

Muntstroom PCP

Open Market Consultation

www.muntstroom.brussels

[EUSurvey questionnaire](#)

Webinar

19 November 2020, 13:00-14:30



.brussels 

2 different market consultations

Please note that today we are organizing two different market consultations :

1. This **Open Market Consultation** (13:00-14:30) that is targeting companies that could provide (elements of) the desired integrated end-to-end solution to produce People Flow-data.
2. An **Open Client Dialogue** (15:00-16:30) that is targeting companies that would like to use the -to be produced- People Flow-data to develop new apps/services for commercial purposes.

Objectives

This Open Market Consultation has three objectives:

1. to inform market parties about the upcoming Pre-Commercial Procurement (PCP)
2. to obtain feedback of market parties on the viability of the proposed procurement plans and conditions
3. to applaud the forming of consortia existing of start-ups, SMEs, bigger companies and others.

House rules

1. Please note that your login name is visible in the list of participants
2. The presentation will be in English
3. Microphones will be muted
4. Questions will be answered at the end of each part
 - You can note your questions in the chat. Preferably at the end of each part.
 - Please note: the questions can be seen by all participants
 - We will answer your questions now or at a later moment via the website.
5. The slides will be sent to you after the meeting
6. This meeting will be recorded from now
 - If you don't want to be recorded, please turn off your camera



Photo by Mark Duffel on Unsplash

Agenda

Part 1: Introduction (Rob Roemers)

Part 2: Expected challenges (Rick Meynen)

Part 3: PCP methodology (Stephan Corvers)

Part 4: The general process of this OMC (Ana Lucia Jaramillo)

To be challenged
via the EUSurvey
questionnaire

Part 1: Introduction

Rob Roemers

Muntstroom PCP is a project of

4 project
partners



(lead)



With the
support of



Members outreach-group

For the outreach to marketparties and supporting matchmaking



.AGORIA



General objective and results

- Shape the future management of multi-faceted people flows, and their interactions by
 - > the mapping and routing of people flow
- At the end of this PCP, the Brussels Capital Region should have
 1. 2 functioning prototypes of TRL-level 8
 2. The specifications for a technological platform:
 - Specifications of the technology (interfaces, security, privacy,..)
 - Data quality management & compliance
 - Output and functional based requirements (ao Open Data)
 - Final test scripts
 3. Agreement upon a people flow data standard
 4. Elaborated and adapted use cases

Expected novelties



- > Combination of outdoor and indoor monitoring of people flow (in one single integrated system)
- > The need for one end-to-end solution (sensor, data platform, analytics, smart access,...)
- > The modularity: the potential to progressively create a wider sensors network
- > Users that install sensors should remain owners of their raw sensor data
- > Smart access to support different business models for different types of end-users (public / private, with(out) own sensors, ...)
- > The combination of open source and proprietary technologies
- > A market driven People Flow-data standard
- > New analytics-software

Muntplein is a Brussels microcosm

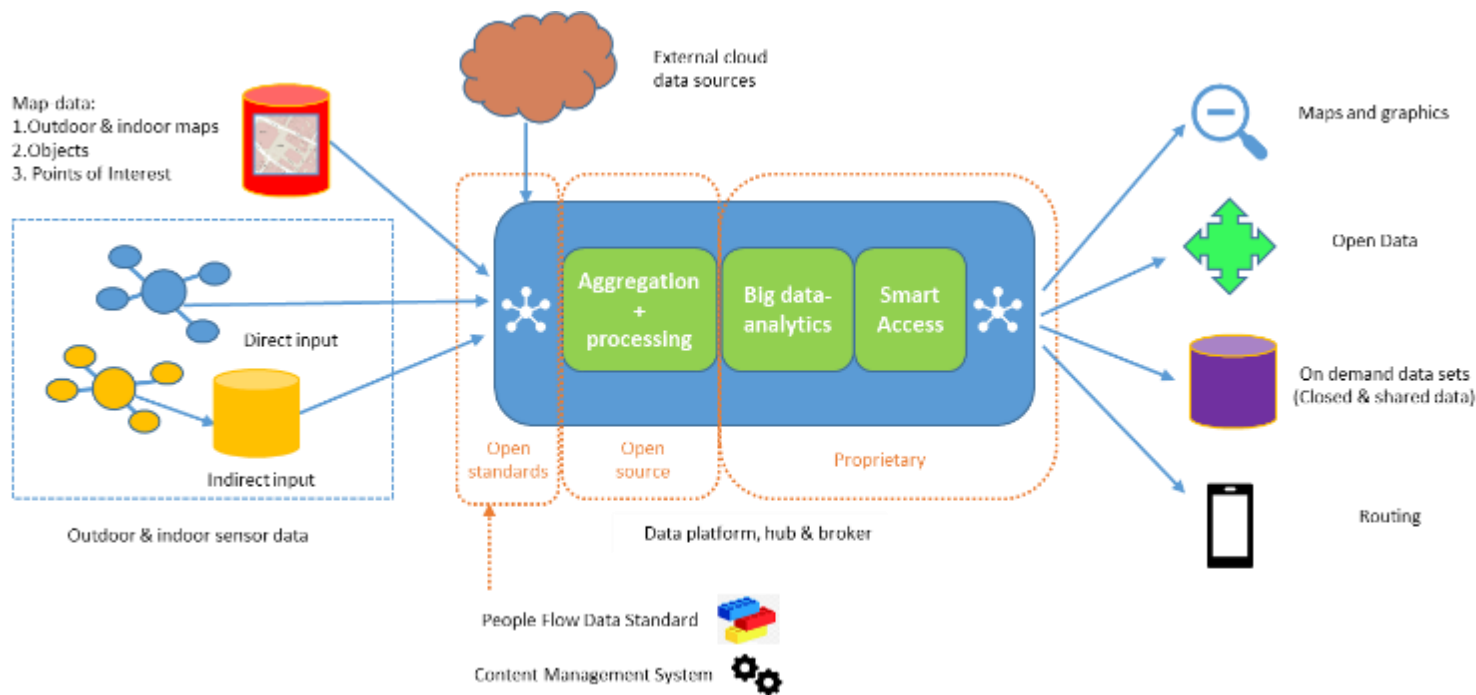
- Mobility
 - 2 carparking garages + bicycle parking (above and underground)
 - De Brouckère tram and metro station (underground) + various bus stops
 - free floating bikes and scooters
- Destinations like library Muntpunt, 2 big shopping-centers, opera De Munt, hotels and various restaurants and cafés
- Around 200,000 (!) pedestrians who cross the Muntplein every month between the shopping districts of Rue Neuve and the Kleerkopersstraat.



