

# Welcome to the Live Webinar

EU Blockchain  
Pre-Commercial Procurement

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**Start 15:00 (CET)**



## Ground Rules for the Live Webinar

Click on “Connect audio” to hear the presenters but please mute your microphone throughout the webinar.



Submit your questions in writing by using the Webex chat function. We will answer some questions live during the webinar and provide written answers to all (within the coming days).



Please note that this webinar is recorded.

# Agenda

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15:00 – 15:10

**Pierre Marro – Blockchain and Innovation Unit at DG CNECT**

Opening – Introduction and Context

15:10 – 15:25

**Lieve Bos – Blockchain and Innovation Unit at DG CNECT**

What is a Pre-Commercial Procurement (PCP)

15:25 – 15:40

**Oscar Burgos – Trans-European Services Unit at DIGIT**

The European Blockchain Services Infrastructure

15:40 – 15:50

**Nils McGrath – Trans-European Services Unit at DIGIT**

Open Market Consultation Questionnaire and next steps

15:50 – 16:00

**Q&A**

# Introduction and Context

**Pierre Marro**

Senior Expert - Digital Innovation and Blockchain  
DG CNECT



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## Why is the Commission launching this EU Blockchain PCP?

1. Prepare for future versions of the European Blockchain Services Infrastructure
2. Contribute to the development of new solutions and standards in Blockchain
3. Reinforce European position in Blockchain

# An ambitious EU Blockchain strategy

## ESTABLISHING GLOBAL LEADERSHIP IN BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES



### Joined-up political vision (EU-MS)

Joint declaration on the establishment of the European Blockchain Partnership [EBP] and the development of the European Blockchain Services Infrastructure [EBSI] for cross-border digital services of public interest



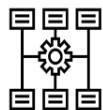
### Public-private partnership

Supporting the creation of the International Association of Trusted Blockchain Applications [INATBA]; a multistakeholder organisation to promote trust and interoperability at Global level



### Connecting Global Expertise

The EU blockchain observatory and forum brings together the leading global experts to identify obstacles, incentives and practical solutions to promote blockchain uptake.



### Investing in EU Innovation and start-ups

Through The Connecting Europe Facility and H2020 Programmes, the EU is co-investing in the most advanced digital infrastructure and the most innovative EU start-ups  
**New** EU investment scheme for AI and blockchain + support programme



### Promoting an enabling DSM legal framework interoperable standards and skills development

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# Big Picture

**2018**

European Blockchain  
Partnership  
(declaration+)

**2019**

European Blockchain Services Infrastructure

**2020**

Pre-Commercial Procurement

**2021**

**2022**

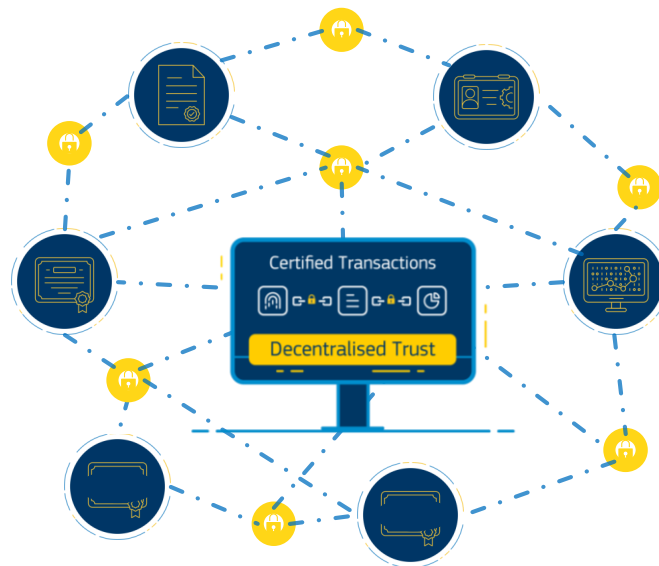
European Blockchain  
Services  
Infrastructure NG

# What is EBSI?

The European Blockchain Services Infrastructure (EBSI) aims to become a “gold standard” digital infrastructure to support the launch and operation of EU-wide cross-border public services leveraged by blockchain technology.

