

# Anticounterfeiting Blockathon Infrastructure Project

## *Blockathon Forum*

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**EUIPO**  
18 May 2022

## SOCIETAL CHALLENGE

In 2020...

**9% of EU consumers** (40 million citizens approx.)

were tricked into buying a **fake product** instead of a genuine one.

{ This figure represents the size of the combined populations of Belgium, Bulgaria, Greece, Ireland and Portugal. }

**33%** (approximately 150 million in total),  
**wondered** whether the product they had  
purchased online was **real or fake**

**5.8%** of EU imports (**EUR 119 billion**) in 2019 are attributed to counterfeit and pirated goods

## COUNTERFEITS" IMPACT ON INTERESTED STAKEHOLDERS

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### For Rights holders and brand owners:

- Impact on brand image and reputation
- Loss of economic advantage
- Lack of visibility on external supply chain and logistics



## COUNTERFEITS" IMPACT ON INTERESTED STAKEHOLDERS



### For Customs Authorities:

- Lack of visibility on supply chain and logistics
- Lack of time to treat all products coming at borders
- Lack of holistic tools: IPR is just one part of all custom checks



### For Transport and Logistic Operators:

- Impact on image and reputation
- Impact on efficiency caused by delays in inspections

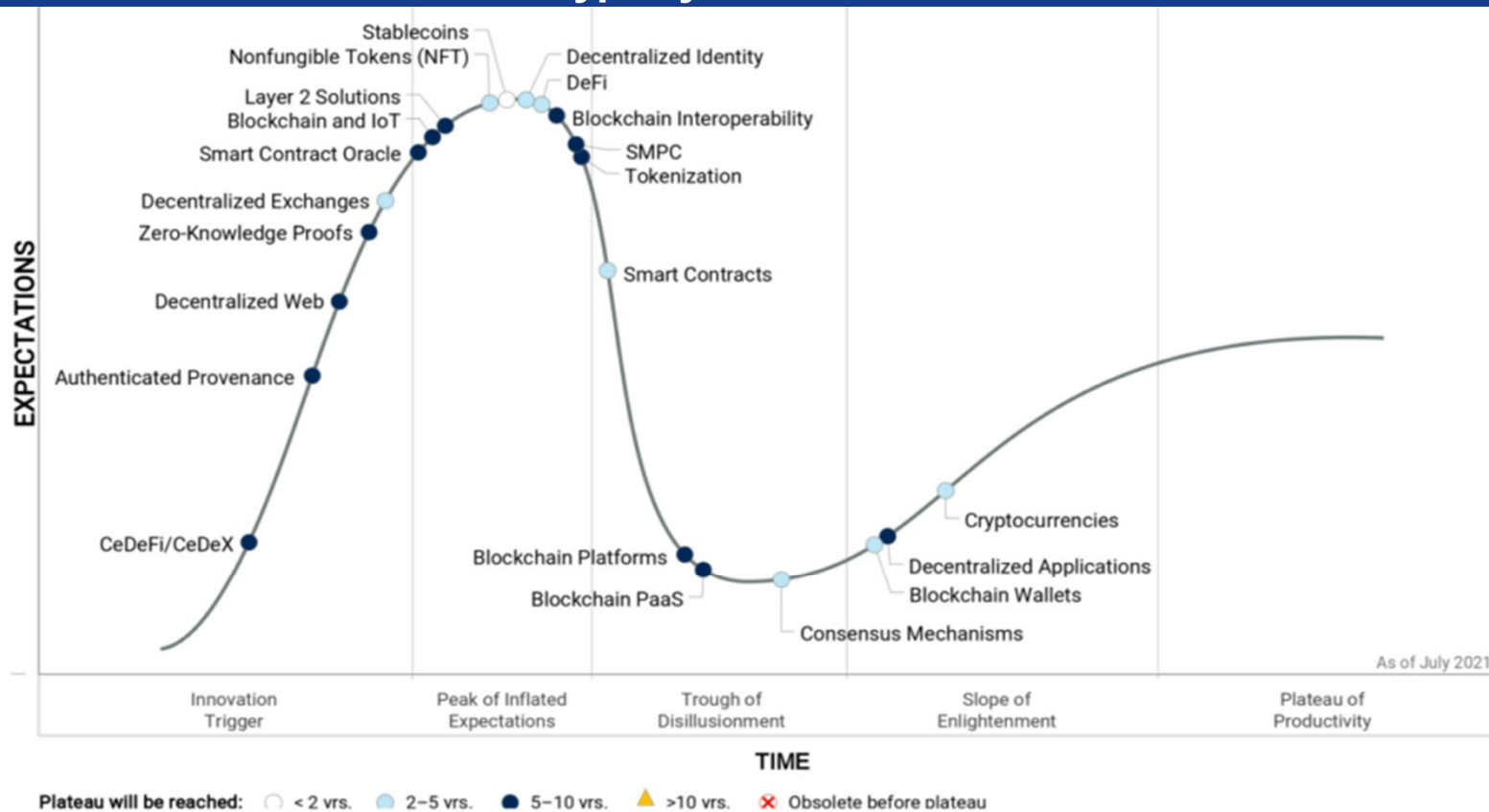
## WHAT IF TECHNOLOGY COULD...

