

AGENDA

Introduction

Our shared vision for a digitally transformed Europe

What we know about you
We asked, you answered: who do you serve, and how?

Meet our reusable solutions

Get to know our CEF-ISA² reusable digital solutions

4 What we can do for you

A brief description

5 What we can do together

Let's exchange.



Your hosts today



Maxine Lemm
Host & Moderator

Head of marketing and content for the CEF Digital Stakeholder Management Office (SMO), DG DIGIT.



Joao Rodrigues Frade

Speaker

Head of Sector for the CEF Digital Building Blocks at DG DIGIT.



Maximilian Strottman

Speaker

Deputy Head of Interoperability Unit, DG DIGIT (ISA²).



Anne-Marie Sassen **Speaker**

Deputy Head of the "Technologies and Systems for Digitising Industry" unit in DG CONNECT.



Your hosts today



Asta Griciene

Speaker

Interoperability Unit, DG DIGIT (ISA²).



Luis Gallego Vilches

Speaker

Onboarding manager for the CEF eSignature Building Block, DG DIGIT.



Aldo Grech

Speaker

Programme Manager for EU polices (TESTA Services).



Caroline Corneau

Speaker

Project manager for Connecting Europe Facility (CEF) Building Blocks, DG DIGIT.



Kelly Liljemo

Speaker

Project manager for Connecting Europe Facility (CEF) Stakeholder Management Office





Digital Innovation Hubs in Digital Europe Programme



EU support for one DIH per region as a proxy



Co-investment with Member States and Regions



Focus on industry and public services administrations



Focused on HPC, AI, Cybersecurity, Digital Skills



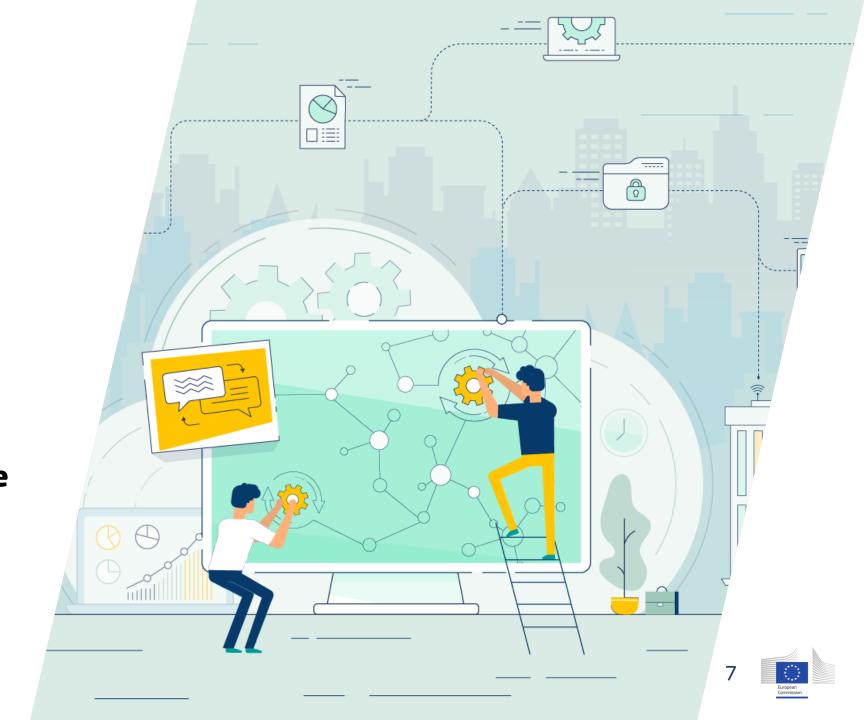
A strong European network of DIHs



01

Our vision

of a connected Europe





The internet and digital technologies are transforming our world.

Public administrations

are increasingly offering digital services, as they gain the same legal validity as traditional paper processes Businesses and supply chains

are growing beyond borders, as the internet facilitates international trade



We have a common goal: accelerating the digital transformation of Europe, by helping businesses and public administrations.

Our shared vision: a European Digital Single Market.



Since 2014, the EC has been doing precisely that.

Regulating

to support the adoption of European-wide specifications and standards

The adoption of standards or specifications for digital technology can be promoted by **regulation at the European level**. Trust services (eDelivery, eSeals, eSignature, etc.), the Single Digital Gateway... are the new regulatory frameworks for the Digital Age

Enabling

by providing ready-made reusable digital solutions based on common standards

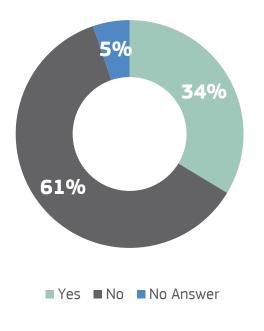
To facilitate the adoption of those standards, we distribute compliant solutions and a package of facilitating services (support to build or adopt the solution) called Building Blocks or open & reusable solutions. Actors of the Single Market become bridges that connect National and European digital infrastructures, automatically complying with EU regulation

Introducing CEF & ISA²

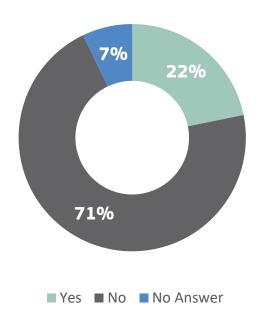
Two programmes designed to help implement eGovernment, but that, in time, have grown to nurture and benefit an interconnected network between the Public and Private sectors.

Most of you are unfamiliar with what we do

8. Are you familiar with CEF Digital?



9. Are you familiar with ISA²?



How can CEF Digital help you



Our mission is to increase the interconnection between trans-European networks, by helping public administrations, businesses and citizens fully benefit from what digital has to offer.

We promote the adoption of common digital standards by:

- Providing technical support to Public Administrations and businesses in their digital transition;
- Helping them develop secure, interoperable digital services;
- Providing funding to projects that can contribute to a more connected Europe;

This support package comes in the form of **Building Blocks**.









INTEROPERABILITY

IS THE GREASE OF THE DIGITAL ECONOMY

We co-create the essential concepts to make interoperability a reality in Europe

We believe that "Sharing & Reusing" is the way to go

We think the digital topics of the day sovereignty, inclusion, participation, greening, openness - require a good dose of interoperability.



02

About you

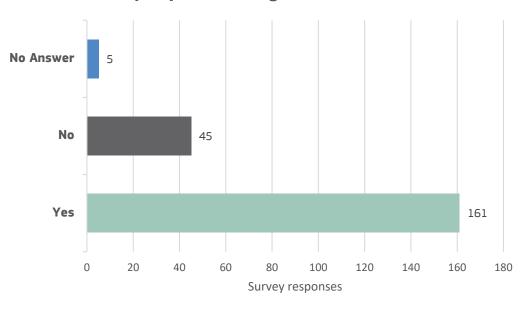
What you told us



Who are you?