EBSI aims to establish itself in ‘virtually’ every public sector domain that can benefit from blockchain technology. It will be materialized as a network of distributed nodes across Europe, leveraging an increasing number of applications focused on specific use cases.

These use cases are identified and selected each year by the Member States (of the European Blockchain Partnership) and the European Commission.



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# EBSI Guiding Principles

The EBSI architecture will be built around strong guiding principles (in full respect of EU regulation) to ensure enough flexibility for many future Use Cases' implementations

- 1 PUBLIC PERMISSIONED**  
The identity of all participating nodes is known
- 2 DECENTRALIZED**  
Each Member State should run its own set of nodes
- 3 SCALABLE**  
Needs to support high-throughput and high number of nodes
- 4 OPEN**  
(Preferably) open source
- 5 SUSTAINABLE**  
Energy efficient (e.g. without Proof of Work - PoW)
- 6 INTEROPERABLE**  
The EBSI should, as much as possible, be based on well-known standards and technical specifications



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## Who will EBSI benefit?



### **EU citizens, businesses**

Transact across borders with public services more securely and trustfully than ever before



### **National/local administrations and European institutions**

Simplify administrative processes, increase efficiency and trust when interacting with citizens or organizations



### **Any organisation**

Potentially benefit EBSI for building services or applications (future...)

# What is a Pre-Commercial Procurement (PCP)

**Lieve Bos**

Policy Officer - Digital Innovation and Blockchain  
DG CNECT



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# Pre-Commercial Procurement - Characteristics

## What is it for?

- Public sector modernization
  - ✓ Challenging market players – via an open, transparent, competitive process – to develop innovative solutions for addressing specific public sector needs
- Opening up business opportunities for supply side
  - ✓ Enabling suppliers (including also small players) to gain leadership in new markets

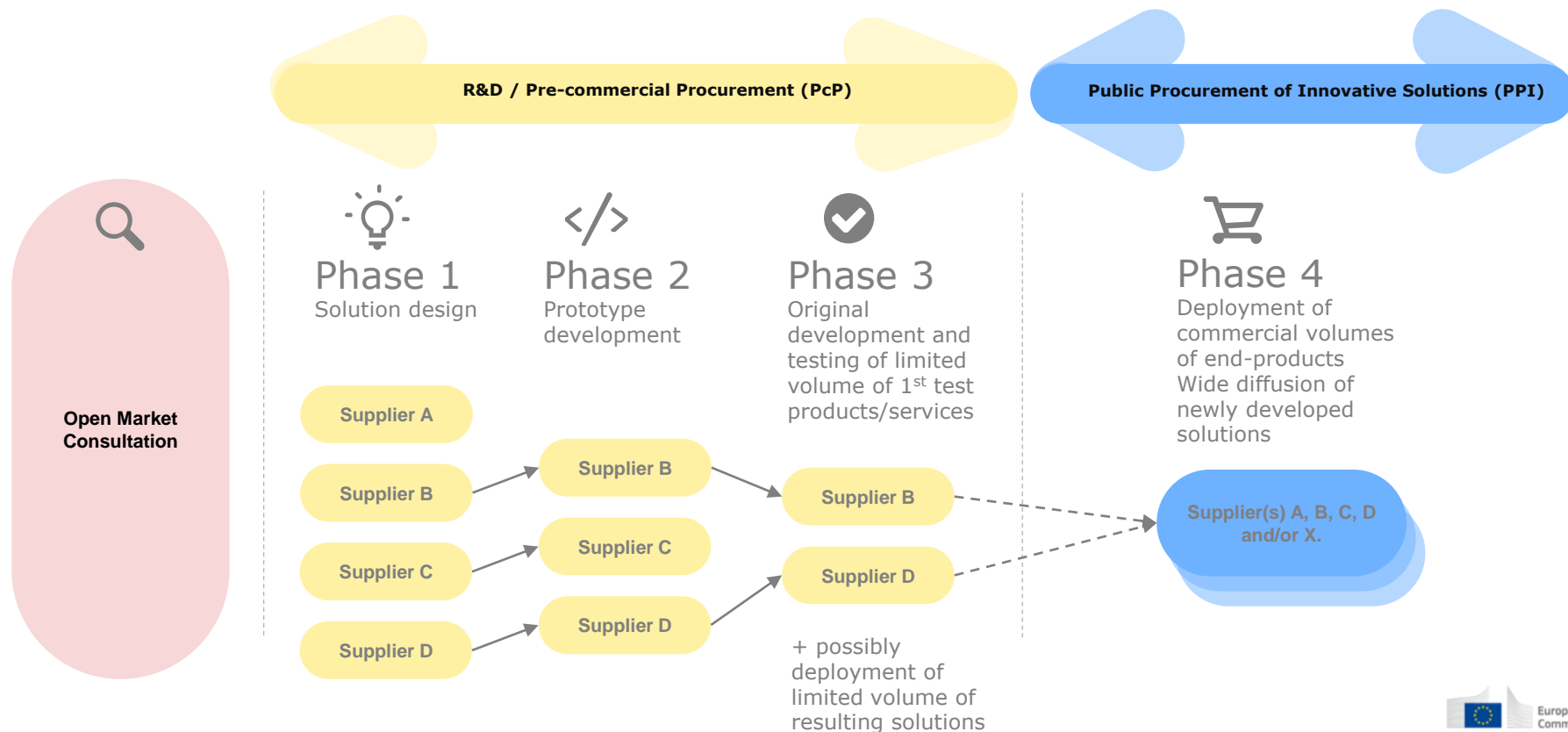
## How does it work?

