European's GNSS Programmes for European Citizens

25th MARS Conference. Keynote.

Fiammetta DIANI

November 26th, Prague

15 Years of EU Satellite Navigation

GSA

GALILEO EGNOS

NAVIGATION MADE IN EUROPE

The GSA is responsible for market development and management of Galileo and EGNOS

15 Years of EU Satellite Navigation

Our mantra:
Linking Space to user needs

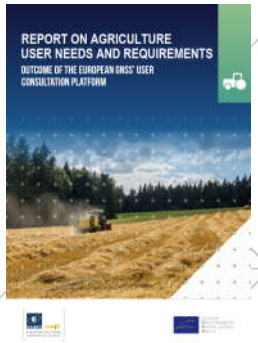
Delivery of safe and secure satellite services

24/7

For civil, commercial, gouvernemental stakeholders

Stimulate the development of business, companies

Horizon 2020 (previous calls **€120 Mil** ;
5th call opened on 5th November for **€21 Mil**
Fundamental Elements (**€101 Mil**)- supporting the development of EGNSS-enabled chipsets, receivers and antennas)



Market intelligence

Market report
60K downloads in 2017
6th edition launched on 15th October 2019
Technology report (2nd edition public)

EGNSS User Consultation Platform

The GSA is evolving to EUSPA

European
Global Navigation
Satellite Systems
Agency

A unique know-how of delivering satellite services and reaching the users

Synergies between all components of the EU Space Programme

EU Parliament and the European Council have reached an agreement to **enlarge the GSA responsibilities:**

GSA to become the **EU Space Programme Agency (EUSPA)** in 2021

Copernicus
Europe's eyes on Earth

GovSatCom
Space Situational Awareness (SSA)

EGNOS - a recognised success for 10 years

- Accuracy ~**1m, free**
- Accuracy ~1m, **compliant to aviation standards** by providing correction data and **integrity**
- Accuracy <1m, **corrections provided via internet**

Open Service (OS)

Safety of Life Service (SoL)

EGNOS Data Access Service (EDAS)

Galileo is the European GNSS offering a wide range of services

26 | Galileo Initial Services since DEC 2016

- Freely accessible service for positioning, timing and navigation message authentication
- Encrypted service designed for greater robustness and higher availability
- Assists locating people in distress and confirms that help is on the way
- Freely accessible high accuracy positioning service
- Authentication service based on the E6 signal code encryption and OS-NMA, allowing for increased robustness of professional applications

Open Service (OS)

OS-Navigation Message Authentication (OS-NMA)

Public Regulated Service (PRS)

Search and Rescue Service (SAR)

High Accuracy Service (HAS)

Signal Authentication Service (SAS)

European GNSS is part of our lives

European GNSS helps us **move**……

80,000 flight delays and **20,000** diversions avoided in Europe

15M tonnes of CO_2 saved

3.5 billion litres of fuel saved

European GNSS helps us **work**……

4,500 tonnes of pesticides and **1.5mln tonnes** of fertiliser saved

800mln hours saved for Europe's consumers and professionals

50,000 annual jobs supported in the downstream GNSS industry in Europe

European GNSS helps us **enjoy life**……

Source: EGNSS CBA (London Economics)