Figure: Brussels Muntplein
Source: maximedelvaux.com

Visualisation of the desired solution

To be challenged
via the EUSurvey
questionnaire





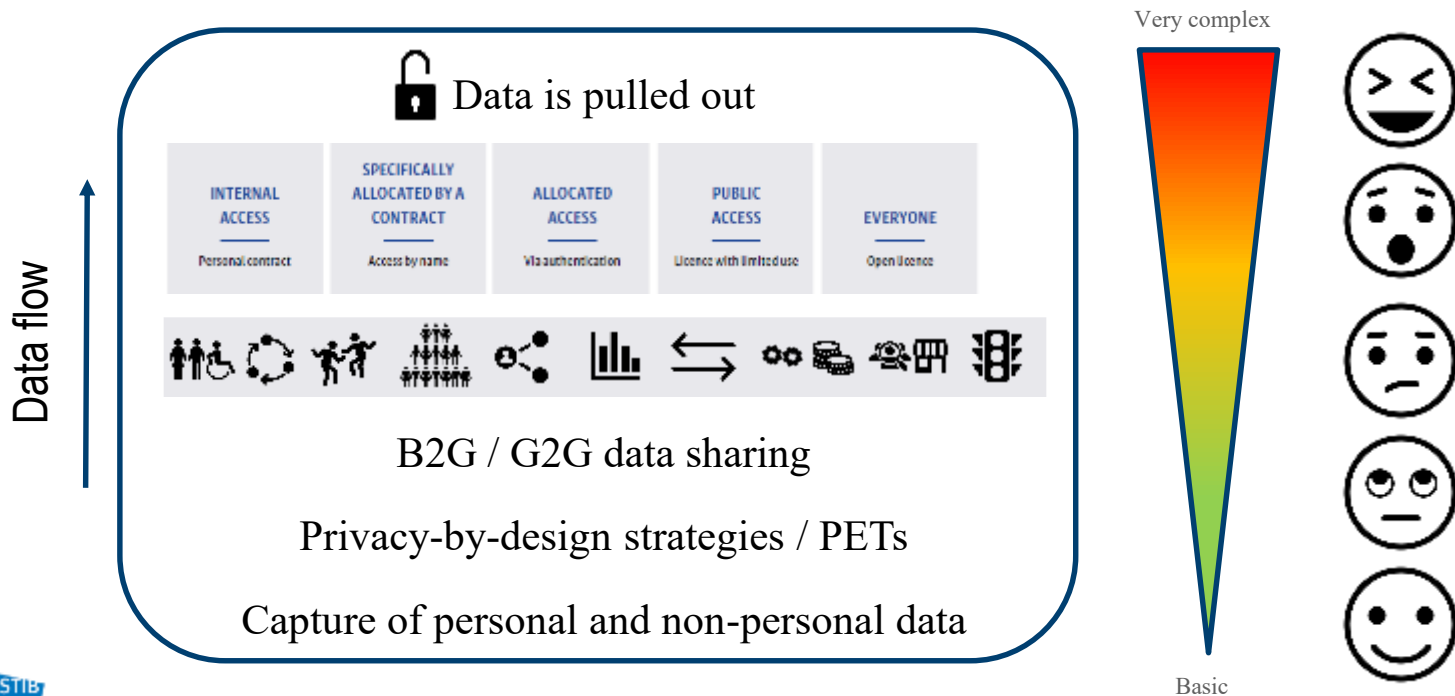
Part 2: Expected challenges

Outcome of our desk research

**To be challenged
via the EUSurvey
questionnaire**

Rick Meynen

Complex challenge asks for intelligence in the platform



Challenge 1: capture of (non)personal data

The use cases require the capture of different elements of People Flow.