- Procuring R&D services
- Competitive development in phases
- Risk benefit sharing at market conditions
- Creating growth and jobs in Europe

PCP exists since 2007 ([COM/2007/799](#) and [SEC/2007/1668/](#) available in all EU languages). Over 550 [PCPs implemented around Europe](#) so far. More info on [CNECT innovation procurement / PCP website](#)

# Pre-commercial Procurement

- ✓ Procuring R&D services
- ✓ Competitive development in phases
- ✓ Risk-benefit sharing at market conditions
- ✓ Creating growth and jobs in Europe



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# Pre-Commercial Procurement – What is it NOT?

## **PCP is not an R&D grant**

- PCP is a public procurement – demand driven: the buyer defines the solution requirements, selects suppliers based on best value for money, steers the development towards its needs, determines which suppliers continue to the next phase, transaction is a purchase at market price (no funding rate), procurer buys usage and licensing rights + possibly buys/owns limited volume of solutions
- R&D grants are supply side driven: the supplier defines and steers the scope of the R&D it wants to do, transaction is a subsidy (funding rates, eligible costs), transaction is not selling to any customer

## **PCP is not a PPI (regular procurement of an innovative solution)**

- PPI for commercial deployment of innovative solutions: public sector acts as early adopter of commercial volumes (production in quantity) of innovative end-solutions newly arriving on the market
- PCP for R&D: focuses on steering the development of new solutions to concrete public sector needs, while comparing/validating alternative solution approaches from various vendors + possibly first deployment of non-commercial volumes of solutions (no quantity production yet)

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# Pre-Commercial Procurement – Why participate?

## PCP enables to

- Speed up time-to-market for breakthrough innovations (co-creation between supply & demand side)
- Share developments risks with procurer + optimize conditions for wider commercialization
- Facilitate the access of new innovative players (e.g. startups, SMEs) to the procurement market
- Provide first customer reference that helps win other contracts and attract investors

## Impacts achieved by other completed EU funded PCPs (more info [here](#))

- Opening a route-to-the market for new market players: 73,5% of PCP contracts are won by SMEs, 61,5% of total value of PCP contracts, more than 2X average in public procurement across EU (29%).
- Helping also larger market players bring products to the market: 16% of PCP contracts are won by large companies. 19% of PCP contracts are won by consortia of large companies plus SMEs.
- Impact on stimulating cross-border company growth: 33,1% of PCP contracts are awarded cross-border, 20 times more than the average in public procurement across Europe (1,7%).
- Contribution to growth and jobs in Europe: 99,5% of bidders do all R&D for the PCP in Europe
- Boosting business growth: 2 years after the PCPs, 86% of Phase 3 PCP contractors commercialized solutions, 50% of all suppliers already generate revenue and 30% of SMEs are already VC backed.

