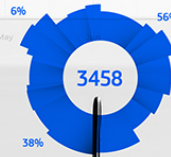


analytics



data

# Paving the way for EU data-driven administration

Marc Vanderperren

European Commission, DIGIT.D1 Data Services

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DATA.**platform**  
use more data in your work

*Big and open data for EU supreme audit institution  
27-28 November 2019, Luxembourg*

# Towards data-driven organisations...



## **evidence-based policy making**

From HiPPO and policy-based evidence making ...  
... to well-informed decisions grounded on data

## **transparency**

From access on "legitimate interest" ...  
... to open data by default

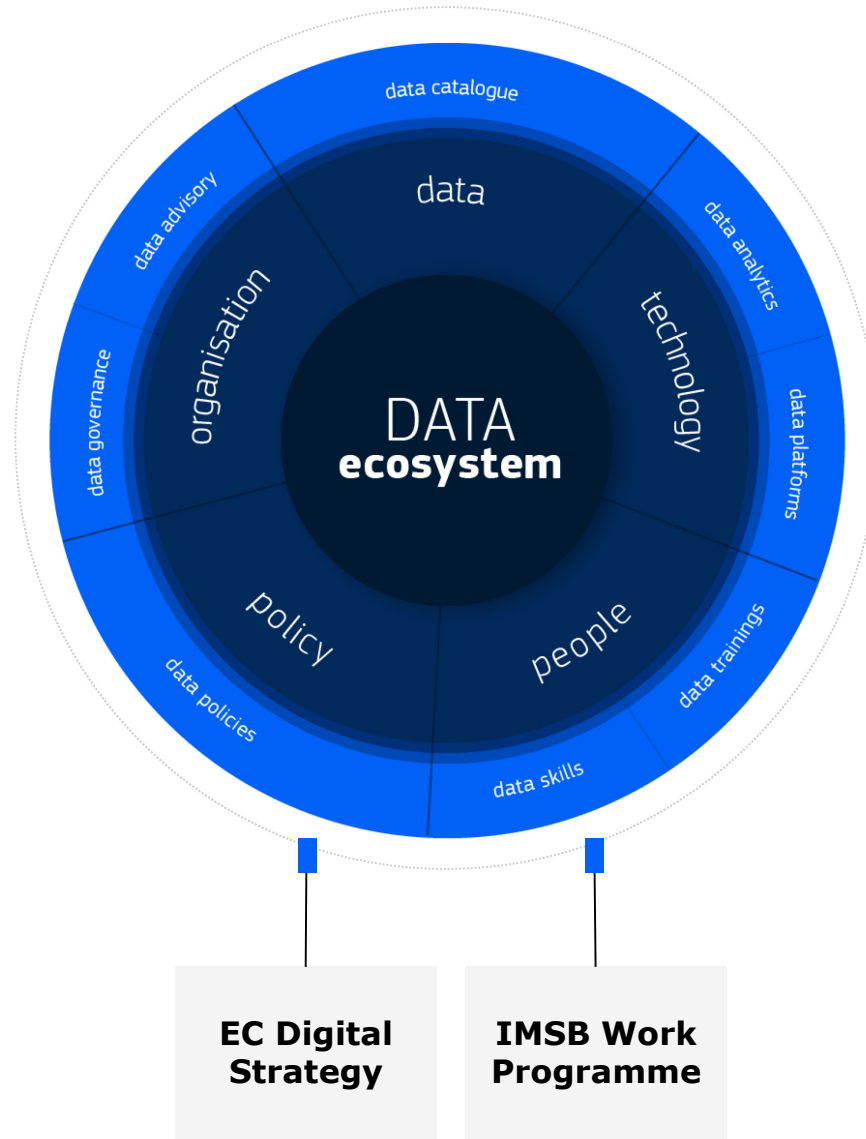
## **internal efficiencies**

From gut feelings ...  
...to data-driven optimisation

## **innovation and new services**

From business as usual ...  
... to digital transformation

# EC Data Strategy & Ecosystem

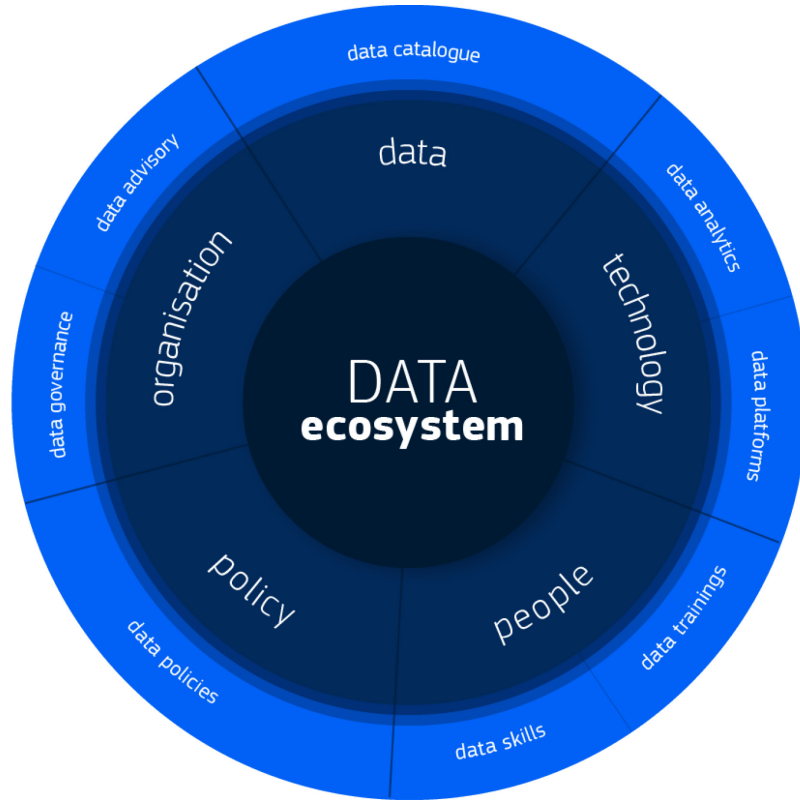


The European Commission published a new **Digital Strategy** and **Data Action Plan** in 2018

Transform the European Commission in a **data-driven organisation**

The **Data Ecosystem** is a system of interconnected human and technological resources, working together to extract value from data and to use it for decision-making.