When do these elements become « personal data » (?)

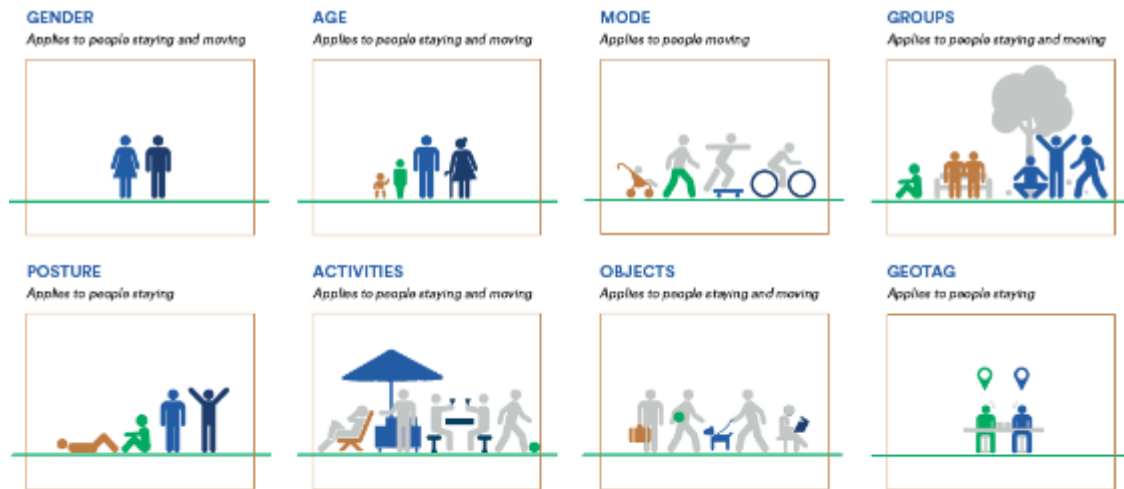
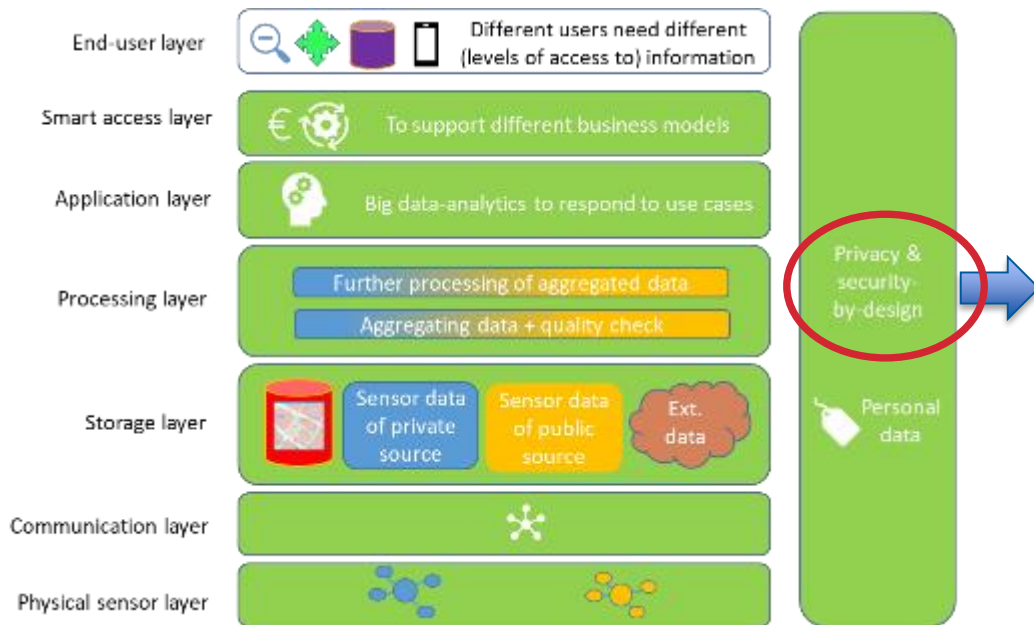


Figure: Public Life survey components
Source : Public Life Data Protocol (2017)