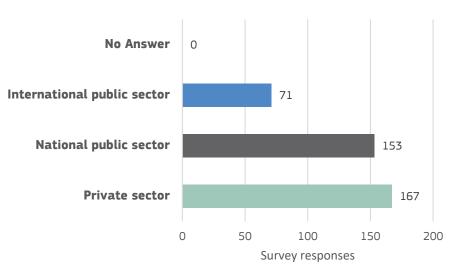
76% of you are DIHs

2. Are you part of a Digital Innovation Hub?



The majority of you serve both the private and public sectors of your country

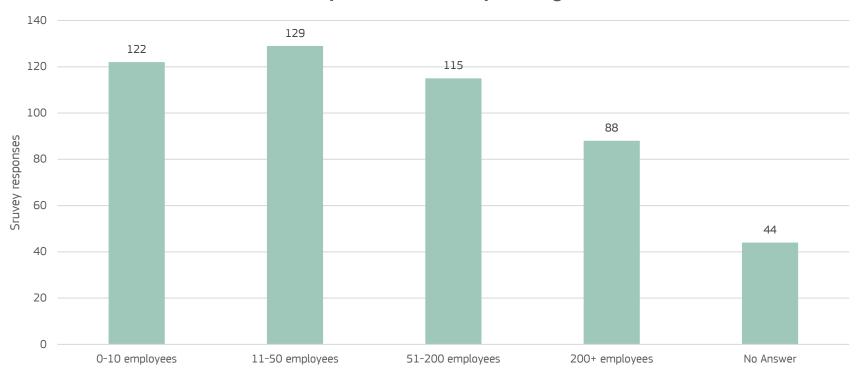
3. What sectors do you serve?



In the private sector...

The majority of companies are SMEs or medium-size companies

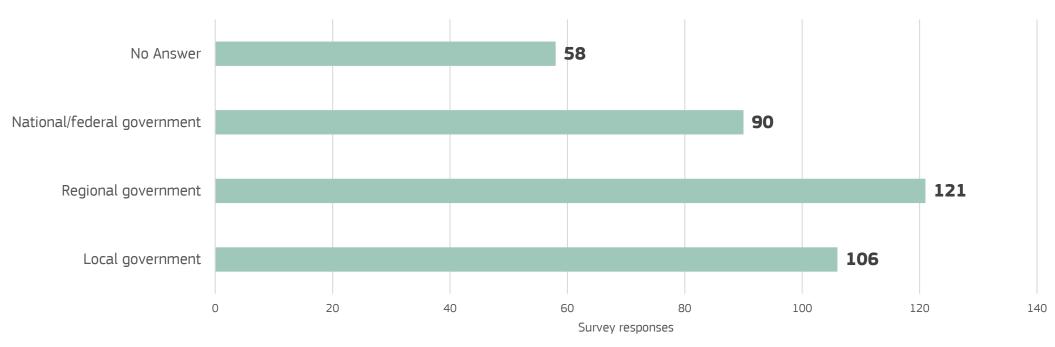
4. What size companies are within your target audience?



In the public sector...

Regional administrations are most served, with local and national not far behind

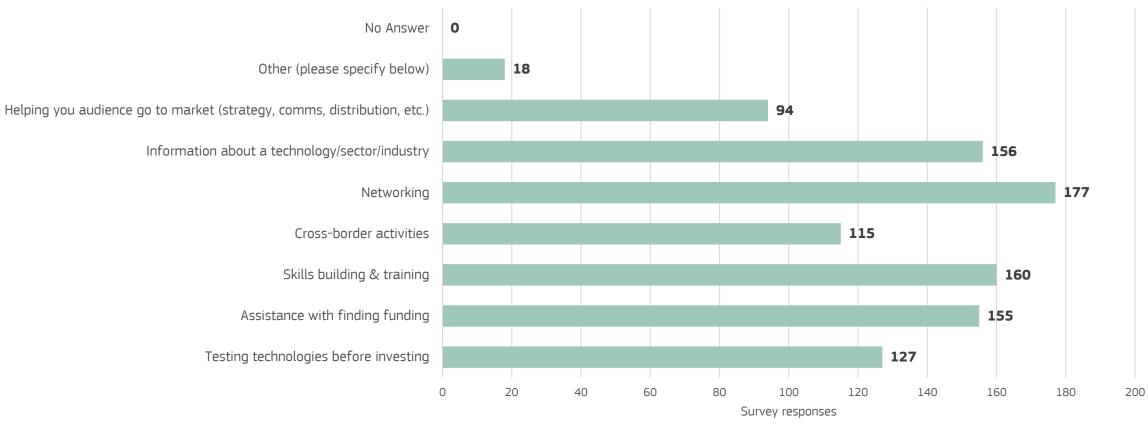
5. What levels of government do you typically provide services to?



What you do

Networking, skills-building, information sharing and funding in the lead, but test-before-invest and cross-border activities also strongly represented.

6. What kind of services does your audience typically request?



03

Our solutions

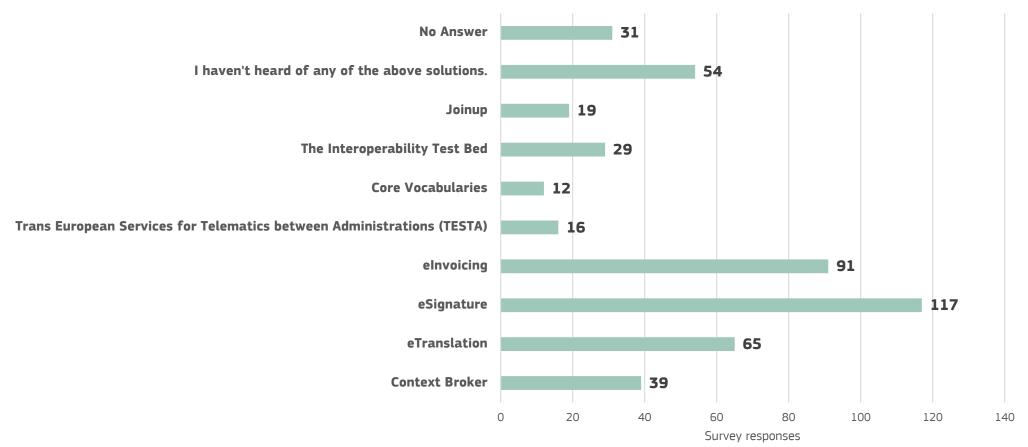
Our CEF & ISA² digital solutions



Most of you are unfamiliar with the open & reusable solutions offered by the EC

20% of you have not heard of any of our solutions

10. Have you heard of any of the following open & reusable digital solutions?





Let's get to know some of our solutions



Context Broker

Develop smart applications and services to enable "right-time" data-driven decisions





SOFTWARE

SAAS

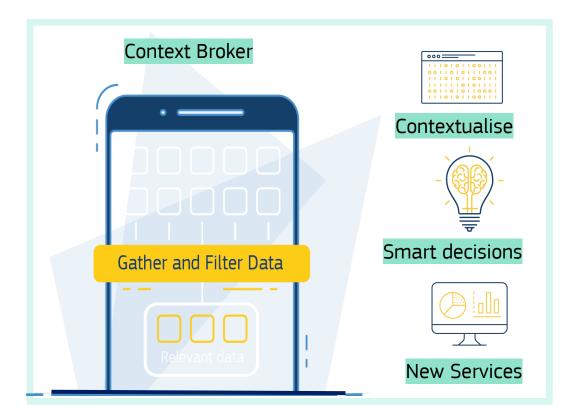


What is the opportunity?

