WELCOME!

DigiPLACE
TOWARDS A EUROPEAN DIGITAL PLATFORM FOR CONSTRUCTION

DigiPLACE Tallinn Regional Workshop

This project has received funding from the European Union's H2020 programme under Grant Agreement N. 856943

Moderation

Jaan Saar

Head of Digital Construction

Estonian Ministry of Economic Affairs and Communications

DigiPLACE

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AGENDA

ALL TIMES ARE INDICATED IN EEST TIME-ZONE

11:00 **OPENING MESSAGES**
Jaan SAAR, Ministry of Economic Affairs & Communications - Estonia
Riccardo VIAGGI, CECE

11:10 **PROJECT PRESENTATION: Goals, timeline & expectations**
Ziga TURK, University of Ljubljana - Slovenia

11:30 **THE LOCAL PERSPECTIVES FROM ESTONIA AND FINLAND**
Jaan SAAR & Toni LUHTI, Platform of Trust - Finland

12:00 **DIGIPLACE REFERENCE ARCHITECTURE FRAMEWORK (RAF)**
Alberto PAVAN, Politecnico di Milano – Italy
Nicolas NAVILLE, CSTB – France

12:30 - Lunch Break

13:15 **The next steps: towards a Strategic Roadmap for DigiPLACE**
Alain ZARLI, ECTP

13:30 **Involving the construction stakeholders – the role of the DigiPLACE CoS**
Luigi PERISSICH, Federcostruzioni - Italy

13:40 **Questions & Answers**
Brainstorming and validation of the DigiPLACE RAF

14:20 **Closing remarks and workshop wrap-up**
Miimu AIRAKSINEN, Association of Civil Engineers – Finland

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WELCOME

Riccardo VIAGGI

CECE

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“ DigiPLACE

Towards a new ecosystem for European construction

Prof. Dr. Ziga TURK
University of Ljubljana

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Summary

- Internet changed how we live
  - Platforms and Intermediaries have been game-changers in personal ITC use
- Same approach could work in construction
  - But it is a change of paradigm – form working with tools to working on a platform
- Opportunities and threats
  - Empowerment, Delivery of technology, knowledge, Integration
  - Power and control shifting from lead designers and contractors to platforms
- Strategically, the EU needs own platforms
  - The DigiPLACE project to chart the way

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Outline

As we look ahead
into the next century,
leaders will be those
who empower others.
Bill Gates
www.geckoandfly.com

Platforms and intermediaries have revolutionized computing through empowermen

- phone - Nokia, Blackberry
  - iPhone, Android
- hotels
  - AirBnB
- taxis
  - Uber
- software downloads
  - AppStore, GooglePlay
- content
  - Spotify, YouTube, Blogger, Wordpress
- shops … J. Crew, Neiman Marcus, JCPenney …
  - Amazon
- banks
  - Kickstarter

Industries where platforms succeeded.

- platform model has been a success in “long tail” areas
  - not just many different consumers
  - also a multitude of producers and creators.
- information intensive
  - think gigabytes in construction design
- non-scalable gatekeepers = managers of flow of business value
  - general contractor, main designer
- fragmented industries
  - yes
- industries with information asymmetries
  - information advantage of one party over the other

- construction checks all the boxes

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Platforms emerged in B2C and C2C settings

Tom,
Dick and
Harry

end user | end user | end user

end user | end user | end user

end user | end user | end user

Provider of products

Provider of Services

Provider of Content

YouTube Channel, Android App, Facebook Page, Blog on Blogger ….

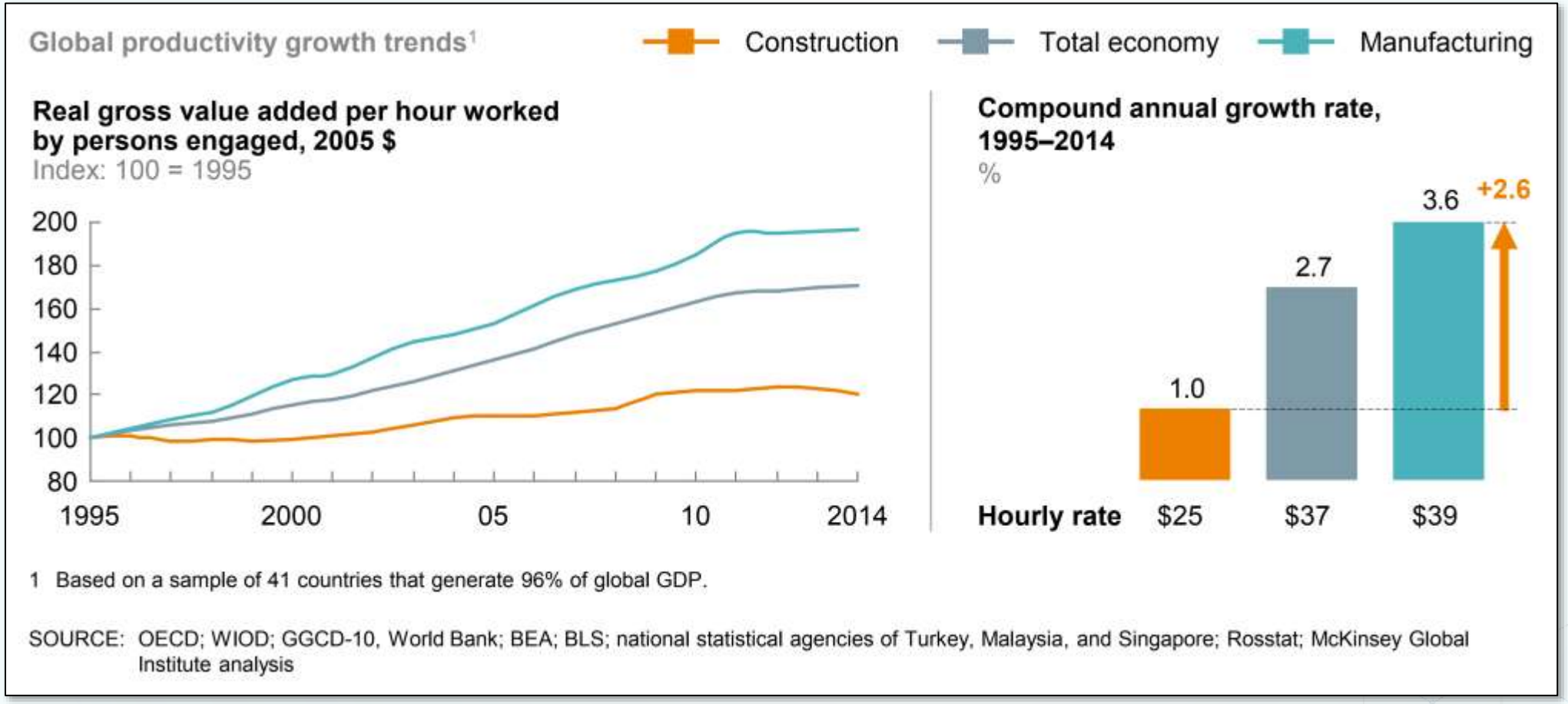
Platform

IT Infrastructure (cloud, internet)

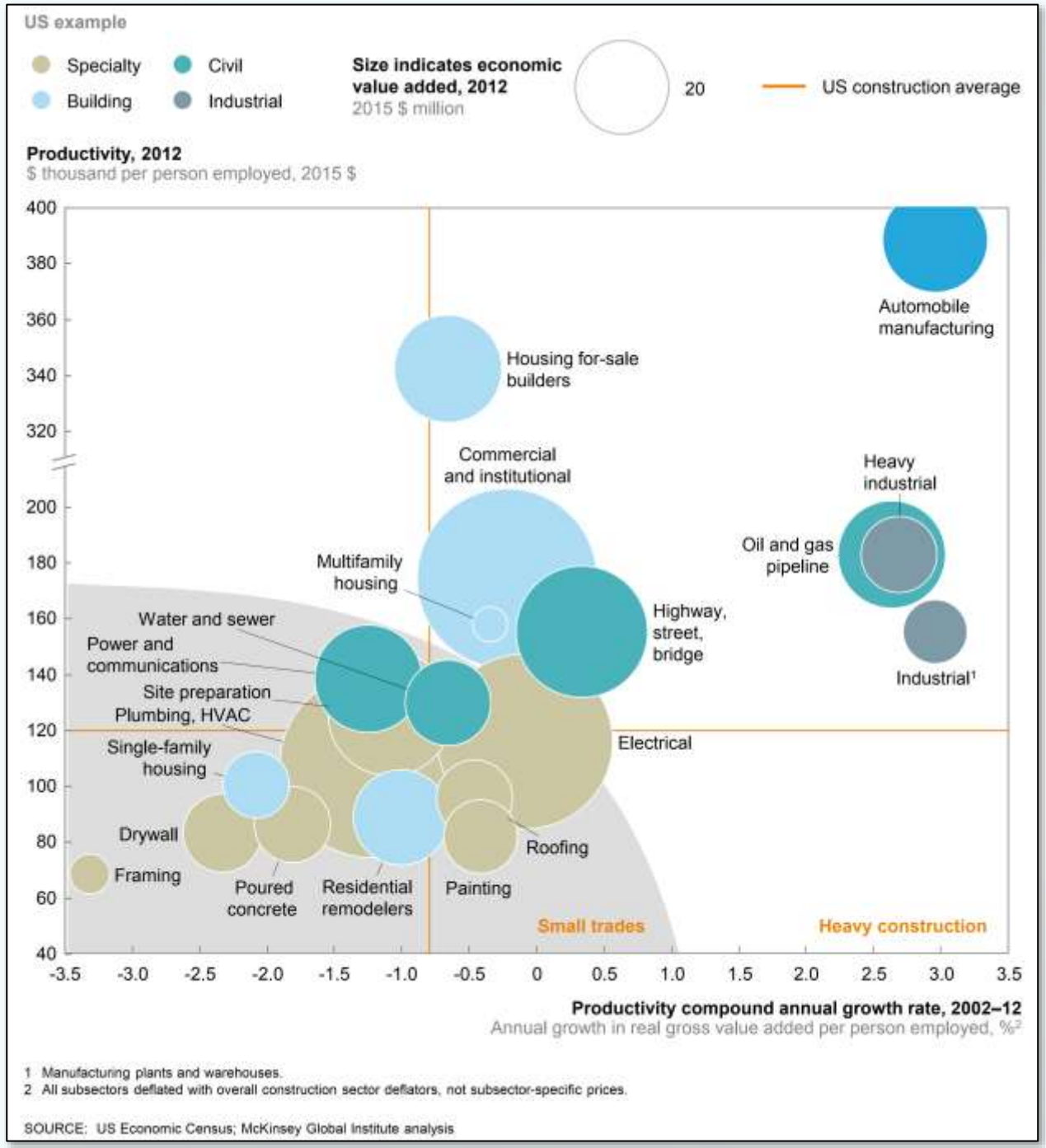
Theoretically …

- platforms do two things
  - reduce transaction costs
  - enable complementary innovation
- three kinds of platforms
  - transaction
  - innovation
  - hybrid

In construction, on average productivity does not grow



… but there are differences



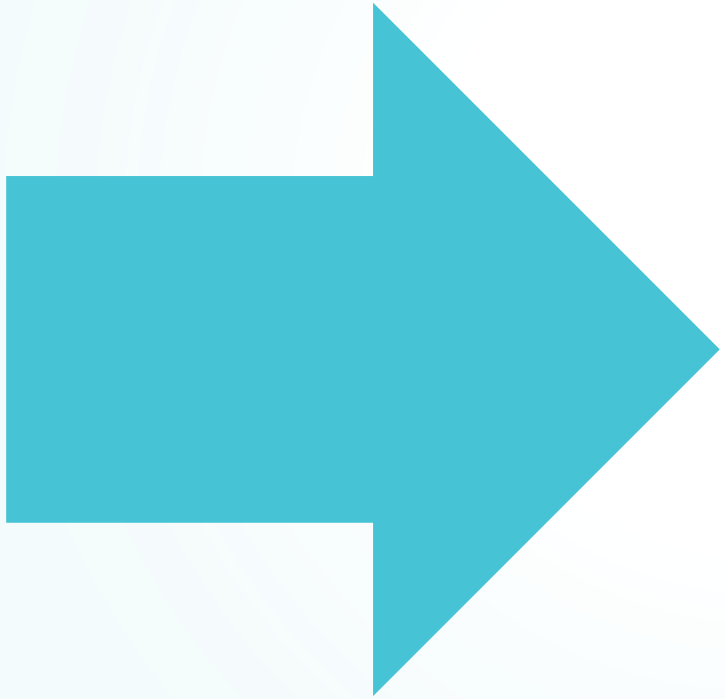
- quite OK
  - big housing, commercial buildings
  - large companies
  - heavy construction,
- really bad
  - small trades and crafts
  - SMEs
  - single family housing
  - residential remodelling