Challenge 2: privacy strategies / layer

To embed 'privacy-by-design' in the design phase



	BIG DATA VALUE CHAIN	KEY PRIVACY BY DESIGN STRATEGY	IMPLEMENTATION
5	All phases	ENFORCE / DEMONSTRATE	Automated policy definition, enforcement, accountability and compliance tools.
4	Data use	AGGREGATE	Anonymisation techniques. Data quality, data provenance.
3	Data storage	HIDE	Encryption of data at rest. Authentication and access control mechanisms. Other measures for secure data storage.
		SEPARATE	Distributed/ de-centralised storage and analytics
2	Data analysis & data curation	AGGREGATE	Anonymization techniques (k-anonymity family, differential privacy).
		HIDE	Searchable encryption, privacy preserving computations.
1	Data acquisition / collection	MINIMIZE	Define what data are needed before collection, select before collect (reduce data fields, define relevant controls, delete unwanted information, etc), Privacy impact Assessments.
		AGGREGATE	Local anonymization (at source).
		HIDE	Privacy enhancing end-user tools, e.g. anti-tracking tools, encryption tools, identity masking tools, secure file sharing, etc.
		INFORM	Provide appropriate notice to individuals – Transparency mechanism.
		CONTROL	Appropriate mechanisms for expressing consent. Opt-out mechanisms. Mechanisms for expressing privacy preferences, sticky policies, personal data stores.

Example of Privacy-by-design strategies per architecture layer

Source: Privacy by design in big data , Enisa, 2015

Challenge 3: business-to-government data sharing for the public interest.

In the Muntstroom project sensor data of private owners may be shared with the public platform. Also external private data can be introduced and processed.






- > E.g. because of commercial interests, the private sector needs to trust the data sharing with the government.
- > For (re)using “private” data clear conditions have to be defined. These conditions define the data processing and analytics
- > Different use cases probably require different intelligence (algorithms)







>




Challenge 4: Users have different knowledge questions

The output will be tested by means of use cases in the Living Lab phase

Analytics	
	Pedestrians analytics
	Analysis of reasons of movements
	Event analytics
	Crowd analytics: security
	Crowd analytics: COVID

	Mobility hub analytics: usage of specific PT-lines
	Mobility hub analytics: transfers
	Asset management
	Shopping policy and research
	Commercial analytics: individual shop
	Traffic light analytics

Access	
	Smart Access

Indoor routing	
	PMR: wheelchair
	PMR: partially sighted person
	Subsurface
	Building

Challenge 5: Different business models

Incl. different (conditions for) access

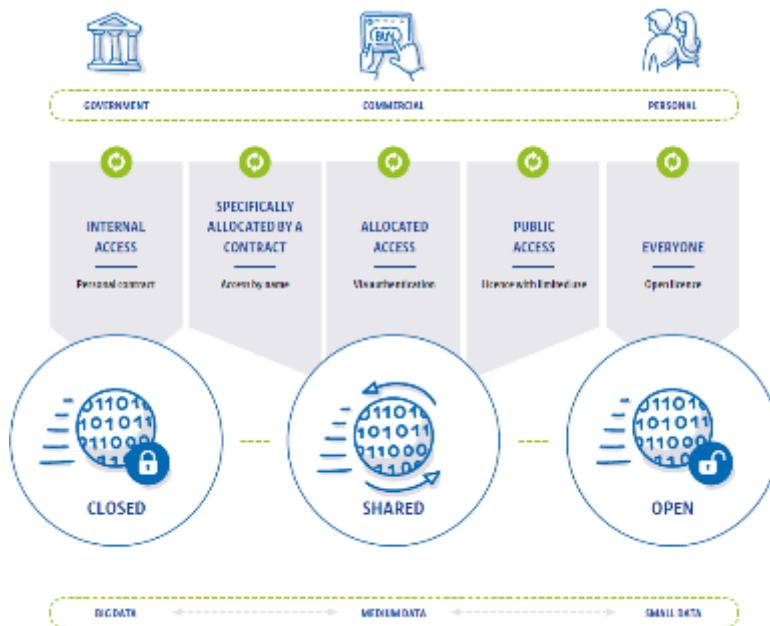


Figure: the Return on Investment of Data

Source: Agoria White Paper (2018)

Combination 4+5: Relation between use cases, type of business model and end-user

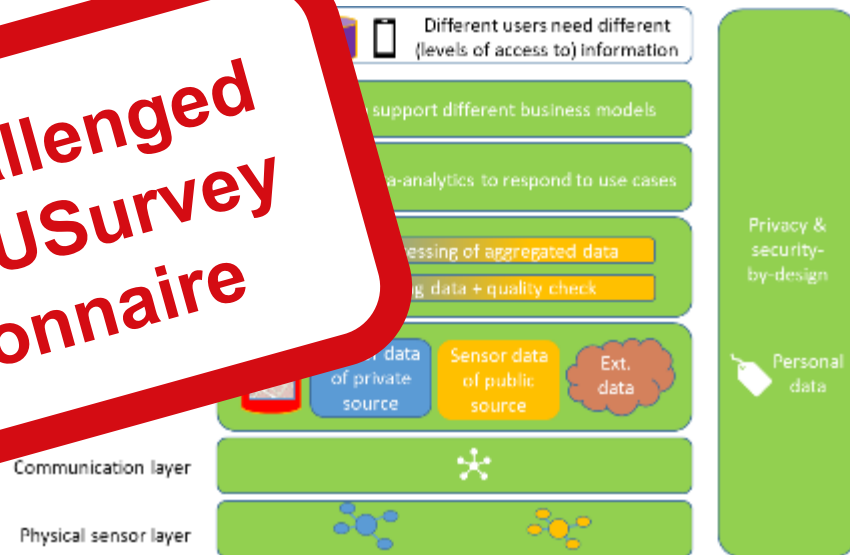
Use case	Type	End-user
Crowd analytics for security purposes	Closed	Brussels Prevention & Security
Crowd analytics COVID	Open Data	public access
Commercial analytics	Shared	Businesses
Mobihub – passenger counting	Open Data	public access
Mobihub- transfer	Closed	STIB, Brussels Mobility