# Data Platforms



## Actions

Data Catalogue

Data Analytics

**Data Platforms**

Data Governance

Data Advisory

Data Skills

Data Trainings

Data Policies

**EC Data  
Platform**

**Big Data Test  
Infrastructure  
for the Member  
States**



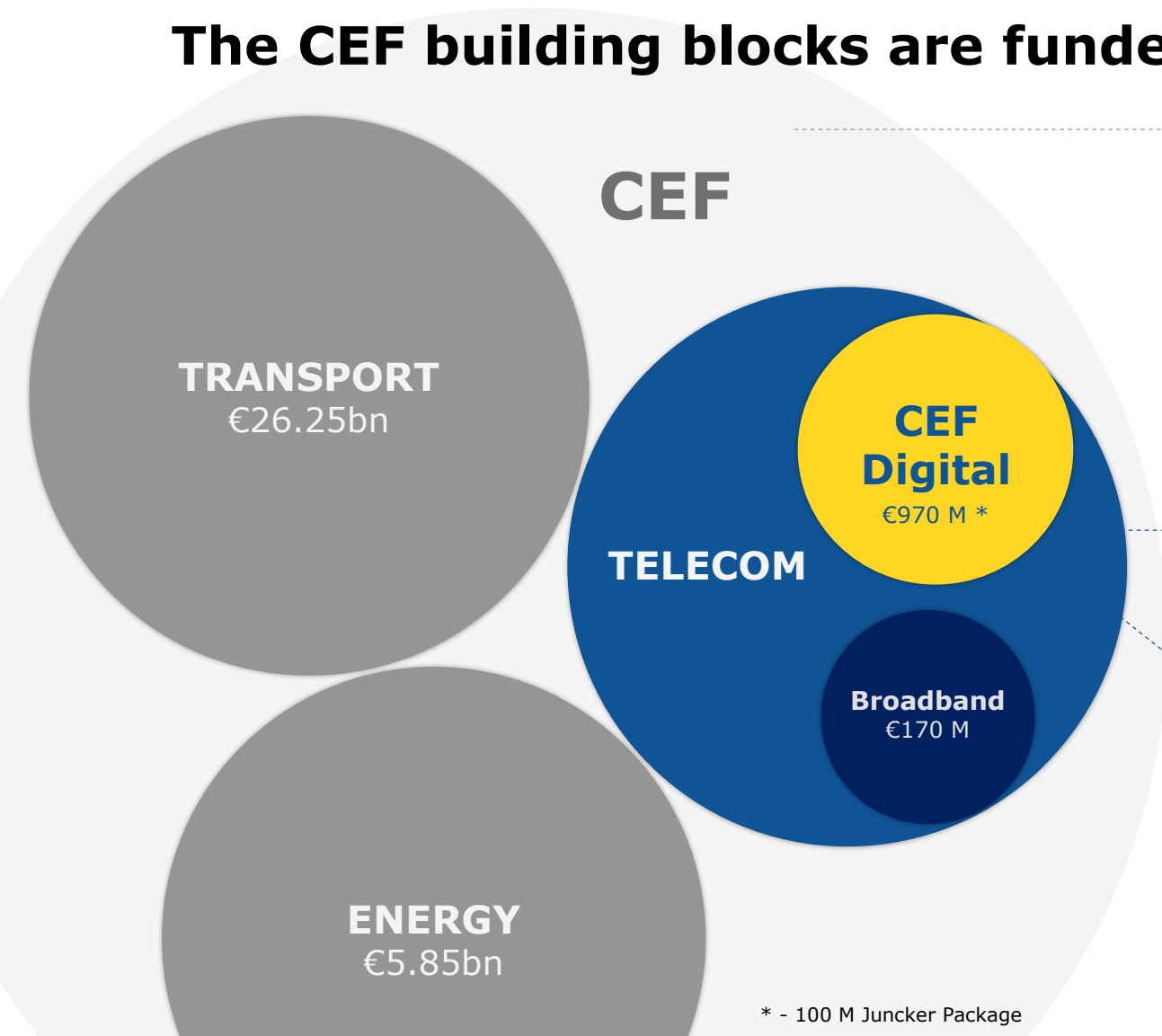
# Big Data Test Infrastructure (BDTI)

**DIGIT**  
Directorate-General  
