



Building Block Information Session: Greece

Connecting Europe Facility

DIGIT
Directorate-General
for Informatics

DG Connect
Directorate-General for Communications
Networks, Content and Technology

Nils MC GRATH



The Origins of the Single Market

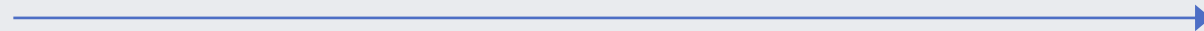
“Economic integration will make war not only unthinkable but materially impossible”

Robert Schuman



THE SINGLE MARKET

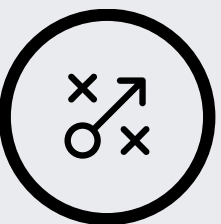
BUSINESSES



CITIZENS



economies of scale



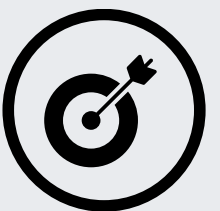
increased competitiveness



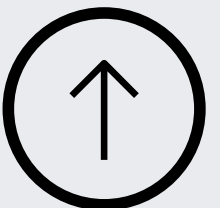
lower costs



cheaper products



more choice



more innovation

A Top 10 Commission Priority

The Digital Single Market

Aims to ensure that citizens, businesses and public administrations can reap the the benefits that **digital** has to offer.



The Tallinn Vision

Public Administrations must deliver high quality, user-centric digital public services for citizens and seamless cross-border public services for businesses.



The shift from paper to digital presents new challenges

At the heart of the digital transformation of public administrations is the shift from paper based public services to digital public services.

How can we ensure that citizens, businesses and public administrations can securely identify themselves and complete transactions online?

The eIDAS regulation was designed to support the transformation.

eIDAS ensures



Digital services have the same legal validity as as traditional paper process



By ensuring that digital services can be trusted and work securely across borders



So that citizen and businesses benefit from the convenience of digital services and can make the most of the digital single market

**Digital Transformation
powered by eIDAS** provides
the legal and security
requirements to deliver
convenient online digital
services services such as:



Submitting tax declarations online



Enrolling in a foreign university



Remotely opening a bank account



Setting up a business in another Member State




Authenticating an online payment



Bidding to an online call for tender

... and many, many more.



How is the Commission helping public administrations build eIDAS compliant digital public services?

The CEF Building Blocks

The Connecting Europe Facility's mission is to support projects to use basic components, based on standards, that will ensure systems can communicate with each other.

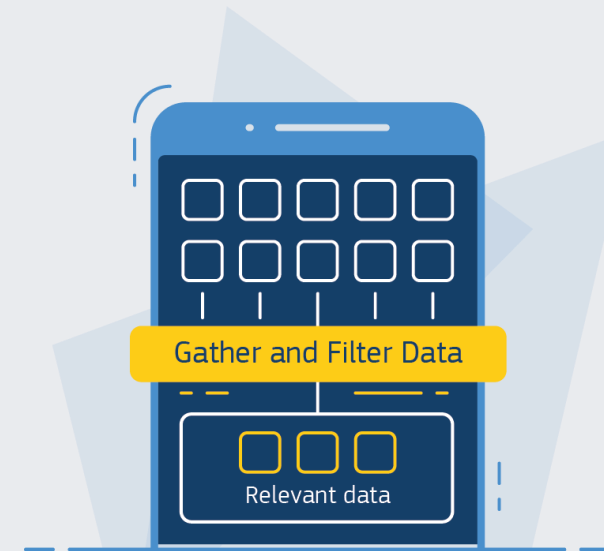
But the set of building blocks support digital transformation beyond the eIDAS regulation

Data Economy



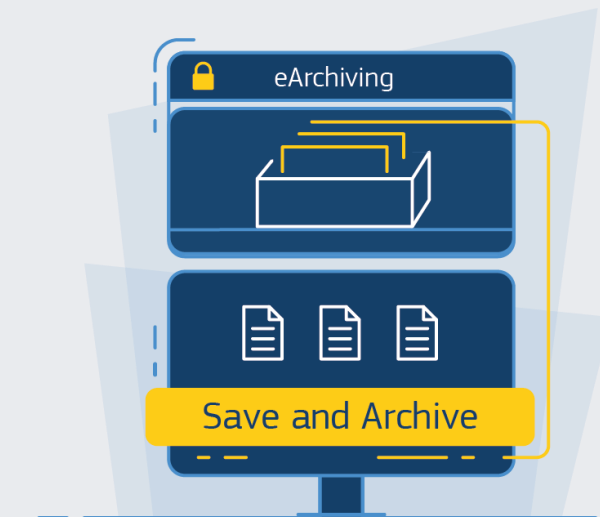
Big Data Test Infrastructure

Experiment with big data in a safe environment



Context Broker

Collect & share real-time data from multiple sources



eArchiving

Store and preserve digital information

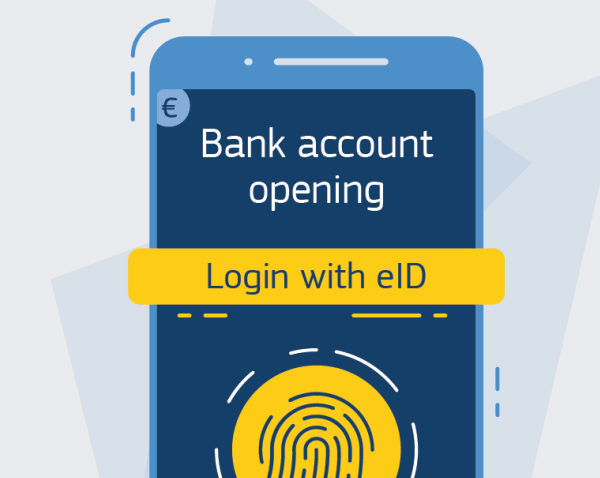
eInvoicing Directive



eInvoicing

Send and receive electronic invoices

eIDAS enablers



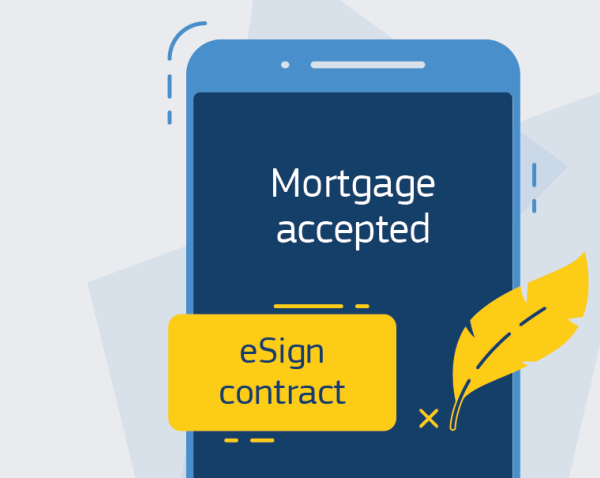
eID

Securely identify European citizens



eDelivery

Exchange data and documents securely



eSignature

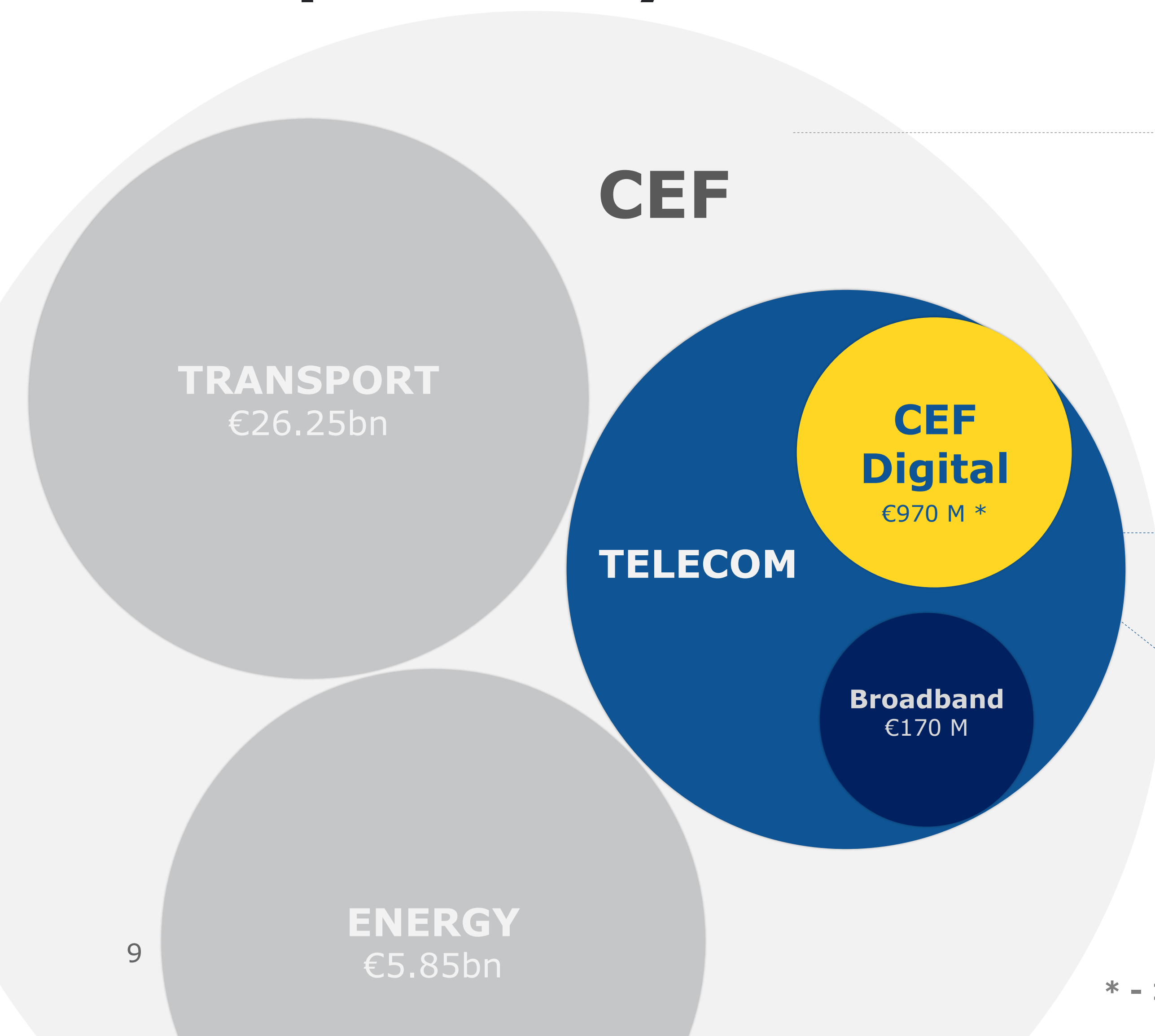
Create and verify legally recognised electronic signatures