Figure: Possible examples of relation between use cases, stakeholders and the type of data (closed, shared or open data)

Conclusion of the desk research

1. Elements of the desired end-to-end solution do already exist, but the solution as such not yet
2. There is room for innovation in the field of
 - > analytics-software
 - > the integration of different elements into one integrated total product.

**To be challenged
via the EUSurvey
questionnaire**





Part 3: PCP methodology

Stephan Corvers

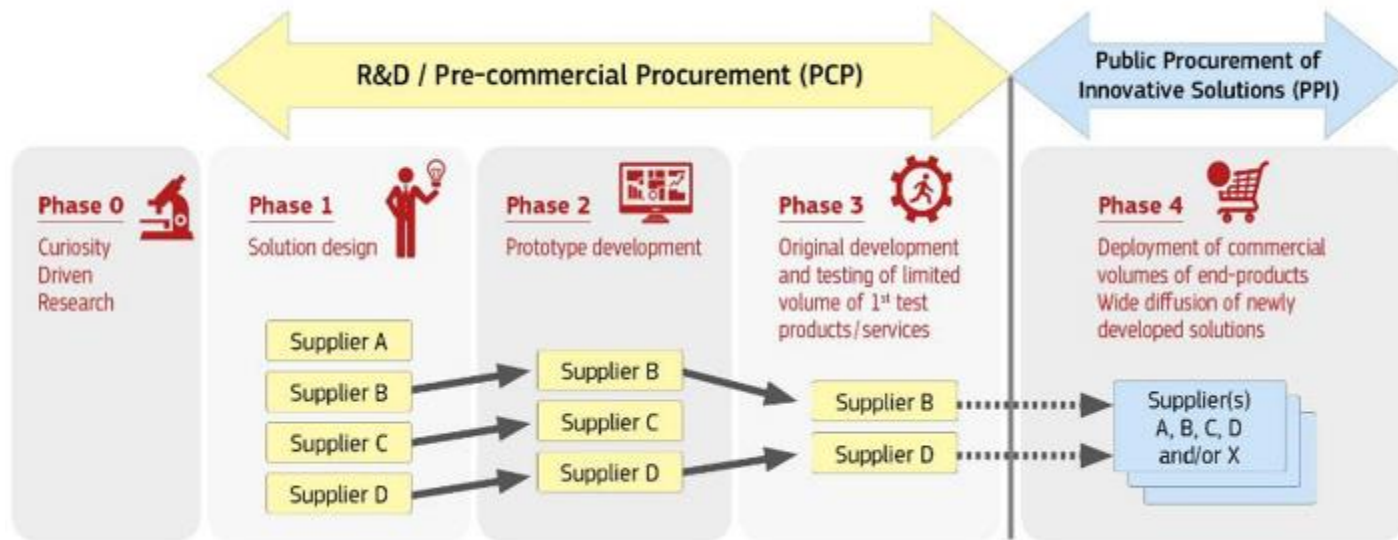
The procurement challenge

- The 4 Brussels public parties would like to procure “innovation”: the development and testing of a product or service that does not exist yet.
- A total budget of € 500.000 is foreseen for co-financing