Platforms are bringing a paradigm shift

Transition for software tools to platforms

Services and Tools

- Pen and paper
- Operating system
- Desktop PC
- email
- Word, Excel
- SAP
- ETABS
- Primavera
- AutoCAD
- ArchiCAD
- …



Platforms

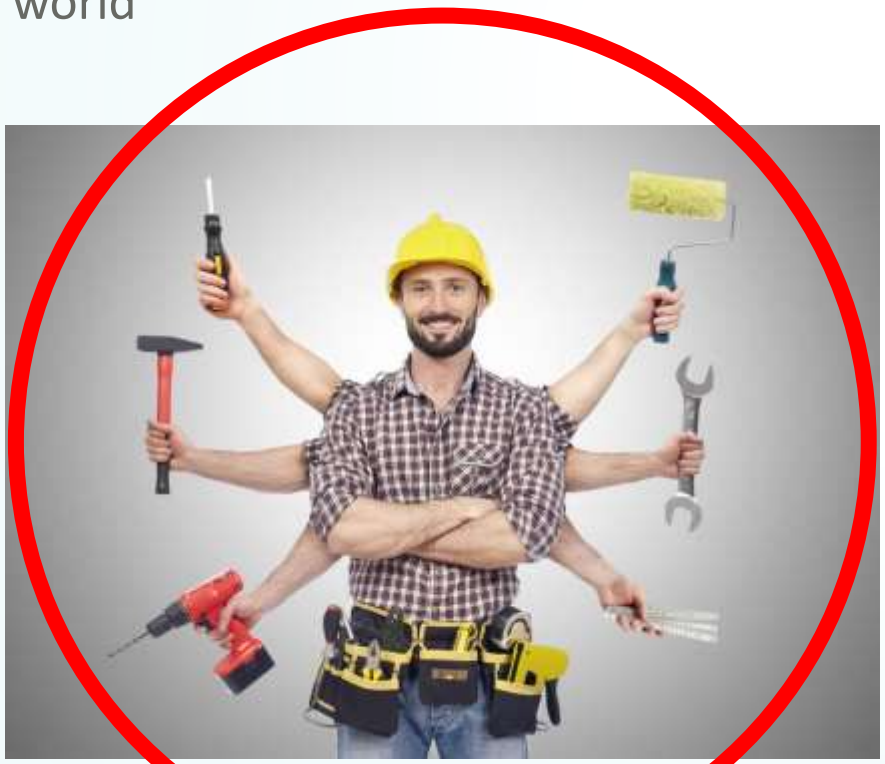
- MS Teams
- G-Suite
- Slack

- AutoDesk 360
- BIM+
- OpenBIM / IFC

Platforms are a paradigm shift

Service / tool ecosystem

- worker/business in the center
- actor, tool, world



Platform ecosystem

- platform in the center
- actor, platform, tool, world

Opportunities

- deliver of technology
  - SME's getting ICT infrastructure of big firms
- improve productivity
  - interoperability, integrated work *inside* projects
  - information re-use *across* projects
- enable new business models
  - IPR, "data is the new oil"
- the long tail
  - customization, specialization

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Threats

- Shift of control
  - from owner, lead designer, lead contractor to the platform
  - like from newspapers to Google
- Changes in value chain
  - IT in construction promises 20%+ efficiency gains
  - Whose gain?
- The great extinction
  - platforms destroyed traditional media, shops, taxis …
  - may destroy some businesses in AEC

- Dominance of American Platforms

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European Strategy

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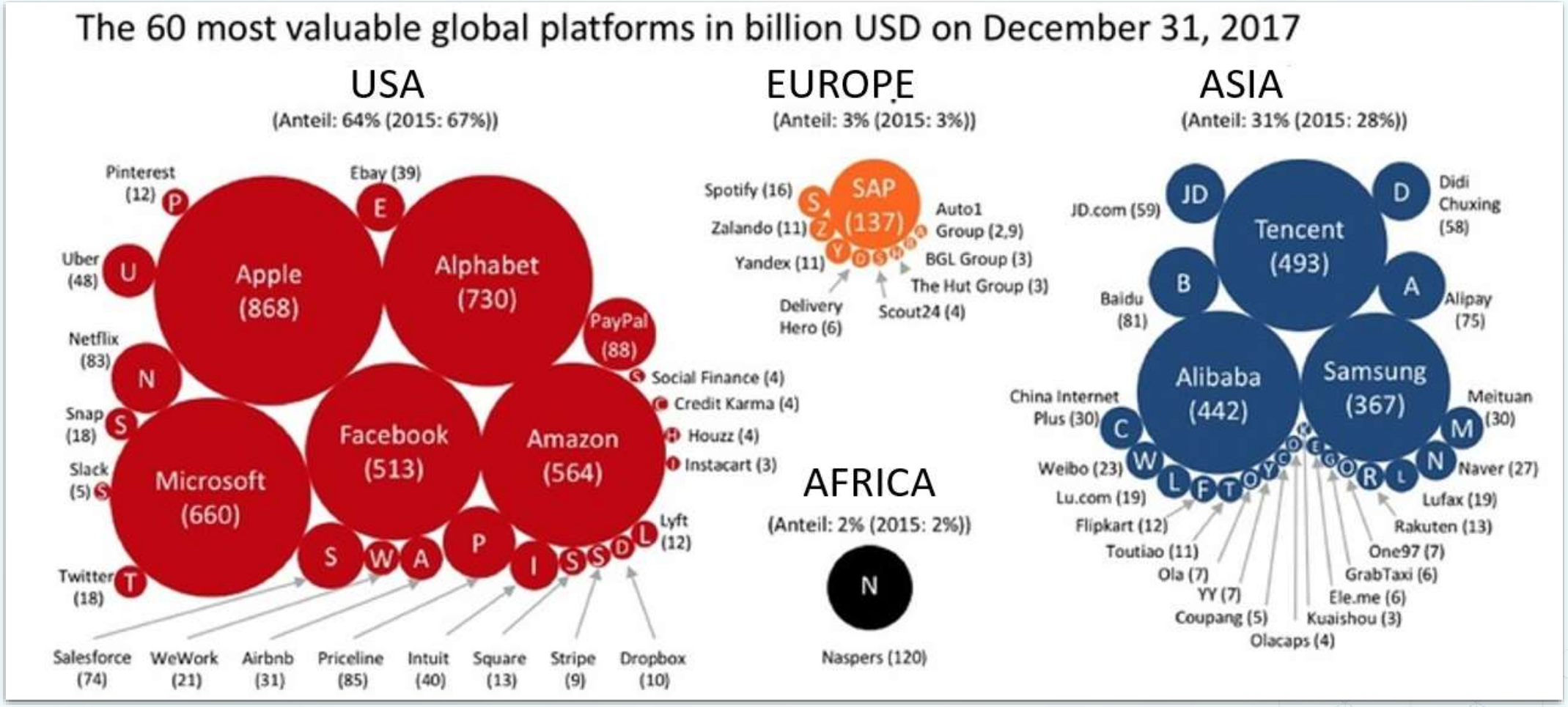
Europe is not present in this new economy



Enters Industry 4.0:
A strategic initiative for digital transformation

- Germany (2011) …
  - bottom-up
- Brussels (2013)
  - European Parliament, European Comission
- Europe
  - Italy
  - Austria
  - Hungary
  - Portugal
  - …

Support from the highest levels

- “Europe's next unicorn could stem from the collaborative economy”
  - Jyrki Katainen, vice president.
- “Business-to-Business platforms: the race that Europe cannot afford to lose”
  - Max Lemke, European Commission

The DigiPLACE project

DigiPLACE

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29/4/2020

Enters DigiPLACE Project

Horizon 2020 work programme 2018/20 - **Information and Communication Technologies**

Call: H2020-DT-2018-2020

Digitising and transforming European industry and services: digital innovation hubs and platform

Topic: DT-ICT-13-2019

Digital Platform/Pilots Horizontal Activities

Project 1st classified:

DigiPLACE (Digital PLAtform for Construction in Europe)

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Expected impacts

01: Increased productivity and sustainability of European Construction Industry

02: Facilitate the diffusion of a common language in the construction sector

03: Pave the way for the growth of smart cities and smart infrastructures

04: Strengthening the role of EU in Global Construction Ecosystem

05: Accelerated and efficient collaboration between public authorities and industry

06: Validation in usage context of usability, risk and security assessment …and sustainability

07: Maintaining and extending an active eco-system of relevant stakeholders, including start-ups and SMEs

08: Promote the diffusion of knowledge and facilitate the introduction of digital practices…

09: Tangible contributions from European key players to actively engage with the platform building Process

10: Efficient information sharing across the programme stakeholders for horizontal issues of common Interests

11: Facilitate the introduction of …Digital Transformation of the Construction sector