It's all about context: what is going on, where, when, why ...

Context Broker is a **middleware** for

- collecting and analysing diverse data
- sharing it in a useable format in realtime
- in order to support data-driven decisions.











How does it work?



- Software based on the NGSI-LD standard for context information management: an interoperable, secure and free solution
- Out-of-the-box specifications, compliance testing and support material: optimise development and delivery of smart applications in a shorter time frame without vendor lock-in.
- An expert support team helping to define, scope, implement and follow up the CEF Context Broker in your project, providing training, support and testing your service for compliance so it's interoperable across sectors and borders



eTranslation

Free, secure and reliable machine translation - on our platform or your own.



STANDARD

SOFTWARE

SAAS



What is the opportunity?

eTranslation is a free, easy and secure automated translation tool that enables you to translate into any official EU language and more, removing language barriers across Europe.





How does it work?

CEF eTranslation is a neural machine translation tool that can be integrated in your digital system or used through a web interface.



eTranslation is built on the European Commission's earlier machine translation service, MT@EC, which was developed by the Directorate-General for Translation (DGT). It was based on MOSES, a Statistical Machine Translation (SMT), while eTranslation is following the field's move into neural machine translation.

- Both systems are trained using the vast Euramis translation memories, comprising over 1 billion sentences in the 24 official EU languages produced by the translators of the EU institutions over the past decades. As such, they are particularly suited for the needs of EU policy documents.
- CEF eTranslation carries on the MT@EC functionalities and scales up the existing infrastructure by improving quality and performance and increasing the pool of available language resources.



What can I do with it?

Install machine translation capabilities for digital services or reuse the web user interface **to overcome language barriers**.

by various parties, such as Public Service Officials, Public Sector service providers and recently SMEs, all while respecting the security and confidentiality of the data translated.

eTranslation translates
formatted documents and
plain text while preserving
the structure and format of
those documents. The tool also
enables you to translate one
document into multiple
languages in one go!

You can **translate to and from** more than 24 official EU languages as well as Russian, Norwegian, Icelandic and recently Chinese! The tool also offers a **variety of domain-specific engines** such as eHealth.





elnvoicing

Create services and solutions to enable cross-border online trade and the modernisation of public procurement





SOFTWARE

SAAS



What is the opportunity?

Legal obligation in public procurement (Business to Government - B2G)

Directive 2014/55/EU mandates European contracting authorities to receive and process electronic invoices (elnvoices) that comply with the European standard on electronic invoicing (EN 16391) since April 2019.

Gateway to the EU Digital Single Market

Business opportunity for trading parties (suppliers & buyers) + IT solution



How does it work?



The CEF elnvoicing team supports public administrations & IT solution providers:

- Using the elnvoicing standard: technical artefacts & documentation, conformance testing
- Information about each EU Member State ("Country Factsheets")
- Supporting your implementation: trainings & workshops, helpdesk
- Onboarding activities: webinars, online discussions with EC policy owners (transport infrastructure, SMEs, tax reporting, etc.)



eSignature

Sign electronic documents securely and reliably

FRAMEWORK

STANDARD

SOFTWARE

AAS



What is the opportunity?

eSignature enables the creation and testing of electronic signing solutions, and assists its users in the purchase of secure certificates, in order to facilitate the mutual recognition and crossborder interoperability of electronic signatures in Europe.

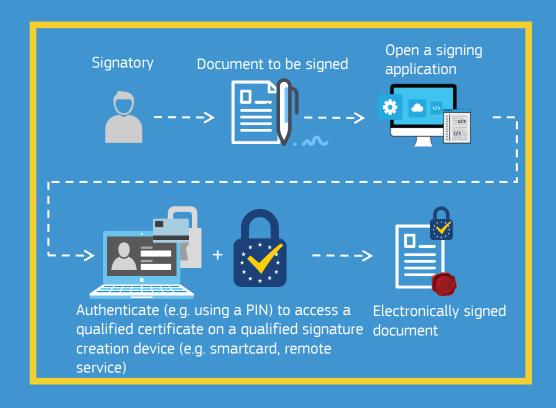


How does it work?

CEF eSignature is composed of a series of reusable software components, standards and libraries that enable out-of-the-box compliance with the eIDAS Regulation.

eSignature is composed of three main components:

- The Digital Signature Software (DSS) Open-Source library is an open-source software library for electronic signature creation and validation. DSS supports the creation and verification of interoperable and secure electronic signatures in line with European legislation, and it can be re-used in an IT solution for electronic signatures to ensure its alignment with European legislation and standards.
- **The Trusted List Browser** is an online tool provided by the European Commission that lets you search qualified trust service providers in Europe.
- **The TL Manager** is a web application for browsing, editing, and monitoring Trusted Lists used by the Trusted List Operators of each Member State.





What can I do with it?

Use eSignature to ensure **interoperability**.

You can **build your own signing solution** with CEF's
open-source library, **Digital Signature Software (DSS),**and enjoy out-of-the-box
compliance with the eIDAS
regulation and related
standards.

You can test the interoperability and conformity of your own esignature solutions with our ETSI signature Conformance Checker and our Qualified electronic signature validation algorithm.

As a service provider, you can obtain a digital certificate for eSignature, eSeal or website authentication from a Trust Service provider, using our Trusted List Browser to choose from over 200+ active TSPs.





CoreVocs

Simplified and extensible data models



STANDARD

SOFTWARE

SAAS



What is the opportunity?



How does it work?

Core Vocabularies can be used and extended in the following contexts:

- Development of new systems: the Core
 Vocabularies can be used as a default starting
 point for designing the conceptual and logical data
 models in newly developed information systems.
- **Information exchange between systems**: the Core Vocabularies can become the basis of a context-specific data model used to exchange data between existing information systems.
- **Data integration**: the Core Vocabularies can be used to integrate data that comes from disparate data sources and create a data mesh-up.
- **Open data publishing**: the Core Vocabularies can be used as the foundation of a common export format for data in base registries like cadastres, business registers and public service portals.



What can I do with it?

Design data models for new information systems.

Facilitate exchange of data between information systems.