eTranslation

Provide a multi-lingual public service

The CEF building blocks are funded by the Connecting Europe Facility



CEF Regulation

Defines how the Commission can finance support for the establishment of trans-European networks to reinforce an interconnected Europe.

CEF Telecom Guidelines

The CEF Telecom guidelines cover the specific objectives and priorities as well as eligibility criteria for funding of broadband networks and Digital Service Infrastructures (DSIs).

CEF Work Programmes

Translates the CEF Telecom Guidelines in general objectives and actions planned on a yearly basis.

How does CEF support projects to use the building blocks?

In two ways:

- **One**, it provides services to help you implement them in your system. There are a range of services across the building blocks but services typically include training, sample software, testing services.

Free Services



**Training
sessions**



**Sample
software**



**Testing
services**

How does CEF support projects to use the building blocks?

In two ways:

- **One**, it provides services to help you implement them in your system. There are a range of services across the building blocks but services typically include training, sample software, testing services.
- **Two**, CEF provides grant funding. You can apply for grant funding to pay for the implementation of a building block in you system. More information on how you can apply for grants is available via INEA’s website.

Visit INEA Website



Funding opportunities

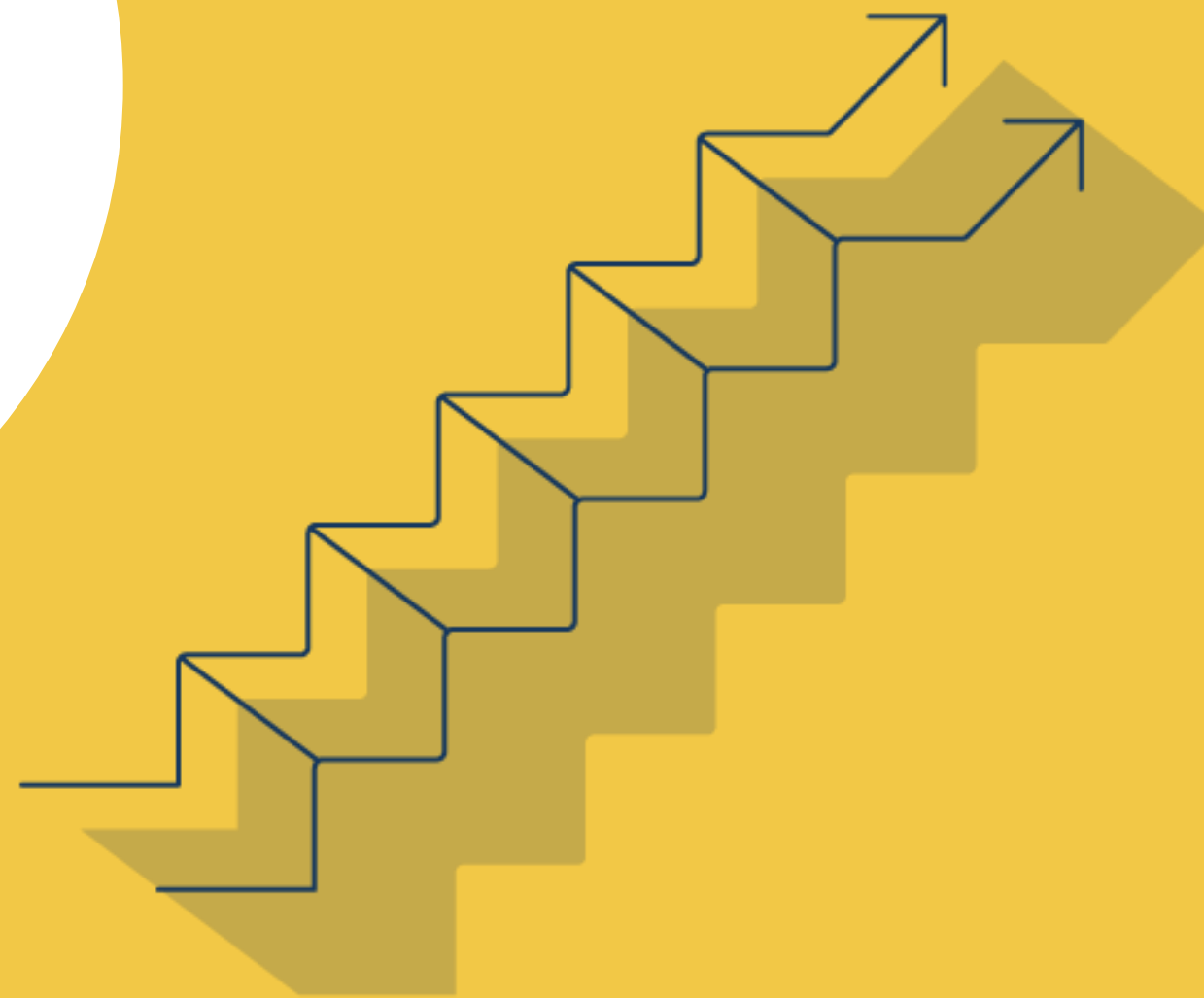
Call	Open Calls	Deadline for submissions
CEF-TC-2019-1 Automated Translation (indicative budget: €4M)	14 February 2019	14 May 2019
CEF-TC-2019-1 eID & eSignature (indicative budget: €5M)	14 February 2019	14 May 2019
CEF-TC-2019-1 eDelivery (indicative budget: €1M)	14 February 2019	14 May 2019
CEF-TC-2019-1 eInvoicing (indicative budget: €6.2M)	14 February 2019	14 May 2019

How many projects have used the building block?

118
projects

[View Dashboard](#)

Growing potential cases
are bringing us closer to
fulfilling the dream.