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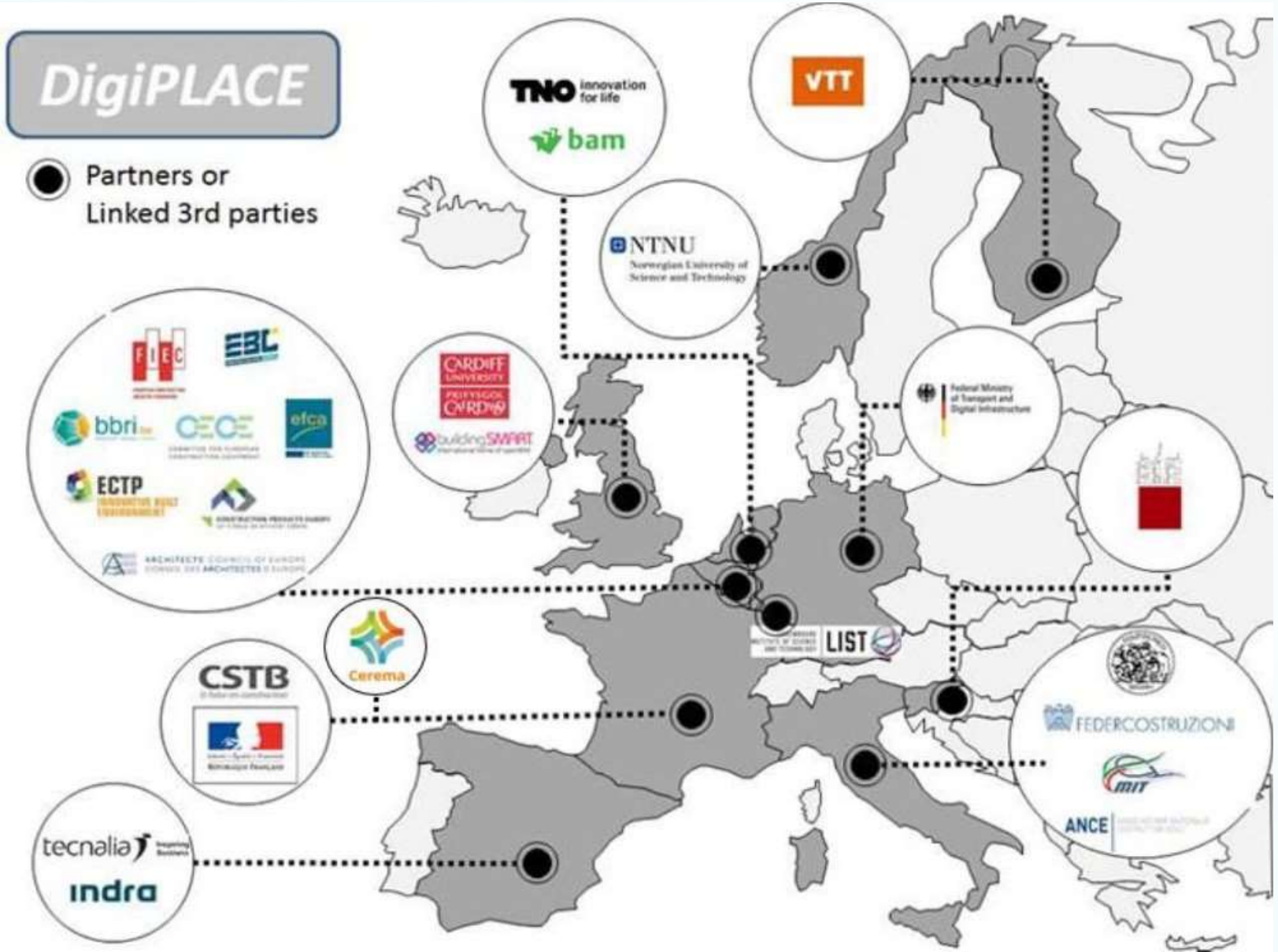
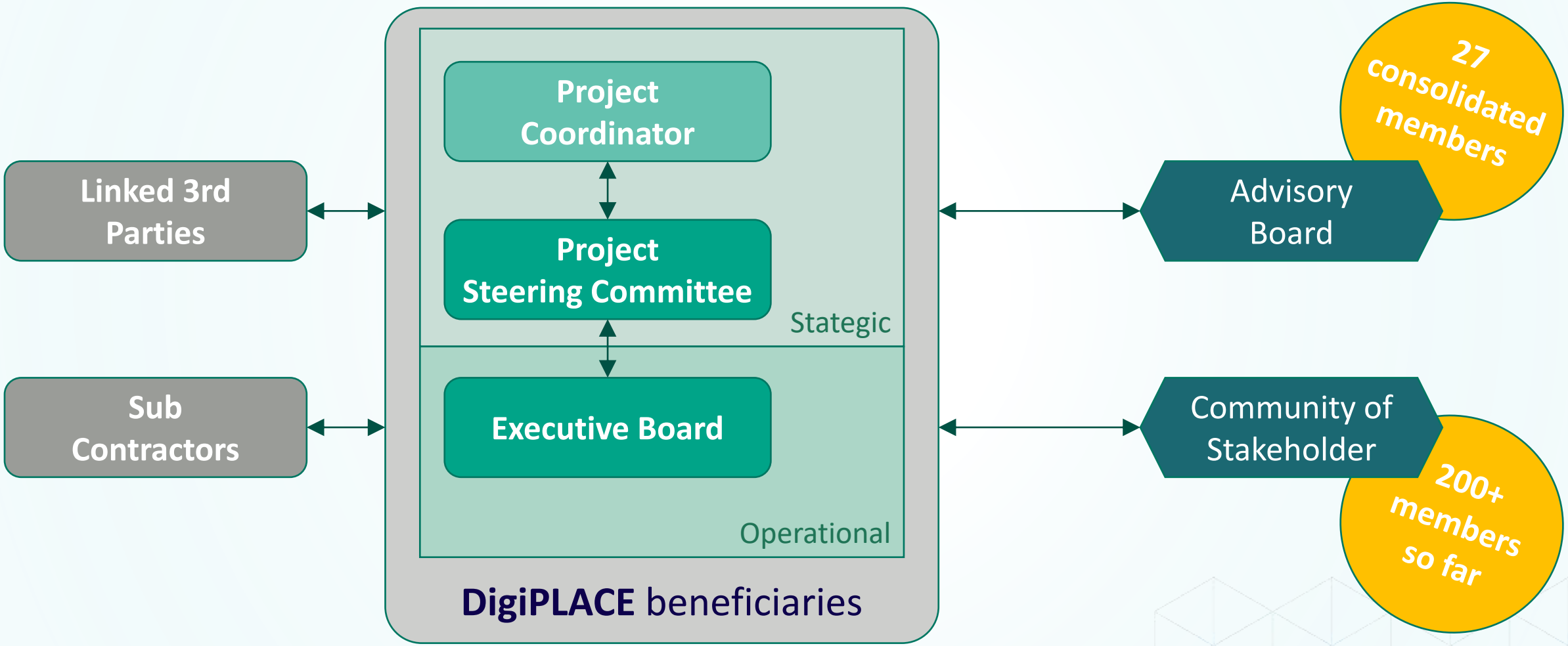
DigiPLACE beneficiaries and Linked Third Parties



DigiPLACE is an open project



Prominent Advisory Board Members

Company name
McKinsey & Company
Dassault Systèmes
Ente italiano di normazione - UNI informatica
ADN Construction
CoBUILDER International
Acca Software s.p.a
Unismart Padova Enterprise S.r.l.
International Data Space Association
Estonian Ministry of Economic Affairs and Communications
Ministry of Construction and Physical Planning (Croatia)

Compay name
Czech agency for standardization (CESKA Agentura Pro Standardizaci)
BIM-architecture
European Rental Association
Platform of Trust
Finnish Association of Civil Engineers RIL
European Concrete Platform
Chamber of Construction and Building Materials, Chamber of Commerce and Industry, Slovenia
Neumarkt
Engineering Ingegneria Informatica S.p.A
IBM - International Business Machines Corporation

Company name
Vinci
Trimble
ENCORD
Autodesk
Graphisoft (Nemetschek)
Ecole de Téchnologie Supérieur, Québec
Allplan (Nemetschek)

DigiPLACE project Work Packages

WP1 – **Project management** - Politecnico di Milano

WP2 – **Long term community building** - Federcostruzioni

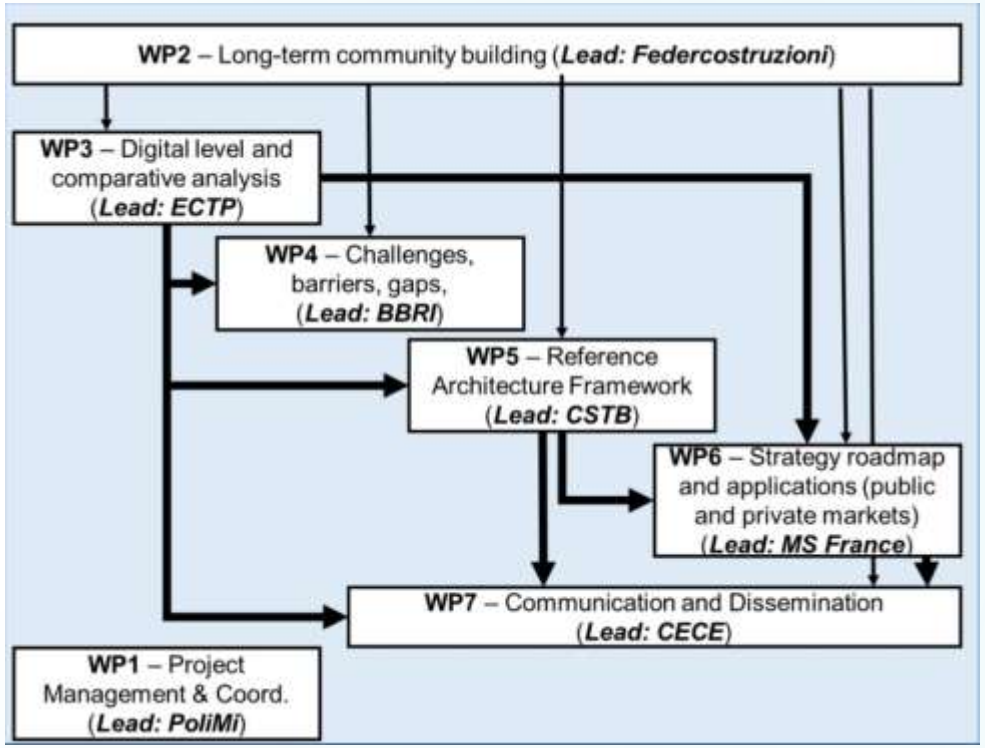
WP3 – **Digital level and comparison analysis** - ECTP

WP4 – **Challenge barriers and gaps** - BBRI

WP5 – **Reference Framework Architecture** - CSTB

WP6 – **Strategy roadmap** (private and public markets) - MEEM

WP7 – **Communication and dissemination** - CECE



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The DigiPLACE project objectives

The highest-level objective of the **DigiPLACE** project is to create a **Reference Architecture Framework (RAF)** for the **digital industrial platform** for the **construction sector** based on a shared consensus along the entire chain

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DigiPLACE Team

We are waiting you in the community of stakeholder:

https://docs.google.com/forms/d/e/1FAIpQLSdvtdZ_C9N-4QrJfF0ahcL0IJ0-TKP-6sLe1ucW5qLF8dR6mA/viewform?vc=0&c=0&w=1

Way Forward

- Platform model is coming
  - Very successful in end-user activities
- Will improve efficiency
  - Who will reap the rewards?
- Regulation
  - prevent anti-competitive practices of the platforms
  - manage intellectual property rights
  - think of industrial platforms when introducing Digital Services Act
- Industrial Strategy
  - Digiplace is contributing to it

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Follow us

Digi_PLACE

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www.digiplaceproject.eu

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THANK YOU!

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“ THE LOCAL PERSPECTIVES FROM ESTONIA AND FINLAND

Jaan SAAR
Toni LUHTI
Platform of Trust

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“ The DigiPLACE REFERENCE FRAMEWORK ARCHITECTURE

Alberto PAVAN
Politecnico di Milano
Nicolas NAVILLE
CSTB

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The platform

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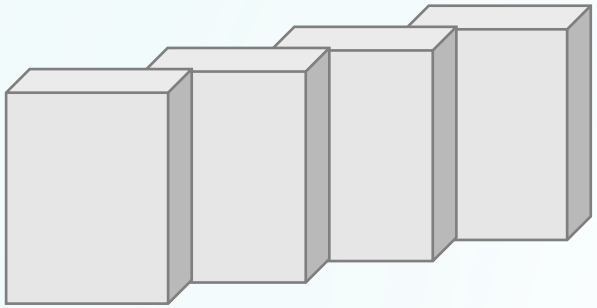
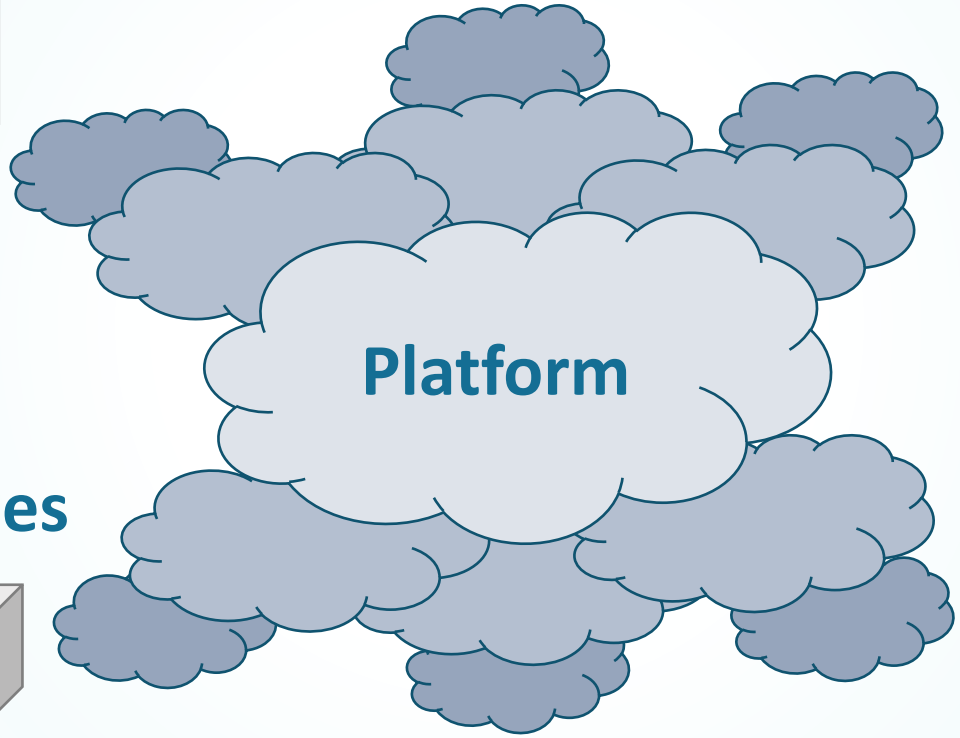
The platform

