



European
Global Navigation
Satellite Systems
Agency

Galileo in your pocket

European GNSS Agency

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GeoIT Wherecamp Conference, 30 November 2017, Berlin



EGNOS

NAVIGATION SOLUTIONS
POWERED BY EUROPE

Galileo is operational!

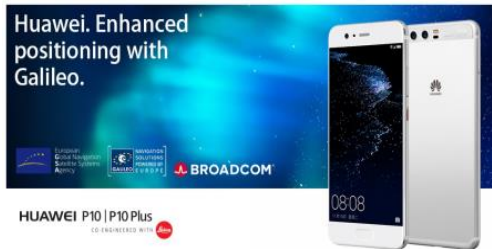


With the Declaration of Galileo Initial Services in December 2016, Galileo moved from a testing phase to the provision of live services. Users around the world can now be guided using the positioning, navigation and timing information provided by Galileo.

Leading smartphone manufacturers have started to include Galileo on new models ...and are not the only ones



SAMSUNG



In March 2017, Huawei launched its new, Galileo-enabled P10 Plus smartphone during the Mobile World Congress 2017 in Barcelona

In March 2017, Samsung unveiled its first Galileo ready smartphones: the Samsung Galaxy S8 and the Samsung Galaxy S8+

In September 2017, Apple presented its new iPhone models: the iPhone 8, the iPhone 8plus and the iPhone X, all of them Galileo compatible

Check the full list of Galileo enabled smartphone models on <http://usegalileo.eu>



GSA has been supporting the development of apps using Galileo



Galileo Hackathons are a great opportunity to showcase coding skills, connect with the geo-location app development community, and to gain a competitive insight on what Galileo can offer to LBS



1st edition
Wherecamp, Berlin
Nov. 2016



2nd edition
Infoshare, Gdańsk
Apr. 2017



3rd edition
SpaceTech Integrated
Applications, Tartu
Nov. 2017

Upcoming Hackathons

- Act in Space (online challenge), May 2018
- Padova, Sep. 2018

Subscribe to the GSA Today Newsletter and keep updated with the latest events

Take part in the Act in Space 2018!

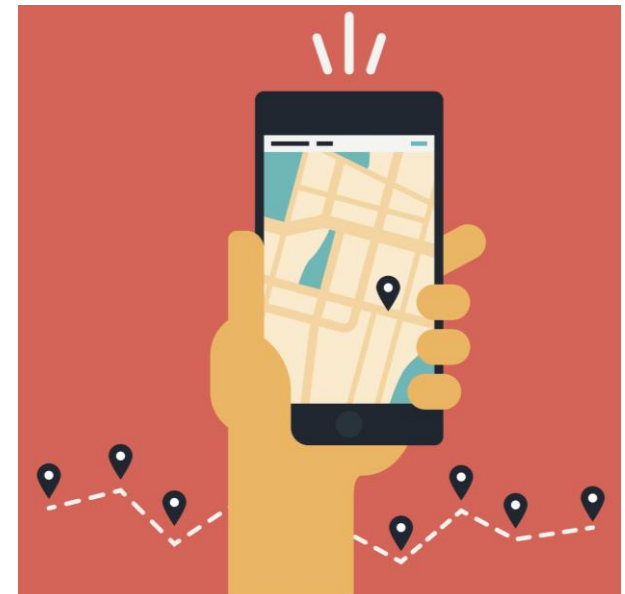
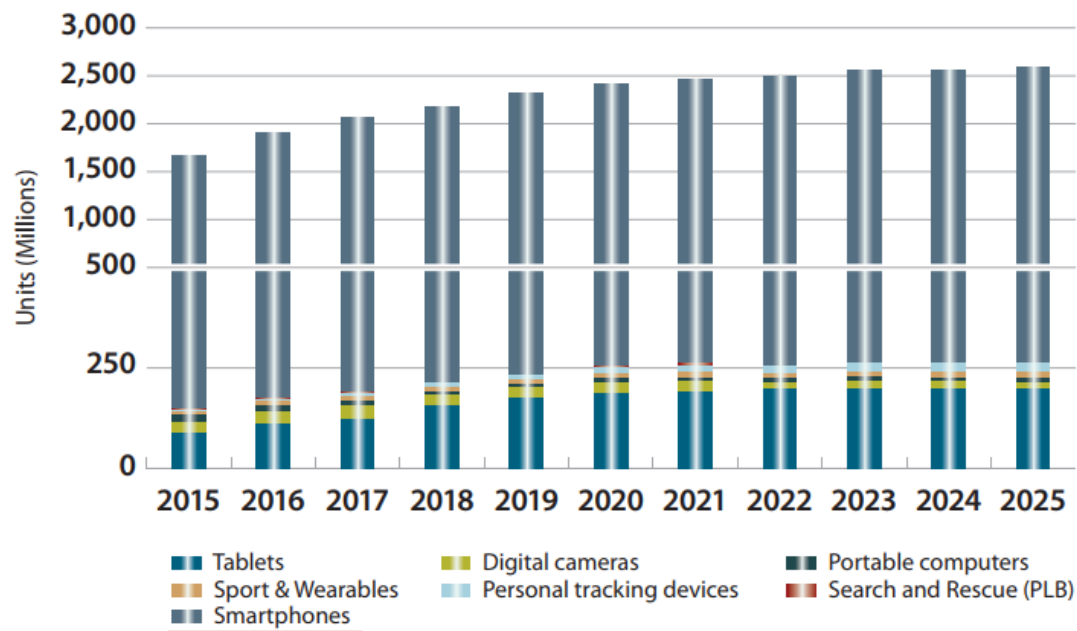


