



# FOREWORD

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The space industry offers an ever expanding array of space products and services which are changing the way people go about their daily lives. They continue to evolve in technological sophistication and capability, and their applications continue to change and adapt with the needs of the economy. Space manufacturing and service industries are the strategic high-tech sectors driving growth and innovation well beyond the space sector, delivering value across all economic areas.

The space sector is a showcase and barometer demonstrating the vigour of the European industrial base. It has become an integral part of the Union's toolbox, increasing its competitiveness and providing socio-economic benefits. Therefore, the space sector directly contributes to the objectives of the European 2020 Strategy: Europe's growth strategy for a smart, sustainable and inclusive economy.

The European Commission remains committed to promoting technological and scientific progress, and stimulating industrial innovation and competitiveness. This entails raising Europe's international profile in the space sector, as defined in the 2011 European space policy.

In February 2013, the European Commission adopted a communication which defined, for the first time an EU space industrial policy. Its goal is to create a framework for improving downstream business development and increasing the global competitiveness of the EU space industry. The communication also aims to support SMEs in the downstream space sector which provides even greater opportunities for job creation. At the same time, technological non-dependence and independent access to space must be ensured. However, we must keep in mind that these priorities are dependent on the successful implementation of major European space infrastructure.

The two EU flagship programmes, the global navigation satellite system, Galileo and the European Earth monitoring system, Copernicus (formerly known as the Global Monitoring for Environment and Security (GMES) programme), are progressing towards becoming (fully) operational.

Europe is now a step closer to having its own satellite navigation constellation. On 12 October 2012, two new satellites were placed in orbit using a Soyuz launcher from Kourou, French Guiana. A total of four operational satellites are now in orbit forming the minimum constellation needed for Galileo's validation and fine-tuning. Upon completion of in-orbit checks, a further 14 satellites will be deployed and initial services provided by the end of 2014. European businesses and citizens will then have direct access to a European satellite navigation system providing timely information to an infinite number of sectors such as transport, customs services, search and rescue systems and leisure.

Copernicus will collect and process reliable data from Earth observation satellites and *in situ* sensors, and deliver it through a set of environmental and security-related services. 2013 will be the year of the launch of the first Sentinel satellite. The data gathered from the Sentinels and the information produced by the Copernicus services will allow the creation of new business opportunities, which, in turn, will help promote jobs and growth. The Commission is also working on a proposal for the further implementation of Copernicus in the 2014-2020 timeframe.

The European Union's continued efforts in contributing to space research are reflected in 'Horizon 2020', the successor to the FP7 R&D programme. Space research is now placed under the heading 'Industrial Leadership', thus illustrating its importance. Its main objective is to strengthen the competitiveness and innovation potential of the European economy and of the European space sector. Building on the success of FP7, in the 2014-2020 timeframe, Horizon 2020 will enable the European space research community to further develop advanced space technologies and operational concepts "from idea to demonstration in space". This will make the EU one of the main sources of funding for space research in Europe, alongside the European Space Agency (ESA), the Member States, and European space industry.

Space products and services rely upon space infrastructure, which must be monitored and protected from threats to ensure a safe and uninterrupted service. Space debris now represent a major threat to European space activities since any satellite can be damaged or destroyed by orbiting debris, and any collision generates further orbital debris. A European space anti-collision service is becoming increasingly necessary; therefore, the European Commission has proposed a support programme to establish a Space Surveillance and Tracking (SST) capacity in Europe. This programme aims to encourage Member states to use their (object) detection and tracking systems collectively to provide SST data and services across the EU.

In 2013, the European Commission, together with the European Space Agency and Member States, will prepare a European position on space exploration for the next ministerial meeting to be hosted by the United States in January 2014: this follows the success of the 2011 Lucca conference.

Building on the achievements of 2012, in 2013, the EU will further foster and expand its dialogues on space with all its international partners, both established and emerging.

Space needs Europe and Europe needs space. The space sector is an area of great interest for the European Union, and the European Commission is determined to put in place the right tools and means to have a sustainable and successful European space industry at the disposal of EU citizens.