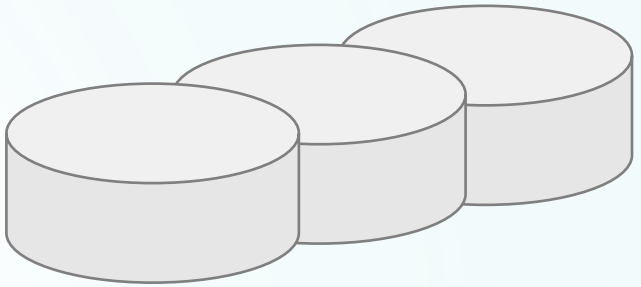


Software Suite

Web Portal



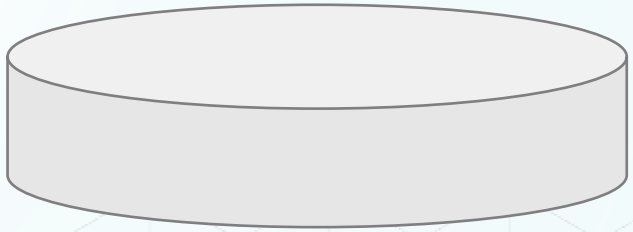
Cloud



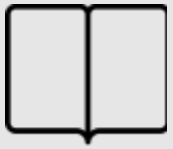
BIM CDE

Company Data & Services

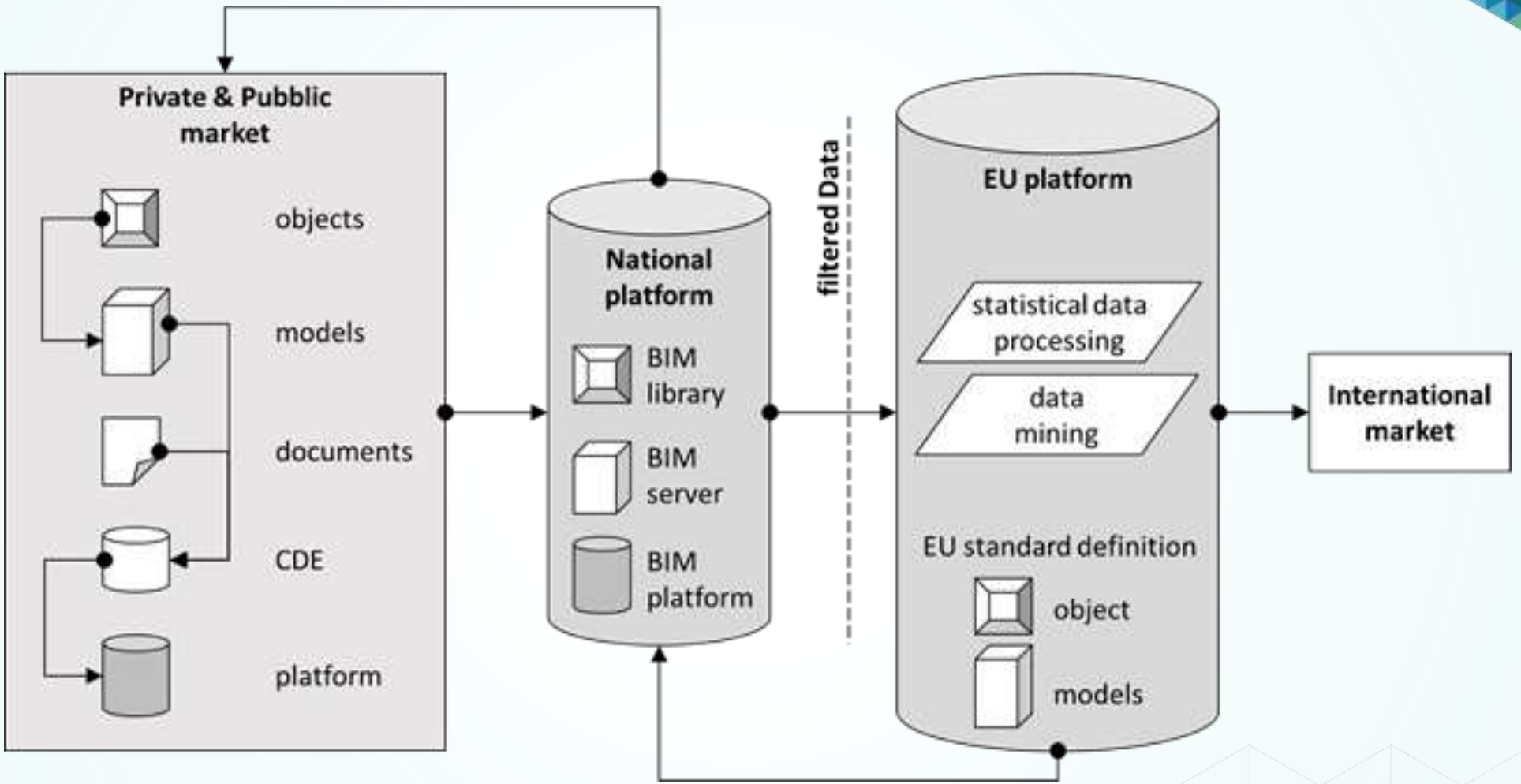
ERP, PLM



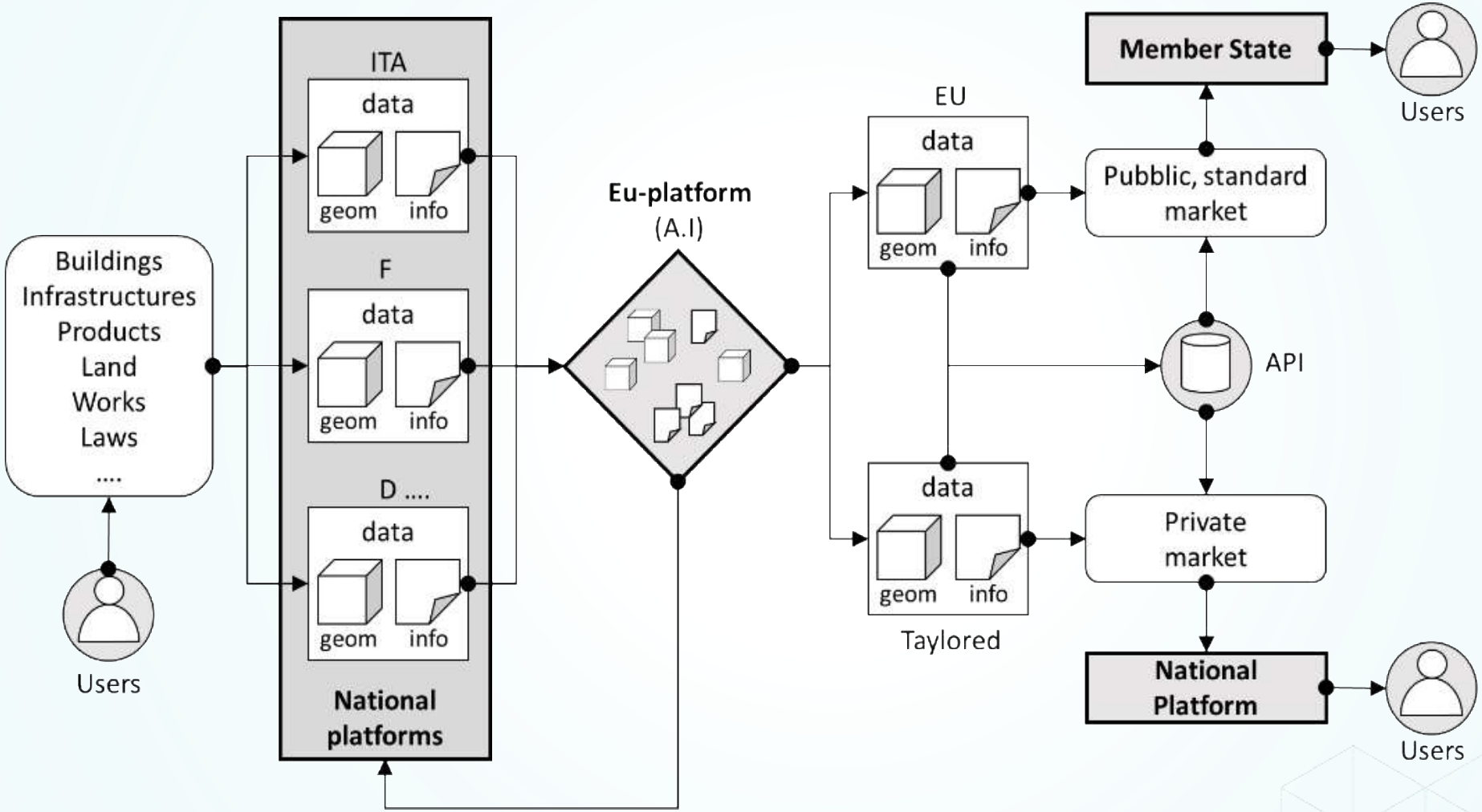
The Knowledge

ANALOGIC		DIGITAL	
Knowledge «Priest»			Knowledge «Consumer»
Knowledge «Storage»			Knowledge «Access»
Knowledge «Trust»			Knowledge «Value»