Enable data integration from different data sources

Work closely with public administrations to **create a digital catalogue of services**.

Model interactions between private and public organisations working together to provide public services.

Setup chatbots on public services based on well-structured data models.



Testbed

Create, group, edit and execute test cases

FRAMEWORK

STANDARD

SOFTWARE

SAAS



What is the opportunity?

The Interoperability Test Bed is a platform providing interoperability and conformance testing.



How does it work?

It is a reusable service for:

- Simulation of a web service for clients to test against;
- Validation of content sent or received through various channels;
- Conformance testing against a message exchange protocol;
- Verification of a complex message exchange as one complete conversation.

"The model allows the programmers to creategroup-edit-execute test stories (or more formally test assertions converted to test cases), inspect, and publish reports and logs about the results."



What can I do with it?

Allows users to execute predefined test cases on their systems.

Test results are provided in a standardised, machine-readable format.

Offers a <u>test registry and</u> repository (TRR) to store test artefacts and compile test services

Free for use & standards-based.



Joinup

A free space to collaborate and share solutions

FRAMEWORK

STANDARD

SOFTWARE

PLATFORM



What is the opportunity?

One-stop shop for eGovernance - more than 3,000 solutions and materials to reuse.

Free and collaborative space for public administrations, SMEs and start-ups with about 16,000 users, with active communities running from 2011.







How does it work?

The platform has three main functions:

Sharing of information, by publishing news, case studies and listing relevant events;

Cataloguing re-usable interoperability solutions such as software, taxonomies, vocabularies, code-lists, licences, organisational assets and guidelines;

Allowing public administrations, businesses and citizens to **collaborate** with each other on development projects.

joinup

operability solutions for public lesses and citizens

What can I do with it?







TESTA

A pan-European, underlying secured communication infrastructure



STANDARD

SOFTWARE

SAAS



What is TESTA?

 TESTA is the pan-European underlying secured communication infrastructure (governmental network) meant for sensitive information exchange between public authorities requiring guaranteed service levels for network availability, performance and/or security (confidentiality, integrity, authentication, availability).

 TESTA serves the EU institutions & agencies, national, regional or local public administrations located in the MS, EFTA & candidate countries.

 TESTA is EU domain policy independent and improves the efficiency of cross-border interadministrative operations.

 TESTA is part of the EC Digital Strategy as Digital Infrastructure layer.





TESTA offering

Get access to

 number of added- value services such as secure video conferencing, secure email, secure SMS, secure FTP, Mail relay, NTP, DNS, web portal, PKI.



Security & Level of confidentiality

- Higher availability, security and reliability
- Information confidentially and integrity through traffic encryption.
- Can handle a level of confidentiality up to EU Restricted.
- Level of security depends on the classification of the end-points behind the gateway.

Auditability / QoS / Support

- Relies on the ITIL best practices
- Full compliance with international information security standard ISO 27001.
- 24/7 and 365 days support with personalized communication, handling incident and reporting.
- guaranteed & stringent SLAs.



- By sharing and reusing you ensure economy of scale, synergy and you reduce the time to market at no cost for the IS owners.
- centrally regulated by the EC which manages the FwC. No further agreements required with TESTA to operate additional data exchange

What can I do with it?

Exchange cross-border data

between a wide variety of public administrations across Europe while ensuring high security of the data exchange.

Testomonial, SE "Infostruktūra", Lithuania:

"We have connected some 19 national administrations, departments and services to TESTA so far, among others the police department and the social security service. TESTA made our life definitively easier. The network is causing neither problems nor delays, with the connected services running correctly. What more can you expect?"



How to use a reusable solution?



There are 3 options: buy, build or reuse and you can always co-develop your solution with other parties.



Buy

Buy a compliant, interoperable solution from the market.



Build

Build an EU-compliant solution from scratch based on Building Block standards. We'll help you test it for compliance and interoperability.

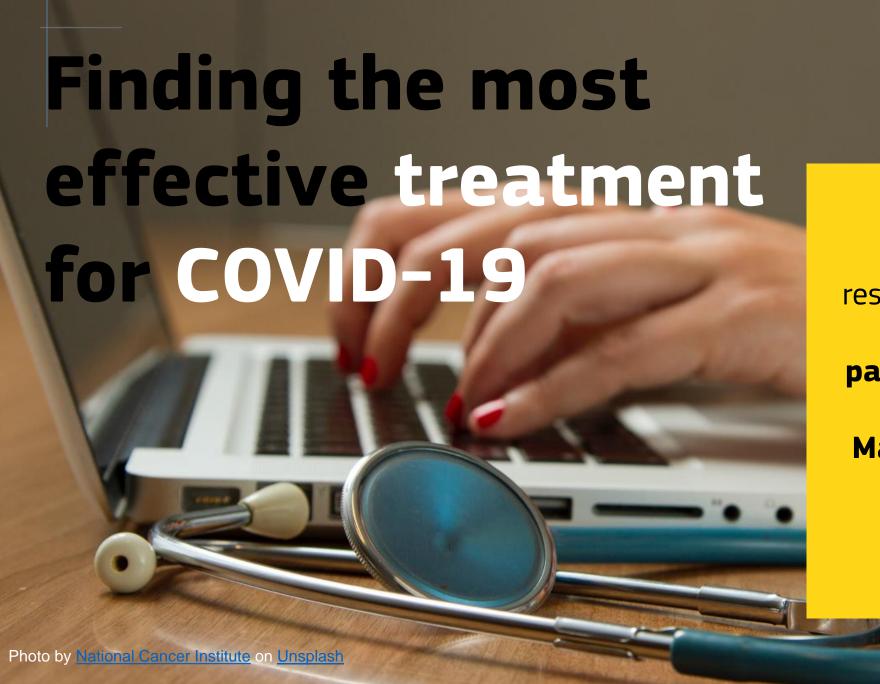


Reuse

Reuse a sample software available through
The European Commission

Whatever you choose, **the relevant team will support you** in implementing the solution into your project.