**Guarantee product authenticity throughout the whole supply and logistic chain? ...**

**...And:**

- ✓ Ensure inclusion at minimal costs in existing production and distribution line
- ✓ Address transparency on external supply chain and logistics without compromising business and trade secrets
- ✓ Stay versatile in order to be part of additional digital solutions such as track and trace, or products' EU and national regulation compliance

## Blockchain as a solution? Current hype cycle situation



Source: Gartner (July 2021)

## Blockchain applicability on supply chain and logistics

### AUTHENTICITY

Blockchain cryptographically proves products authenticity and ensure audit trail



### TRANSPORT



Product track and trace

### PROVENANCE

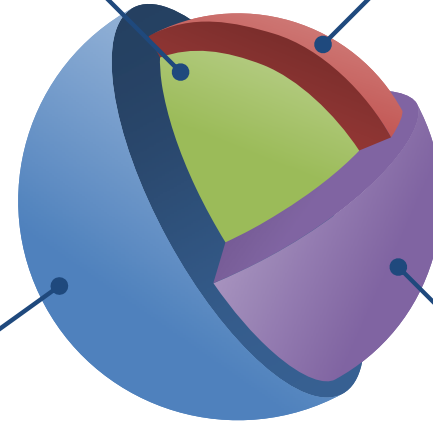
Validation of products provenance and transparency on current ownership



### ENFORCEMENT



Alerts in case of unforeseen events



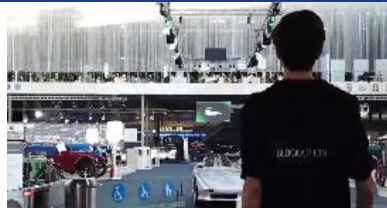
## Project history



Gathering of key experts concluding that Europe should embrace blockchain technology.

EUIPO Conference series

2017



2018

Blockathon Competition



Solutions developed, notably the digital twin, for the next level anti-counterfeiting infrastructure.



Launch of the Anti-counterfeiting Blockathon Forum and development of pilots.

Blockathon Forum

2019

2020

Strategic Project Approval



Approval of the strategic project to build a scalable, decentralised, blockchain authentication platform.



Launch of the Anti-counterfeiting Blockathon Infrastructure Design Contest & Pilot.

Design Contest Pilot Development

2021



## Anti-Counterfeiting Blockathon Infrastructure – Project brief

EUIPO as unique actor for a **platform to involve all parties in the chain**, avoiding working in silos and ensuring IPEP and IP Register on blockchain to be an integral part of the solution

**Project aim:** build a scalable, decentralised, blockchain authentication platform, integrated with track and trace systems, to prove **authenticity of products** integrating data from RHs' track & trace systems movements and **support enforcement authorities** in fight against imports and sales of counterfeits and in risk analysis.