- GSA will propose a set of online challenges to develop innovative GNSS-based applications for LBS
- The goal is to form teams and resolve one of them within 24 hours
- The winning teams will proceed to the finals
- The selected projects will receive support via the ESA BIC and partners incubators
- More info at: <http://www.actinspace.org/>

Smartphones will continue to be the most popular platform to access Location-Based Services



Shipments of GNSS devices by type



GNSS Market report 2017

Get all the latest GNSS market updates, opportunities and trends on the LBS segment free of charge

Available for download
on GSA website

GSA GNSS Raw Measurements Task Force



- With a smartphone featuring Android 7.0 users now have access to raw GNSS measurements
- This empowers the development of algorithms (once restricted to more advanced receivers) and applying corrections on the raw data to get better performances

To help get a better understanding of this feature's true potential and to promote its use to application developers, the GSA established the [Raw Measurements Task Force](#)

What are the benefits/ main uses of GNSS raw measurements?



Four main features are enabled by GNSS raw measurements

Scientific

As the observations are provided in a much more coarse form they can be used for testing hardware and software solutions and for new post processing algorithms

Better accuracy

Raw measurements allow to use advanced positioning techniques once restricted to professional GNSS receivers (e.g. RTK, PPP) that are able to improve the position accuracy

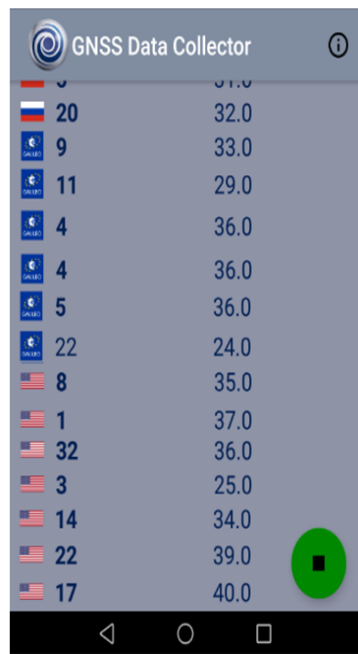
Integrity

Access to raw measurements, will offer new ways to detect RF interferences and to locate the interference source by combining the measurements from multiple devices