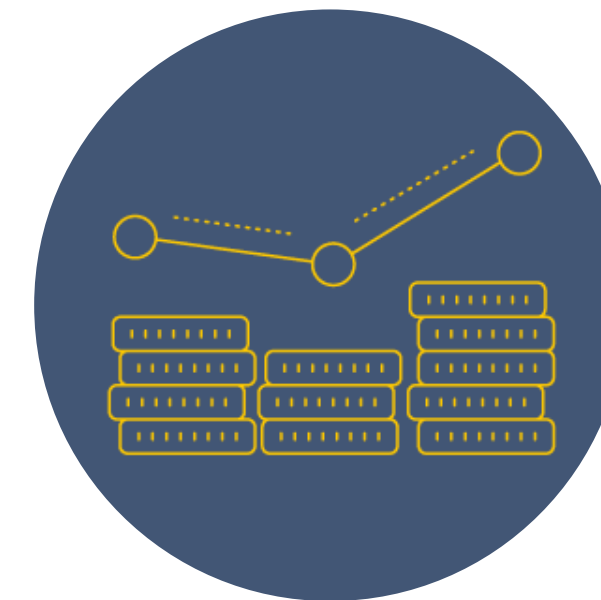


Connected Europe

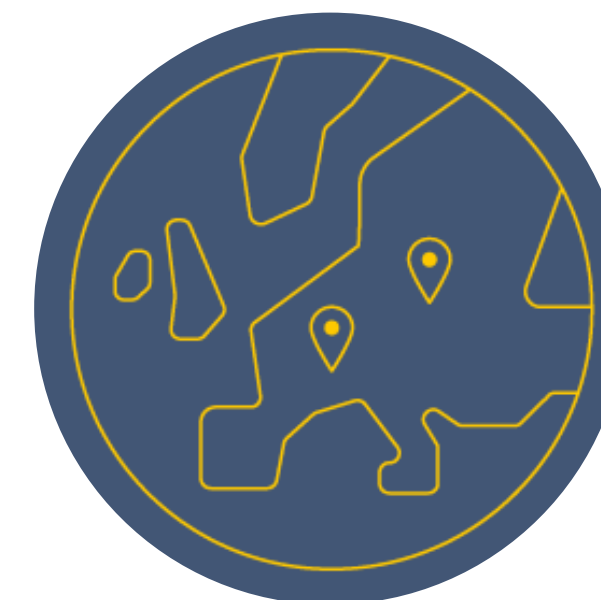
Vision



**Great experience for
citizens and businesses**

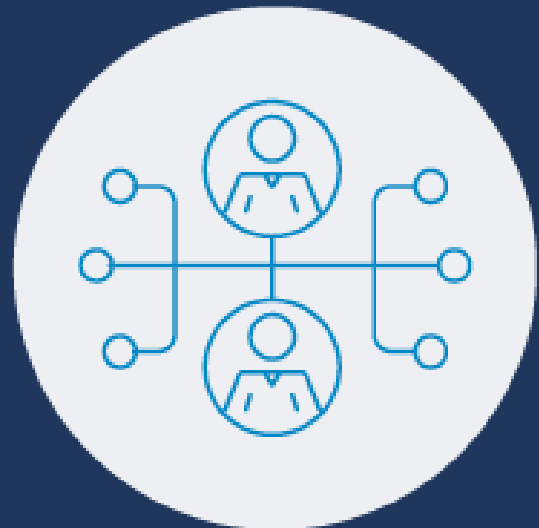


Building a data-economy



**Promoting cross-border
interoperability**

Main Benefits



1

The building blocks are mature, ready to deploy solutions that will save projects time and money.



2

The building blocks are based on open European standards so you avoid vendor lock-in.



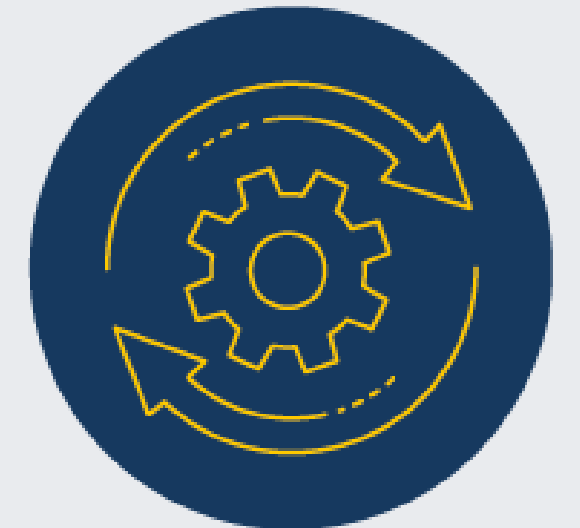
3

They help public administrations connect to collaborate to deliver a great European experience for citizens and businesses.

How do we support you?

1

Apply for grant funding to pay for the implementation of a building block



2

The CEF Digital website has details of a range of services across to support your implementation



3

Our service desk is available for you to provide answers to any questions you may have



Join us, we're Connecting Europe!

The vision is to deliver user-centric digital public services for citizens and seamless cross-border public services for businesses.

Public administrations must exchange data securely across borders in order to collaborate effectively and deliver a great experience to citizens and businesses.

Projects using the building blocks are supporting the digital transformation of Europe by implementing eIDAS and contributing to the digital single market.



Meet

Big Data Test Infrastructure

Experiment and discover new ways
to unleash the power of big data.



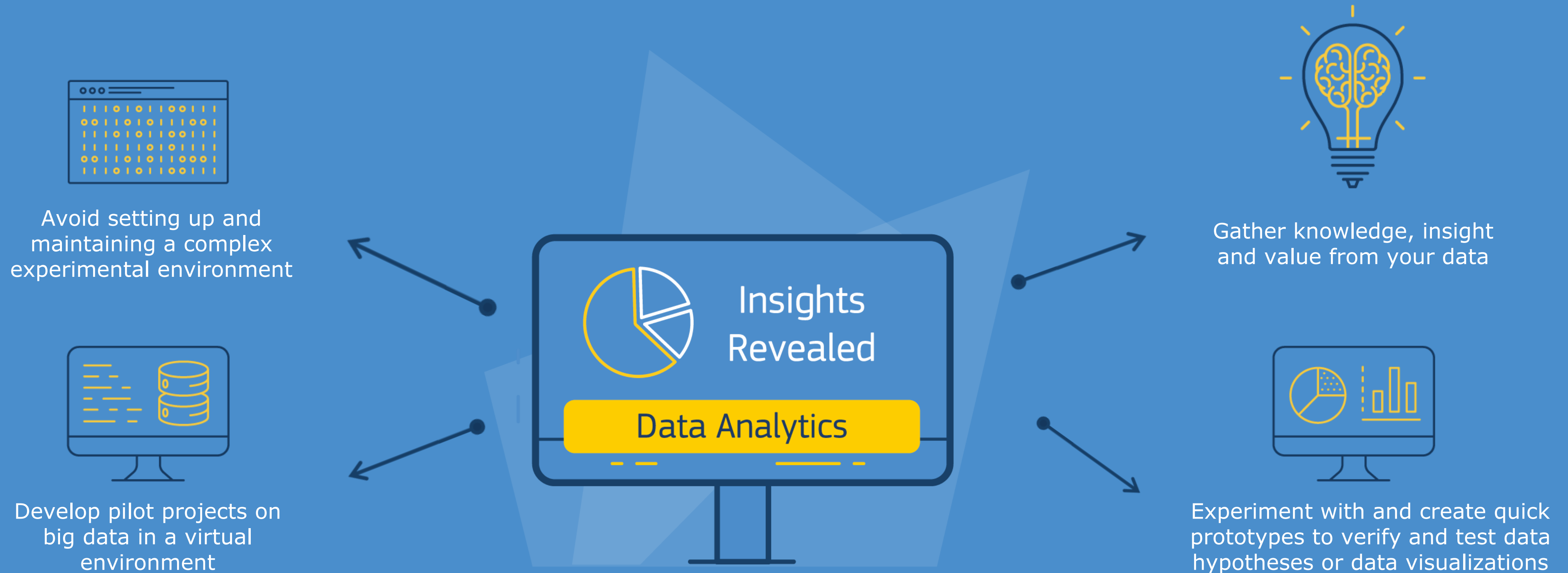
Insights
Revealed

Data Analytics

Is BDTI for me?

Yes, if you need to experiment with big data in a safe environment.

What we can help you achieve



Main Benefits



1

Access to a ready to use testing environment for your analytics experiments



2

The possibility to share and re-use data across policy domains and organizations



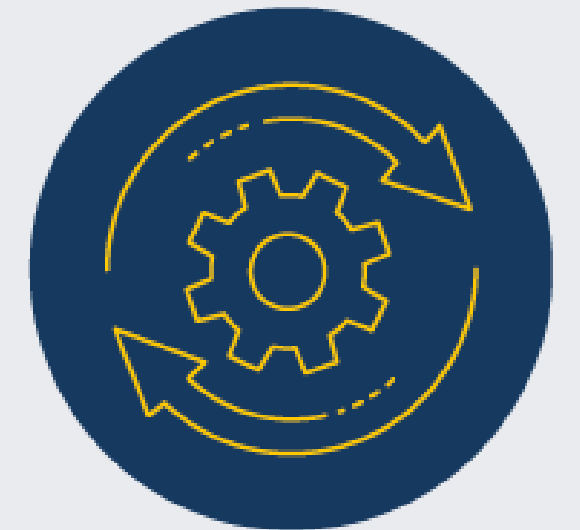
3

Have access to best practices on big data

How do we support you?

1

Various data sources, software tools and big data techniques



2

Advice and ongoing onboarding support from the CEF BDTI Team



3

Knowledge base that provides insights to the platform and big data techniques



Supporting smart education with BDTI.

The challenge

- Technology helps provide better use of information, higher support for life-long learning for all citizens and stakeholders by using education smart services that are flexible and intelligent. **Smart education** applications will engage people in active learning environments that allow them to adapt to the rapid changes of society and the environment.
- Using **big data** in this context helps create a knowledge-based society, which will enhance competitiveness. Big data in education is generated mainly by collecting data on people (e.g. students, teachers, parents, administrator), infrastructures (e.g. schools, libraries, computing facilities, educational locations, museums, universities), and information (e.g. courses, books, exams, grades, economic surveys, assessments, reports, ect.). This data can create a useful resource for analysis and extracting useful trends, models and using them to offer better and more enhanced education.