The call's schema



The call's schema



The brainstorming

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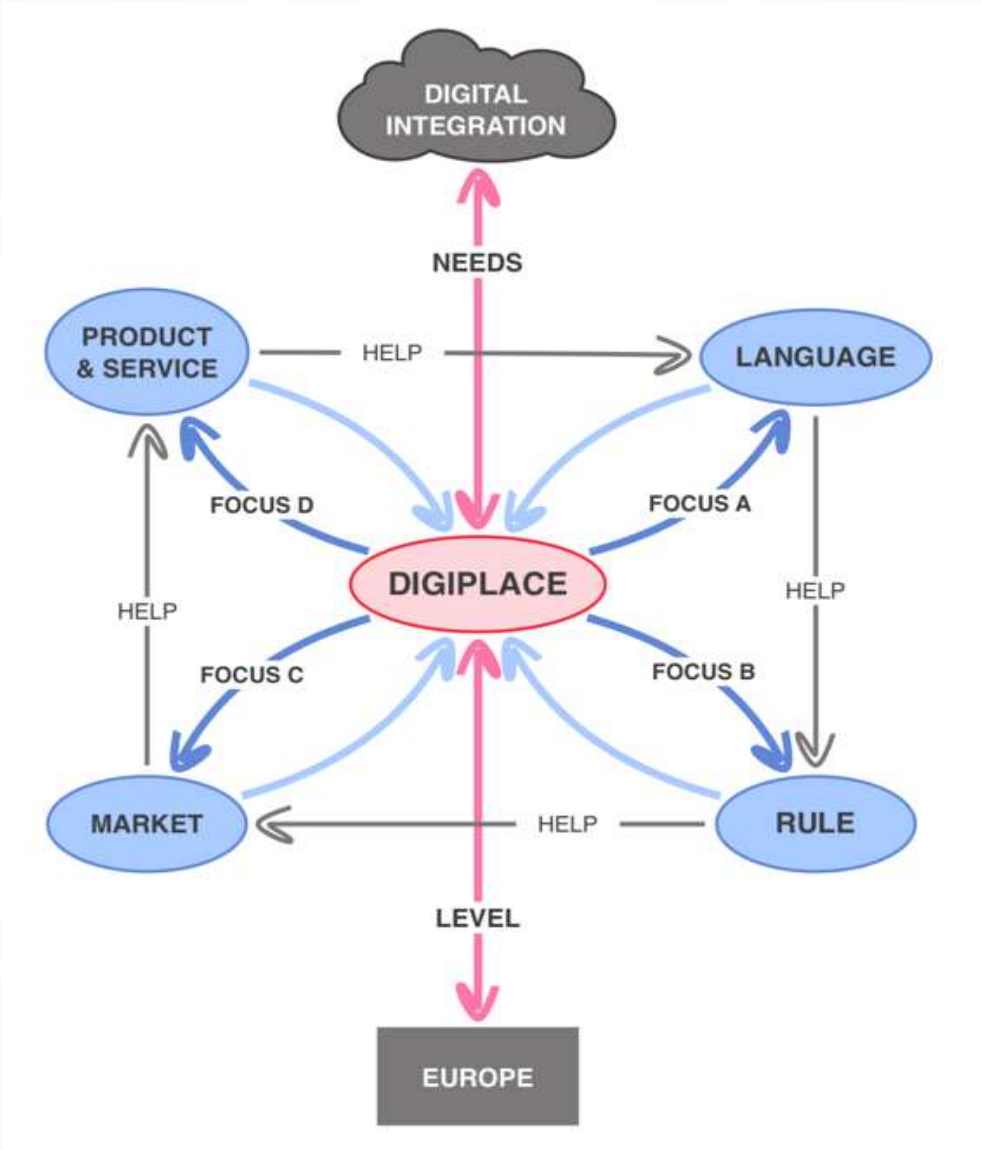
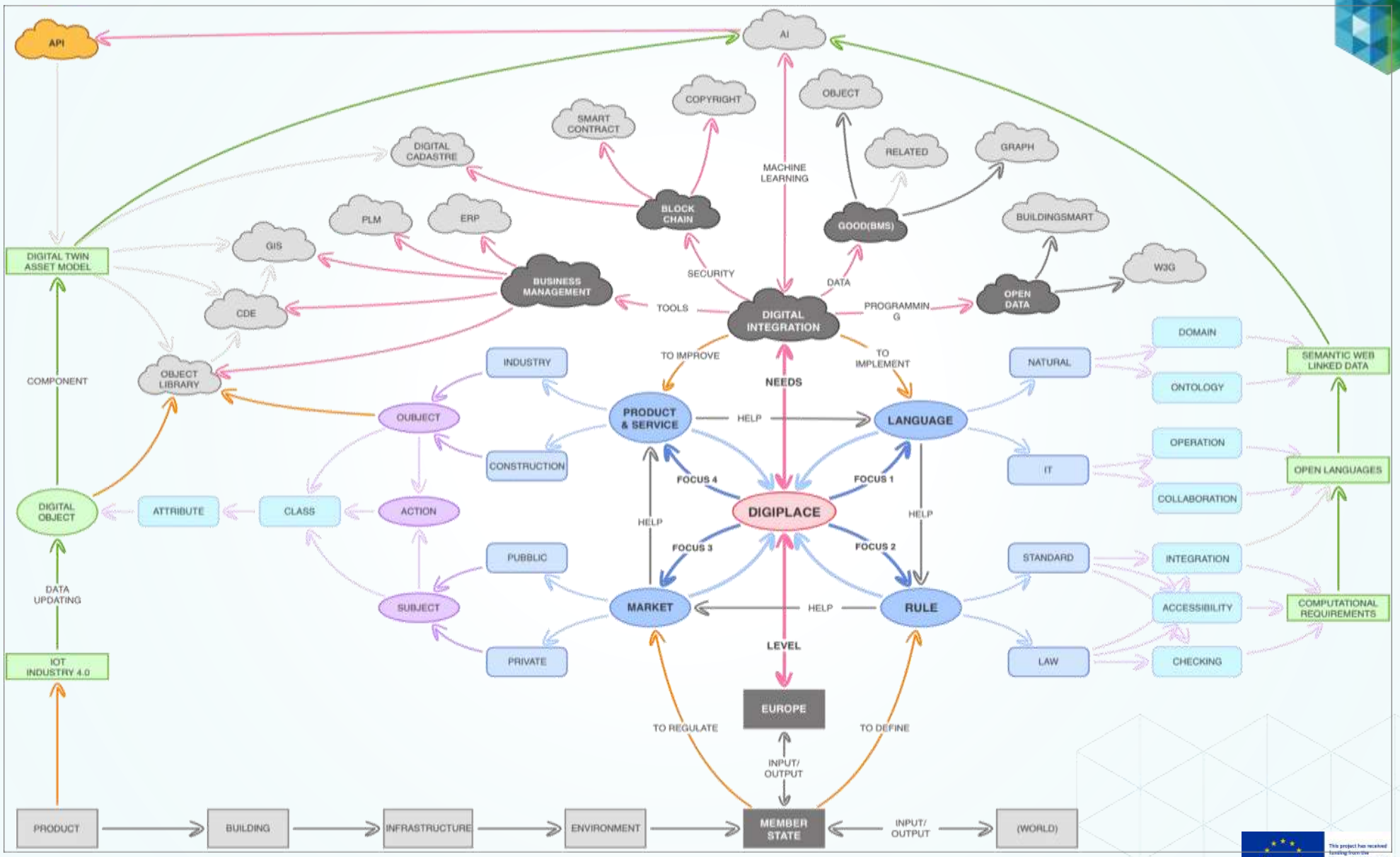
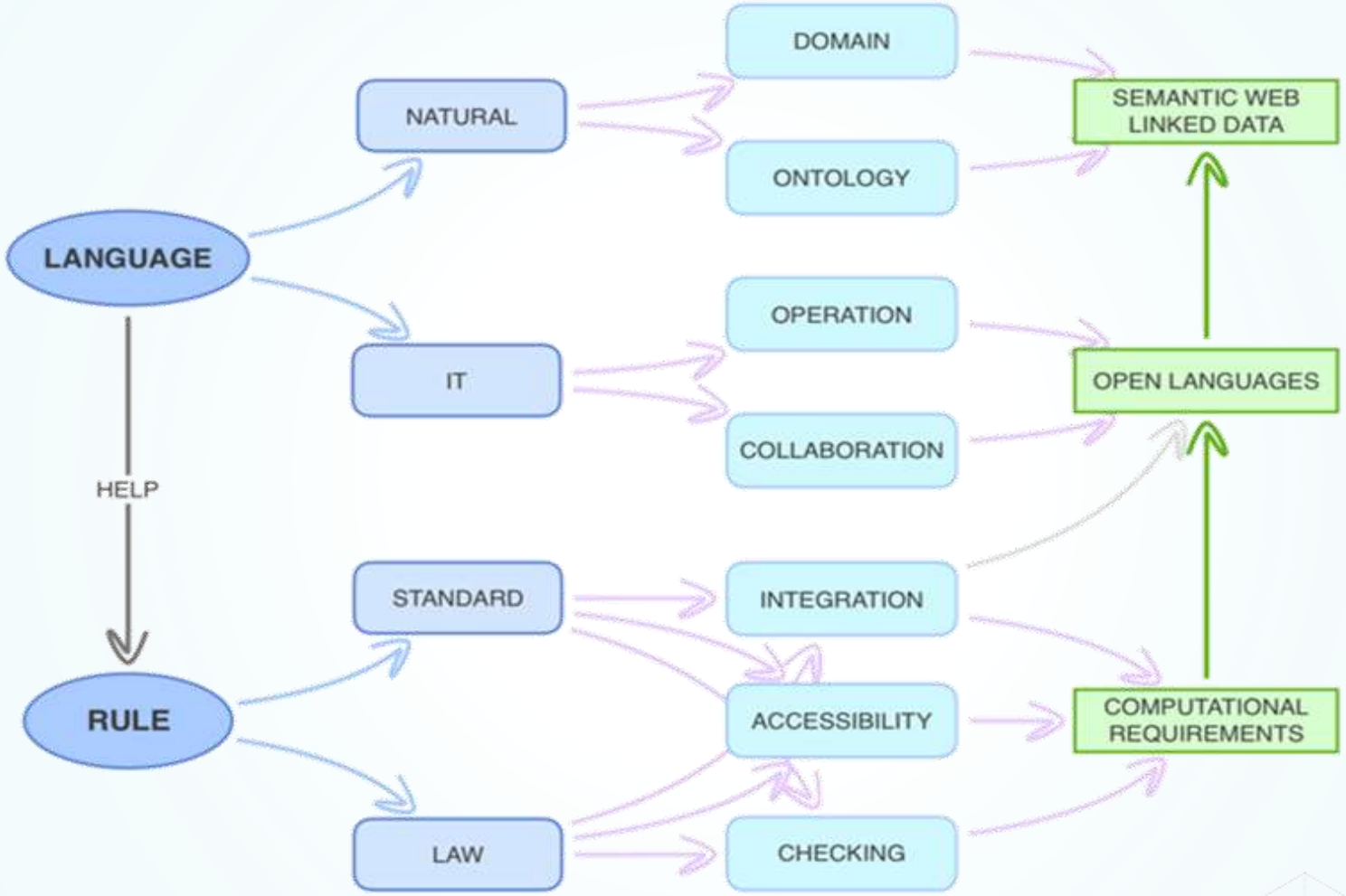
The core


DIGITAL INTEGRATION
NEEDS
PRODUCT & SERVICE
HELP
LANGUAGE
FOCUS D
FOCUS A
DIGIPLACE
HELP
HELP
FOCUS C
FOCUS B
MARKET
HELP
RULE
LEVEL
EUROPE