**Project timeline:** Proof of Concept by end of 2022, Minimum Viable Product by end of 2023

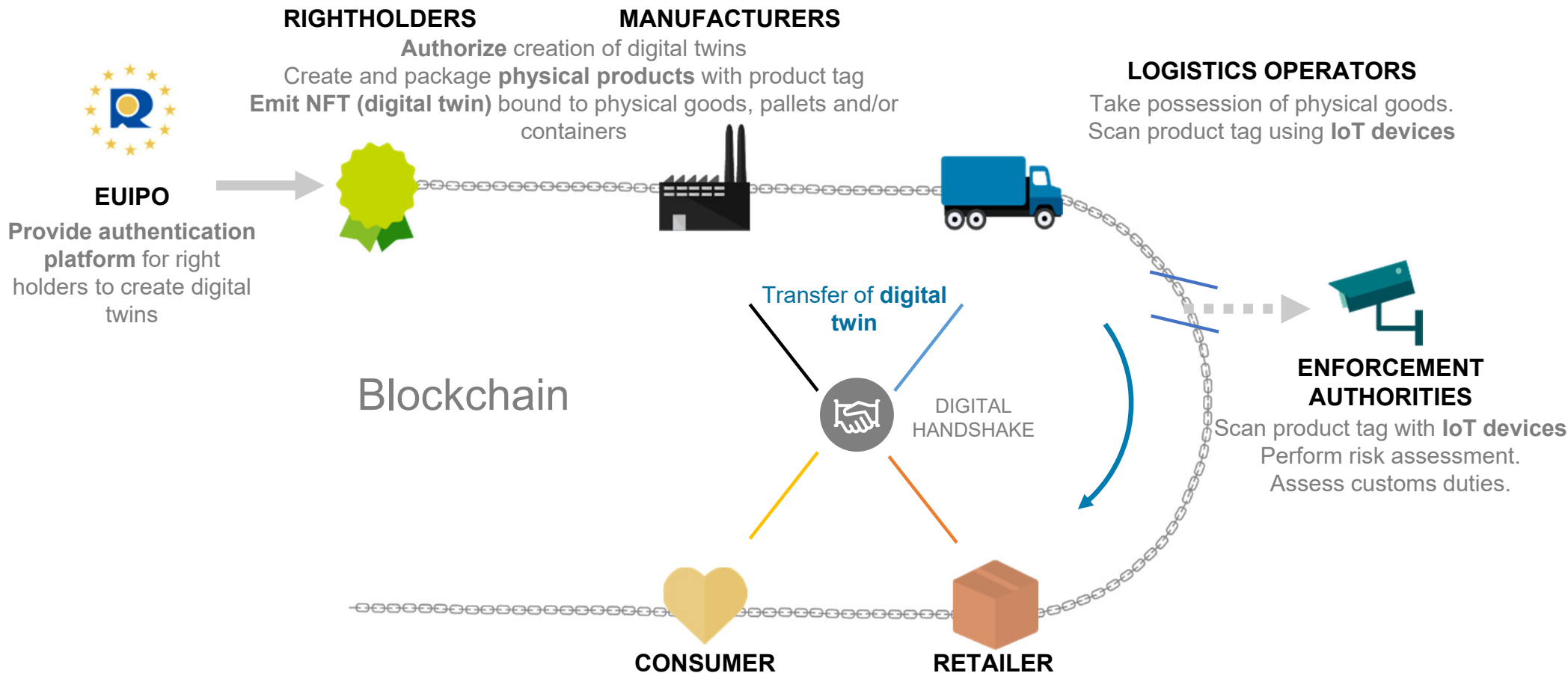
**Interdependencies:** IP Register on Blockchain, IP Enforcement Portal, Anti-Counterfeiting Technology Guide



