

European GNSS supporting sustainable development

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ICG-14, Bangalore, 9 December 2019

I. (European) GNSS and Earth Observation: A promising convergence for sustainable development

- The UN 2030 Agenda for Sustainable Development is a collection of 17 Sustainable Development Goals (SDGs) aiming at achieving a better and more sustainable future for all.
- The UNOOSA study *“European GNSS and COPERNICUS: Supporting the Sustainable Development Goals. Building blocks towards the 2030 Agenda”* published in 2018, was prepared with the support of European GNSS Agency (GSA).
- The UNOOSA study analyses the role of EGNSS and Copernicus supporting the UN Sustainable Development Goals (SDGs)
- And stresses the potential of EGNSS-Earth Observation (EO) convergence stimulating innovation and increasing the use of space technology















GNSS and EO support all the SDGs with various levels of contribution

- 13 out of 17 SDGs are flagged as goals for which EGNSS and EO contribute significantly to their fulfilment and monitoring.
- 65 out of 169 indicators defined as Key Performance Indicators for SDGs directly benefit from the use of GNSS and EO.
- 38 use cases are presented in the report, showcasing the tangible contribution towards sustainable development in already deployed solutions.




Precision agriculture contributes to reducing poverty and hunger, environmental monitoring supports healthy living


Global Goals for Sustainable Development

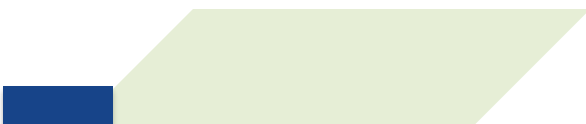
	EGNSS	Copernicus	Synergies	Examples of applications
 <p>1 NO POVERTY</p>				Natural disaster forecast Crop productivity optimisation
 <p>2 ZERO HUNGER</p>				Crop productivity optimisation Livestock management optimisation
 <p>3 GOOD HEALTH AND WELL-BEING</p>				Prevention of vector diseases Disability assistance Air quality monitoring Reduction of air pollution through road traffic optimisation eCall emergency response service

KEY

Level of contribution in monitoring/achieving part of a target/indicator





 Limited contribution

 Significant contribution



















Space based infrastructures support sustainable cities and clean energy and stimulate spill-overs for GDP growth

Global Goals for Sustainable Development

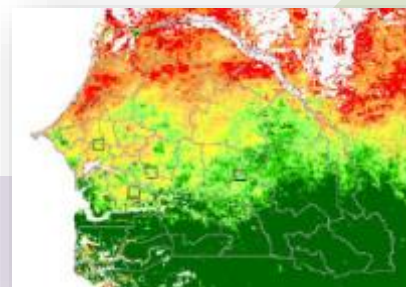
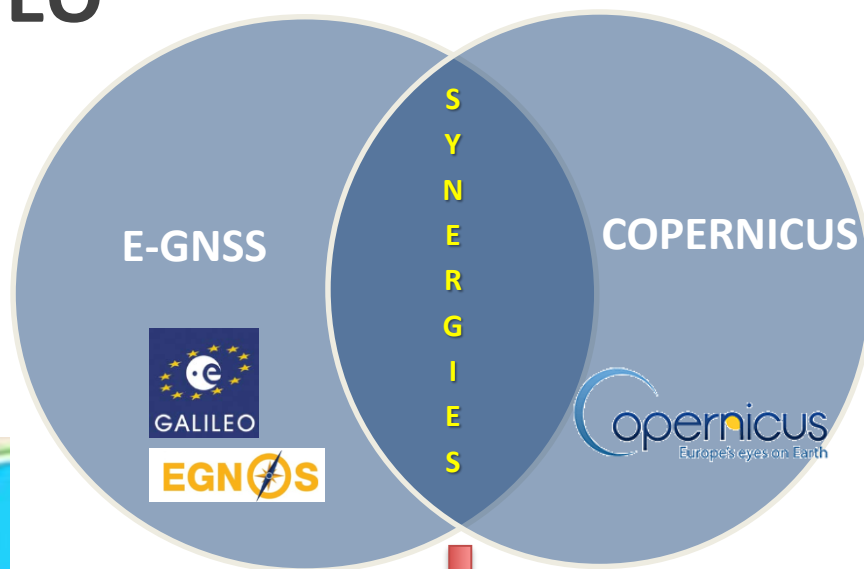
	EGNSS	Copernicus	Synergies	Examples of applications
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	● ●	● ●	● ●	Infrastructure monitoring Power grid synchronisation Seismic surveying Solar and wind energy production forecasting
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	● ●	● ●	● ●	Supporting global economies GDP growth Lone workers monitoring
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	● ●	● ●	● ●	Infrastructure mapping and monitoring Construction surveying Smart mobility
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	● ●	● ●	● ●	Urban planning Infrastructure monitoring Improvement of city services Air quality monitoring Disaster management Search and rescue operations



Asset traceability supports sustainable production, climate change monitoring gives inputs to climate actions

Global Goals for Sustainable Development	EGNSS	Copernicus	Synergies	Examples of applications
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>				<p>Natural resources management Food and dangerous goods traceability</p>
 <p>13 CLIMATE ACTION</p>				<p>Climate change monitoring Disaster management Search and rescue operations</p>
 <p>14 LIFE BELOW WATER</p>				<p>Mapping and monitoring of natural and protected areas</p>
 <p>15 LIFE ON LAND</p>				<p>Bio-geophysical land surface monitoring Animal tracking</p>

Synergies are generated due to joint use of GNSS and EO



Value-added applications

- Agriculture
- Mapping & Surveying
- Smart cities
- Road transport
- Maritime navigation
- Emergency/crisis management
- Utilities

Study is available on:

- http://www.unoosa.org/res/oosadoc/data/documents/2018/stspace/stspace71_0.html/stspace71E.pdf

II. New European Commission is preparing a Green Deal

- A new European Commission (2019-2024) was voted in office on 27 November 2019.
- In 2020 the Commission will propose a Green Deal. It will include a European Climate Law that will enshrine a carbon-neutrality target (= net zero carbon dioxide emissions).
- If and when endorsed by the EU Council (the EU Member States), the target is to reach carbon-neutrality in the EU in 2050 by:
 - investing in innovation and research;
 - making proposals to redesign the economy and update the industrial policy with realistic technological solutions.
- European and other GNSS will help achieve that target (e.g. reduction of fuel consumption on roads, at sea, in the skies and in the fields, smart cities,...)



Thank you

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