for Informatics

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



## 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

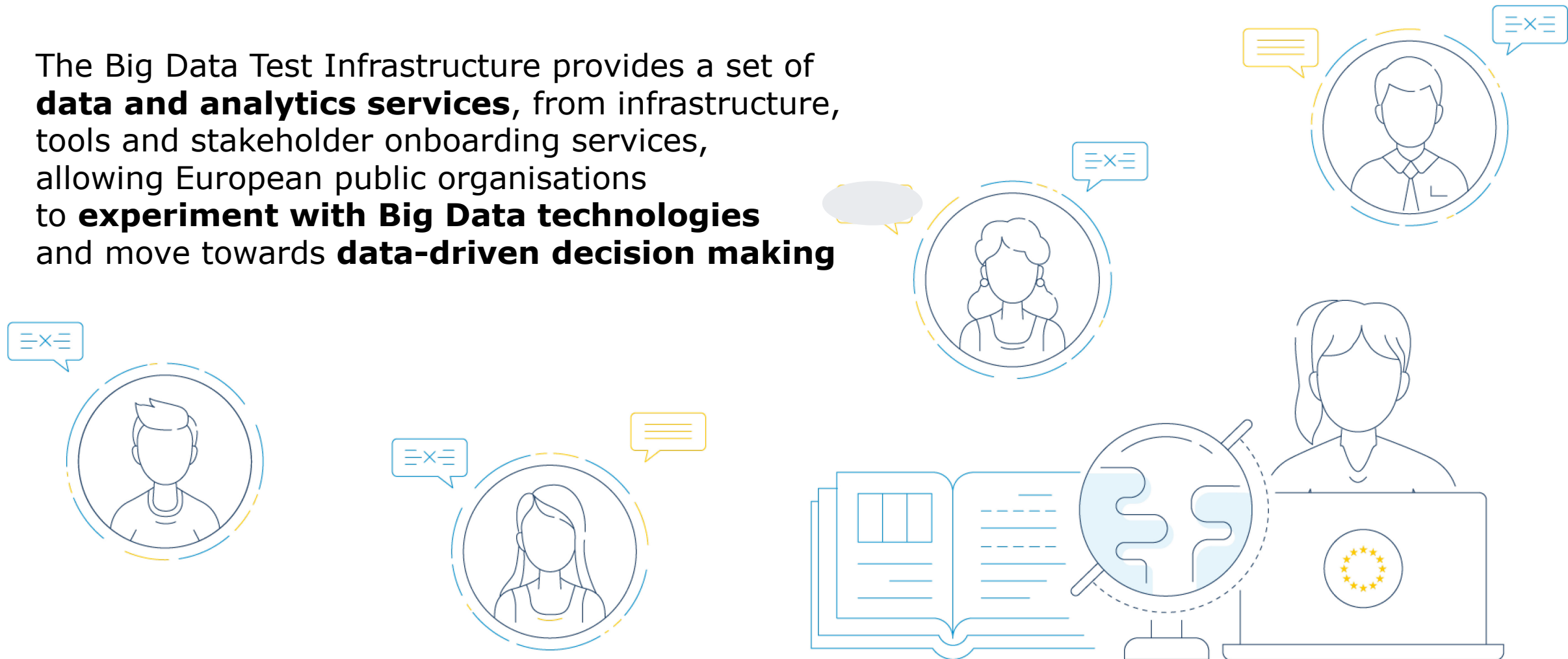
The CEF Telecom guidelines cover the specific objectives and priorities as well as eligibility criteria for funding of broadband networks and Digital Service Infrastructures (DSIs).