Time to get inspired



CEF's BDTI will allow researchers in Valencia,
Spain to identify patterns in the medical literature faster using Machine Learning and Natural Language processing



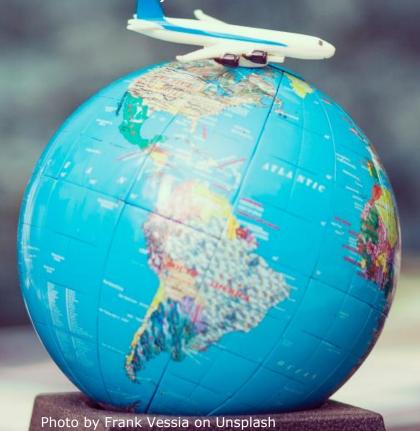


CoreVocs used in Trentino region to create an OpenAgenda, a single cultural and social events calendar updated in real-time by associations, libraries and museums (170 municipalities)



Internal market

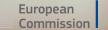
- Financial Intelligence Network (FIUNET)
- Electronic exchange of social security information (**EESSI**)
- Cross-border exchange of health data via EU-wide eHealth Infrastructure (ePrescriptions and Electronic Patients Summaries)



Supporting the information systems which allow for:

- The fight against money laundering
- **Free movement** of people
 - Cross-border exchange of health data



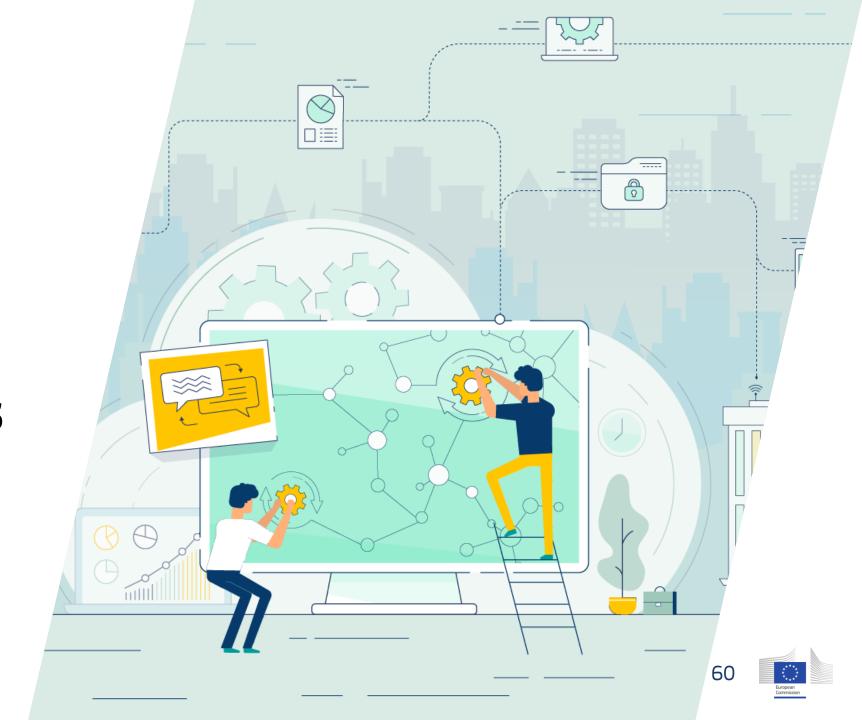


Q&A Go to www.menti.com and use the code 51 57 96

04

Our services

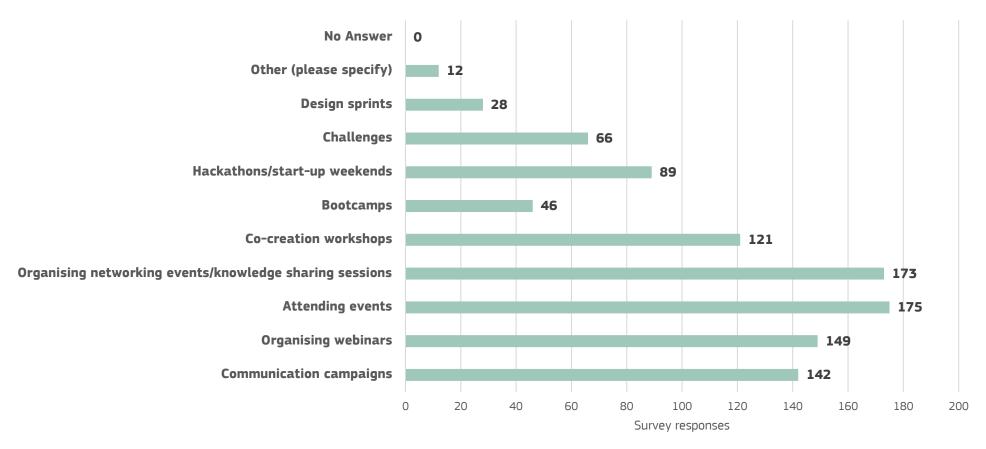
What we can do for you



Most of you help your audience go to market

You leverage a range of methods, from attending and organising events to launching communication campaigns.

How do you reach out to, co-create with, and disseminate your offering to your target audience?



We can help you think of ways to engage with your audience effectively

We help governments, European initiatives and businesses accelerate their digital transformation

Start with users.

We map

Understand your ecosystem of stakeholders and their needs.

Design for reuse.

We design

Design new value propositions through reuse of open standards and solutions.

Build a strong narrative.

We promote

Develop **your story** and engage with stakeholders, growing your **digital footprint** and reaching **new channels**.

Provide support on demand.

We support

Offer **coaching & support** during and after implementation.

We orchestrate

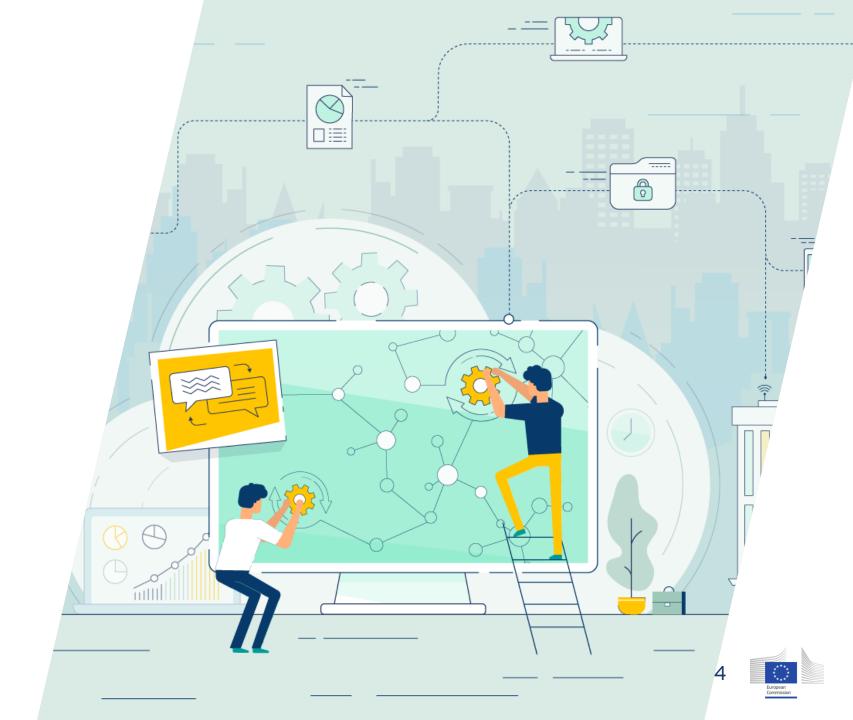
We set up the **processes**, **governance** and **management** to support the delivery.