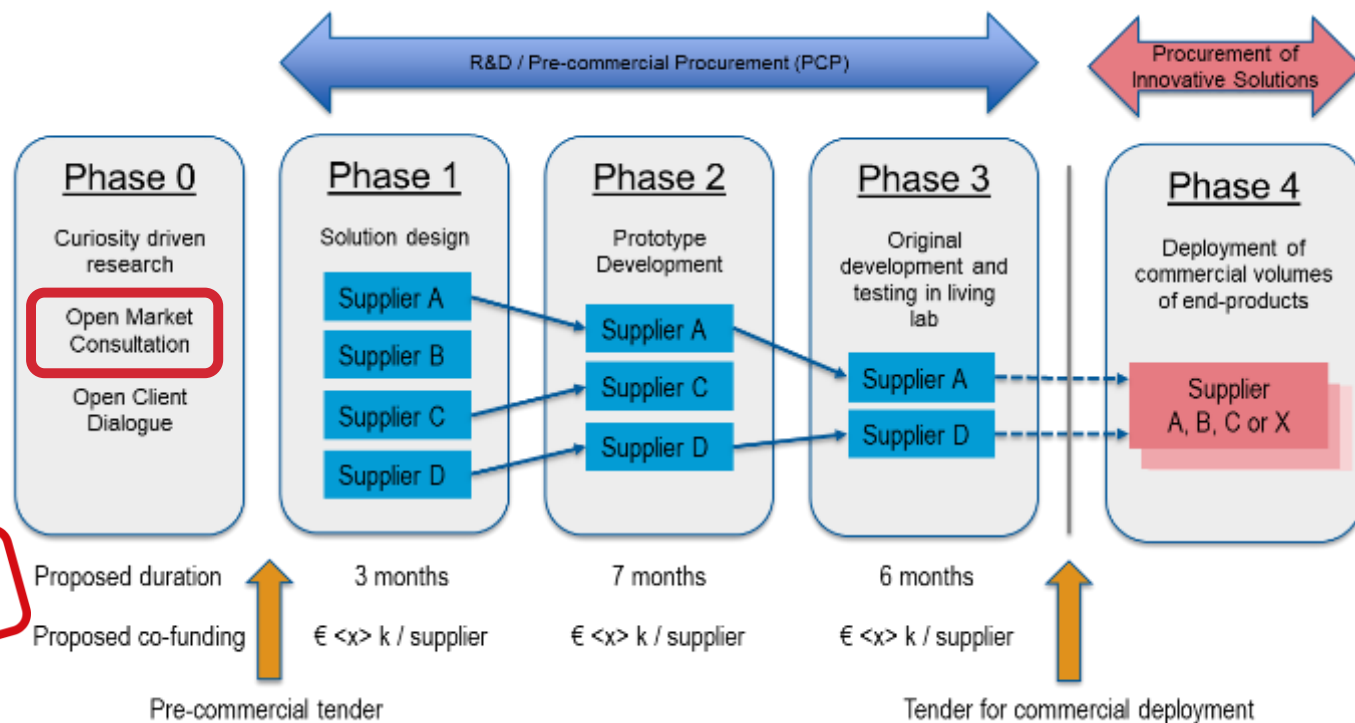
The PCP-methodology

- A “pre-commercial procurement” is a public procurement of R&D-services characterized by:
 - > competitive development in phases
 - > risk-benefit sharing under market conditions
 - > a clear separation between the procurement of the R&D (PCP) from the deployment of commercial volumes of end-products (PPI)
- It is fully legally compliant with the EU procurement directives / legislation