The opportunity

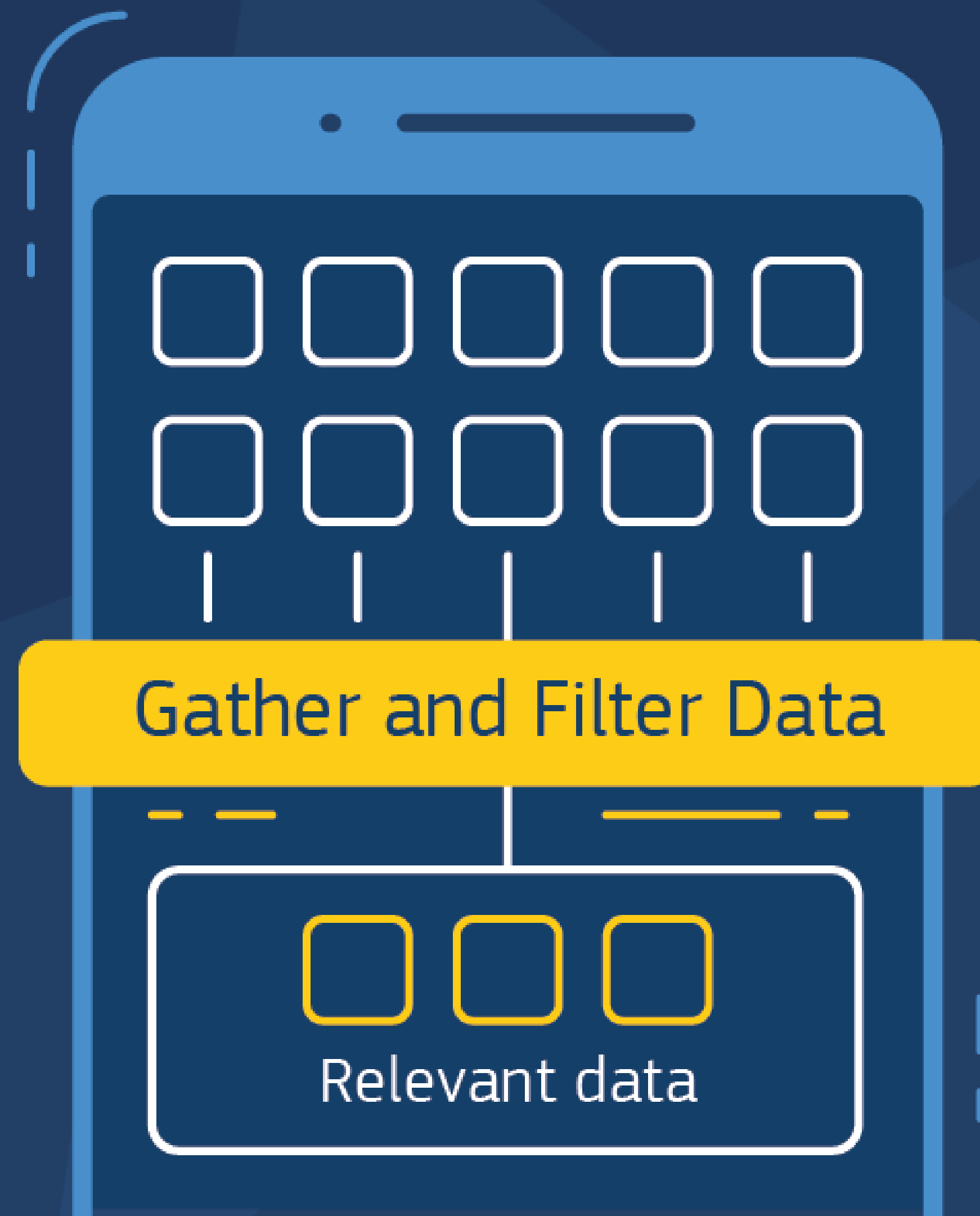
- **BDTI** provides a series of solutions that will help public educational organisations analyse and process correctly their data. BDTI supports the different elements of data processing, from data collection to data ingestion, transformation, analysis, exploration and visualisation. The test infrastructure allows users to request a virtual testing environment which provides a pre-configured and ready to use sandbox for analytics experiments. This will permit educational organisation to launch pilot projects on big data and data analytics allowing them to verify and test data hypotheses, methodologies or data visualisations. Once the pilot is completed, the institutions has the choice of publishing their data and sharing it with other parties through our data catalogue and data exchange APIs. BDTI can be used to support public educational organisations to personalise learning, create communities of practice or to observe educational shortages that will enhance study curriculums.



Meet

Context Broker

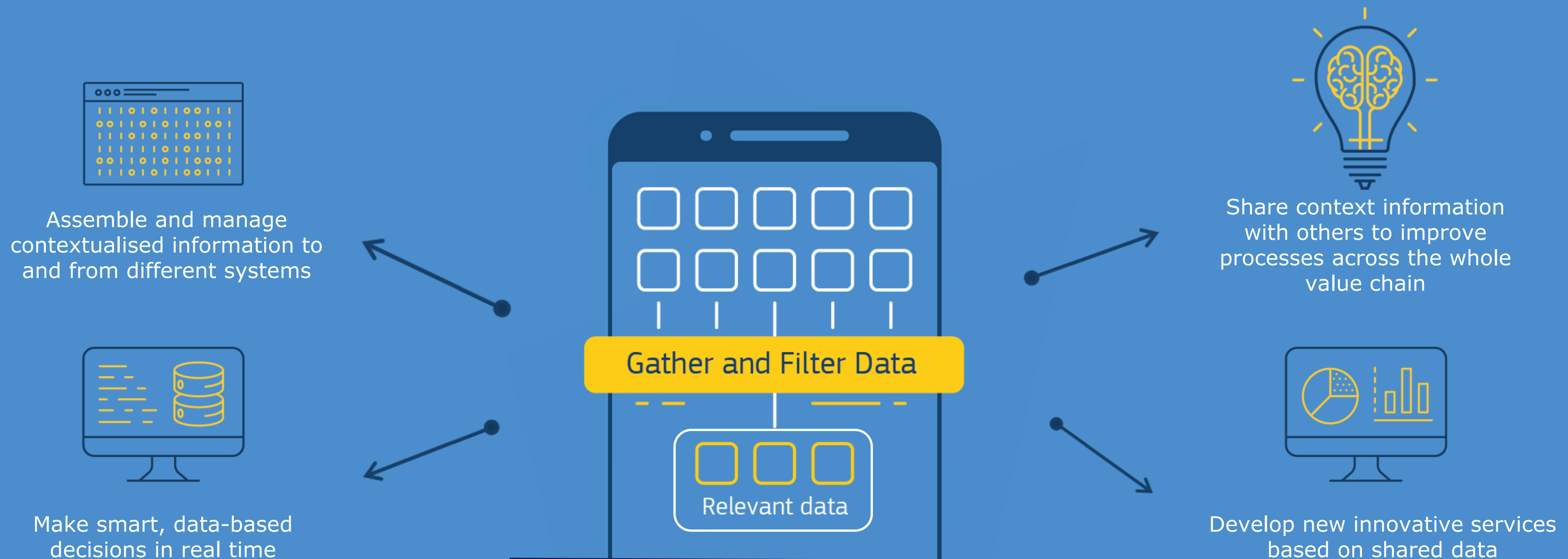
Make data-driven decisions in real time, at the right time



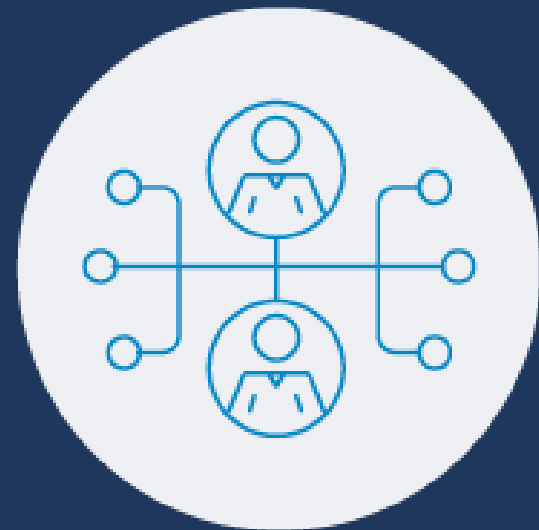
Is Context Broker for me?

