

Short report on NEREUS workshop on EGNOS/Galileo for marine and maritime applications and NEREUS GNSS WG meeting, 16/17 April

On 16-17 April 2012, NEREUS, in collaboration with Veneto region and CORILA organized a workshop aimed at presenting the wealth of opportunities offered by EGNOS and Galileo to develop GNSS applications for the maritime and marine purposes. Over 80 participants, representing different industries, Small and Medium Enterprises, research centres and public administrations, attended the event. Structured in four political and technical sessions, the event launched the dialogue with potential European and regional end-users such as port authorities and bodies involved in sea traffic and transport. The discussion centered on factors that contribute to stimulate and favor relevant actors to develop space applications.

1. Opening Session

Pierpaolo Campostrini, director of CORILA and chair of the NEREUS Working Group on GNSS, welcomed the participants in Venice and introduced the aims of the Workshop.

The introductory political session reflected on the global societal and economic dimension of EGNOS/Galileo. Opening the session MEP Antonio Cancian, member of the ITRE Committee of the European Parliament, recognized in his speech the value of Galileo for public services and stressed the need to develop more GNSS applications in Europe. Michel Praet, member of the Cabinet of the President of the European Council, recognized the fundamental role played by GNSS services in terms of European growth and job opportunities and identified the need for more sustainability of both programs and better harmonisation and standardisation of their services. Paolo Costa, President of the Venice Port Authority underlined the strategic value of the GNSS system for managing Italian ports while pointing out that, in the near future, Galileo will be always more important for data transmission. For this reason, recognizing the current financial difficulties in deploying the system, he asked for rapid and concrete solutions. Marino Zorzato, Vice-President of Veneto region¹ identified the strategic economic and societal impact of GNSS services in Veneto region and recalled the importance of the NEREUS network in voicing the regional needs in an European arena. Roya Ayazi, NEREUS Secretary General, stressed the added value of regional events like the Venice workshop. Reporting on the current debate in the European Parliament on the proposed GNSS-regulation she explained NEREUS' position and called for broad promotion activities across society in order to optimize the exploitation of both systems and stimulate the urgent development of the downstream market sector.

2. Session 1: the role of GALILEO/EGNOS in supporting the European regions' policies, with particular focus in the maritime sector

This session introduced the theme of the workshop with an emphasis on the role of EGNOS and GALILEO in supporting the European region's policies.

Michel Praet, member of the Cabinet of the President of the European Council, highlighted in his intervention that "space" is in essence a tool to produce data and information. The main challenge of tomorrow will be to use these data in a more efficient way at all levels: for European, national and regional decision makers.

¹ Due to other political commitments Mr Zorzato was not able to be present at the event. Maurizio De Gennaro, head of the cartography department of Veneto region read his speech.



The need for rapidly developing GNSS applications, in a more user-oriented approach, was also underlined by Gian Gherardo Calini European GNSS Agency – GSA.. Mr Calini called for a stronger European awareness raising campaign on the potential uses of GNSS applications, and recognized, in this context, the essential role of the NEREUS network in spreading the understanding of space in the regions across Europe and in identifying regional end-users needs. Clément Williamson, European Commission, GMES Bureau, underlined the close interaction between GMES and EGNOS/Galileo programs and stressed the importance for an integrated approach for the exploitation of both systems.

3. Session 2: Marine and Maritime applications

This session was dedicated to the presentation of relevant operational European projects, future project ideas as well as concrete best practices of GNSS-uses for marine and maritime purposes.

The session was opened by Hans De With of the European GNSS Agency. The presentation showed the added value of new GNSS signals for maritime applications and gave an overview on relevant GNSS projects and initiatives in the maritime sector.

Fabio Riva, Vitrociset Belgium, presented the FP7 project COMESMOS (COoperative Satellite navigation for MEteo-marine MOdelling and Services). The objective of the project is to assess the scientific benefits of implementing cooperative meteo-marine data collection schemas, coupled with innovative on board sensor architectures based on current and future GNSS receivers. Collected data from standard and innovative sensors shall be aimed at improving meteo-marine modelling and forecasting capabilities.

Massimo Pichini, Nextant Spa, made a presentation on the FP7 project MEDUSE (Marine park Enhanced applications based on Use of integrated GNSS Services) which aims to develop a prototype service infrastructure for park monitoring within restricted access maritime areas (parks, reserves) based on use of EGNOS/GALILEO signals.