05

Let's talk

Interactive session



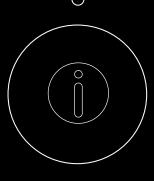
Go to www.menti.com and use the code 51 57 96



Where do we go from here?

Spread the word!

We can help you disseminate our open & reusable solutions to your stakeholders. Reach out to us for any material you might need.



Starting now

Workshop(s)

We'll reach out to invite you to a (series of) workshop(s) to work on priorities identified during our webinar



Q4 2020



Reach out to us for help in promoting the solutions!

CEF Building Blocks:

Cef-building-blocks@ec.europa.eu

ISA²:

isa2@ec.europa.eu



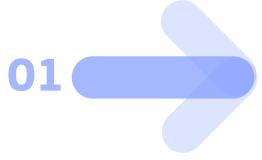
Shaping a Digital Europe, together Ŷ

••••

appendix



We invited SMEs and startups across Europe to innovate and grow their business using our open and reusable solutions.



For participants

Imagine

a new service based on open and reusable solutions

- Get inspired by success stories
- Discover the open solutions
- Register and shape your service/ solution
- Get support
- · Submit your idea



For the (10) best applicants

Co-create

with a set of selected coaches

- Get evaluated by experts
- Attend a co-creation bootcamp (if shortlisted)
- Refine your idea with our coaches
- Pitch your idea to the jury
- Connect with the network



For the (3) best applicants

Pitch

at the award ceremony, win up to EUR 50.000 and stand out

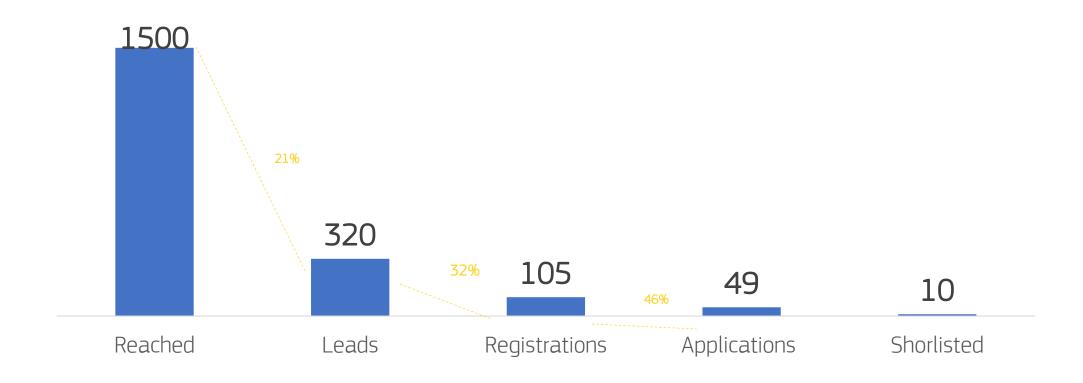
- Get final evaluation by the jury
- Be selected as a winner
- Get invited to the award ceremony
- Pitch your idea and receive your prize
- · Stand out at the European level





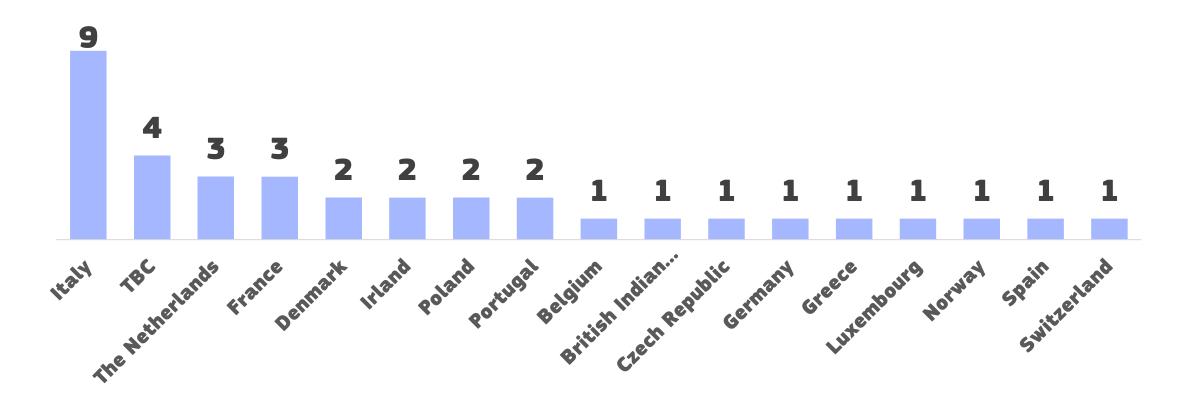
A good conversion rate, overall.

Since the launch, we reached out +1500 organisations and generated individual interactions with +320 SMEs and start-ups across Europe, leading to 105 registrations and 49 applications completed. This represents a conversion rate of respectively 32% and 46%.



Applications come from all over Europe

Applications come from 17 countries, which represent more than 60% of the EU. 25% of applications come from Italy, for the rest it looks like a long tail.



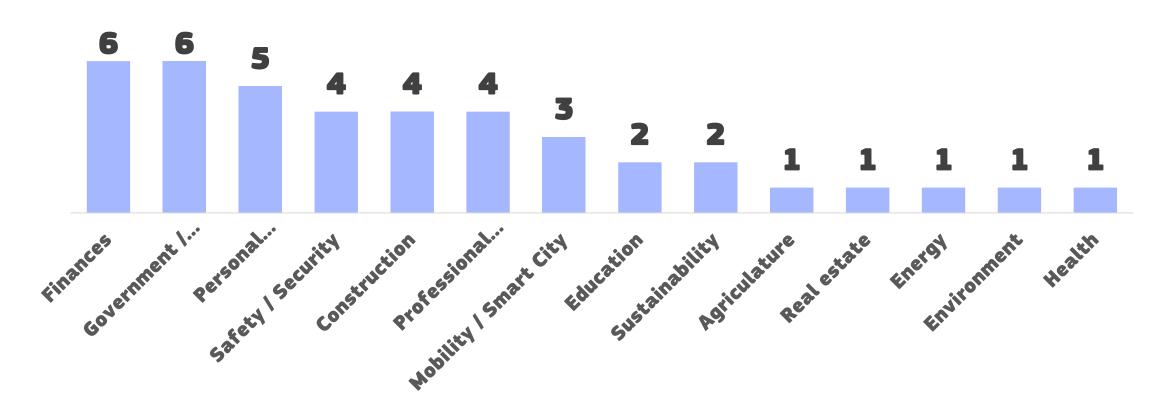
Most applications aim at addressing more than one market

Most applications address a more than one market. B2B and B2G markets are the most popular ones representing respectively 67% and 44% of applications. 24% of applications address SMEs market and 33% of applications address the B2C market.



Applications address a broad range of topics / themes

Applications address a broad range of diverse topics. The top themes are finances, gov / citizen engagement, personal admin, security, construction, professional services and mobility.