IP ENFORCEMENT portal



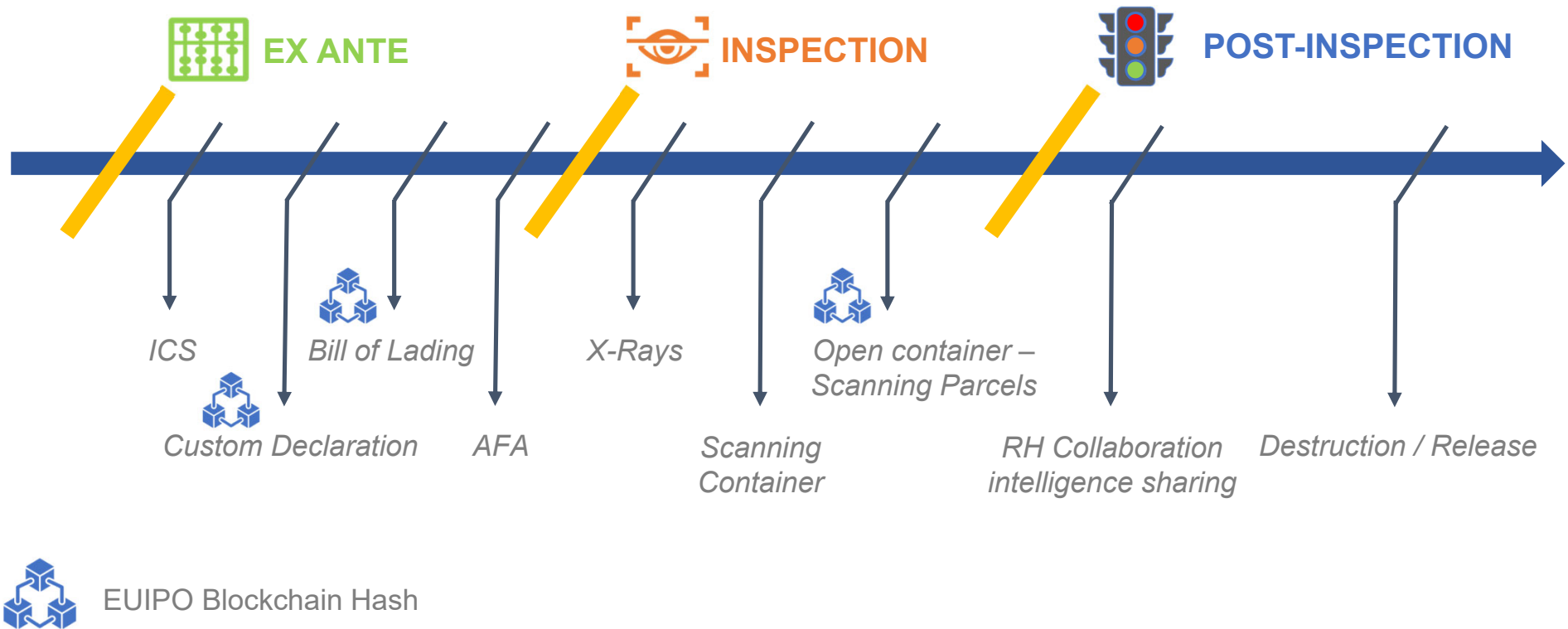
## Anti-Counterfeiting Blockathon Infrastructure – Project Use Case



## Possible use case blockchain integration and usage for brand owners

Sector	Authenticity (Base case)	Overproduction	Expiration / Recall	Diversion / Parallel Import	Components (vs. finished goods)	Loyalty & Aftermarket
Handbag / Luggage	✓	✓				✓
Cars			✓		✓	✓
Pesticide, agriculture, chemicals	✓	✓	✓	✓		
Pharmaceuticals	✓	✓	✓	✓		
Clothing	✓	✓				
Footwear	✓	✓				
Jewellery & Watches	✓	✓				✓
Toys & games	✓	✓	✓			
Sport Goods	✓	✓				
Cosmetic & personal care	✓	✓	✓			✓
Spirits & Wine	✓	✓				✓
Smartphones	✓	✓			✓	

## Possible blockchain integration and usage for custom authorities



## Anti-Counterfeiting Blockathon Infrastructure – IT High-level design Solution

**ELSA: an open source blockchain to liaise with all blockchain and IT systems**, designed to share authenticated shipment and product data through supply chain, to disincentivize the creation and distribution of fake goods.