# The European Blockchain Services Infrastructure

**Oscar Burgos**

Blockchain Business Manager  
DIGIT



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# What is the European Blockchain Services Infrastructure?

## **EBSI means services and infrastructure**

- Use cases (services) with specific focus on the delivery of cross-border digital public services
- Infrastructure aspects including the blockchain nodes at EBP / Member State level and the central services provided by the European Commission.
- The same infrastructure is expected to be re-used in different use cases.

## **EBSI will be built and upgraded through different versions and iterations**

- Starting with use cases that may build on existing blockchains or specific solutions
- Proposing a testing and integration environment
- Converging towards common architecture and solution(s) supporting new use cases
- Preparing for an "advanced" architecture and solution(s) supporting more demanding use cases and for interoperability



## Selected use cases for 2019

A **Member State led** and composed user group has been established per selected use case.

These user groups aim **to deliver a working prototype connected** to the infrastructure layer of EBSI by the beginning of 2020.

A **new set of use cases** will be selected by the European Blockchain Partnership Policy Group for 2020 (and onwards).



**Notarisation of Documents for Auditing Purposes**



**EU Self-Sovereign Identity Framework**



**Certification of Diplomas**

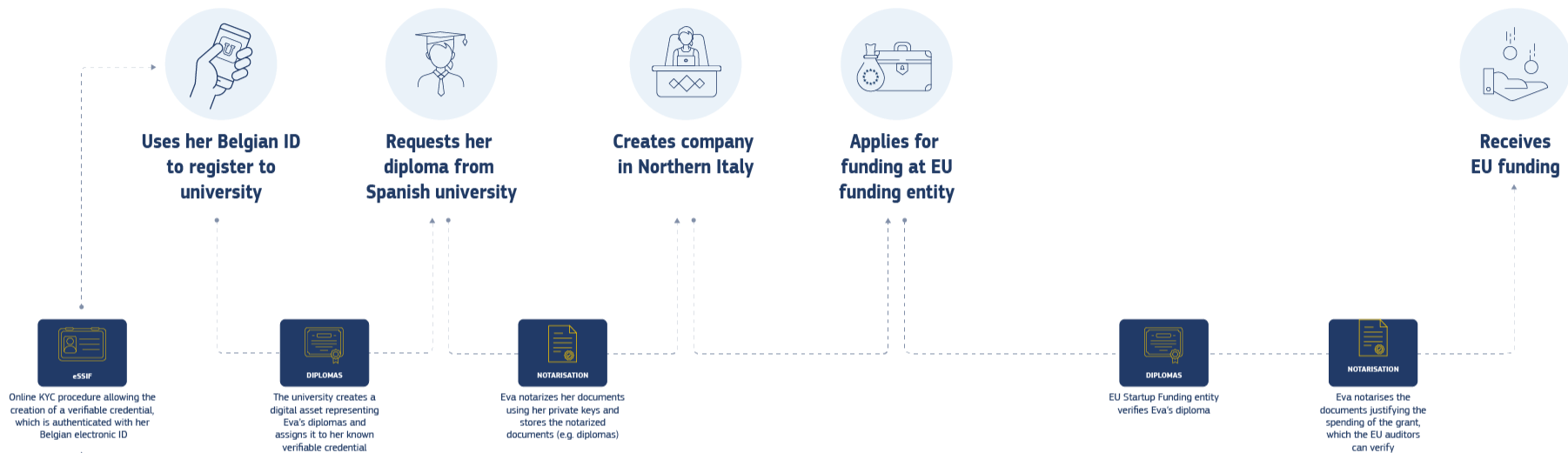


**Trusted Data Sharing**

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## **EU EBSI video**

<https://www.youtube.com/watch?v=m2uj7fgb2JI>



### PERSONA

Eva is a 23 years old Belgian Bachelor's degree graduate in computing security and AI.