The joint use of EGNSS and Copernicus, an array of synergies

Synergies

Value-Added app

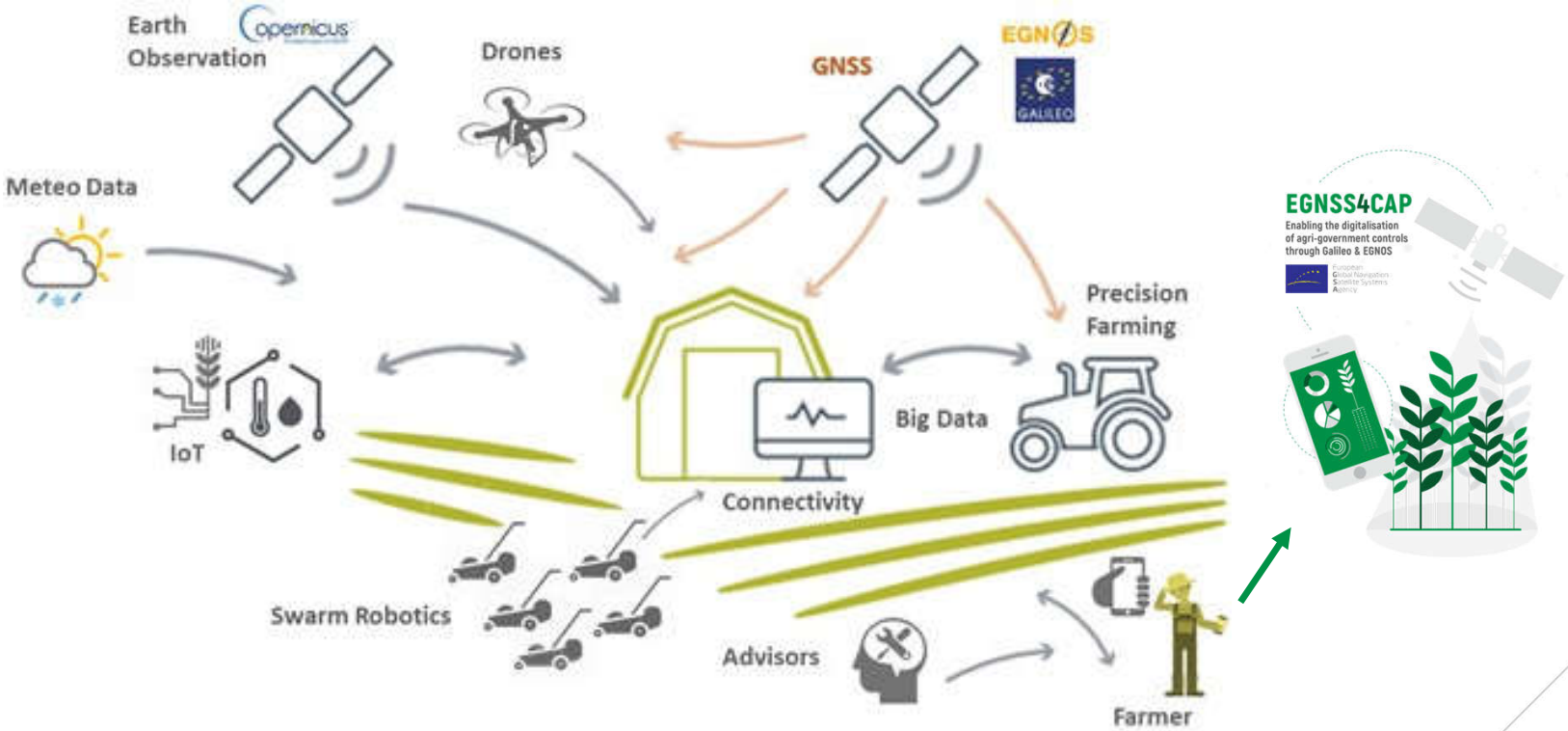
Disaster management

Precision farming

Natural resources management

Smart mobility

GNSS and Copernicus are the core components in the digital farming ecosystem (Agriculture 4.0)



GNSS has become one out of many elements in the complete production system, although an **eminently important one**

Galileo is used today on the majority of professional and consumer devices

More than 1 billion of **Galileo enabled phones** sold
Galileo adopted **in more than 180 consumer devices/models**

Accuracy Always Matters: Get it right!

Linking space to user needs

How to get in touch:

15 Years of EU Satellite Navigation

www.GSA.europa.eu

EGNOS-portal.eu

GSC-europa.eu

UseGalileo.eu