Innovation Procurement = PCP + PPI



Innovation Procurement = PCP + PPI

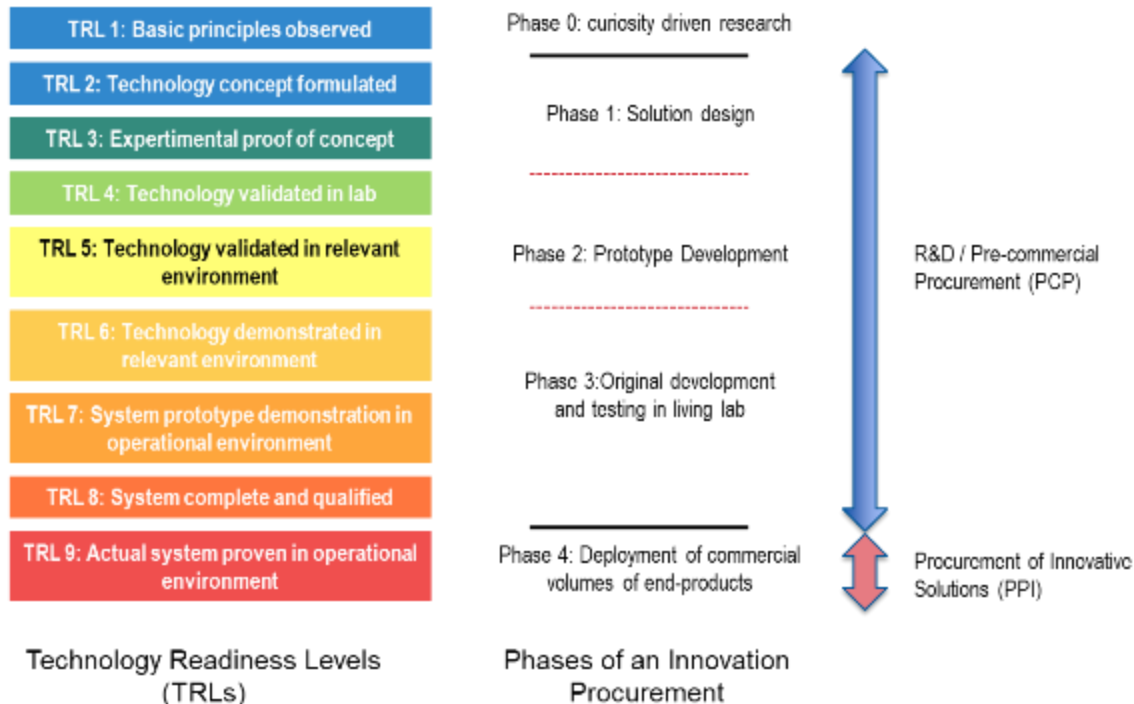


To be challenged
via the EUSurvey
questionnaire

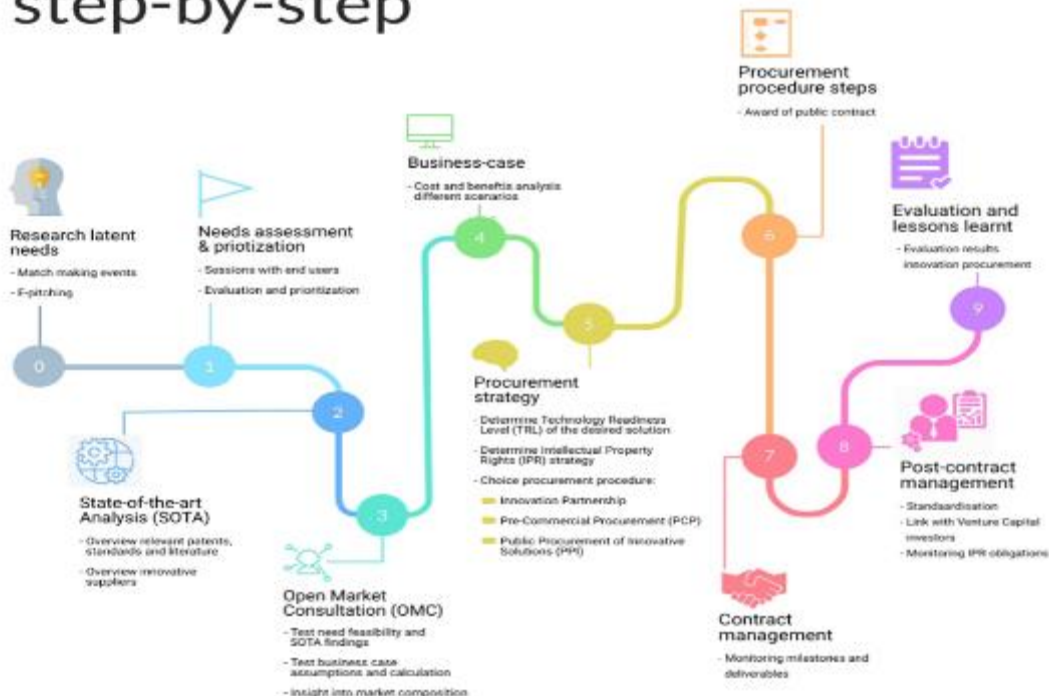
MIVB
STIB

.brussels

PCP-phases and TRL-levels



Launching customership step-by-step



More about Innovation Procurement / PCP

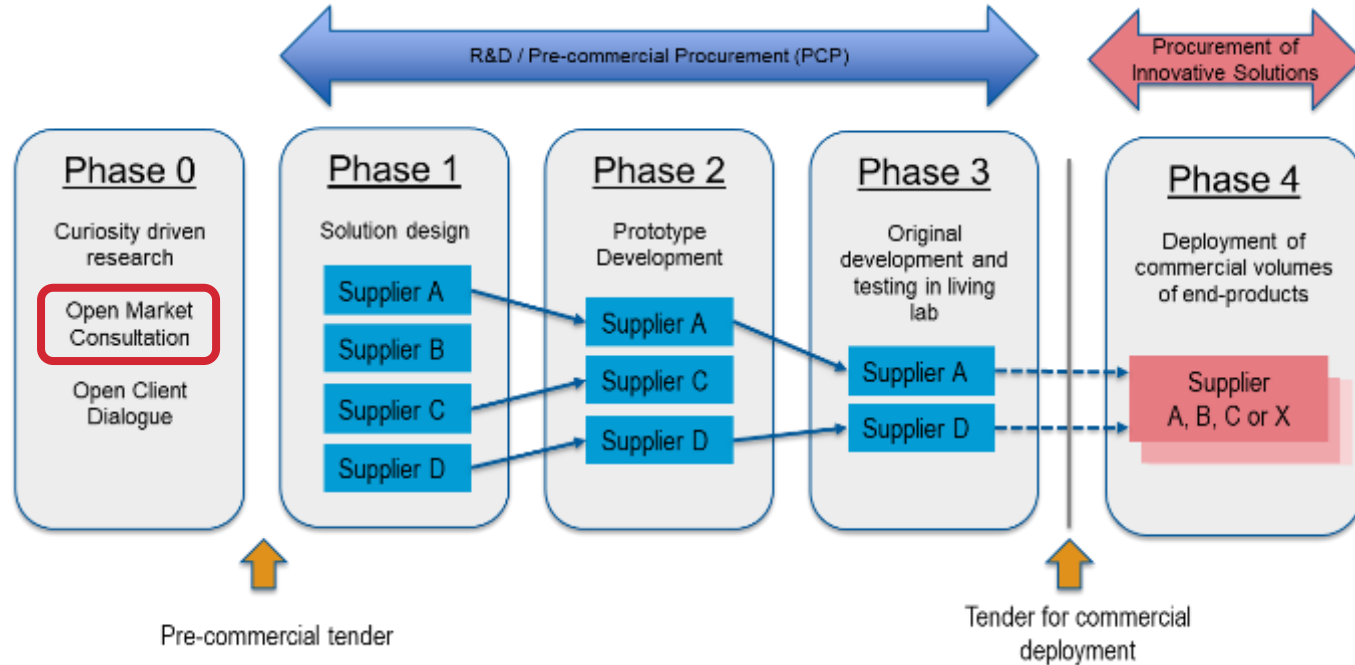
- Toolkit: www.eafip.eu
- Videos: testimonies from technology vendors & public procurers:
 - > <https://www.youtube.com/watch?v=ryCROPNnXWc>
 - > <https://eafip.eu/resources/videos/>