Yes, if you need to collect data from multiple sources to gain deeper insights

What we can help you achieve



Main Benefits



1

Smarter decisions faster by leveraging broad-based, real-time context data



2

Standards-based ecosystems exploiting the same data, ensuring scalability



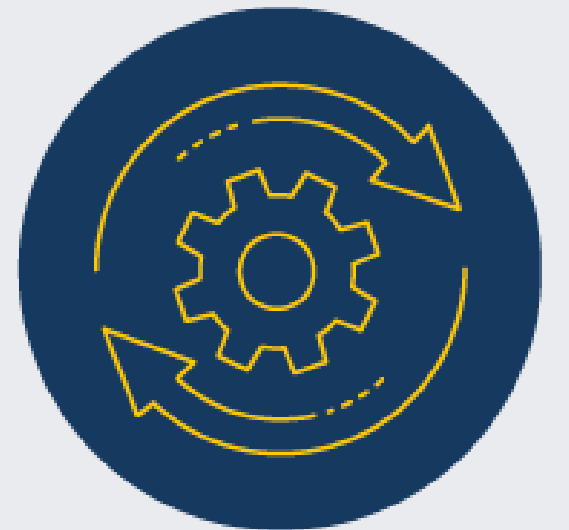
3

Faster time-to-market thanks to specifications and reference implementations

How do we support you?

1

A set of standards and sample software with clear documentation



2

Connectivity and conformance testing services in sandbox



3

Support through our service desk and online community



Air pollution mitigated and reduced with Context Broker

The challenge

- Cities collect large data sets from traffic, air pollution, public transport and citizen behavior data. However, how can the collected data be contextualized to help cities make better decisions? And to understand processes, see patterns and provide solutions before problems escalate?
- Take for example pollution as an example. Air pollution forms a serious public health risk in urban environments. Many European cities are confronted with increasing air pollution and associated health problems. Barcelona, the second most populous city of Spain, is one of them. Learn how Context Broker helped Barcelona address this challenge.

The solution

- Context Broker enabled the city of Barcelona to find an air pollution solution that would provide real time pollution data. This helped the city to find and understand the pollution sources better, and to tackle the pollution issue.
- Context Broker centralises and provides context to data coming from a wide variety of sources, such as air pollution data. Providing data context helps public administrations make informed decisions with real time data that is already filtered, organised and labelled. In other words, it puts data into perspective. This helps to make data-driven decisions in real time, at the right time.
- Contextualize your data and make smart, data based, decision in real time with Context Broker.

[Read the story](#)



Meet

eArchiving

Store and preserve digital
information cost-efficiently over
the long term

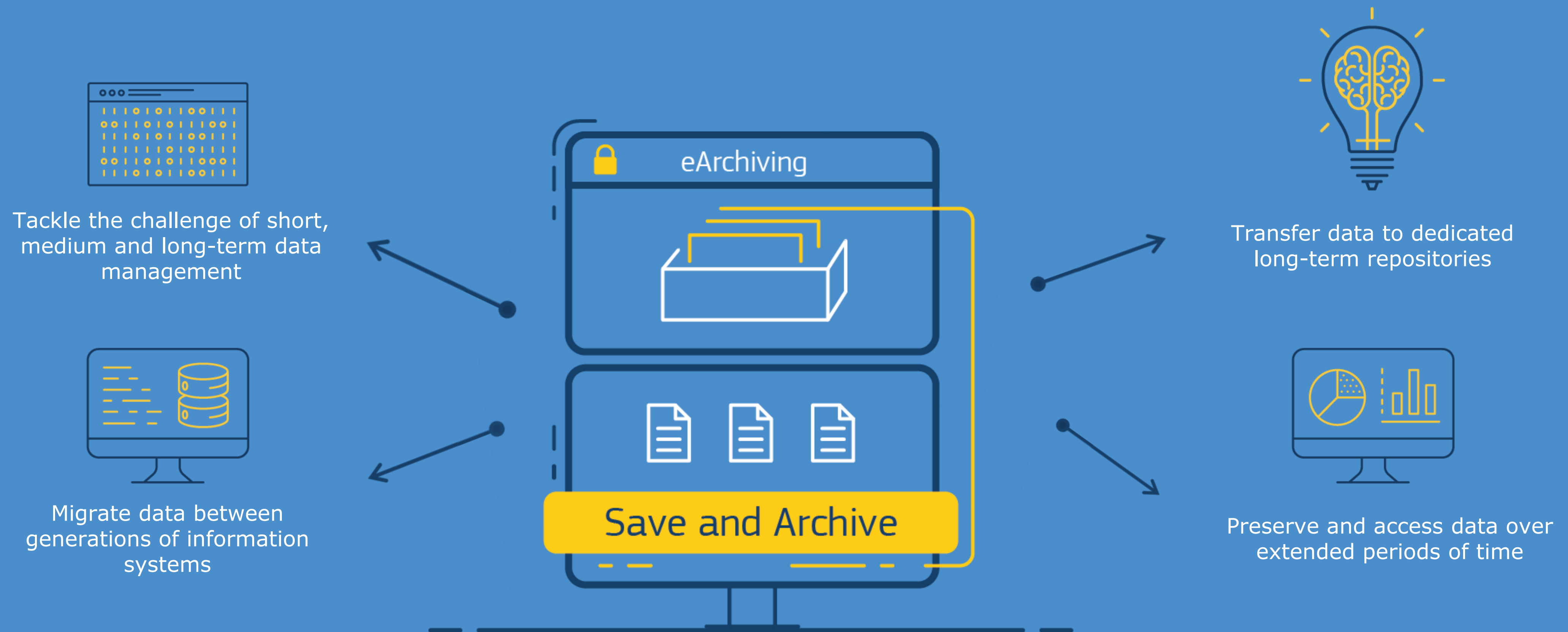
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Is eArchiving for me?

Yes, if you need to guarantee access to your information in the future.

What we can help you achieve



Main Benefits



1

High-level security ensured by standards



2

Interoperability to package and transmit archival data between entities



3

Scalable digital archival systems from small to large

How do we support you?

1

A set of standards and sample software



2

Consultancy and training in digital preservation risks and their mitigation



3

A maturity model to assess the information governance in your project



Standardising digital archiving in Europe with eArchiving

The challenge

- Archives are a national treasure. They protect national documents for decades, even centuries and require careful archiving. Today, this archiving process is not always digitally yet. Complexity, cost and security concerns occupy, for example, national archives looking for digital solutions.
- Take for example the Danish National Archives. It hosts more than 5,1000 databases in their inventory and processes more than 220 databases annually, equaling to 22 terabytes of data in 2017 alone.
- Facing different European standards and specifications for digital archiving, the Danish National Archive looked for a pan-European solution at, preferably, low cost and high quality. eArchiving was the solution.

The solution

- eArchiving facilitated the Danish National Archive digital transformation project with a universal set of standards and specifications for transmitting, describing and preserving digital data.
- eArchiving helps to protect and maintain nation's digital information, making it easier to access it anywhere at anytime. eArchiving helps public and private sector organisations to meet legal archiving obligations cost-effectively with the least amount of legwork. This helps to describe, transmit and preserve data based on international standards to future proof archiving solutions for the long run.

[Read the story](#)



Meet

eDelivery

Exchange data and documents
securely and reliably



Is eDelivery for me?

Yes, if you want to exchange documents and data with the confidence of registered delivery services.

What we can help you achieve



Main Benefits



1

Interoperability to enable a variety of organisations to exchange data and documents



2

Security, legal assurance and accountability promoting trust, transparency and confidence



3

Scalability and performance regardless of the number of participants or messages exchanged

How do we support you?

1

A set of specifications and sample software with clear documentation



2

Services to test deployment and configuration of AS4 Access Point



3

Support through our service desk and online community



Council of the EU's information platform with Member States with eDelivery

The challenge

- When the Council of the EU planned to upgrade its document distribution service, they identified the need for a platform that would allow both Council Members and the General Secretariat of the Council (GSC) to securely share data and consumer information, no matter if it is in the form of documents or metadata.
- But how could the Council of the EU do that?

The solution

- eDelivery enabled the Council of the EU to build 'the council information exchange platform (CIxP), to securely exchange documents between the Council of the EU and Member States.
- eDelivery addresses European public and private sector organisations' needs to exchange digital data and documents securely and reliably. This helps organisations to set up and operate their own message exchange infrastructures, such as CIxP. eDelivery is based on the open source AS4 protocol and follows the eIDAS Regulation's security requirements

