The Connecting Europe Facility Building Blocks

COP25 Summit 6 December 2019: "*Supporting urban decision making to address SDG goals and compliance with climate change mitigation regulations*"

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Connecting Europe Facility

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Networks, Content and Technology

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.

DIGITAL EUROPE (association representing digitally transforming industries)

Vision 2025

"A Europe where digital technologies, innovation and artificial intelligence can provide Europe's people with competitive jobs, better health and better public services. A strong unfragmented DIGITAL EUROPE that takes leadership ***in creating digital Inclusion, Green growth, Innovation, Trust, Agile mission-based policy making*** *that drives prosperity and creates benefits for European society and leads globally in an open economy."*

Source: Tallinn Declaration

Digital transformation presents new challenges

New EU-wide regulations are being designed to support the ongoing digital transformation, e.g.:

- eIDAS (electronic Identification, Authentication and trust Services);
- GDPR (General Data Protection Regulation);
- eInvoicing Directive (electronic Invoicing in public procurement)

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 **gov and businesss build digital services** which comply with EU regulations?

Source: Tallinn Declaration

Standards.

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.

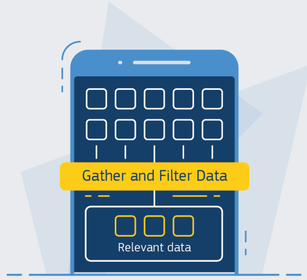
We call these basic digital components

Building Blocks.

Data Economy

Big Data Test Infrastructure

Experiment with big data in a safe environment



Context Broker

Collect & share real-time data from multiple sources

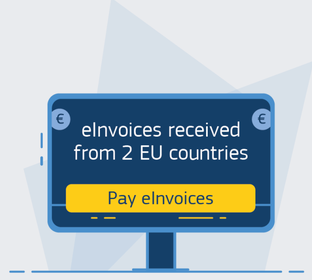
eArchiving

Store and preserve digital information

European Blockchain

Provide a multi-lingual public service

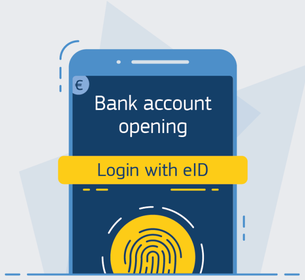
eInvoicing Directive



eInvoicing

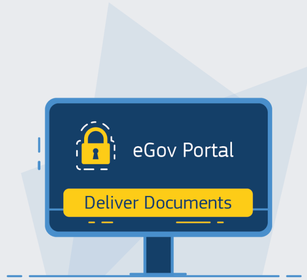
Send and receive electronic invoices

eIDAS enablers



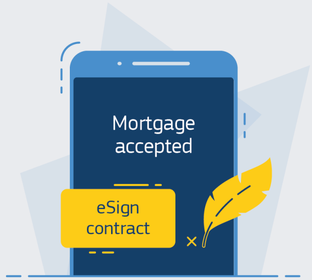
eID

Securely identify European citizens



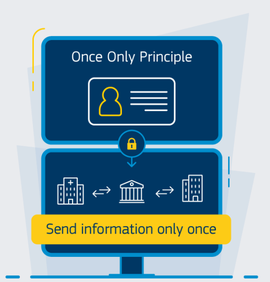
eDelivery

Exchange data and documents securely



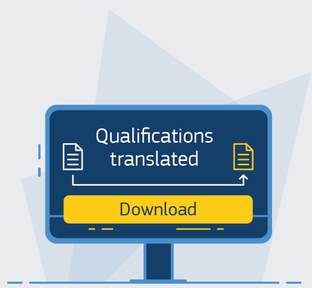
eSignature

Create and verify legally recognised electronic signatures



Once Only Principle

Re-use data held by Public Administrations.



eTranslation

Provide a multi-lingual public service

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 to use a building block?

Build, buy or reuse the building blocks by your own. Co-develop the solution or partner with other parties.

