

**Main results of the analysis “Potential use of Innovation  
Procurement  
(PCP/PPI) within H2020 and Horizon Europe EGNSS market  
uptake calls ”**

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*11 April 2019*

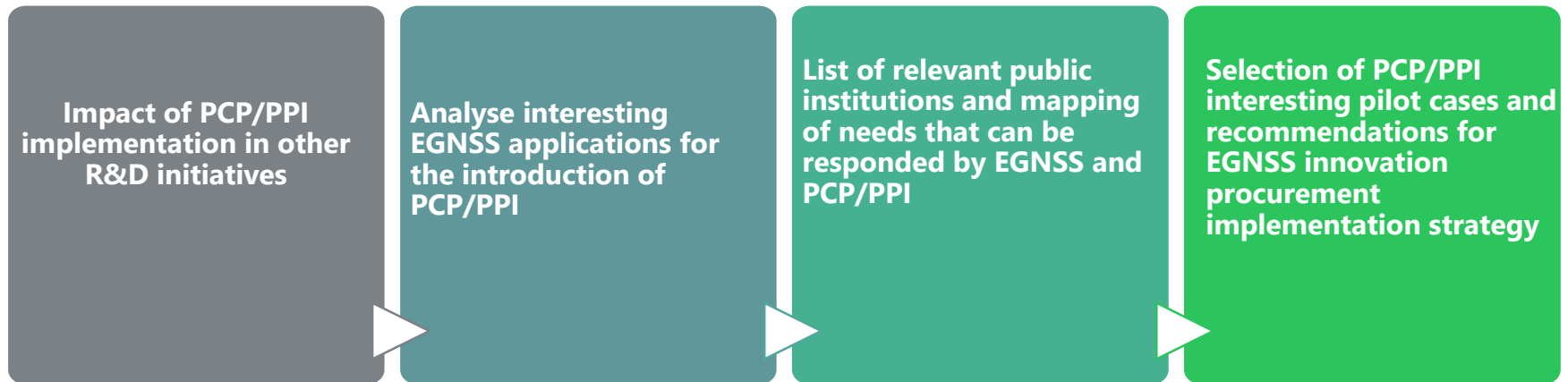
# Agenda

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- The study and the approach
- Involved stakeholders
- Which EGNSS application areas can benefit most from the introduction of innovation procurement?
- Selected examples of interesting EGNSS areas
- A few high level recommendations for procurers interested in EGNSS PCP

## The study

- **Objective:** investigate to what extent Pre-Commercial Procurement (PCP) and Public Procurement of Innovation (PPI) may be interesting and suitable new instruments for EGSS, in terms of:
  - improved market penetration
  - support to EU public procurers
  - contribution to EU policies



# Who participated in the study?

European institutions		GNSS experts and industry		
				
Public procurers	Professional applications	Transport	Public safety	General - overarching
				

# What makes a sector or an application relevant for EGNSS Innovation procurement?

How GNSS can be used? Which are the main GNSS applications?

Which of those applications are of public use?

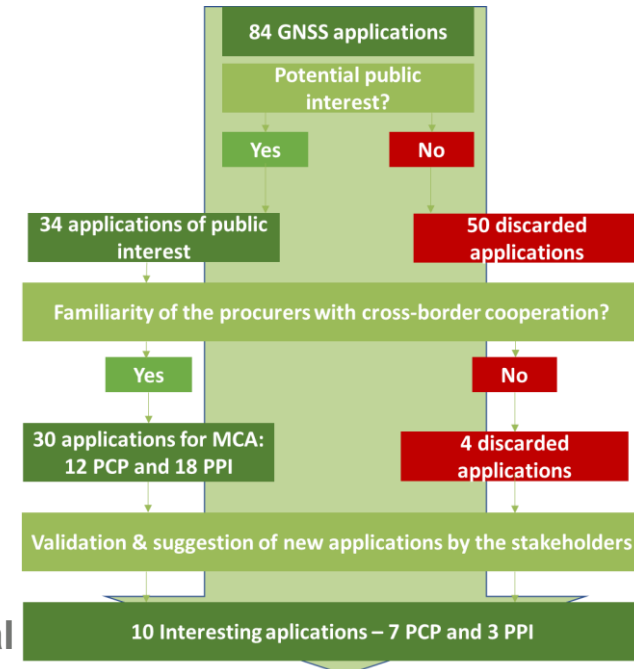
Are public bodies familiar with cross-border cooperation?

What are the needs of public bodies that are connected to EGNSS innovation?

Prioritisation

## Characteristics of interesting EGNSS applications (PCP):

- Procurers are **innovation-oriented** and positive towards cross-border cooperation
- To start with, they have a **concrete need**, e.g.
  - ✓ positioning navigation and timing (PNT) could solve a current issue;
  - ✓ current PNT performance is insufficient vs. requirements
  - ✓ overall, an application (using PNT) could be improved/developed
- **Needs** and **urgency** are in line with the characteristics of the instrument
- The investment (and effort) is worthwhile in terms of **operational** and/or **public benefits**



# Results in terms of applicability of Innovation Procurement to European GNSS

Public Safety	•Very promising area, with several cases identified and a few cases of procurers participating in European PCPs
Public security	•Although there are several potential interesting areas, cross-border cooperations might be difficult to establish
Maritime and inland waterways	•Traffic management related applications are interesting in the perspective of port and maritime authorities
Timing and synchronisation	•Innovation procurement can be interesting when infrastructure operators are public
Aviation	•The development of approach procedures can be interesting for public players in aviation
Road transport	•Traffic management and public transport applications are potentially interesting. Rather large budgets are required and there are potential overlaps with other ongoing activities
Rail transport	•Non safety-critical applications can represent short term use cases, while safety-critical applications should take into account the progress of Shift2Rail
Agriculture	•The role of «EGNSS public procurers» in agriculture is limited, with the exception of paying agencies
Surveying	•Potential for innovation is impacted by the maturity of the market; however, augmentation networks operated by public players represent interesting cases
Location-based services	•The role of EGNSS public procurers is limited to few cases (e.g. parolee tracking), where the technology is anyway quite mature already

# A few examples of promising applications for a potential PCP project – public safety and maritime

## PUBLIC SAFETY

- Firefighting and SAR operations: achieve more effective operations and enhance safety of emergency teams

### Civil drones for emergency response



- Develop low-cost and high accuracy GNSS solutions foreseeing also effective communication between the base stations

### GNSS-based earthquake early warning system



- Improve the performance of PMRs in terms of position refresh rate, accuracy and device battery life

### Professional Mobile Radio (PMR) modernisation



## MARITIME AND INLAND WATERWAYS

- Improve port management systems to increase safety and efficiency of operations

### Smart Ports



- Secure the use of EGNOS corrections in IALA beacons and the Automatic Identification System (AIS) base stations

### Transmission of EGNOS messages on IALA beacons and AIS



# Selected recommendations for public procurers – envisaged pilot project

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- All starts from the definition of a shared EGNSS-related **need**
- Considering the **pilot**, rather **small consortia** and **focused scope** of application will help shaping a manageable project
- Inform yourself of any relevant **legislation, standards, IPR** and **certification** in the EGNSS area of application you consider. Resources and initiatives such as EAFIP provide useful guidance on the aspects to be addressed
- To this end, if knowledge gaps are identified, **engaging experts** to cover these technical aspects can positively impact the quality of both the proposals and the project
- The more you can learn about the **state of the art of the offer**, the most efficient and effective the procurement will be
- In the frame of innovation procurement projects, **communication** is particularly important – both with other procurers and potential suppliers



# Q&A

**Thank you**

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