### CEF Work Programme

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

# What is the Big Data Test Infrastructure?

The Big Data Test Infrastructure provides a set of **data and analytics services**, from infrastructure, tools and stakeholder onboarding services, allowing European public organisations to **experiment with Big Data technologies** and move towards **data-driven decision making**



# Is BDTI for me?

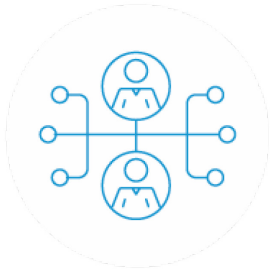
**Yes,** if you need to experiment with big data in a safe environment.

## What we can help you achieve



# Main Benefits

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**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**

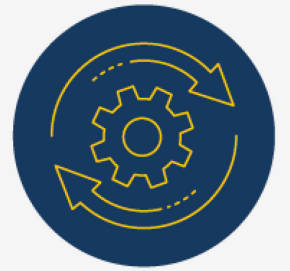
Have access to best practices on big data

## How do we support you?

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**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



# BDTI applicability



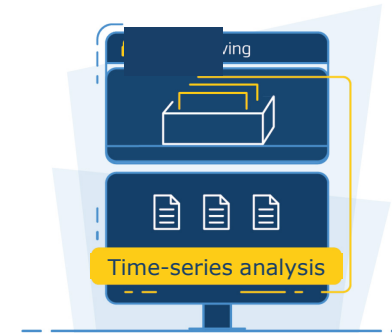
## Descriptive analysis

Use of statistics to quantitatively describe features of a collection of information



## Social Media Analysis

Gather and analyse data from social media to improve business decisions



## Time-series Analysis

Analyse time series data in order to extract meaningful statistics and other data characteristics



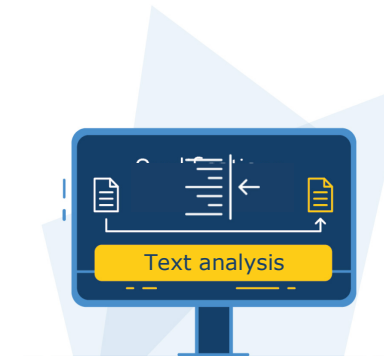
## Predictive analysis

Use statistical techniques that analyse current and historical facts to make predictions about future or unknown events



## Network Analysis

Investigate any structures through the use of network and graph theories



## Text Analysis

Use natural language processing to analyse unstructured text data, to derive pattern and trends

# The EC Corporate Data Platform

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# Corporate data management and analytics