Bernard Garnier, BlueSolutions Consulting –Pole de compétitivité Mer PACA, gave an overview on the activities of the Marine Sea Cluster of Provence & French Riviera with a focus on maritime safety and security challenges.

Philipp Berglez, Teleconsult Austria GnbH, illustrated the NAVWA Project dedicated to future high precision navigation system for inland waterways. The project, funded by the Federal Ministry for Transport, Innovation and Technology (bmvit) through the Austrian Space Application Programme, has the objective to develop a high precision navigation system based on GNSS positioning and tailored to the use for barge convoys and cargo vessel in inland navigation.

Antonio Casoria, NEXT – Ingegneria dei sistemi Spa, showed the results of EASY project, Easy and safe Yachting. The project, funded by ESA, under the ARTES 20 framework, has the objective to carry out an analysis of the technical feasibility and commercial viability of “one-stop-shop” services to the high value leisure yachting market, integrating various space assets (Satellite Communications, Satellite Navigation, Earth Observation).

George Mermiris, University of Strathclyde (Glasgow), made an intervention on Instantaneous Monitoring of Global Maritime Safety, with a focus on life-cycle management with onboard decision-support systems pertaining to safety and environmental performance of ships.

Pepa Sedo, Aerospace Research & Technology Centre – CTAE, presented the FP7 project DockinAssist that aims to develop a cost-effective location system (centimeter positioning/speed accuracy), and to provide efficient and safe maneuvering within the entire port area enhancing vessel trajectory, and providing constant monitoring for moored/docked vessels.

The second part of the session in the afternoon has been opened by the intervention of Alberto Sonino, Project Manager of the America's cup World Series in Venice. Mr. Sonino showed the possible uses of GNSS applications in the sport race services.

David Bonacci, TESA laboratory – Telecommunications for Space and Aeronautics, illustrated the main application of the Automatic Identification System (AIS).

Alessandro Caporali, University of Padua – CISAS Centre, showed the possible position and navigation services from the permanent GNSS network of the Veneto Region.

4. Session 3: Interactive session on the call for proposals EMMIA (European Mobile and Mobility Alliance)

In this session the responsible EC-official from the GMES Bureau, Clement Williamson presented the new European Mobile and Mobility Alliance (EMMIA)-II- call for proposals and invited the participants to submit proposals. EMMIA is part of the 2011 Entrepreneurship and Innovation Programme (EIP) of the European Competitiveness and Innovation Programme (CIP). The new call is focused on GMES and GNSS based services²: http://www.nereus-regions.eu/GALILEO_WS_Venice_EMMIA

Steve Fuller, GNSS Research Applications Centre of Excellence, GRACE, gave an overview on the EMMIA initiative focusing in particular on the Policy Learning Platform.

5. Session 4. – Port operation

The early morning session of the second day was dedicated to exchanging with potential end-users of marine/maritime applications, in particular with port authorities. Representatives of various port operators presented experiences in controlling vessels traffic and in managing different European ports. Benjamin Hodgson, BMT Group, presented the SAFEPORT project giving an example of the effective benefits of using EGNOS services in safe port operations. Presentations were given by the port of Dublin, the Port of Valencia and the Port of Venice. A summary of the outcomes of the port operations session is attached to the present report.

6. Concluding remarks

Common experiences and individual needs were compared and the public was involved in a very fruitful morning debate. The ideas and initiatives developed as well as many comments and suggestions collected during the two-day workshop were summarized by Ms Ayazi and presented

² (please download Mr Williamson's presentation for more detailed info on the call, objectives and deadlines)

to the participants in the form of workshop conclusions. The comments to these draft conclusions were collected and included. A final document will be available shortly.

All presentations are available to download here: http://www.nereus-regions.eu/EGNOS_GALILEO_WS_Venice.

The second part of the morning session comprised an exchange at the level of the NEREUS GNSS WG. The proposed 2012 work programme with objectives and strategy as well as a time schedule for the next meetings were presented to the participants. No comments or amendments were made. The WP2012 will be put on the website as a finalized version. Many of the participants at the workshop demonstrated a vivid interest on the WG activities and expressed interest in participating in its activities.

Outlook:

- It is planned to continue with interested WG-members to engage further on marine/maritime GNSS-applications.
- A subsequent WS including also EO/GMES, GNSS and Telecom uses for marine/maritime purposes is planned for 2012/2013.
- The next WG-meeting is planned for **Tuesday, 26 June 2012, 14.00-18.00h**