### Highlights:

- **Open source (pilot-ready)**
- **Data sharing with lack of trust**
- **Central position of EUIPO for Identity Management**
- **European Standards (ESSIF, EBSI) connection possible**
- **Legal Standards (EUDPR, IATA1, GS1) compliant**
- **Stakeholders choose their own tools:**
  - Notarization (single use seals)
  - Product ID serialization (e.g. barcode)
  - Track & Trace solution
  - NFT Platform (digital twin management)
- **Protects commercial information**



## Use Case with IT solution

[www.euipo.europa.eu](http://www.euipo.europa.eu)

### RIGHTHOLDERS

Call Identity Registry to validate organisation credentials  
 (*decentralised identifier [DID] + verifiable credentials*)  
 Get anti-counterfeit label (*physical & metadata*)  
 Create NFT and anti-counterfeit label (*NFT platform*)

### MANUFACTURERS

Authorized to use anti-counterfeit label  
 Create and package physical products (*smart label/tag*)  
 Consume NFTs with anti-counterfeit label (*metadata*)  
 Apply NFTs to physical goods, pallets and/or containers

### PRODUCT IT FEATURES



**AC Label (immutable)**  
 Additional product metadata  
 (changeable)  
 Permission on data to see  
 (*selective disclosure*)

### THE "LOGISTIC NODE"

Identify organisation within their  
*own track and trace eco-system*  
 Update ownership of product  
 and NFT (*physical scan events*)  
 Permission on data to see  
 (*selective disclosure*)



**EUIPO**  
 Identity Register



**ENFORCEMENT**  
**AUTHORITIES**

Call Identity Registry and  
 verify anti-counterfeiting label:

- At pre-arrival (*Risk Assessment direct link*)
- In transit (*selective disclosure*)
- During inspection (*metadata*)



### LOGISTICS OPERATORS

Call Identity Registry to validate  
 organisation credentials

Take possession of physical  
 goods



Scan product tag and take possession of NFT  
 Initiate Track and Trace System

### FREIGHT FORWARDERS / CARRIERS

Take possession of physical goods  
 Scan product tag and take possession of NFTs (*single seal*)  
 Update Track and Trace System (*on-chain/off-chain*)



**CONSUMER**

Take possession of physical goods  
 Scan product tag and take possession  
 of NFTs (*single seal*)



**RETAILER**

## Anti-Counterfeiting Blockathon Infrastructure – EUIPO IT Solution – The Identity Register



### EUIPO Identity Registry



#### NOT IN SCOPE

- Forcing to use a specific blockchain
- Providing NFT creation services
- Providing Track and trace services
- Providing ID serialization



#### IN SCOPE

- Blockchain-based open solution
- Integration with European-wide systems (EBSI, ESSIF)
- Integrating with EUIPO existing tools
- Connected to engaged Custom Authorities
- Risk Assessment System for pre-arrival



#### FUTURE STATE

- Connected to IPOs listing (optional)
- Listing of additional stakeholders (optional)
- In-house notarisation provision (optional)
- Increase engaged custom authorities network