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1

Achieve  
**economies  
of scale** &  
centralize  
procurement of  
tools

2

Provide a **level  
playing field**  
for all DGs

3

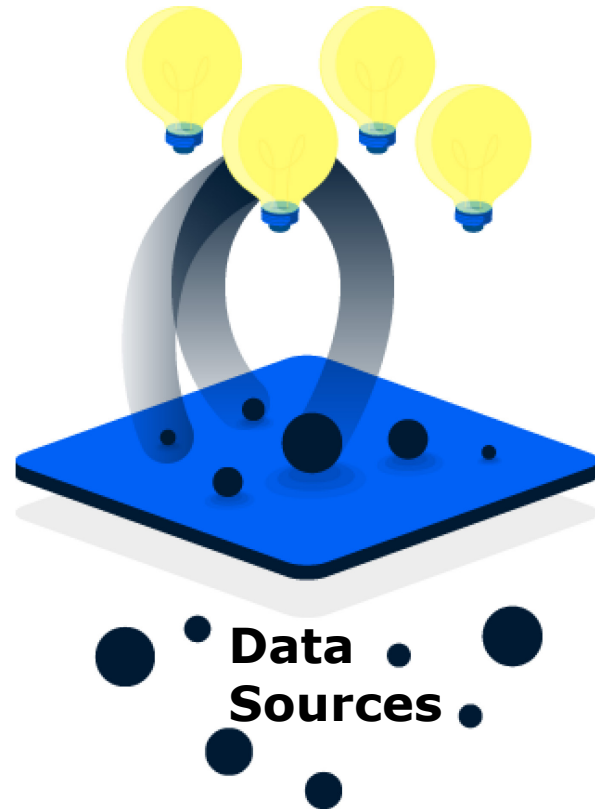
Promote **sharing  
and reuse,  
coordination,** and  
**standardization**

4

Offer a reference  
point for  
**communities  
of practice**



# What is it about ?



## Data as a Service

- Find
- Access
- Extract
- Transform/Consolidate
- Store
- Make available

## Data Analytics Services

- Data Science Lab
- Analytics Software as a Service
- Analytics Implementation
- Reusable Data components

# EC Data Platform Services

## Core Services

### Data as a Service

#### Daas

We help you **find and access the data you need** for your decisions

### Analytics Software as a Service

#### SaaS

We provide you with **ready-to-use online tools** to combine data, perform analytics and create reports

### Data Science Lab

#### PaaS

We provide you with an **environment to experiment with data** using advanced technologies

### Analytics Implementation

We **implement data analytics use cases** for you, from data gathering to visualisation