She has a passion for learning languages, travelling, computing services and AI

### CONTEXT

Eva wants to further deepen her knowledge in computing security and AI and applies for a master degree at the Barcelona University.

Eva hears about EU incentives to start companies in Northern Italy. She decides to pursue her dream and to start a business there to sell specialized security chipsets with AI enhanced capabilities.

### GOALS

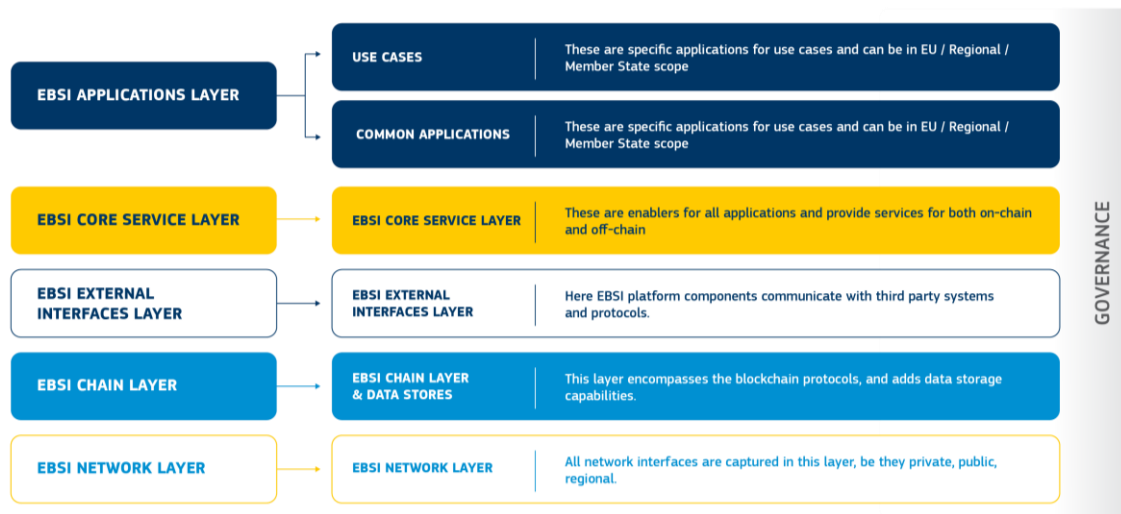
- Provide seamless cross border services for citizens;
- Help make institutions more efficient;
- Make economic activity flow cross border.