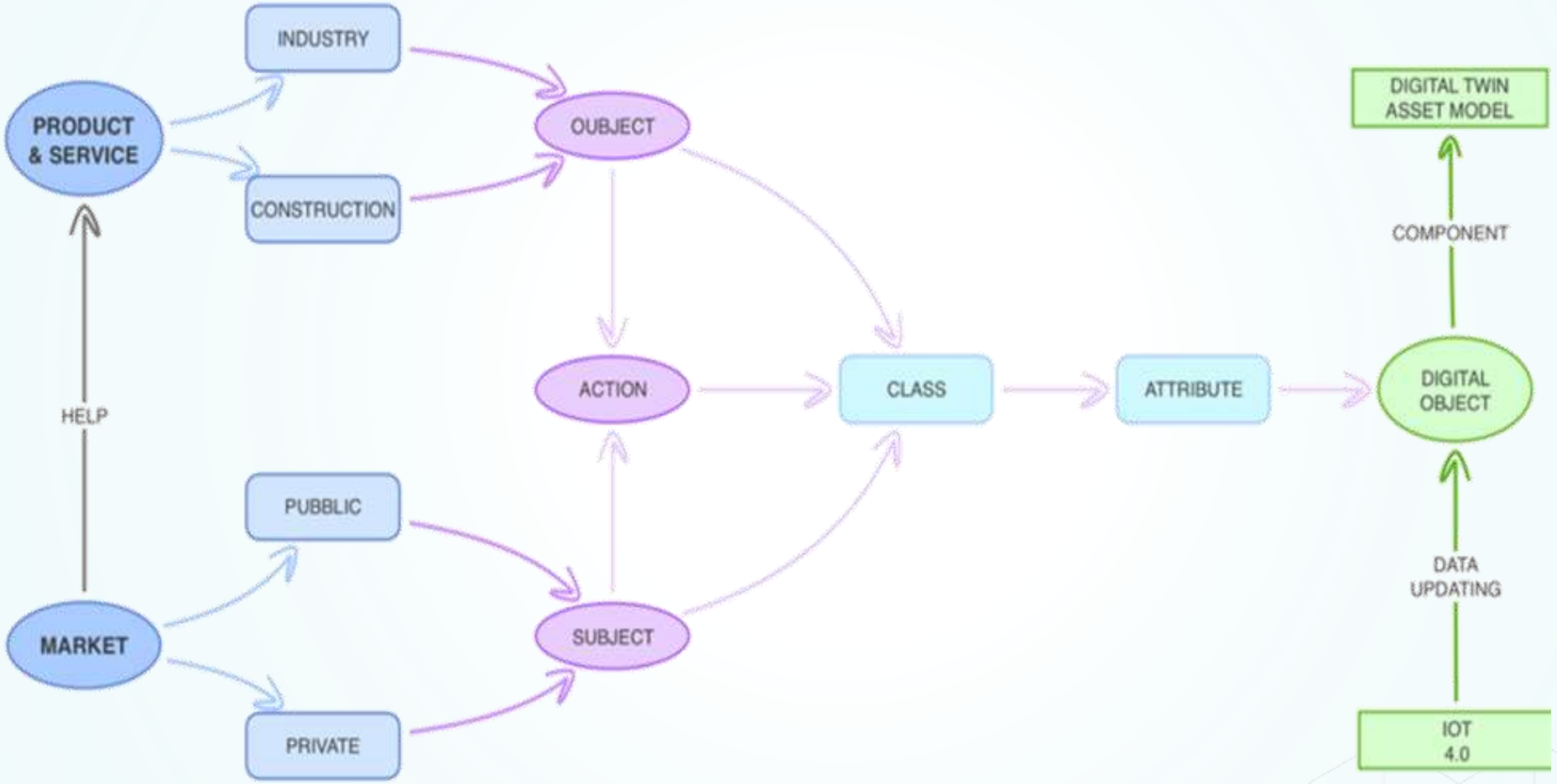
The Platforms



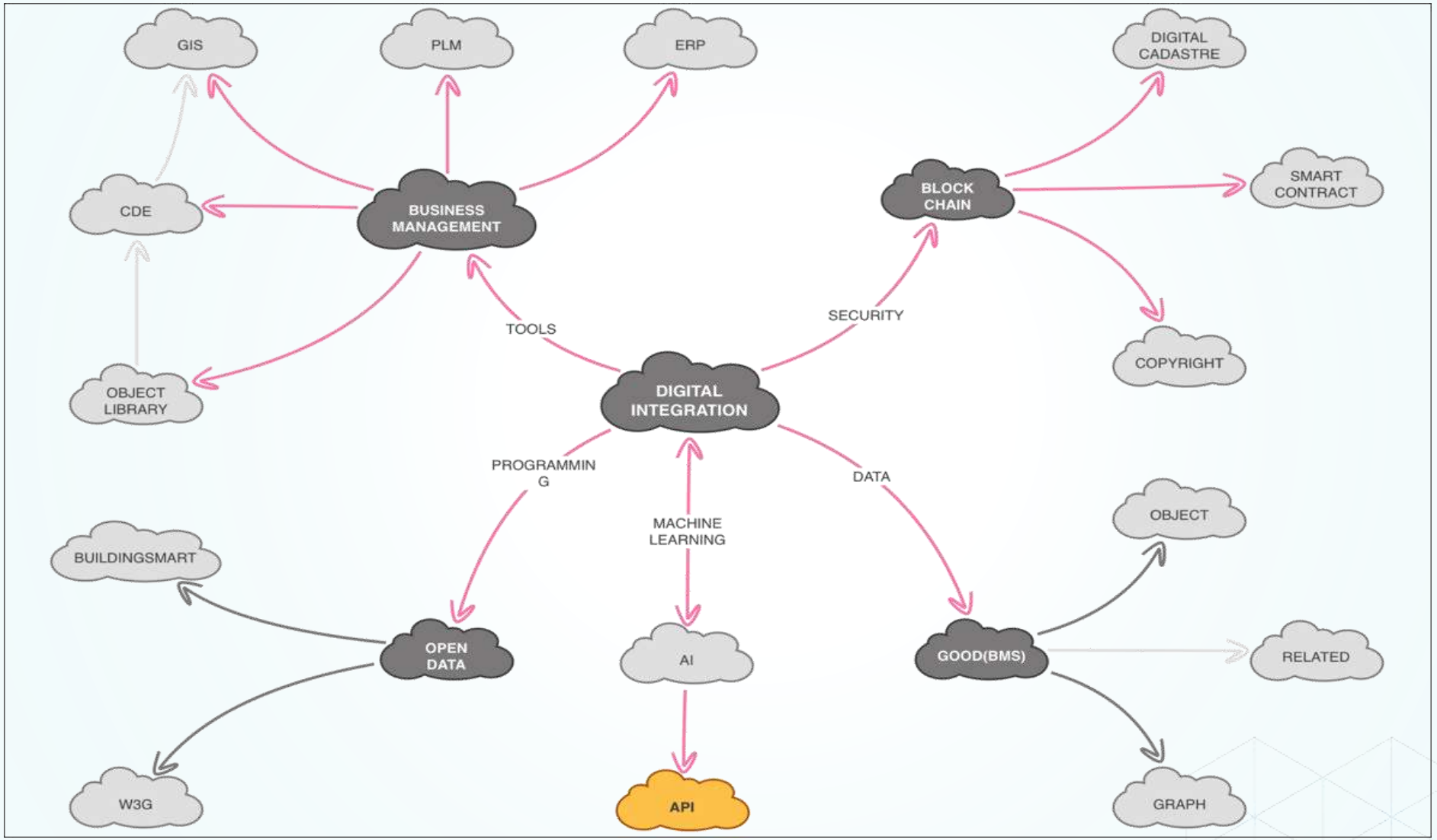
The language and rule



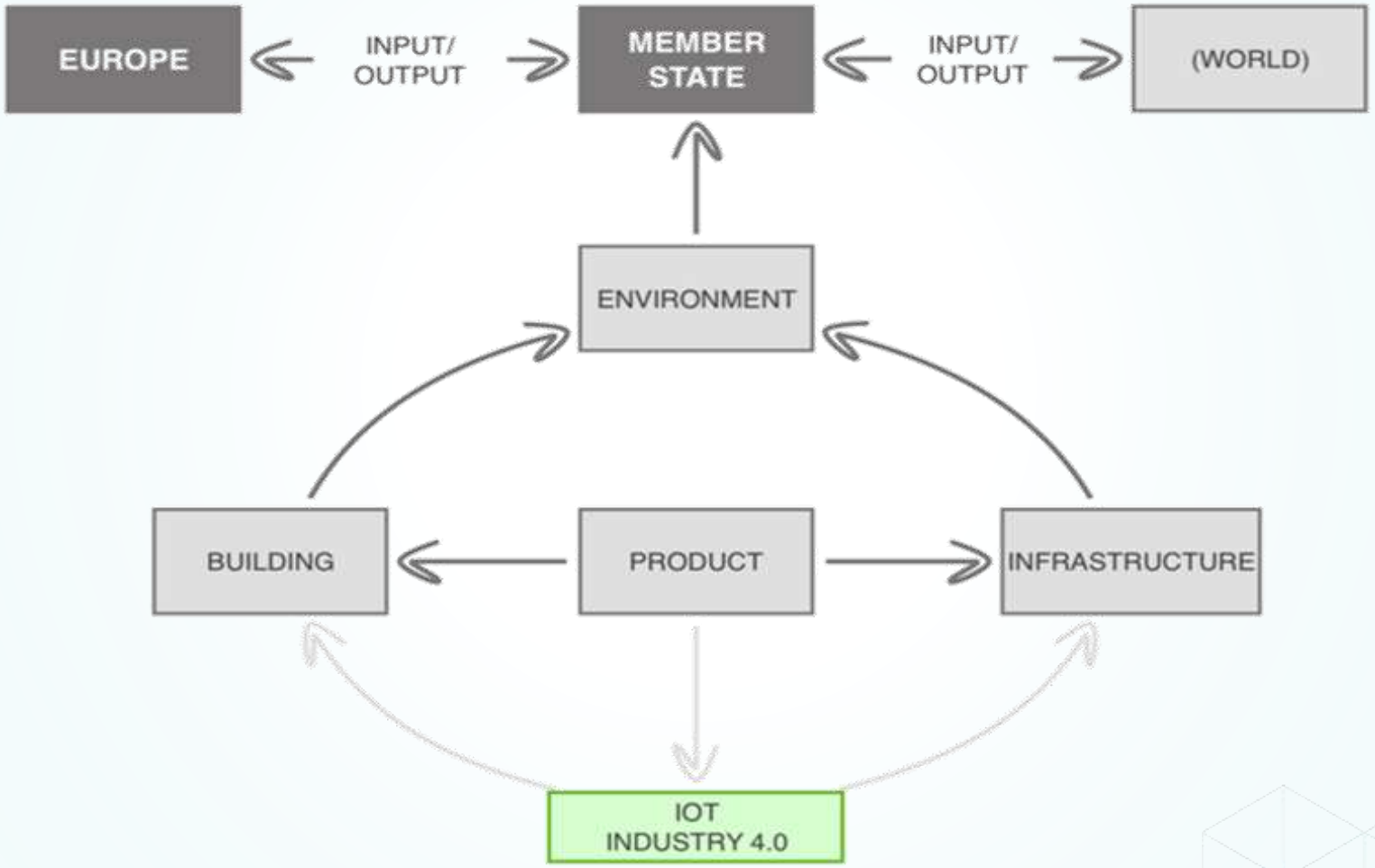
The product&service and market



The digital integration



The levels


EUROPE
INPUT/
OUTPUT
MEMBER
STATE
INPUT/
OUTPUT
(WORLD)
ENVIRONMENT
BUILDING
PRODUCT
INFRASTRUCTURE
IOT
INDUSTRY 4.0

The RAF
WP 5

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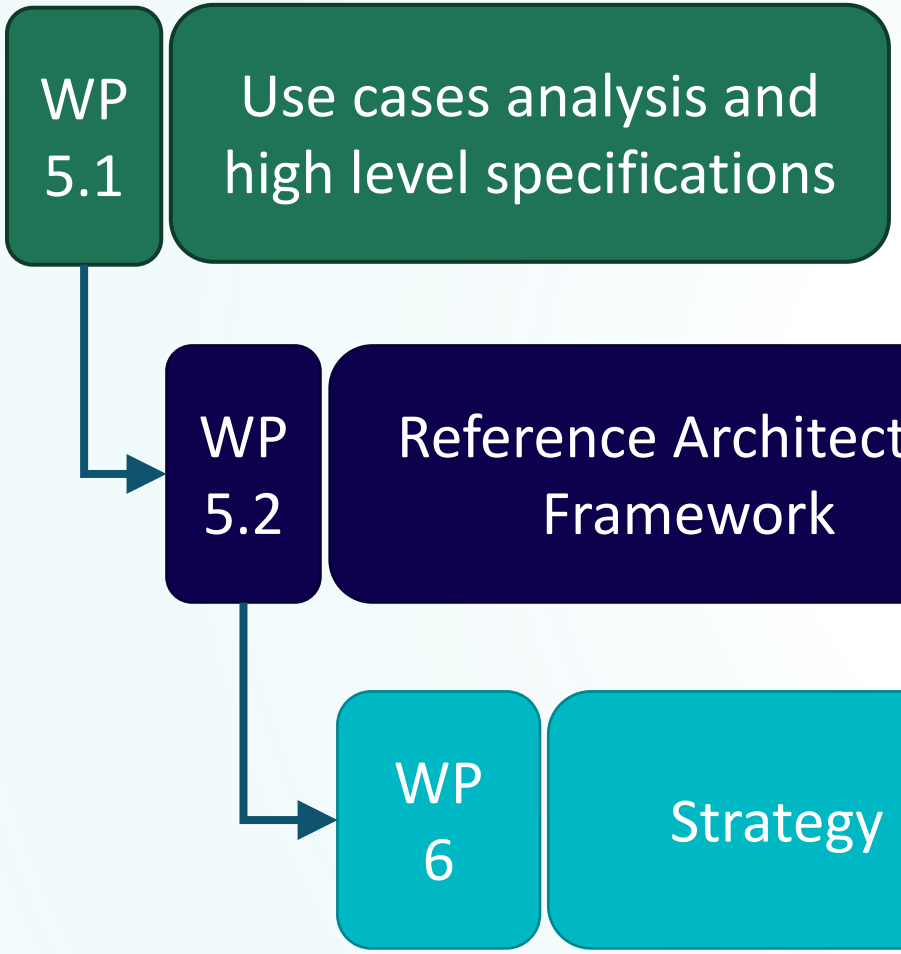
Reference Architecture Framework - CSTB



The vision

of the digital transformation of european construction industry, expressed as key use cases, in order to achieve the core objectives (eg rules, language, resource use, health, productivity, competitiveness…)

The required architecture

to support this vision, in terms of digital tools, services and platforms, interoperability, data and knowledge sharing…