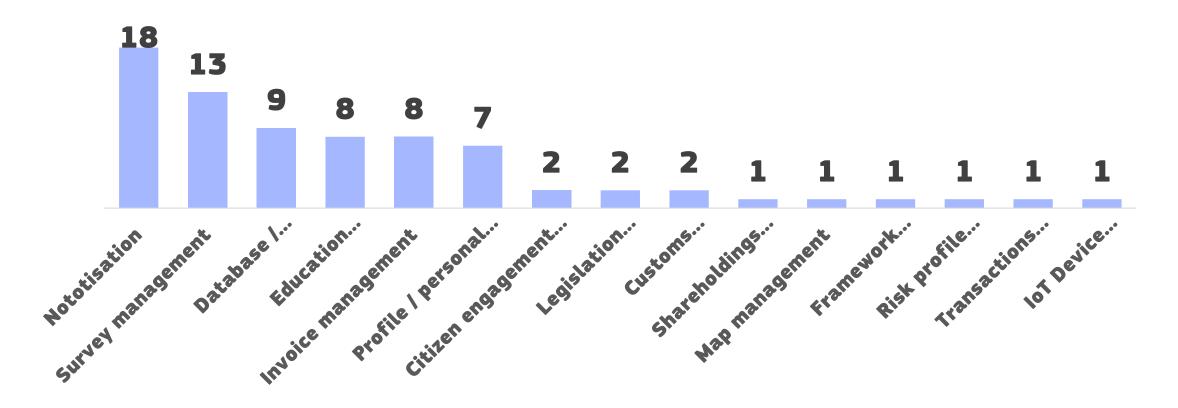
Applications address relevant design questions

Applications often address relevant and complex design questions such as:

- 1. How to shape **digital education** through **augmented reality**?
- 2. How to manage STEM (science, technology, engineering and mathematics) education credentials though blockchain?
- 3. How to build **participatory societies** through **gamification**?
- 4. How to accelerate the **development of Smart City digital services** through **mobility data**?
- 5. How to support everyday decisions by turning satellite imagery into geospatial information through data analytics and visualization?
- 6. How to create smart IoT lamppost using wind and solar power?
- 7. How to **help automated construction modeling** through **unified referential**?
- 8. How to promote investments in sustainable projects?
- 9. How to create permanent database for people's ideas, values, and memories through blockchain?
- 10. How to change the house purchasing process to **overcome barriers to home ownership** through **blockchain**?
- 11. How to create a secure, seamless and social wallet through blockchain?
- 12. How to help SMEs notarise, store and sign transactions as well as secure their contracts and deals through blockchain?
- 13. How to **democratize shareholdings** for citizens and SMEs through **blockchain?**
- 14. How to safely manage citizens' applications and documents through blockchain?
- 15. How to fight production / selling of counterfeit good and promote the "Made in EU" brand through blockchain?

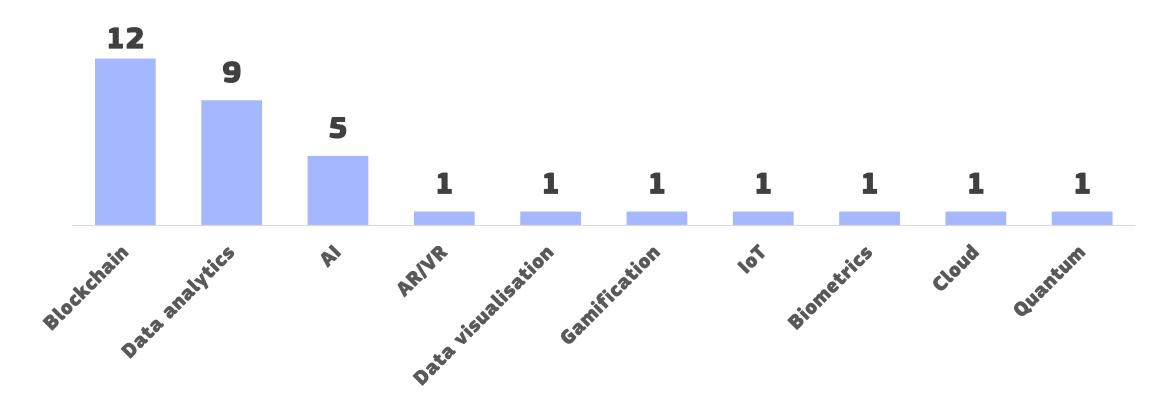
Applications target a good set of use cases

Applications address a broad range of use cases. The top use cases are notarization, survey management education management invoice management and personal data management.



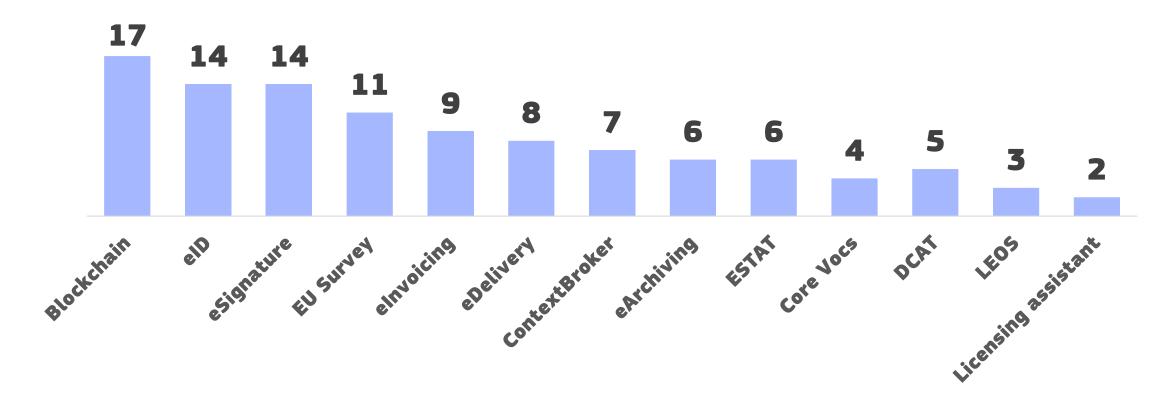
Applications are often based on disruptive technologies / trends

The applications are very often based on disruptive technologies / trends. The top disruptive technologies / trends are Blockchain, Data analytics and AI.



Applications aim at reusing more than one reusable solution

In almost all cases, applications aim at reusing more than one open and reusable solution. The average number of solutions planned to be reused per application is 3. The top open and reusable solution are blockchain, eID, eSignature, EU Survey, eInvoicing, eDelivery and ContextBroker.



