

Statement of GSA

By Carlo des Dorides

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Dear President of the Regional Council of Calabria, Dear Mayor of Reggio Calabria

Dear Heads of Delegations, Dear colleagues,

It is a pleasure for me as Executive Director of the European GNSS Agency, GSA, to be here today at this “International Space Forum 2019- The Mediterranean Chapter”. The focus on “Space Technology and Applications meet Mediterranean Needs” could not be more relevant for GSA. The Agency is the EU user interface for business, institutions and user communities wanting to implement innovative and effective solutions - leveraging the European Global Navigation Satellite Systems (GNSS) Galileo and EGNOS – to respond to emerging economic, societal, and environmental challenges.

The core mission of GSA is to provide accurate positioning service worldwide with Galileo, and with EGNOS at European region level, augmenting GPS and specifically addressing the civil aviation world. Our current mission includes the safe and secure operation of these two complex satellite systems, to deliver high quality services accessible to all in the most cost-efficient manner. In the near future, according to the recently approved EU Space Programme Regulation, GSA will be endorsed also with responsibilities for the other European flagship space programme Copernicus, for Earth Observation, to maximise its use and create synergies among EU Space Programmes, for the benefits of business, institutions and society.

But before we move on, let me share a story.

For years I used to start my speeches explaining why Europe needed to invest in Space. The most frequently asked question was: “Why does Europe need Galileo?”

Fast forwarding to 2019, slowly everybody is understanding that we are already in the SPACE age. It is no longer a question of **IF** space applications – including satellite navigation - are going to change the way we live, but rather the question is **HOW** they will shape our societies. In this **HOW** lie uncertainties of course, but most importantly opportunities, opportunities for job creation, for innovation, for sustainable growth, for resource efficiency, for social inclusion.

So today I am NOT here to tell you why we need space, or satellite navigation, but **HOW** space, and satellite navigation in particular, is contributing to the present and future of the delicate ecosystem we are surrounded by and how it is empowering the maritime segment with cost-effective solutions.

Space driven innovation is shaping all segments, from smart-mobility to smart agriculture, to emergency response. Today 90% of the apps running on our smartphones requires location data, and 50% of them use positioning provided by satellites navigation systems.

Ladies and gentlemen,

One third of the world’s shipping passes through the Mediterranean.

Again, the question is not **IF** but **HOW** can Galileo and EGNOS help manage such a volume. **WHAT** applications are already in place or can be developed to manage such a fleet, using the

provision of extremely precise Position, Navigation and Time, for navigation, for traffic management, for search and rescue etc.

And there is more, it is estimated that in the Mediterranean ships discharge between 100,000 and 150,000 tonnes of crude oil each year. What can the European Space Programme do to monitor and contain the damage, identify responsibilities and prevent eco-tragedies?

And I am not talking about the future I am talking about right now! YES, we already have the capacity to act. To give you an example, it is estimated that by 2025 thanks to Galileo and EGNOS the EU will save 15 million tonnes of CO₂ emissions, 3.5 billion litres of fuel. With smart-farming thanks to EGNOS and Galileo we will be saving 1.5 million tonnes of fertilisers and 4,500 tonnes of pesticides. **How** can we transfer the lessons learned in aviation, automotive and other domains to the Mediterranean context, and develop smart solutions leveraging space? How can EU space programmes support the preservation of the Mediterranean, and secure growth and sustainability in one of the world's most populated and developed areas in the world.

To name but one of the roles that GNSS can take up in maritime, IALA, the International Association of Marine Aids to Navigation and Lighthouse Authorities, is providing guidance to maritime authorities in relation to the obsolescence problem of their Differential GNSS (DGNSS) infrastructure. One of the options preferred is the use of Satellite-Based Augmentation Systems (SBAS), which for Europe is EGNOS, to complement the DGNSS service.

The planned evolutions of this system include not only to fully benefit from Galileo on top of GPS, but also to provide a Maritime Safety of Life service.

In addition to the core contribution of GNSS to the maritime world and the blue economy, I would like to mention other less known usages:

- GNSS is the enabler of Automatic Identification System and Long Range Identification and Tracking (AIS & LRIT) position reports for **Traffic management** and situational awareness
- GNSS (potentially with position authentication) is the enabler for position reporting (Blue box) in Vessel Monitoring System (VMS) used in **Fisheries monitoring**
- The Galileo **Search & Rescue (SAR)** service is an important contributor to the Global COSPAS / SARSAT service. Galileo SAR reduces the detection time from 4 hours to 10 minutes and improve the position of the distress signal from a radius of 10 Km down to 2 Km, hence saving lives and reducing the exposure to risk. On average, six lives are saved every day with the assistance of Cospas-Sarsat.

Time does not allow me to give you a full picture of EU GNSS contributions to respond to the needs of the Mediterranean, but this speech would be incomplete if I were not to mention the other flagship European Space programmes, **Copernicus**.

Copernicus, "Europe's eyes on Earth" is the European Earth Observation programme that provides (free of charge, as is the case for GNSS) essential information for six main domains: **Atmosphere** monitoring, **Marine** environment monitoring, **Land** environment monitoring, **Climate** monitoring, **Security** services and **Emergency** services.

As you can see I did not come here with any readymade answer, but rather with a toolbox of satellite-based services which I hope are relevant to the challenges that you and your communities are facing. These instruments are already available to you all, at no cost.

Ladies and gentlemen,

We are at the cusp of a revolution powered by space technologies and applications. Galileo, EGNOS and Copernicus are European assets that need to be translated into advantages, benefits, growth, and sustainability. We need your help in understanding how to accelerate progress in the convergence and deployment, and really get the biggest return on investment from European space infrastructures and services.

I look forward to making GNSS for marine and maritime a European success story and a business case that can be exported across the world.

Thank you for your attention.