters will be steered individually, thus emulating real satellite behavior in terms of Doppler, signal strength, Ionosphere and Troposphere. That means that the (test) receiver in the test area will receive a signal comparable to the real GALILEO satellite signal. This will enable realistic test scenarios for the receiver manufacturers. Furthermore, application developers may also use the test receivers provided by GATE to support the development of applications.

During the deployment phase of GALILEO, the systems availability will be limited due to only 2 GSTB-V2 and 4 IOV satellites. Since GATE will provide 6 ground transmitters serving as additional ranging sources, this will enable application developers to perform positioning with less than 4 GSTB-V2/IOV satellites within the GATE test area.

The GATE test bed will be developed under contract of 'Deutsches Zentrum für Luft- und Raumfahrt (DLR)' as a national support programme to GALILEO.

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