### Reusable Data Components

We help you build modern IT systems with **advanced data capabilities**

## EC Data Platform

# Who are we doing it for?

## Data as a Service



Myriam  
Policy Officer



Vincent  
IT Architect



Daniel  
Data Scientist

## Analytics Software as a Service



Myriam  
Policy Officer

## Data Science Lab



Daniel  
Data Scientist

## Analytics Implementation



Marta  
Business Manager

## Reusable Data Components



Franco  
IT Manager



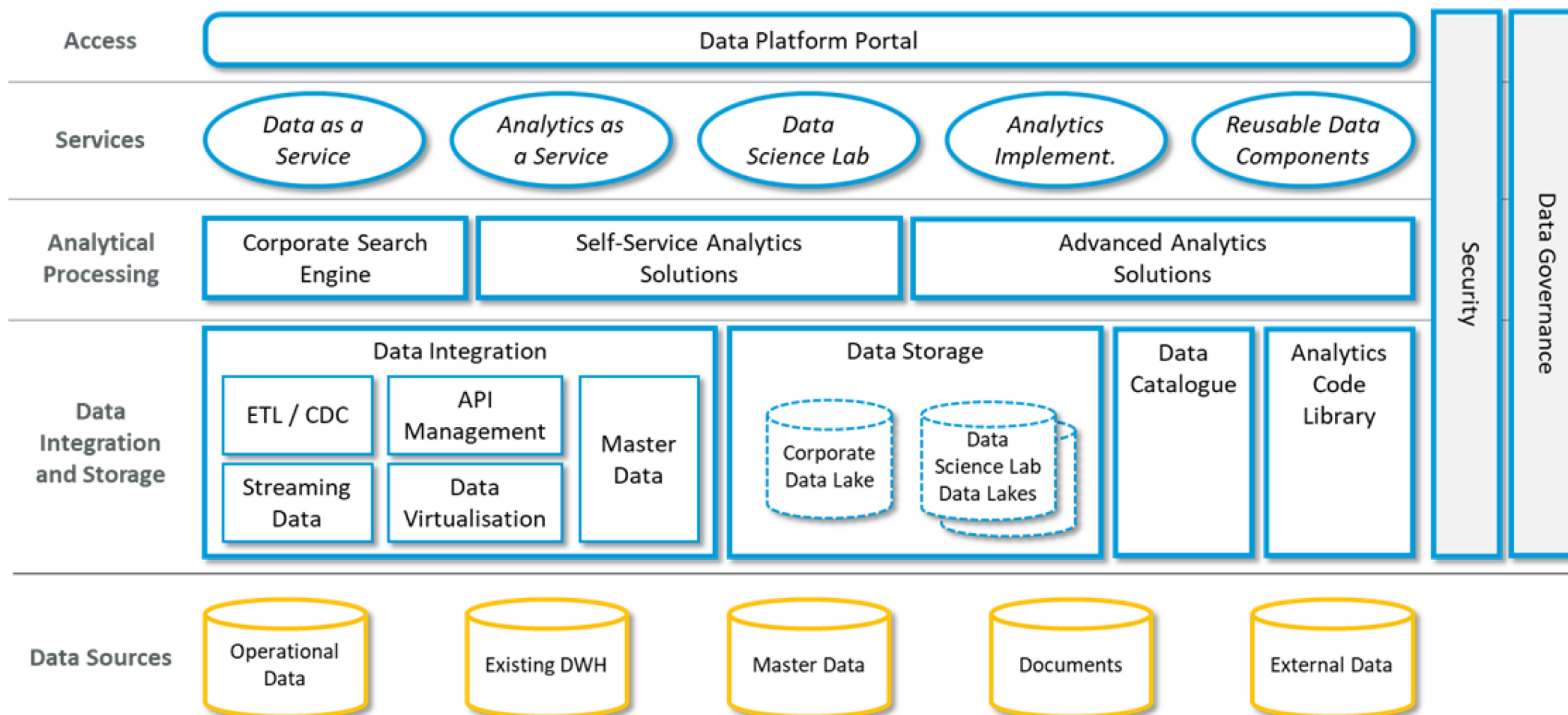
Vincent  
IT Architect

EC Data Platform



**co-design of the services**

# The Architecture Blueprint



# What is already available?

**Request online**



## ■ data science lab

We provide you with an environment to experiment with data using advanced technologies

→ [More about data science lab](#)



## ■ analytics implementation

We implement data analytics use cases for you, from data gathering to visualisation

→ [More about analytics implementation](#)

## ■ data as a service

Coming soon

We help you find and access the data you need for your decisions

→ [More about data as a service](#)

## ■ analytics software as a service

Coming soon

We provide you with ready-to-use online tools to combine data, perform analytics and create reports

→ [More about analytics software as a service](#)