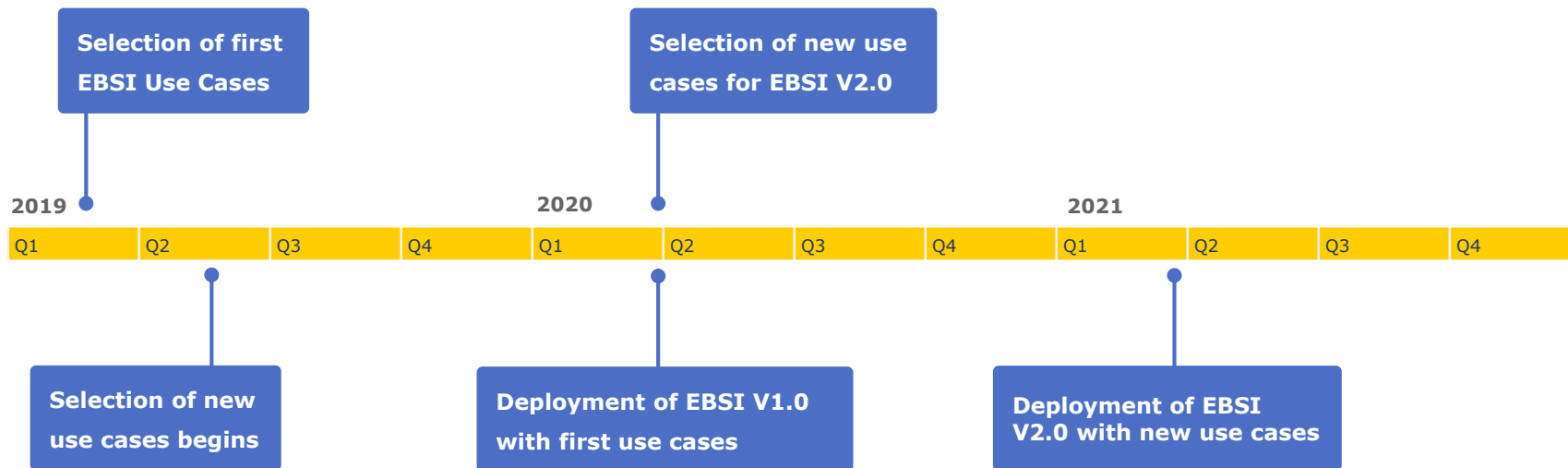
# EBSI at a glance

Member States will operate EBSI nodes at national level. Nodes will be able to create and broadcast transactions that will update the ledger. The architecture of each node will be composed of two main layers:

1. **Use case-specific APIs** layer developed to enable business applications to interface with the node.
2. An **infrastructure** layer with capabilities common to all use cases.



# EBSI Roadmap



# Questionnaire and Next Steps

**Nils McGrath**

Stakeholder Management Office  
DIGIT



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# Why an Open Market Consultation?

The open market consultation (OMC) is designed to:

- Inform the market about the upcoming blockchain PCP
- Consult the market on the latest developments in blockchain approaches and technology
- Use the information collected through the consultation to scope the PCP tender specifications

The open market consultation will happen through four key channels:

- Webinar(s)
- The OMC questionnaire
- An OMC event(s)

# Structure of the Questionnaire

## Challenge 1: Designing the future EBSI

Green blockchain

Cybersecurity

Scalability, Performance...

Cryptographic agility

Tokenization

Privacy & GDPR

Data storage

Use cases

Identity

Other future capabilities

Interoperability

IPR

## Challenge 2: Creating a European blockchain benchmarking and integration environment

Each questions is structured in four parts:

1) Problem Space 2) Solution Space 3) Approach 4) Standards



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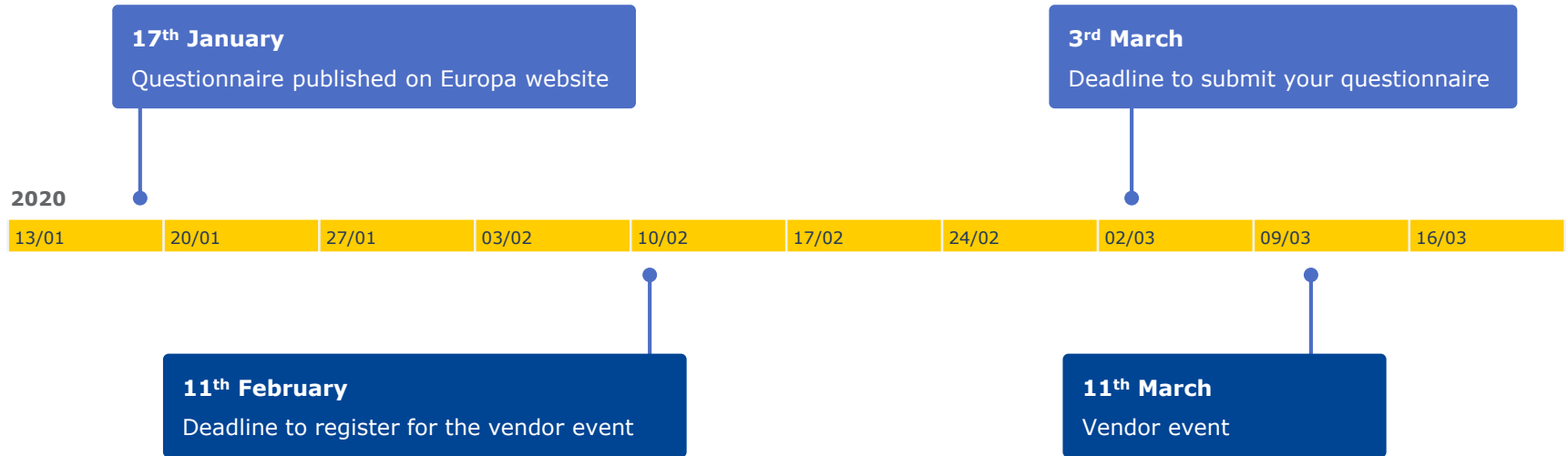
## Guidelines for the Questionnaire