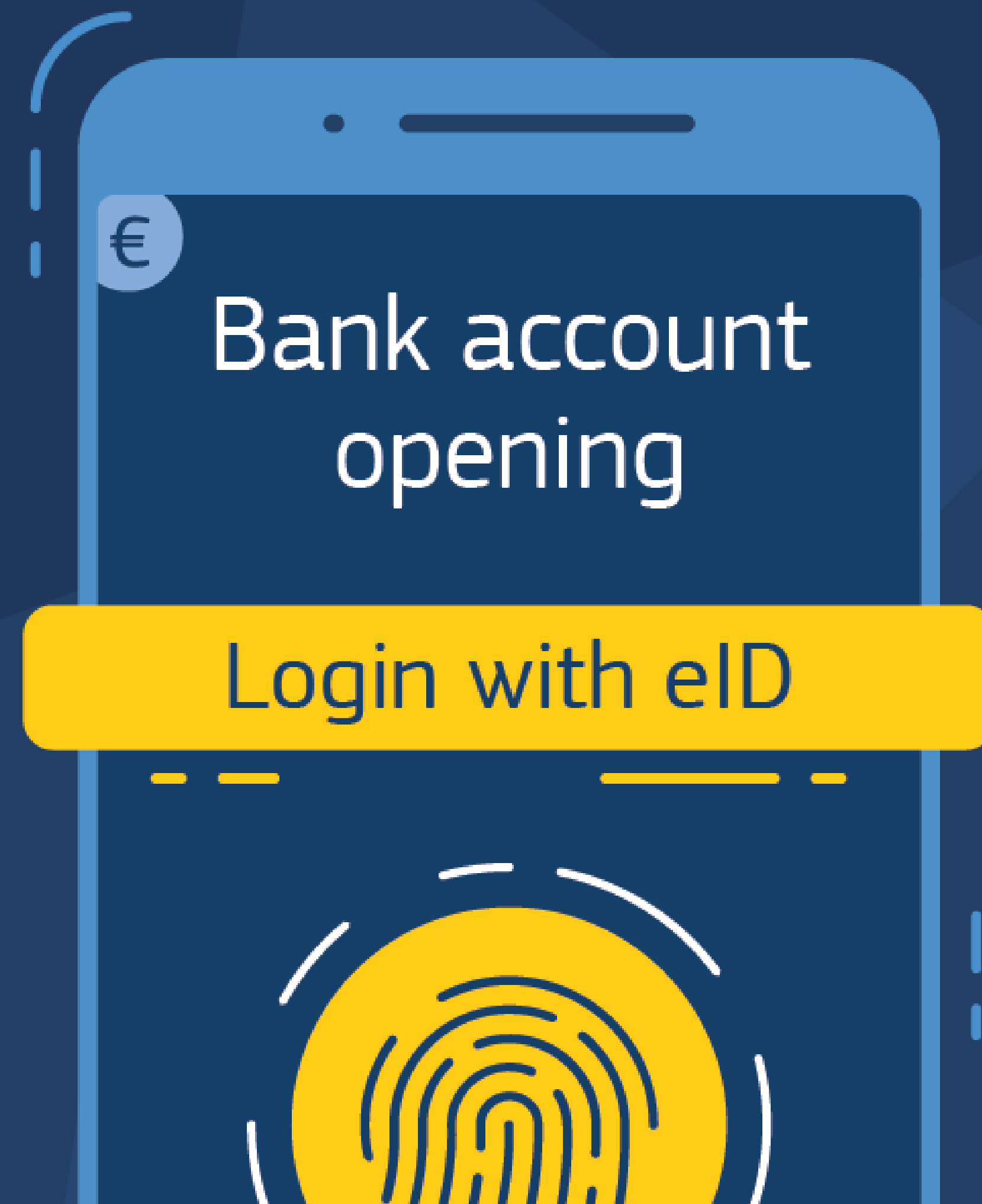
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Meet

eID

Offer digital services capable of electronically identifying users from all across Europe



Is eID for me?

Yes, if you need to identify citizens from other Member States.

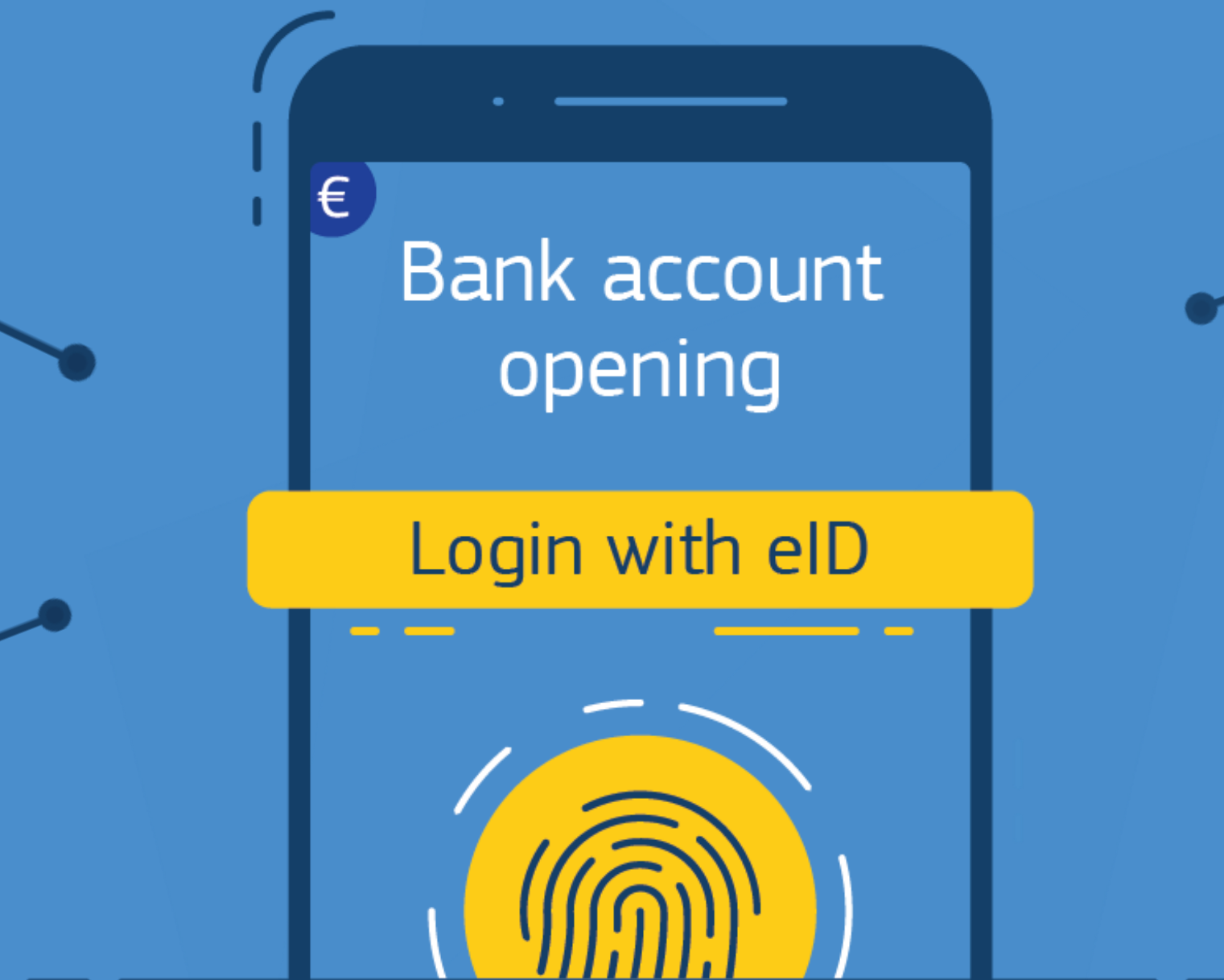
What we can help you achieve



Connect to the eIDAS network
and offer services to citizens
from other Member States



Become compliant with the
eIDAS regulation



Have your national eID
recognized in other countries



Increase the user base of
your services

Main Benefits



1

Interoperability to ensure that other countries' national eID schemes can be used to access your public services



2

Trust in the legal validity and status of online transactions across borders



3

Security and low risk of identity theft by choosing a higher Level of Assurance (LoA)

How do we support you?

1

Read our country overview to learn more about your Member State's approach



2

Find your country's Single Point of Contact



3

Extensive documentation detailing how eID works and its benefits for Europeans



Making Dutch public services accessible to European citizens with eID

The challenge

- More and more Europeans are using electronic identification means to access public and private online services in their country. But what happens when someone travels to another European country?
- Take the example from the beginning of this presentation, a Dutch municipality experiences that 20% of their service requests are made by EU residents. This high presence of non-Dutch residents created specific demands and strains on the administrative procedures. What if the non-Dutch but EU residents could use their nationally issued eID would ease the process?

The solution

- eID helped this project to leverage the European eIDAS legal framework and interoperability infrastructure for cross-border recognition of eID, rather than building a new system from the ground up.
- The Dutch municipality was convinced by eID because it is interoperable, ensured legal validity of transactions across borders and the same legal status as paper processes and ensures a lower risk of identity theft and misuse of personal information.
- eID helps to electronically identify citizens, businesses and public authorities across Europe. eID supports the creation of the technical infrastructure and offer services to help public authorities get started in complying with the eIDAS regulation. This solution will enhance economic growth and sustainable development by ensuring access to both public and private online services across borders in an easy to access, secure and cost-effective manner for European citizens.

[Read the story](#)



Meet

eInvoicing

Send and receive electronic
invoices in line with the European
directive and standard



Is eInvoicing for me?

Yes, if you need to send or receive electronic invoices.