Part 4: The process of this Open Market Consultation

Ana Lucia Jaramillo

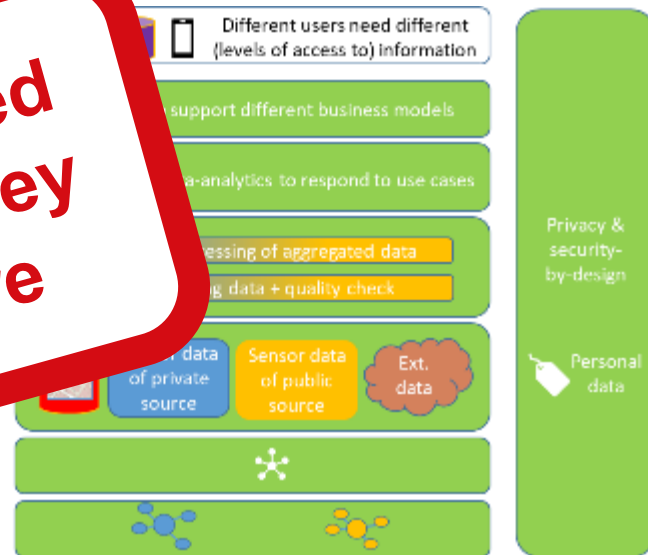
Innovation Procurement = PCP + PPI



Conclusion of the desk research

1. Elements of the desired end-to-end solution do already exist, but the solution as such not yet
2. There is room for innovation in the field of
 - > analytics-software
 - > the integration of different elements into one integrated total product.

**To be challenged
via the EUSurvey
questionnaire**



EU Survey questionnaire

- > [Link to EU Survey questionnaire](#)
- > The questionnaire is divided in 10 sections
- > 49 questions: you may leave questions blank
- > Available in French, Dutch and English
- > You can download the questions for offline preparation or save a draft.
- > You can leave remarks or upload information via the final question.

1. Contact details
2. About you
3. Desired output and needs
4. Architecture
5. Use cases (required analytics)
6. Privacy & security
7. Data quality
8. Financial aspects
9. PCP challenges and complexity
10. Last remarks

Please use “contact” for practical problems

☒ Save a backup on your local computer (disable if you are using a public/shared computer)

Muntstroom PCP, Brussels Capital Region

Fields marked with * are mandatory.

Disclaimer
The European Commission is not responsible for the content of questionnaires created using the EUSurvey service - it remains the sole responsibility of the form creator and manager. The use of EUSurvey service does not imply a recommendation or endorsement, by the European Commission, of the views expressed within them.

INTRODUCTION

Open Market Consultation

Views
Standard [Accessibility Mode](#)

Languages
[EN] English ▼

Contact
[Contact Form](#)

[Download PDF version](#)

Save as Draft

[Report abuse](#)

Planning OMC

Year	Date	Activity
2020	19 November	OMC-webinar (from 13h-14:30 CET via MS Teams)
	20 November	Deadline for possible questions by email from interested parties
	27 November	Final publication Q&A by Muntstroom PCP Group on project website and/or EUSurvey portal.
	4 December	17h CET. Deadline for answering the EUSurvey questionnaire
	18 December	Publication of OMC report.
	28 December	Formal closure of the Open Market Consultation

Planning follow up

Year	Date	Activity
2021	Q 1-2	Start matchmaking activities via Outreach group
		Webinars on the theory of a Pre-Commercial Procurement
		Foreseen start of the PCP via a pre-commercial tender
		Award of the framework agreement + PCP-phase 1 contract
2022	Q 1-2	Preliminary start of the Living Lab-phase (PCP-phase 3)
	Q 3-4	Preliminary start of the PPI (phase 4) via a tender for commercial deployment

More information

- Website: www.muntstroom.brussels
 - Download the general market consultation document, description of the scope and/or the use cases.
- [EUSurvey questionnaire](#)
- Questions about the process can be asked via muntstroom@stib-mivb.brussels



Thank you for your attention