Co-develop and partner

With other parties

Build

The solution from scratch based on a European standard

Buy

A compliant solution from the market

Reuse

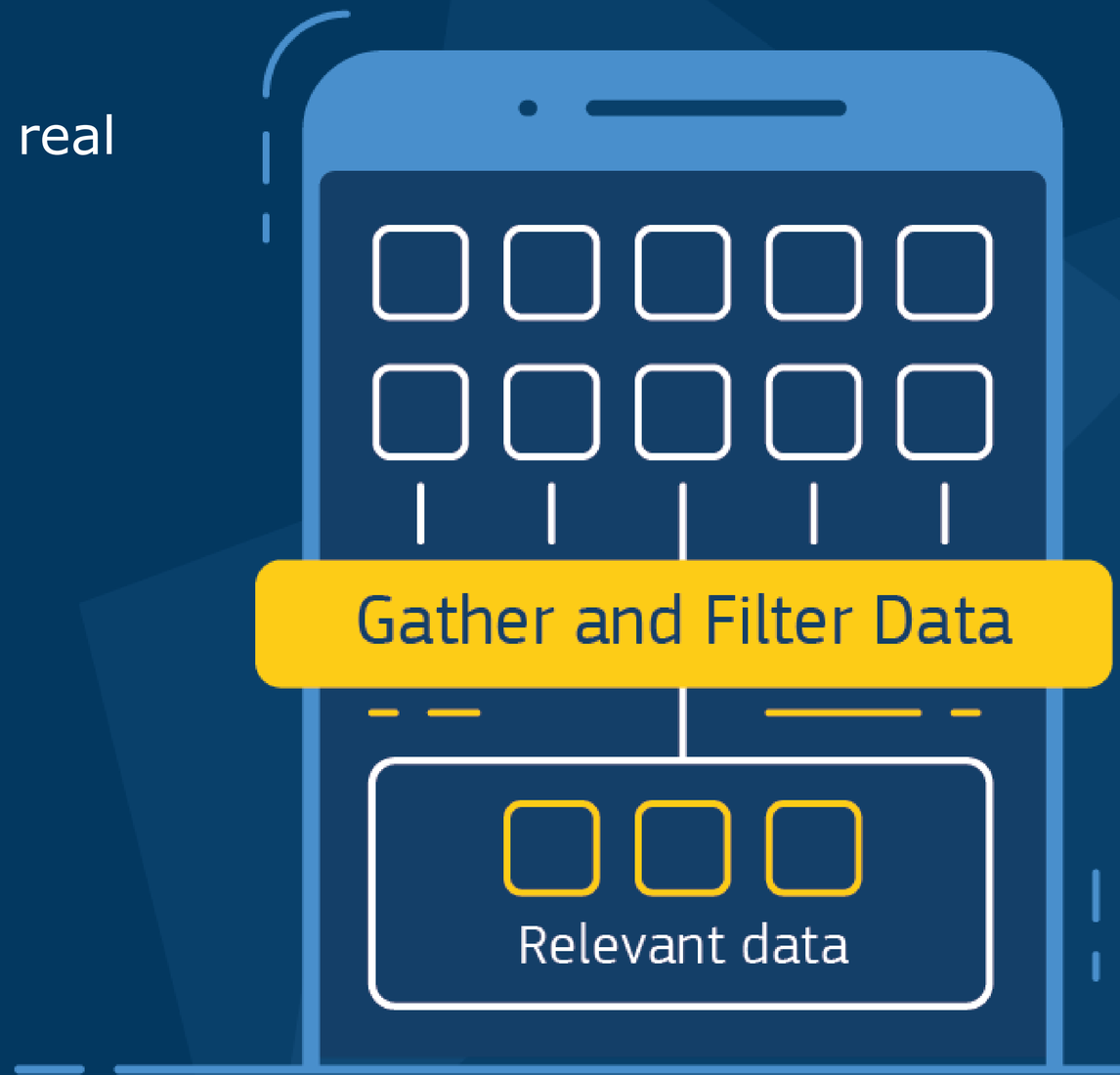
A sample software available on CEF website