- You can answer as many questions as you like
- Only answering one question will not count against you
- You can attach documents and links if relevant
- You can save your progress in EU Survey, but it doesn't do it automatically, you've been warned

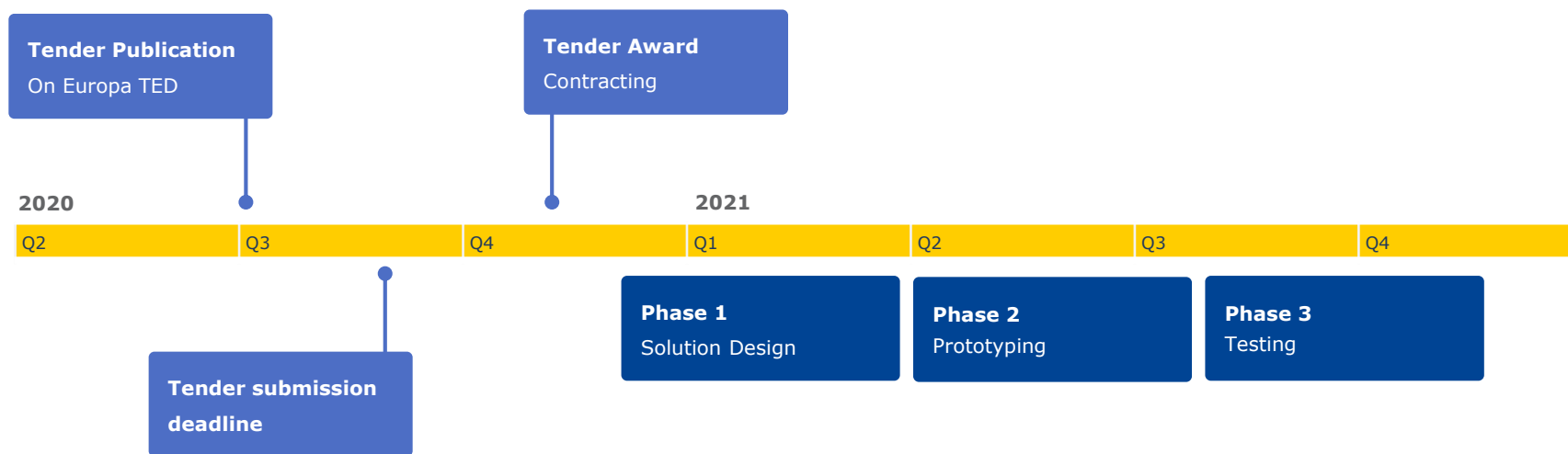
Bear in mind what Einstein said:

Your answer should be as simple as it can be, but not simpler.