Applications aim at reusing them in different ways

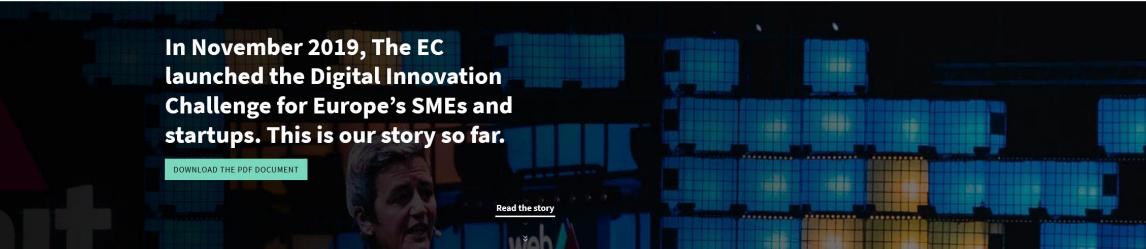
The open and reusable solutions are planned to be reused in different ways with different level of contribution

As **capability** to develop their own services / processes and client experience.

As **business model** to develop a unique selling value proposition.

As a technology infrastructure on which they can setup or accelerate their business

As platform on which they can plug, reuse and contribute with their own use cases, continuously.



https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/report+digital+innovation+challenge

Since the launch, we have reached out to +1500 organisations and engaged with +320 SMEs and start-ups across Europe, leading to 105 registrations and 49 applications completed. This represents a very solid conversion rate of 32% and 46% respectively.

If you would have liked to participate, but couldn't, we would like to hear from you. What is your take on the open reusable solutions?

LEGEND			
Number of organisations ar	d SMEs we have interacte	ed with	
Reached			
1500			
Leads			
320			
Registrations			
105			
Applications			
49			
Shortlisted			
10			







Business Reporting-Advisory Group

Atome Connected **DCAT Profile, CoreVocs**



OpenContent

OpenCityPlus eID, eArchiving, Blockchain, CoreVocs, DCAT Profile, CPSV, EUSurvey

→

CleverBooks

Sustainable Digital Education
eID, eDelivery, eSignature, Context Broker, eArchiving, Blockchain, EUSurvey



Compellio

Accelerating the adoption of blockchain innovations



Crowdpolicy

CrowdDTL eID, eSignature, Blockchain



Bit4id

Signing Today
eSignature, eArchiving, Blockchain

 \Rightarrow

Latitudo40

Earth Analytics
eID, eDelivery, Context Broker, Blockchain

 \Rightarrow

T-mining

Secure Container Release **Blockchain, eID**

 \Rightarrow

Orangebooks – Orangebooks.co

Al for modern digital entrepreneurs **eDelivey**, **eArchiving**, **eInvoicing**

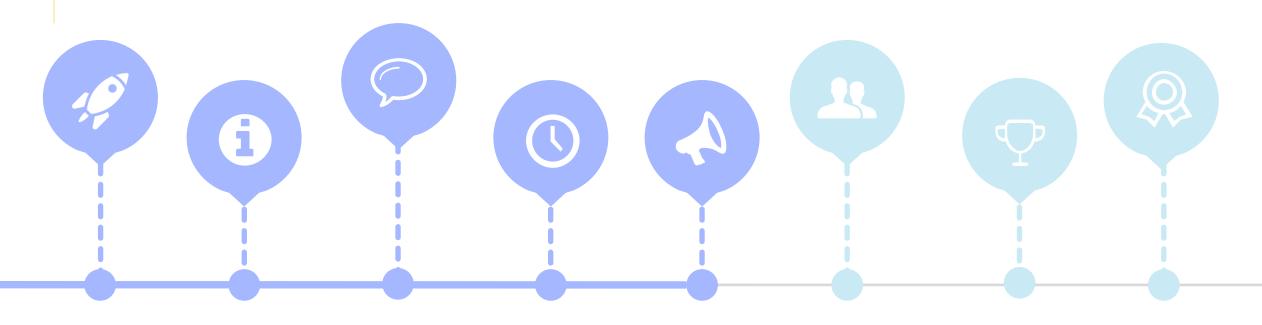
 \Rightarrow

Parity

LOADER: EV Charging station management pl elD, ContextBroker



What are the next steps?



7 November 2019

Launch of the Challenge at the Web Summit (call for applications opens)

25 November 2019

First Online Info Session

30 January 2020

Second Online Info Session

28 February 2020

Deadline for submission (call for applications closes)

Beginning of April 2020

Announcement of the 10 best applicants

September 2020

Co-creation bootcamp for the 10 best applicants

October 2020

Announcement of the winners

Q4 2020

Award ceremony at a European Commission flagship event (venue and date to be announced)



The objectives of the co-creation and final evaluation of the Digital Innovation Challenge stage are threefold:



Co-create

ALLICANI

Work with **business and tech coaches and get guidance** to develop their idea / business.



Pitch

Pitch your idea (application submitted on 28/02/2020) to a **Jury of EC officials / experts**.



Connect

Connect with a community, identify synergies and increase their visibility.

EUROPEAN

Make sure that the ideas proposed are **viable**, **desirable** and **feasible**. **Test new ways** to engage with SMEs and start-ups.

Finalize the evaluation process and collect the latest insights in order to select and announce the 3 best applications.

Create a community of SMEs and start-ups that will be willing to disseminate and work with us in the future



The objective of the co-creation session (Bootcamp) is to further shape each application and transform their idea into:



A relevant pilot

proven to be desirable, viable and feasible.



A clear roadmap.

A clear roadmap that will serve as good basis to start the implementation.



A resonating story.

A resonating story that will be presented in front of the Jury & at the award ceremony.

Each applicant will go through a number of exercises following a Toolkit and by getting support from our coaches.



45 MIN.

Opportunity

Crystallise market, needs and business objectives.

01.1 | Crystallise **target market**

01.2 | Crystallise **end-users** and their **needs**.

01.3 | Crystallise **features** (**existing** / **future**)

01.4 | Crystallise business objectives

Ecosystem mapping

Persona

User journey mapping

Business objective template 02

30 MIN.

Reuse Case

Provide insights on how to best use the open solution(s).

02.1 | Clarify which and how open solutions are going to be reused

O2.2 | Map capabilities of each open solution that can serve you to build features

Solution mapping

(Capabilities mapping)

03 45 MIN.

Roadmap

Build roadmap as a good basis for implementation.

03.1 | Assess the value (expected contribution to customer needs and business objectives)

03.2 | Assess the feasibility (time and resources required to execute the initiative)

03.3 | Prioritize based on feasibility and value.

03.4 | Define version and work packages

Prioritization matrix

Versioning template

Roadmap template

04

Services

Present services & define how to further help.

04.1 | Present our service offering and check what they are interested in

04.2 | Define services needed in their implementation journey

SoC?



30 MIN.

Pitch

Format pitch and help deliver story with impact.

05.1 | Create and sequence the message (storyline)

05.2 | Visualise the story

05.3 | Prepare for delivery

Slide(s) template

Storyboard



What's in it for SMEs and start-up? Learn, Connect and Boost their business!



















And?



Share your story and start your campaign at European level.