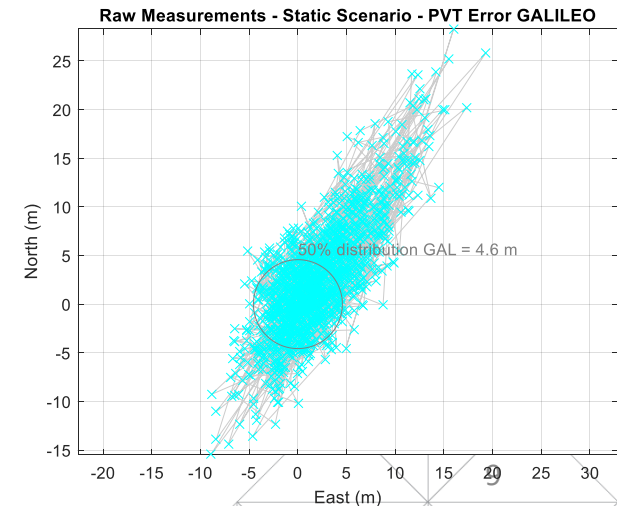
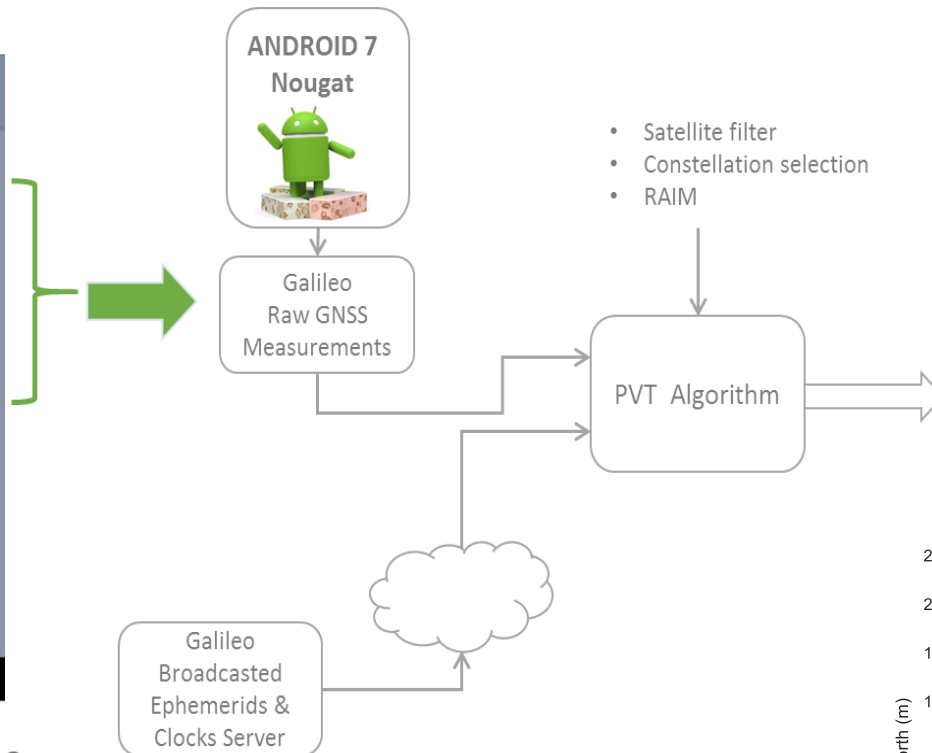
Choice of constellation

Raw measurements can also be used to compare solution from single constellations, eliminate specific satellites or test for worst scenario performance

Good accuracy levels were achieved using Galileo-only fix



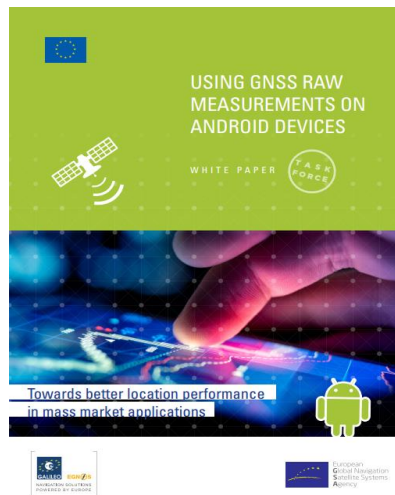
5 GALILEO Satellites



Stay tuned for the GNSS raw measurement white paper!



The Task Force **is currently working** on a White Paper explaining how GNSS raw measurements can be used to optimise the calculation of position creating opportunities for innovative applications



The white paper will be available for download at www.gsa.europa.eu

GSA is funding LBS innovations



Aims to foster adoption of EGNSS via content and application development and supports the integration of services provided by these programmes into devices and their commercialisation

4 €mIn budget dedicated to EGNSS applications fostering digitisation in the 4rd H2020 call

Areas of interest:

- ✓ Secure financial transactions
- ✓ Tracking solutions
- ✓ Augmented reality
- ✓ Commercial LBS

Opening:
16 October 2018

Deadline:
05 March 2019



Fundamental
Elements

Fundamental Elements projects focus on fostering the development of innovative Galileo- and EGNOS-enabled receivers, antennas and chipsets technologies

Mass market (LBS/IoT) related projects to be published soon:

- ✓ “Enhanced consumer goods GNSS devices” (3€mIn)
- ✓ “RX for IOT applications” (3€mIn)

Linking space to user needs



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