What we can help you achieve



Implement eInvoicing in
public procurement



Be compliant with the
eInvoicing Directive
(2014/55/EU)



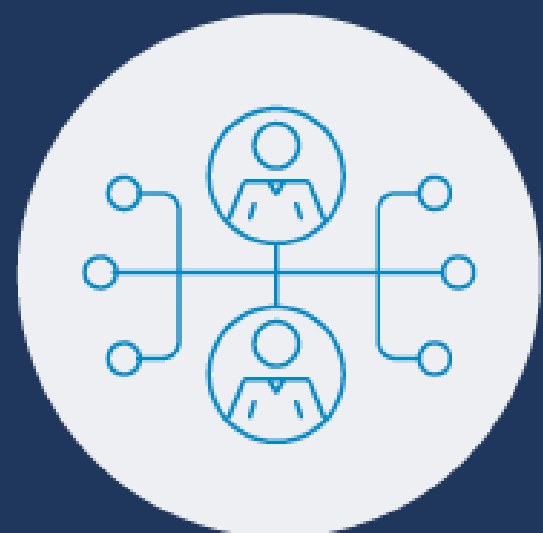
Implement the European
Standard on eInvoicing



Ensure continuity of business (for
public sector suppliers)



Main Benefits



1

Support in the implementation of the eInvoicing Directive (2014/55/EU)



2

Reduced learning curve to implement B2G eInvoicing



3

Improved integration with other eProcurement processes

How do we support you?

1

Tools and services to support in eInvoicing implementation



2

Effective and ongoing support from the CEF Digital Team



3

Knowledge base that provides insight, such as Member State statuses



Connecting the private and public sector with eInvoicing

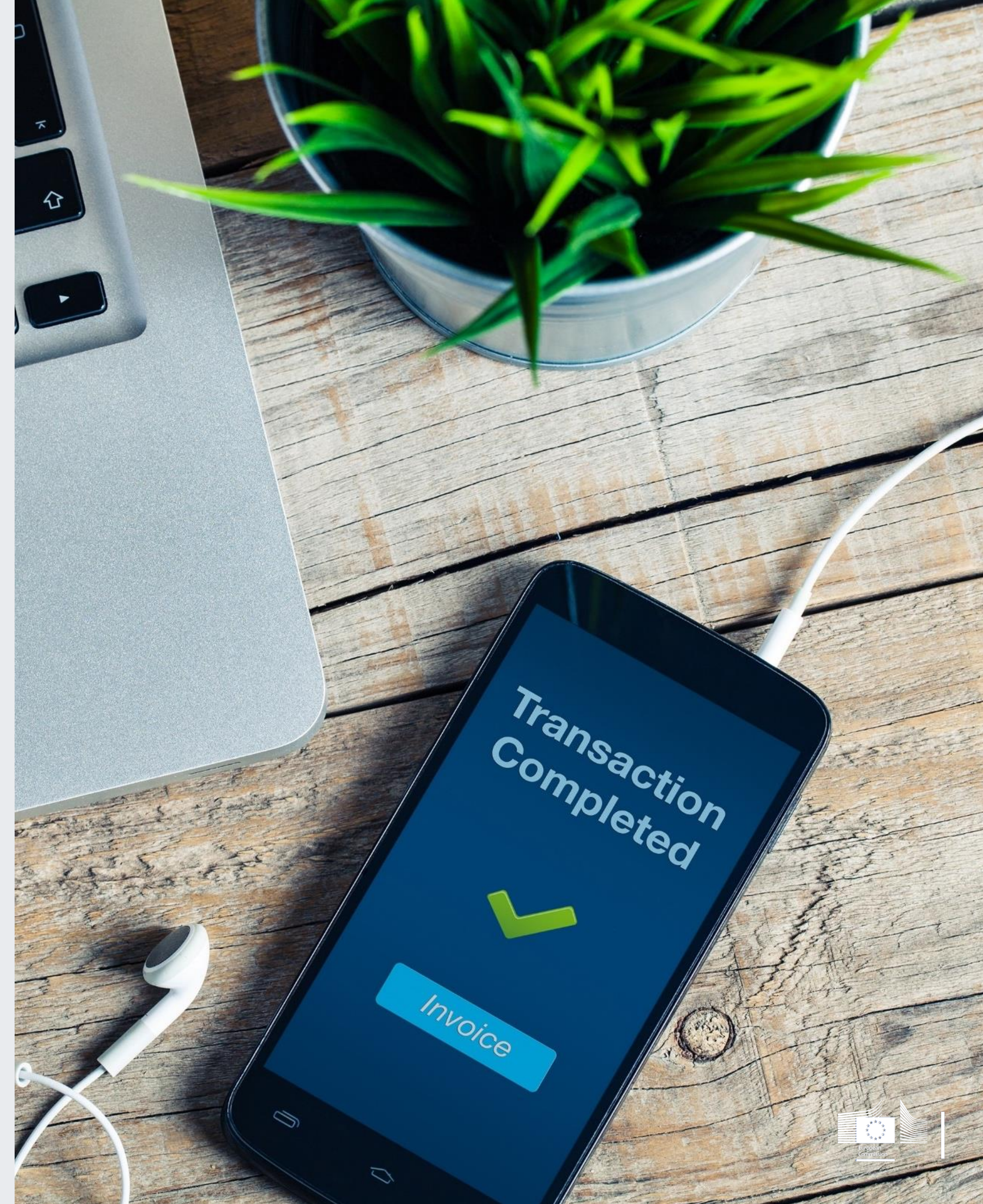
The challenge

- Even though most invoices in Europe are in digital format today, they cannot be automatically processed and paid. Electronic invoicing aims to change this and transform the European invoice process to completely digital.

The solution

- “ Less manual work, fewer errors, faster payments”, is the feedback from a Dutch energy provider that implemented eInvoicing for B2G and B2B payments. eInvoicing helped the private firm to improve administrative processes by reducing costs and time on administrative tasks.
- eInvoicing supports the compliance with the eInvoicing Directive, enabling contracting authorities across Europe to receive and process electronic invoices according to the European standard on eInvoicing. eInvoicing is the foundation for EU-wide adoption of eInvoicing in public procurement.
- eInvoicing is secure, safe and often cheaper than paper invoicing.

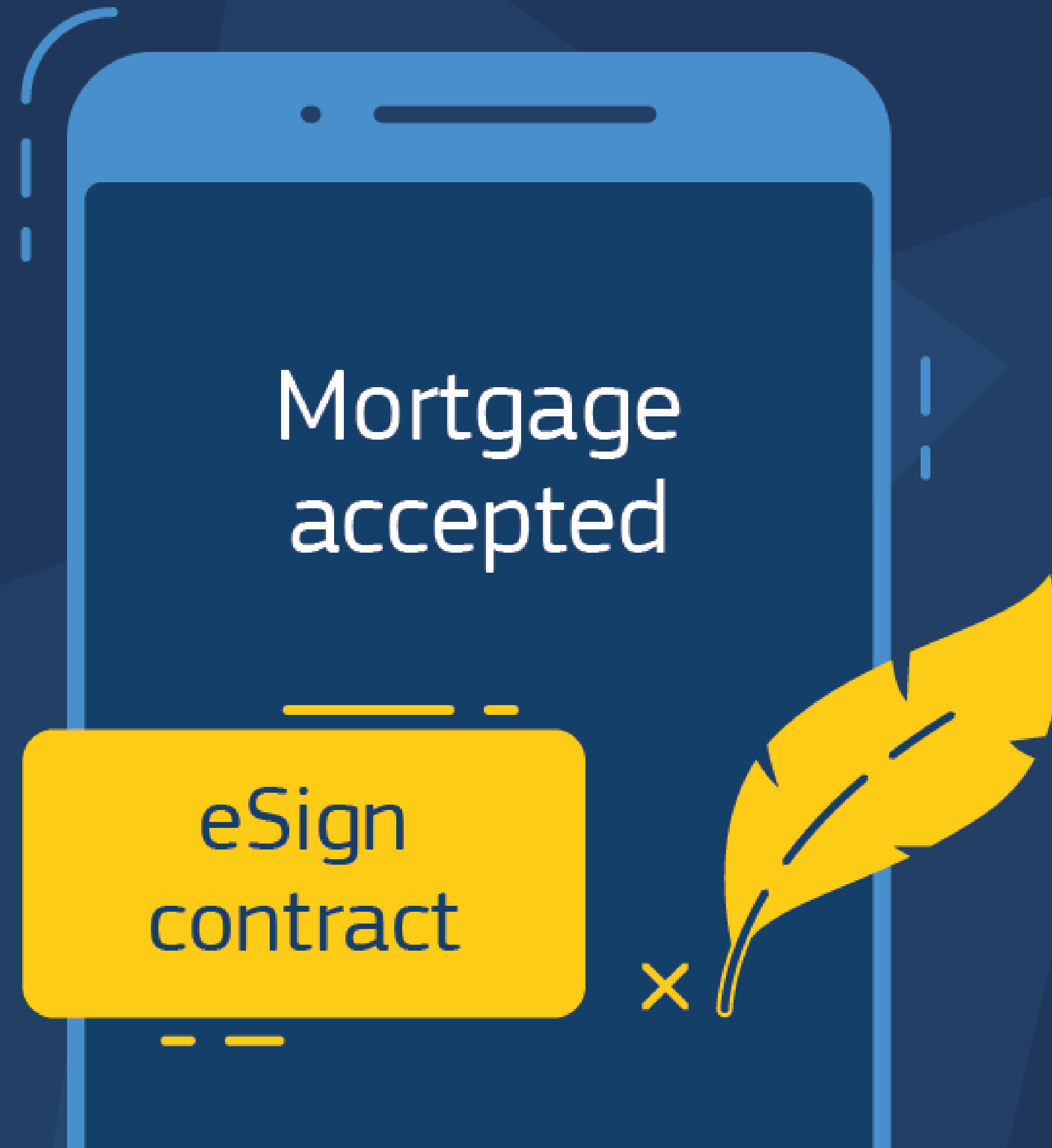
[Read the story](#)



Meet

eSignature

Create and verify electronic signatures in line with European standards



Is eSignature for me?