European Standards

Meet

Context Broker

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

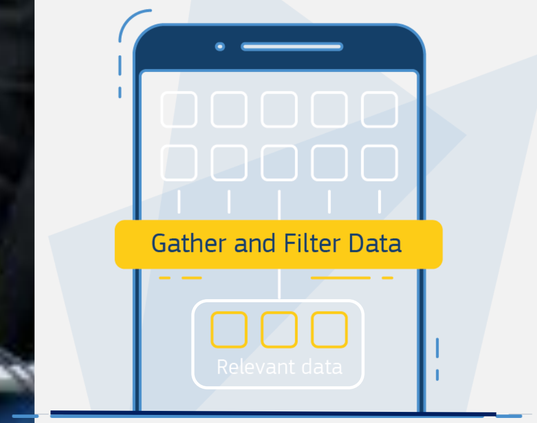


Context Broker to empower Dutch cyclists to choose healthier routes

Cycling is a healthy and **climate neutral** way of getting around…

…however**, not all routes are equally healthy for cyclists**, considering the exhaust emitted by motorised vehicles on busier streets.

Context Broker to empower Dutch cyclists to choose healthier routes



- ✓ Utrecht conducted a successful pilot project in which cyclists were handed out **air quality sensors** for their bikes
- ✓ The sensor, called **Sniffer Bike**, also conducted anonymous tracking of cyclists to identify habits and determine where new bike paths are needed based on traffic
- ✓ This means that the number of users could significantly grow in the near future, potentially stimulating inter-regional collaboration for improving infrastructure, all the while promoting **climate neutrality**

Reducing air pollution in

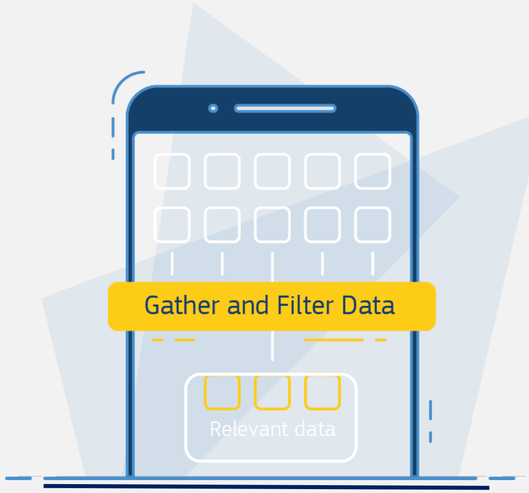
Barcelona

Barcelona’s poor air quality is thought to cause about **3,500 premature deaths a year**

The city implemented a number of policies and efforts and measured air quality at 12 discrete locations using expensive sensors but **had no way of monitoring real-time pollution data**.

Reducing air pollution in

Barcelona



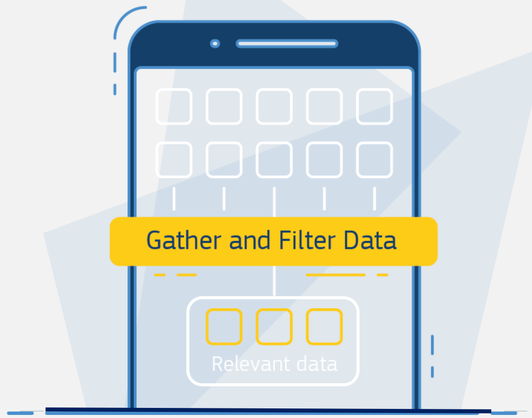
- ✓ Barcelona deployed a network of **gas sensors** which provide realtime air monitoring.
- ✓ In order to be able to process that new volume of data, they needed the **Context Broker** in order to contextualize all that information.
- ✓ **Now Barcelona can make decisions based on real time information.**

Saint-Quentin address concerns about the use of water in the city’s green spaces

Saint-Quentin, a medium-sized city in northern France, wanted a fresh approach to improving its public services by **combining Internet of Things** (IoT) technologies, **open data** and expertise from **local SMEs**.