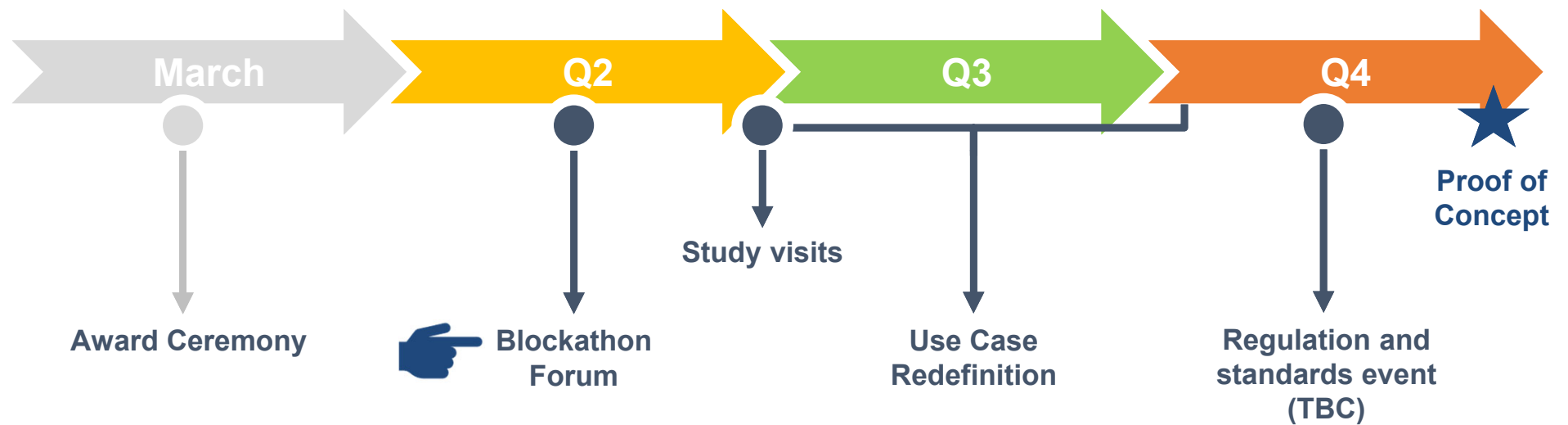


**Thank you!**



# Next steps and engagement

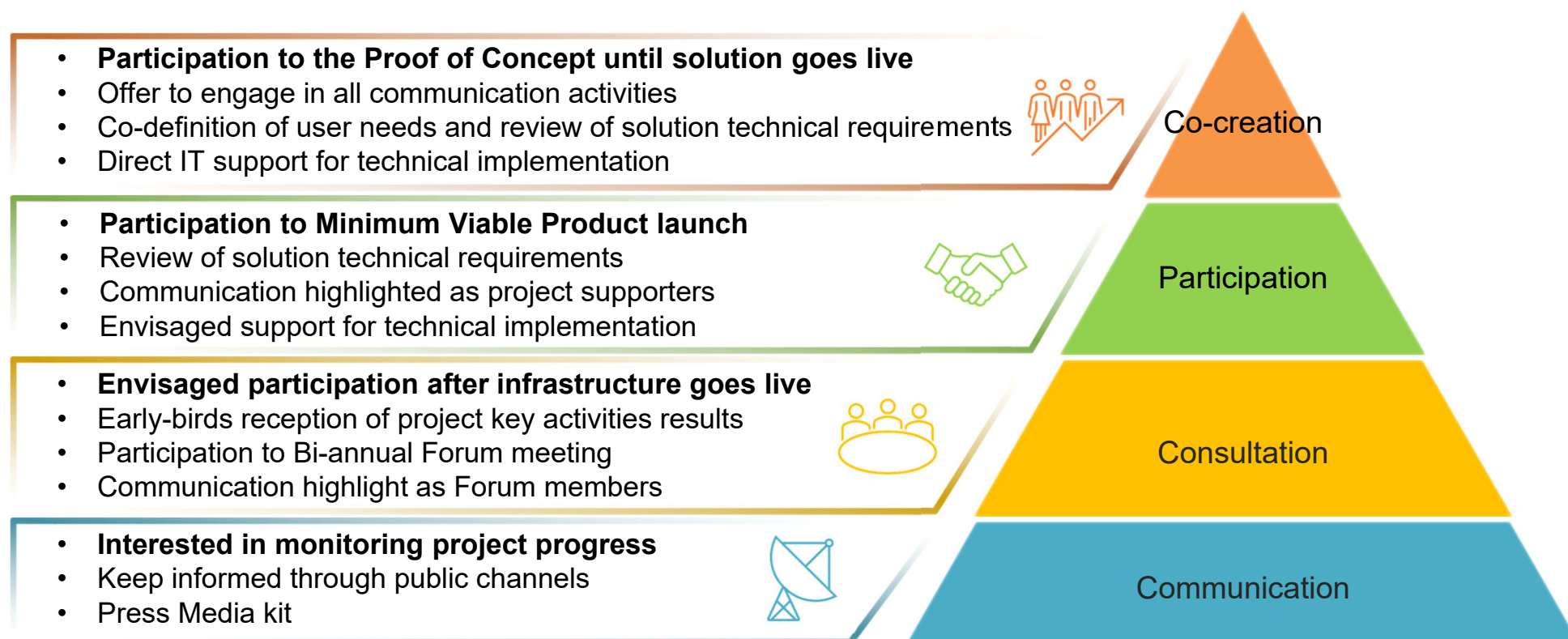
## Blockathon – Next Steps in 2022



Feedback and Engagement through the **Blockathon Forum!**

ANTI-COUNTERFEITING  
BLOCKATHON  
FORUM

## Blockathon – Next steps in Stakeholder Engagement in the Forum



**Thank you!**