How to get there

Research effort, pilot projects, regulations, deployment of new services…

Focus on DigiPLACE Reference Architecture Framework

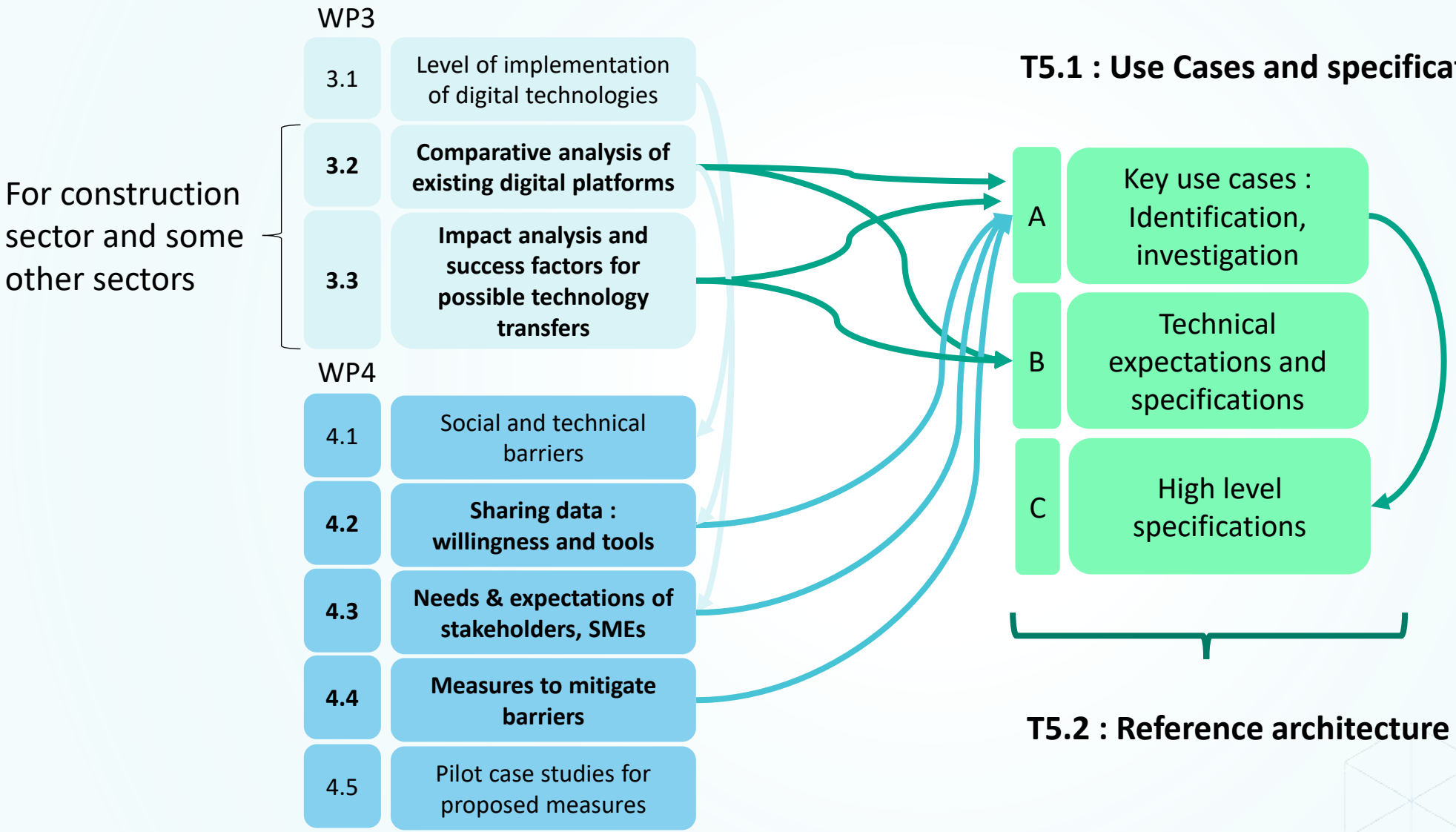
DigiPLACE Reference Architecture Framework

A comprehensive set of **common guidelines** for building, implementing and deploying **digital platforms** for the construction sector across Europe (public or private, local or european…)

Different types of guidelines

- General guidelines for implementing digital platforms (interoperability, open standards, data security & privacy…)
- A referential of tools and services to be developped/generalized in order to support key use cases
- Special focus on required public services and regulations, both at EU and MS levels
- ….

First step: identify the use cases and high level specifications



Collaborative work to identify the key use cases: the strategy

AREA / WORKING GROUP

- Common language, interoperability, standards
- Rules & Regulations, public services
- Data and knowledge sharing
- Environmental performance
- Business, market and collaboration

- 5 working groups on 5 main areas
- Not disconnected issues, but rather different viewpoints to address all the issues, with expected overlap
- Collection of contributions on use cases (excel file), serving as a starting base for the working groups

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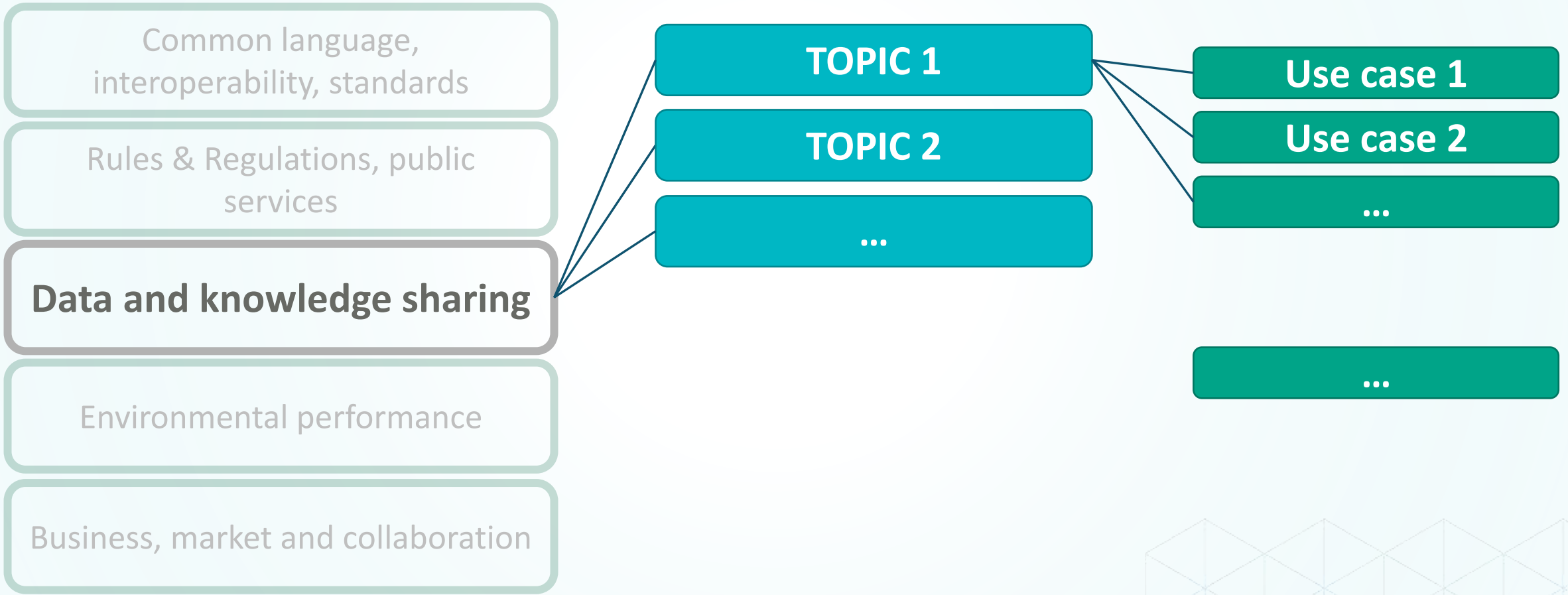
Collaborative work to identify the key use cases : the strategy



Description of the working groups 1

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- DigiPLACE is not replacing stantardisation bodies. Provide guidelines for successful standards implementation

Examples of issues :

- Interoperable product databases
- Link between BIM and IoT or telematics
- Open BIM implementation guidelines, promote the use of open standards
- Harmonize data requirements in public or private contracts

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Description of the working groups 2

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- Address all the interactions of the construction project with the administration
- Public procurement
- Regulatory issues

Examples of issues :

- Digitalized Building permits
- Use of BIM in public procurement
- Coordination of national regulations
- Building passport, B-LOG…

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Description of the working groups 3

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

Key points :

- Access to European technical databases (administrations, standards, universities and research centers, etc.)
- Sharing product data (performance, environmental, etc.)
- Data sharing between industries
- Best practices and knowledge transfer
- Data analytics and knowledge generation

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Description of the working groups 4

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- Transversal : strong overlap with other WGs, with a focus on environmental performance issues

Examples of issues :

- Environmental product data for BIM
- Generalization of LCA
- Calculation of Energy Performance Certificates
- Circularity, reversible building design
- Promote LEVEL(s) framework, sharing of environmental performance data

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Description of the working groups 5

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- Project digital transformation (by phases)
- Collaborative platforms, CDE
- Contracts and market issues

Examples of issues :

- CDE implementation
- BIM services marketplaces
- Digital supply chain, industry 4.0
- Contract standardization, Smart contracts, blockchain

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Identifying DigiPLACE key use cases : a dual approach

Construction sector use cases

- Related to the digital transformation of construction
- Supporting : productivity gains, improved environmental performance,
- …

Supported by…

Designed to support…

DigiPLACE RAF guidelines

- Guidelines for construction platforms architecture
- Guidelines for standards implementation
- Proposal of tools and services
- Guidelines for public services/ regulations
- …

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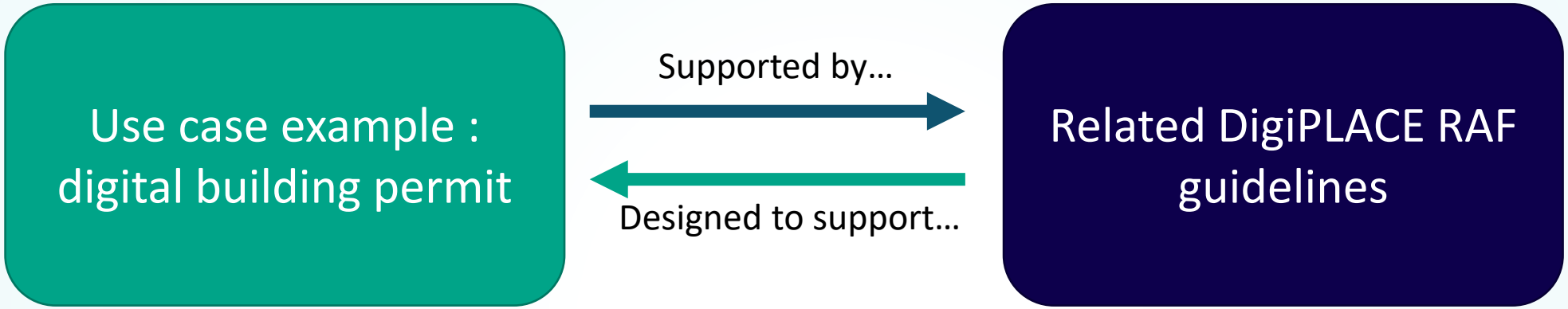
An example



- Use case description : digitalized building permit application using BIM models. Automatized rules checking

- Use of Open BIM standards
- Dedicated MVDs
- Need of ontologies for urban planning rules
- Required public tools & services
- …

Use cases description – expected level of detail

The key use cases are described according to the following structure

Use case identification	Use case description	Proposed DigiPLACE feature, expectation from DigiPLACE	Expected benefit, added value	Requirements	References, standards, ongoing initiatives to take into account
Name of the proposed use case	Provide a detailed description of the use case : * **WHAT** * **WHO** : who will be the user/target/beneficiary/contributor of this use case * **WHY** : what is the rationale for this use case, what problem is it solving ?	**The expected output** of DigiPLACE on this subject, the way DigiPLACE will support this use case, the feature to be developped through the DigiPLACE RAF	**WHAT FOR** : what is the expected benefit compared to current situation ? What is the added value for the construction value chain ?	Any technical or other requirements.	**Relevant standards or ongoing initiatives** that should be taken into account to further develop this use case **Relevant reference documents;** **Relevant example from which this use case is inspired** (eg existing platform in other sectors)