Saint-Quentin’s irrigation methods were **based on intuition** and procedures, rather than data on soil humidity, water penetration or temperature.

Saint-Quentin address concerns about the use of water in the city’s green spaces



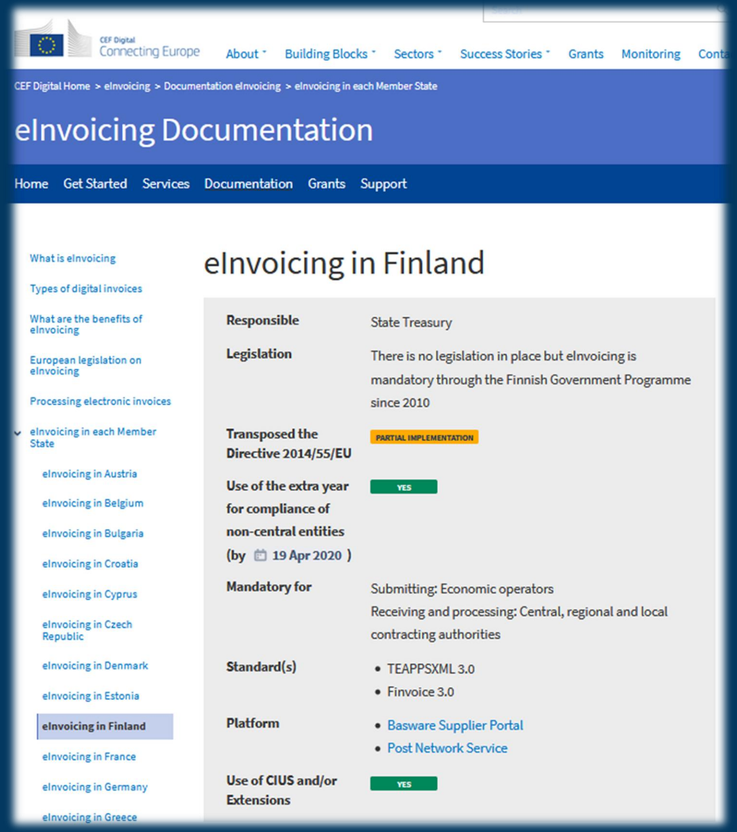
- ✓ The smart solution was made up of an ecosystem of various technologies, such as **sensors**, **robot lawnmowers** and **sprinklers**
- ✓ The Context Broker building block **integrated all devices and their data** with its data consolidation and analysis capabilities.
- ✓ The solution was provided by a local SME: an innovative interoperability platform called **the IoT Booster.**
- ✓ The IoT Booster user interface specifies **which sections of the field need watering** and even **calculates the exact amount of water required**.