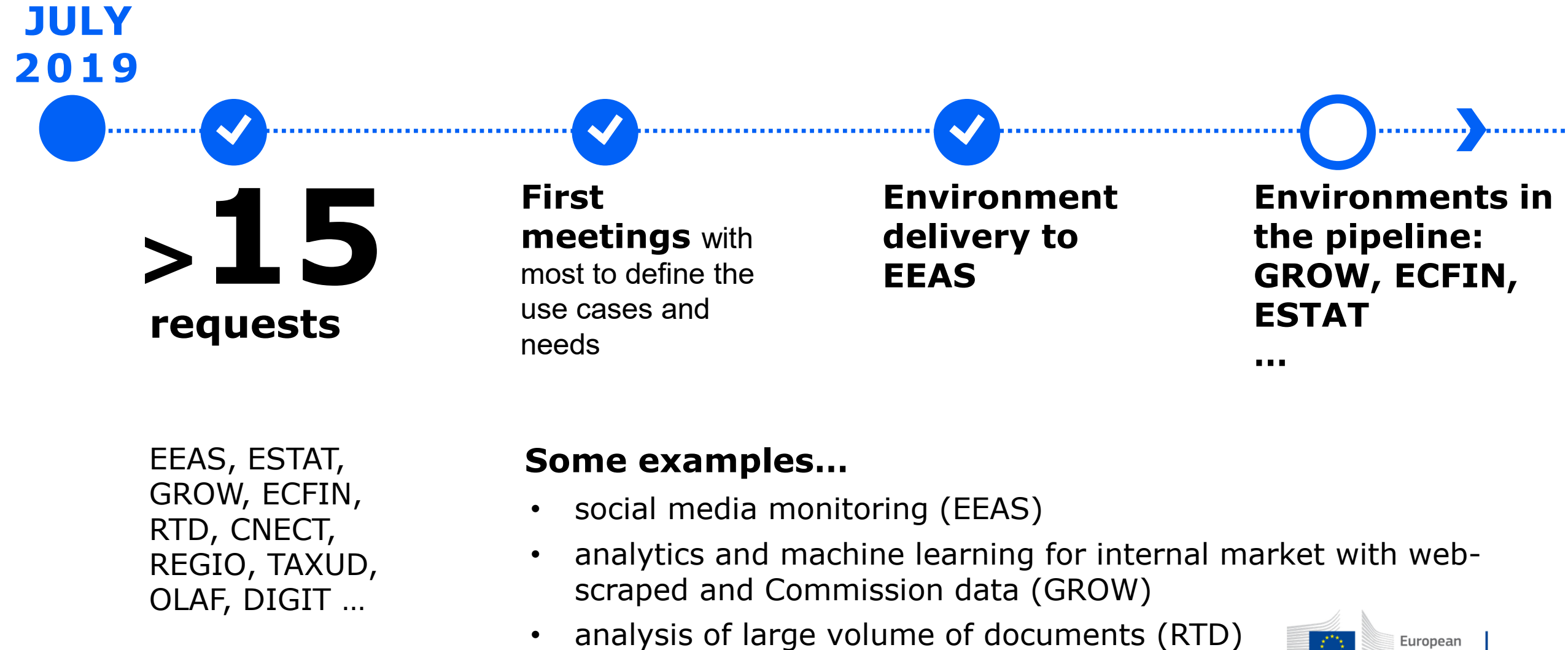
## ■ reusable data components

Coming soon

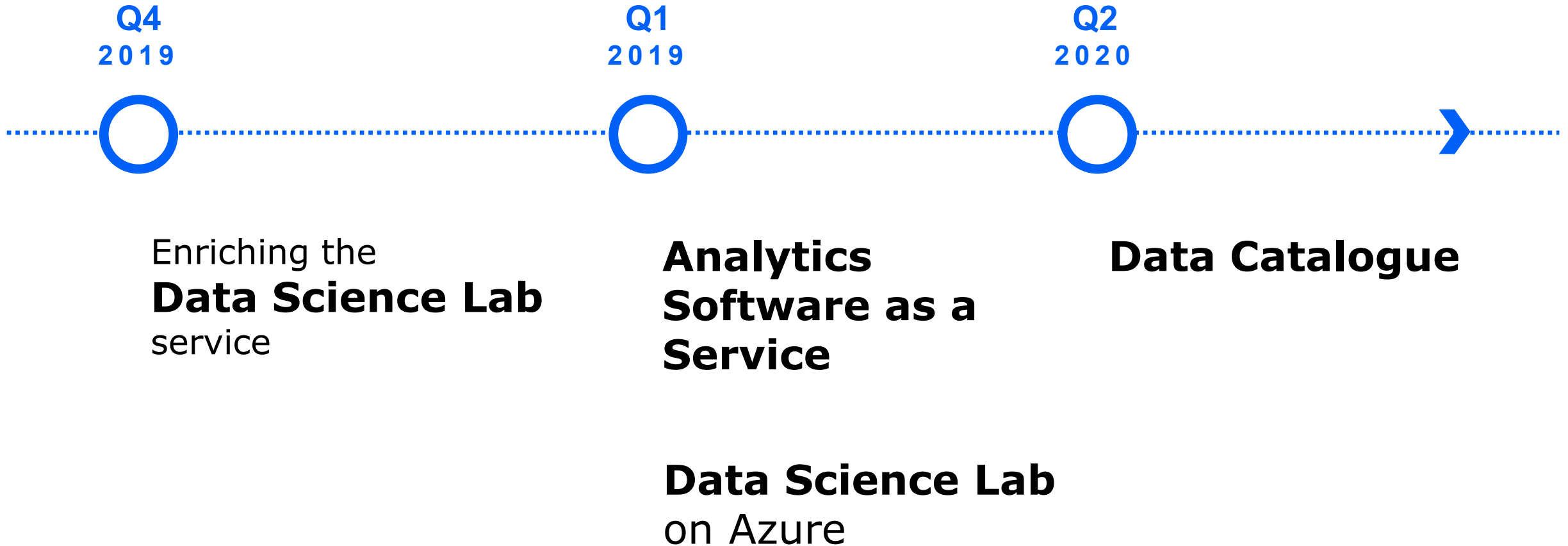
We help you build modern IT systems with advanced data capabilities