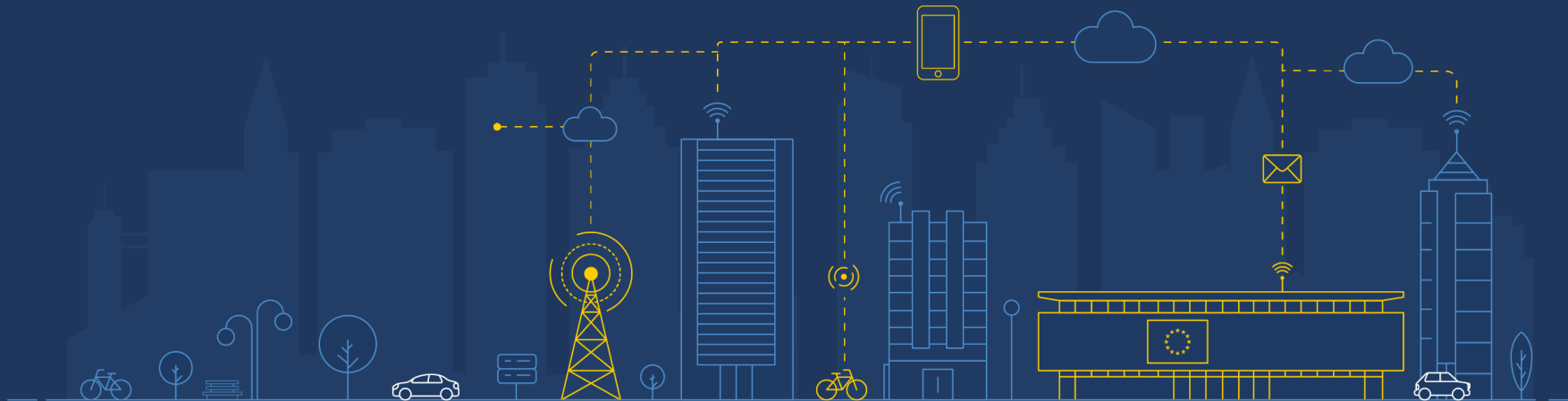
# Open Market Consultation - Key Milestones (indicative)



## Tendering and PCP - Key Milestones (indicative)



# DIGITAL INNOVATION CHALLENGE



DIGITAL INNOVATION CHALLENGE

**THINK BIG,  
PLAY SMART,  
STAND OUT!**

More information for Europe's SME and Start-ups  
<https://ec.europa.eu/cefdigital/sme>

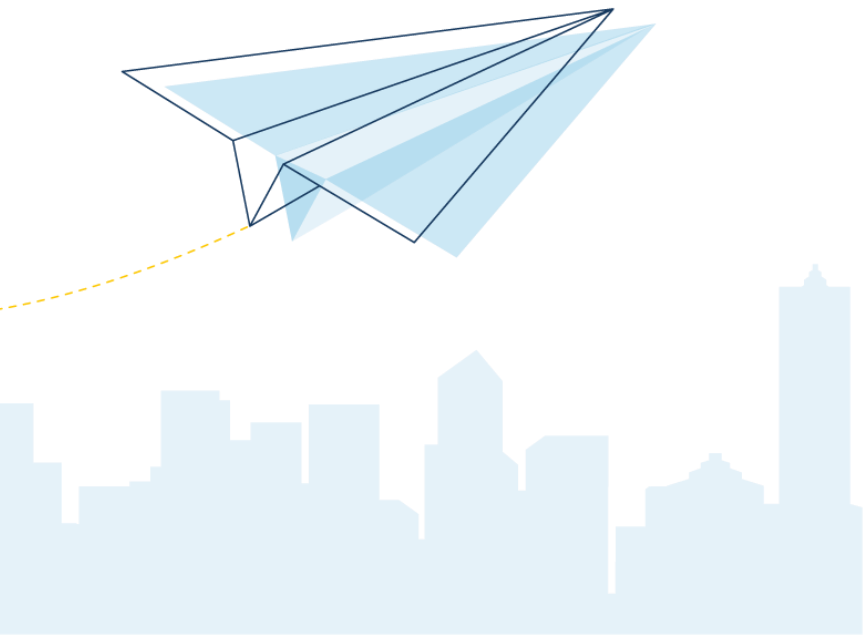


# Q&A



# Ready to get started?

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## Visit the website.

Learn more about the PCP, read the Q&A document and fill in the Open Market Consultation Questionnaire at:

<https://ec.europa.eu/digital-single-market/en/news/european-blockchain-pre-commercial-procurement>

# Annex