Meet

eInvoicing

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

eInvoicing country factsheet



Finland

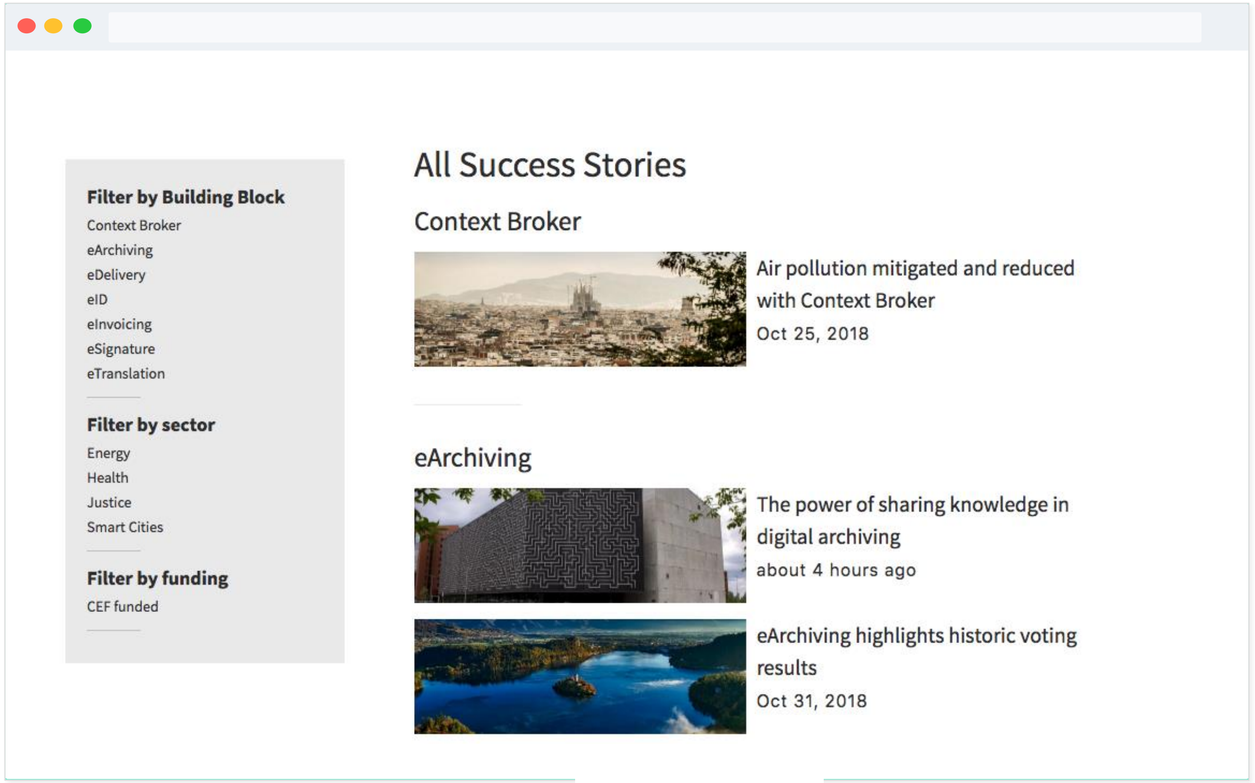
In 2015, the Finance Finland produced a Study report of the climate impact of accounting automation in the context of a commitment to foster sustainable development through the use of efficient digital financial management systems.

This study concluded that accounting automation can be expected to reduce the climate impact of a company by 80 to 90%. The main challenge for Finland remains the need to get rid of its domestic formats and to automate eInvoicing processes.

Success Stories

All our success stories provide insights into how projects have implemented the building blocks.

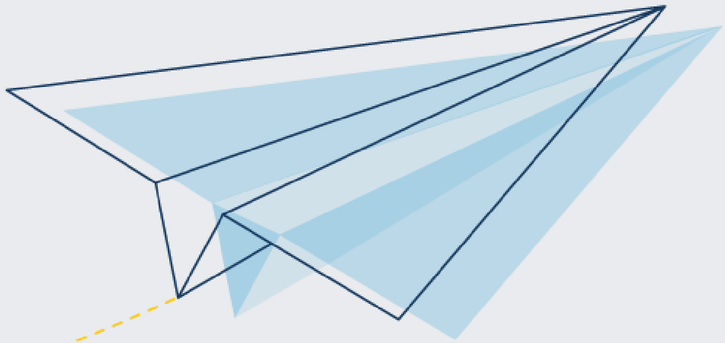
Read the Success Stories



https://ec.europa.eu/cefdigital/wiki/x/uwLvB

Ready to get started?

Reach out to us to learn more!

Email CEF-BUILDING-BLOCKS@EC.EUROPA.EU

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