→ [More about reusable data components](#)

# Data Science Lab - Where are we ?



# Next upcoming milestones





# Q&A

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## Thank you

# More information about the EC Data Platform services

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## Data as a Service

*We help you find and access the data you need for your decisions*

We offer a **centralised data catalogue** through which you can browse and access the data you need for your policy or administrative decisions.

The catalogue will be populated with data sets coming from different DGs, accessible by everybody (or by a limited sets of users if restrictions apply) through a web portal or APIs.



Myriam  
Policy Officer



Vincent  
IT Architect



Daniel  
Data Scientist

### Our team provides...

- ✓ Search capabilities on the data catalogue
- ✓ Access to the underlying data
- ✓ Support for integrating your data sources in the catalogue

### Your team...

- ✓ Will be able to access the catalogue through a web interface or through APIs

## The Services

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# Analytics Software as a Service

*We provide you with  
ready-to-use online tools  
to combine data, perform  
analytics and create  
reports*



Myriam  
Policy Officer

We offer **centrally managed analytical tools** to be used directly by end-users.

This includes both generic-purpose tools (such as QlikSense) or tools designed to solve specific analytical problems (such as tools for sentiment analysis).

## Our team provides...

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- ✓ Easy access to the tools
- ✓ Maintenance of the tools infrastructure
- ✓ Support for technical issues

## Your team...

---

- ✓ Uses the tools to perform data analysis and visualisation

## Prerequisites

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- ✓ You have a basic understanding of analytics tools, you have the data to be analysed (or the data is in the data catalogue).

## The Services

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# Data Science Lab

*We provide you with an environment to experiment with data using advanced technologies*

We provide a **flexible environment** to innovate and experiment with data, using pre-installed advanced analytics tools (e.g. R and Python) or the freedom to install yours.



Daniel  
Data Scientist

## Our team provides...

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- ✓ Access to users
- ✓ Management & maintenance of the environment
- ✓ Support for technical issues with the environment

## Your team...

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- ✓ Creates algorithms, analyses and/or visualisations on the platform. Installs their tools.

## Prerequisites

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- ✓ You have experience with advanced analytics programming languages, or techniques such as machine learning or AI

## The Services

# Analytics Implementation

*We implement data analytics use cases for you, from data gathering to visualisation*

Our team of BI specialists and data scientists **implements for you** dashboards, reports and more advanced analytics projects to extract insights from your data.



Marta  
**Business Manager**

## Our team provides...

- ✓ Implements your analytics use case and provides you with the results.

## Your team...

- ✓ Works closely with our team to provide us with the business knowledge we need to implement your use case

## Prerequisites

- ✓ You have data, you need to extract insights from it or create indicators, but you don't have the necessary in-house skills to do it.

## The Services

# Reusable Data Components

*We help you build modern IT systems with advanced data capabilities*

We offer reusable components **to build IT systems** with advanced data capabilities, for example data lake solutions to store massive amounts of structured and unstructured data or data analytics solutions to process data and extract insights.



Franco  
IT Manager



Vincent  
IT Architect

## Our team provides...

- ✓ Installation and configuration of the component
- ✓ Advisory on components to be integrated in your architecture
- ✓ Support for technical issues

## Your team...

- ✓ Integrates the component with your IT system and operates it

## Prerequisites

- ✓ Your team has the necessary resources/skills to operate the components