



# EU BUDGET FOR THE FUTURE THE EU SPACE PROGRAMME

#EUBudget #EUSpace



6 June

## SPACE POLICY AND ACTIVITIES BEYOND 2020: THE NEW EU SPACE PROGRAMME AT A GLANCE

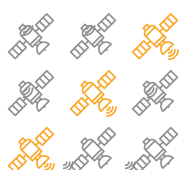
Space technology, data and services have become indispensable in people's lives and play an essential strategic role for Europe. Europe has a world leading space industry.



Space sector employs over **231.000** people



Its value is estimated at **€ 53-62** billion in 2017, 2nd largest in the world



**A third** of the world's satellites are made in Europe.



Sector keeps upgrading family of European launchers with next generation **Ariane 6** and **Vega C**.

For the next EU budget 2021-2027, the Commission wants to increase **investment, adapt to new needs and technologies and reinforce Europe's autonomous access to space.**



### OBJECTIVES OF THE NEW SPACE PROGRAMME

#### ➤ Ensure that the EU remains a global leader in the space domain

- Safeguard continuity and evolution of Galileo, EGNOS and Copernicus, the world's most advanced satellite positioning and Earth observation systems, and develop new security initiatives on Governmental Satellite Communication (GOVSATCOM) and Space Situational Awareness (SSA)

#### ➤ Foster a strong and innovative space industry

- Improve access to risk financing for space SMEs, including innovative start-ups, and emerging business models
- Space innovation partnerships, access to testing and processing facilities, promote certification and standardisation

#### ➤ Maintain the EU's autonomous, reliable and cost-effective access to space

- Aggregate the EU demand for launch services
- Invest in innovative technology, such as reusable launchers




#### ➤ Establish a unified and simplified system of governance

- A single Regulation will allow for streamlined ways of simpler cooperation between all institutional actors
- The Commission as programme manager sets priorities and operational decisions
- The European Space Agency remains the main partner in the Programme implementation, given its unmatched expertise
- The EU Agency for the Space Programme will support market uptake and play an increased role in security accreditation

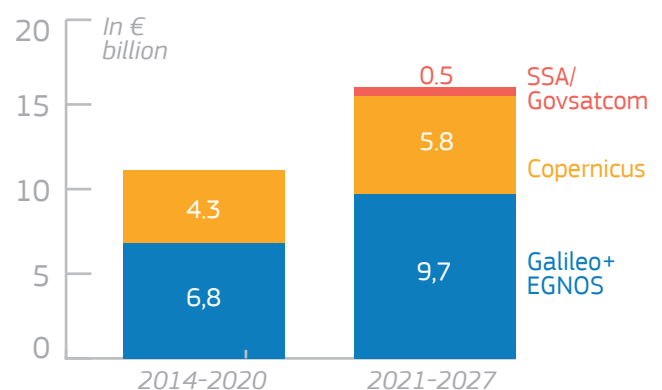
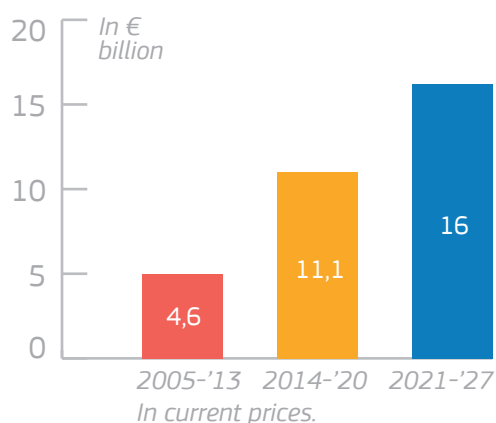


## WHAT IS THE BUDGET AND HOW WILL IT BE SPENT?

The EU Space Programme has a budget of **€ 16 billion over 2021-2027** and consolidates all Union space-related activities into a coherent, simplified and flexible programme:

	 <b>Galileo and EGNOS</b>	 <b>Copernicus</b>	 <b>GOVSATCOM &amp; SSA</b>
<b>Role</b>	global navigation and regional satellite navigation systems	free and open Earth observation data of land, atmosphere, sea, climate change and for emergency management and security	access to secure satellite communications for national authorities and monitoring of space hazards
<b>Budget</b>	€ 9,7 billion	€ 5,8 billion	€ 0,5 billion
<b>Goal</b>	<ul style="list-style-type: none"> <li>• ensure continuity in the operations</li> <li>• provision of high quality satellite navigation services</li> <li>• investment in ground infrastructures and satellites</li> </ul>	<ul style="list-style-type: none"> <li>• maintain leadership in environmental monitoring, emergency management and border &amp; maritime security</li> <li>• grow range of satellites for new observation capacities</li> <li>• new data dissemination infrastructure for easier development of commercial applications</li> </ul>	<ul style="list-style-type: none"> <li>• develop GOVSATCOM through pooling of Member States capacities</li> <li>• under the SSA:               <ul style="list-style-type: none"> <li>- further develop space surveillance and tracking of space objects to avoid collisions</li> <li>- complementary activities to address other space hazards (space weather, asteroids)</li> </ul> </li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>• new, free of charge, service will allow users to know positions very precisely (error margin: 20 cm)</li> <li>• new applications and services, such as autonomous cars, drones, robots and internet of things</li> </ul>	<ul style="list-style-type: none"> <li>• environmental needs: focus on CO2 emission monitoring and climate change, land use to support agriculture, observations of Polar areas, forest and water management</li> <li>• security needs: improve detection of small objects (e.g. vessels) and monitor illegal trafficking</li> </ul>	<ul style="list-style-type: none"> <li>• GOVSATCOM: improve government action to increase citizens' security</li> <li>• SSA: more autonomy and capability to protect space infrastructure and Earth from space hazards</li> </ul>

### EU INVESTMENT IN THE SPACE DOMAIN





## EU SPACE ACTIVITIES already deliver indispensable services ...

... that benefit millions of people, provide opportunities for creating businesses and ensure Europe's leadership and strategic autonomy in space.

EU space data is transforming our lives with services such as:



**Responding to natural disasters:** In 2017, Copernicus maps showing the extent and magnitude of damage have helped rescue teams deal with forest fires (Italy, Spain, Greece, Portugal), earthquakes (Mexico), hurricanes (countries hit by hurricanes Harvey, Irma and Maria), and floods (Ireland, Germany), amongst others.



**Saving lives at sea:** Copernicus supports the European Coast and Border Guard Agency's missions in the Mediterranean, helping spot unsafe vessels and rescuing people. Galileo can be used on all the merchant vessels worldwide, bringing increased accuracy and more resilient positioning for safer navigation.



**Search and Rescue:** A new Galileo service reduces the time it takes to detect a person equipped with a distress beacon to less than 10 minutes in a variety of locations including at sea, in mountains or deserts, and in urban areas. It confirms to the person that help is on the way.



**Monitoring oil spills:** The European Maritime Safety Agency (EMSA) uses Copernicus data for oil spill and vessel monitoring.



**Landing of airplanes:** 350 airports in almost all EU countries are currently using EGNOS, making landing in difficult weather conditions more secure, thus avoiding delays and re-routing.



**Road safety:** From April 2018, Galileo is integrated in every car model sold in Europe, supporting the eCall emergency response system. From 2019, it will be integrated in digital tachographs of lorries to ensure the respect of driving time rules and improve road safety.



**Agriculture:** 80% of farmers using satellite navigation for precision farming are EGNOS users. And Copernicus data is used for crop monitoring and yield forecasting.



## STRONG MARKET UPTAKE OF SPACE DATA

Space-based applications are changing our lives, our economy, our industry. In addition to the public sector, a number of companies and innovative start-ups are using satellite data and enabling their devices, for example:



**Smartphones:** All leading smartphone companies now offer Galileo enabled smartphones: Sony, Huawei Samsung and Apple. App developers can now create innovative Galileo products and services, using the enhanced accuracy.



**Health:** HappySun helps prevent sunburn with an app providing UV radiation forecasts and personal sun protection advice based on the user's skin type and location.



**Internet of Things:** Geko navsat uses positioning data for applications in the Internet of Things.



**Fishery:** The Asimuth project helps fish and mussel farmers optimise their harvesting schedules to reduce losses from algal blooms by at least 12.5%.



**Wine production:** production Terranis has developed an app which provides information in the weeks before harvest time so that wine makers can adjust cultivation methods.