Yes, if you need to sign and ensure origin and integrity of your documents across borders.

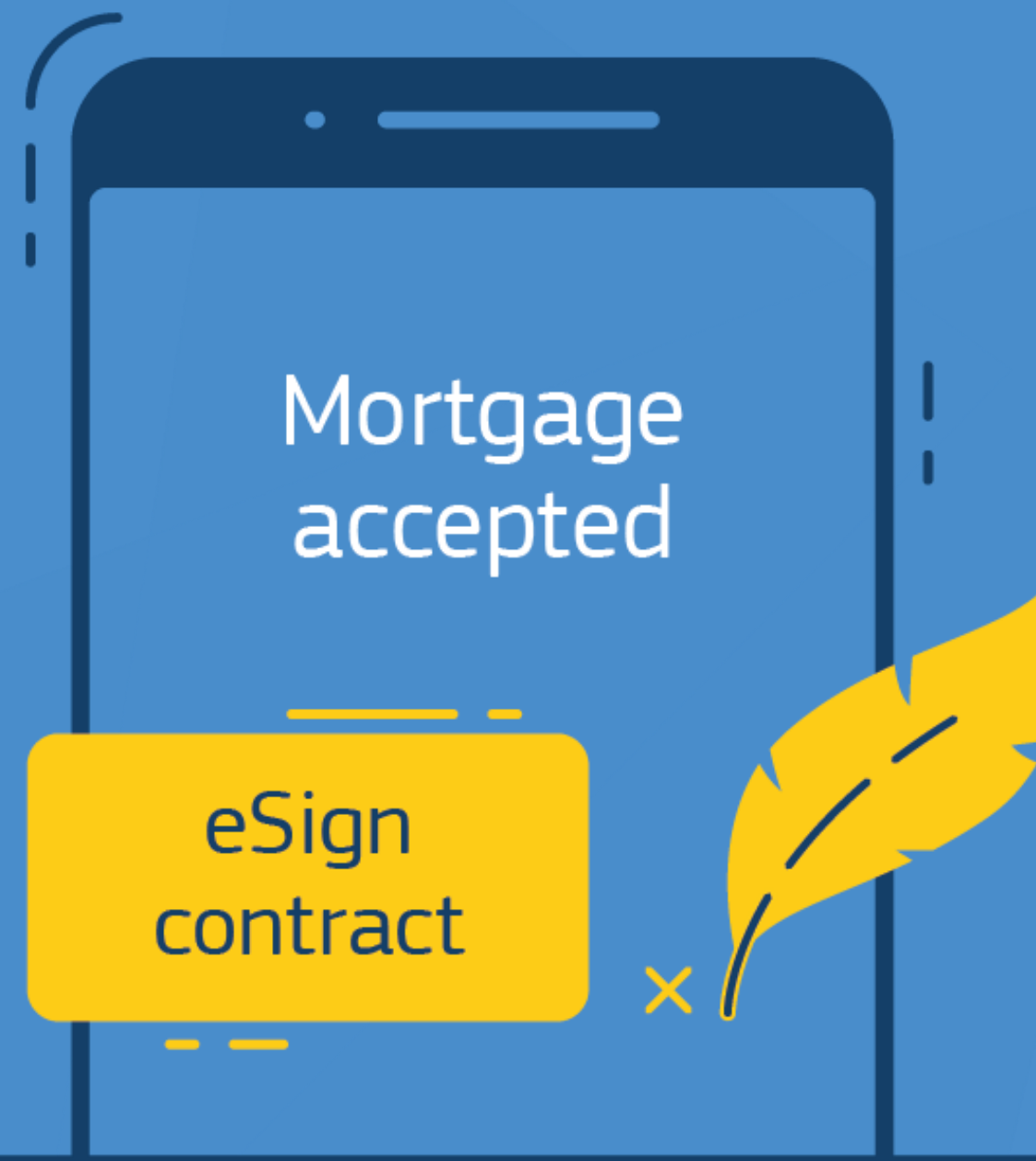
What we can help you achieve



Transform paper-based procedures into secure and seamless electronic interactions



Enables interactions between businesses, citizens and public authorities



Benefit from the mutual recognition and cross-border interoperability of e-signatures



Sign and ensure origin and integrity of your documents in an easy way

Main Benefits



1

Reduces time, costs and environmental impact by not having to print and send paper documents



2

Protects documents from duplication or alterations



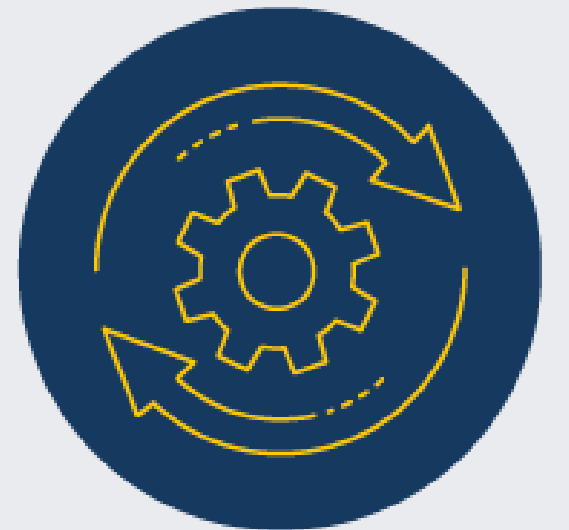
3

Improved user experience thanks to fast response times and document processing

How do we support you?

1

A free service package with the open-source library DSS, or support in the use of EU Sign (for Commission agents and agencies)



2

A solution based on sustainable and secure European standards



3

Support through our service desk



Signing EU regulation with eSignature

The challenge

- Businesses, citizens and authorities sign many documents by pen on paper, daily. This is time consuming, can lead to security breaches and in a digital age, there must be a better solution.
- The European Commission introduced eSignature to improve the legislative signing process in 2017.

The solution

- eSignature transforms paper-based procedures into a secure and seamless electronic interaction between businesses, citizens and public authorities.
- eSignature helps to create and verify electronic signatures more efficiently and paper free. Like a handwritten signature in the offline world, an electronic signature is a legal concept capturing the signatory's intent to be bound by the terms of the signed document. The eSignature solution is compliant with the eIDAS Regulation, secure and most importantly, recognised all over Europe.

[Read the story](#)



Meet

eTranslation

Enable multilingual public services
and communication



Is eTranslation for me?

Yes, if you need to communicate in different languages.

What we can help you achieve



Main Benefits



1

High quality machine translations drawing on decades worth of work by EU translators



2

Intellectual Property Rights of the translation remain with the owner of the original text



3

Fast translation into multiple languages at once

How do we support you?

1

eTranslation web service to use for on demand translations or to integrate into your digital platform



2

A dedicated service desk to support you in the integration



3

The European Language Resource Coordination (ELRC) network identifies and gathers language resources to improve translation quality



Connecting Member States with eTranslation

The challenge

- Many member states share their borders with fellow member states. Close proximity often translates into close cross-border trade. However, many obstacles lie in the way of cross-border cooperation. One is a language barrier.
- Take the example of Croatia, Slovakia and Slovenia, three countries in central Europe, and their attempt to open their national eProcurement process across borders. With eProcurement, the management of public tenders was set to be simplified to shorten the bidding cycle, increase transparency and boost innovation.
- Yet, the member states needed to ensure that the platform and tenders seamlessly translate into Croatian, Slovak and Slovene.

The solution

- TendersForAll, the platform interconnecting the three countries procurement systems, integrated with eTranslation to translate all the tendering information for potential suppliers in their language. This breaks down language barriers and increases cross-border procurement for the three countries.
- eTranslation breaks down language barriers by offering machine translation tool to public authorities. The service covers all EU languages, as well as Icelandic and Norwegian, by translating digital text on demand and by automatically populating multilingual digital content and services. eTranslation services enhance process efficiencies and reduce costs.
- High quality machine translation draws on decades worth of work by EU translators, offering excellent results for EU policy and legal documents. It is confidential, secure and simplifies translation processes by providing fast translation into multiple languages at once.

[Read the story](#)



Ready to get started?

Reach out to us to learn more!

Or visit our website www.ec.europa.eu/cefdigital