Towards the Reference Architecture Framework

Nicolas Naville
CSTB

DigiPLACE
TOWARDS A EUROPEAN DIGITAL PLATFORM FOR CONSTRUCTION

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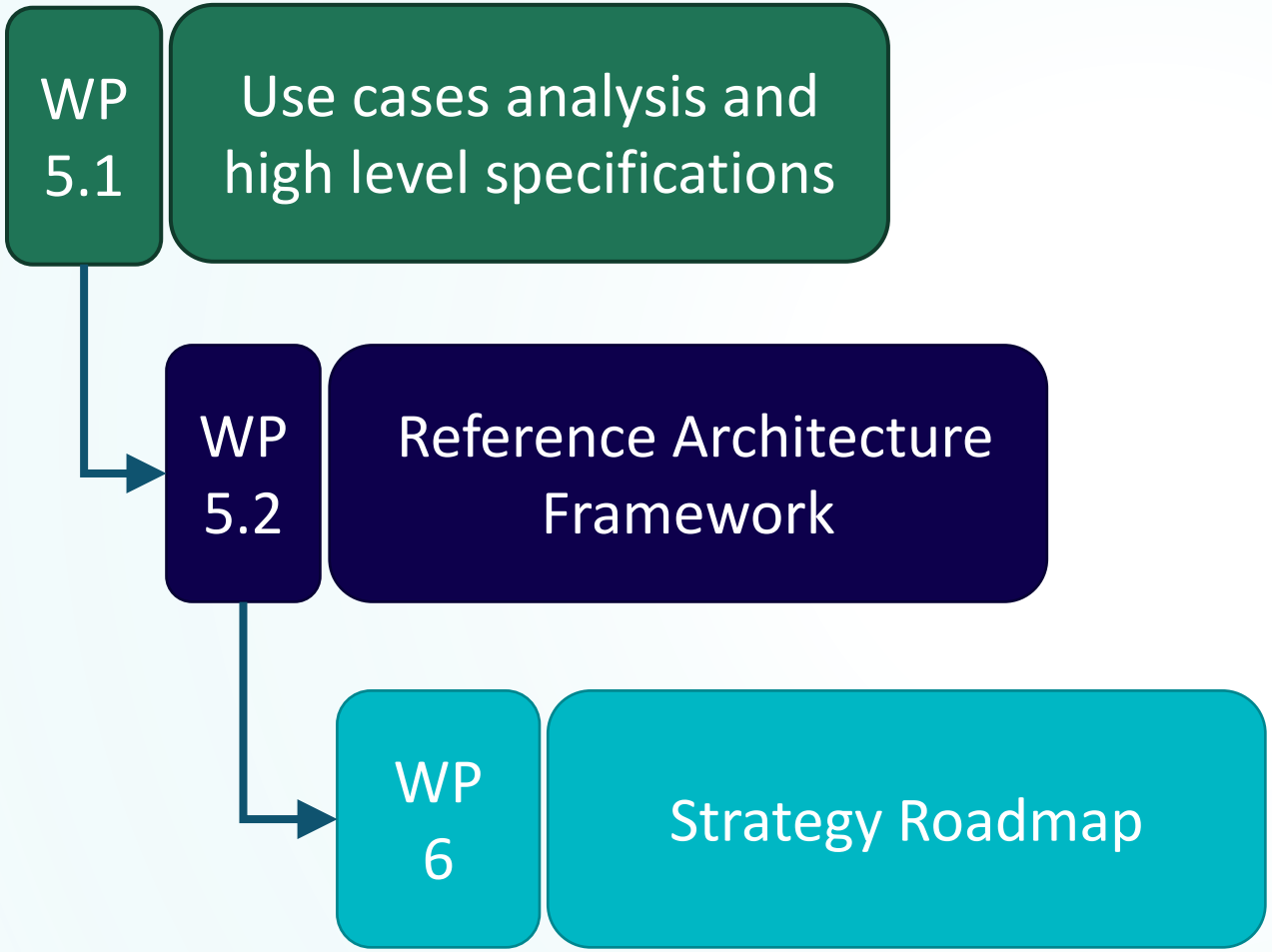
Reference Architecture Framework - CSTB



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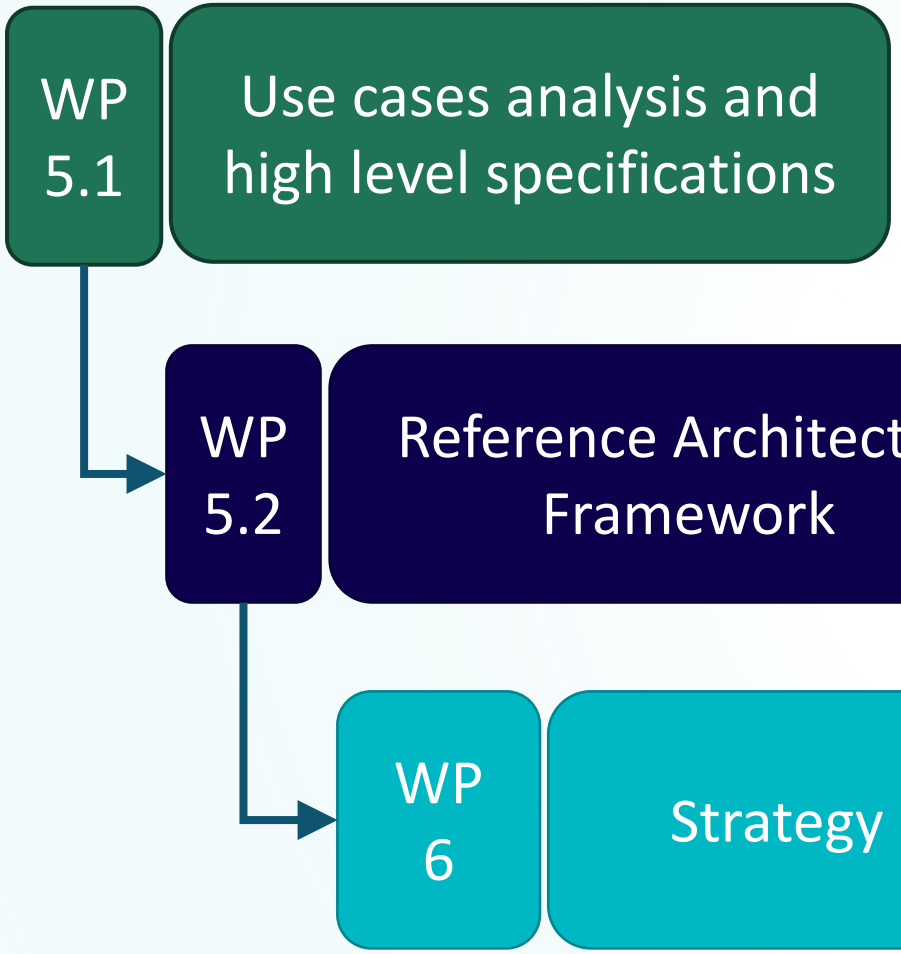

The vision

of the digital transformation of european construction industry, expressed as key use cases, in order to achieve the core objectives (eg rules, language, resource use, health, productivity, competitiveness…)

The required architecture

to support this vision, in terms of digital tools, services and platforms, interoperability, data and knowledge sharing…

How to get there

Research effort, pilot projects, regulations, deployment of new services…

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Focus on DigiPLACE Reference Architecture Framework

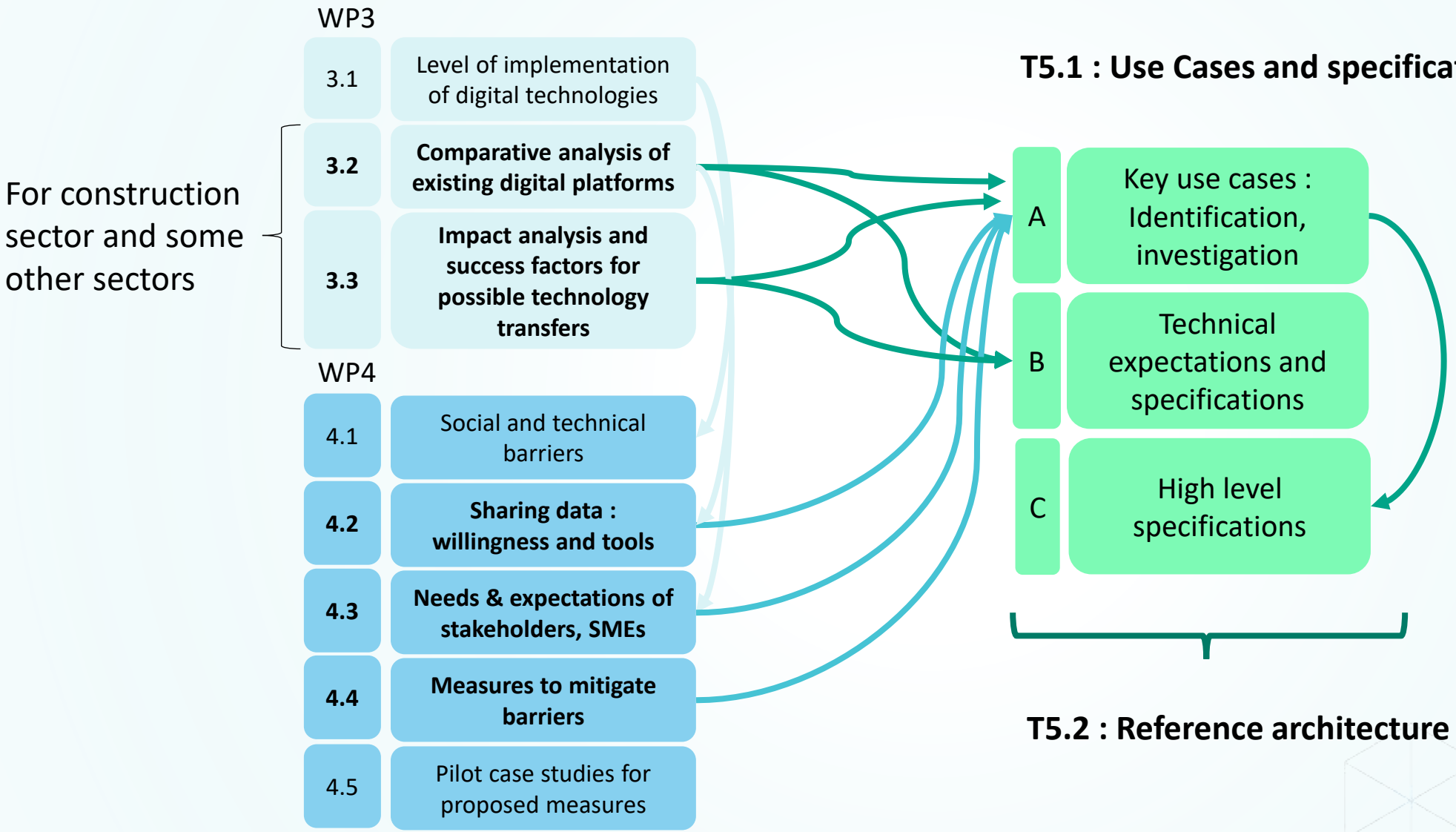
DigiPLACE Reference Architecture Framework

A comprehensive set of **common guidelines** for building, implementing and deploying **digital platforms** for the construction sector across Europe (public or private, local or european…)

Different types of guidelines

- General guidelines for implementing digital platforms (interoperability, open standards, data security & privacy…)
- A referential of tools and services to be developped/generalized in order to support key use cases
- Special focus on required public services and regulations, both at EU and MS levels
- ….

First step: identify the use cases and high level specifications



Collaborative work to identify the key use cases: the strategy

AREA / WORKING GROUP

- Common language, interoperability, standards
- Rules & Regulations, public services
- Data and knowledge sharing
- Environmental performance
- Business, market and collaboration

- 5 working groups on 5 main areas
- Not disconnected issues, but rather different viewpoints to address all the issues, with expected overlap
- Collection of contributions on the use cases, serving as a starting base for the working groups

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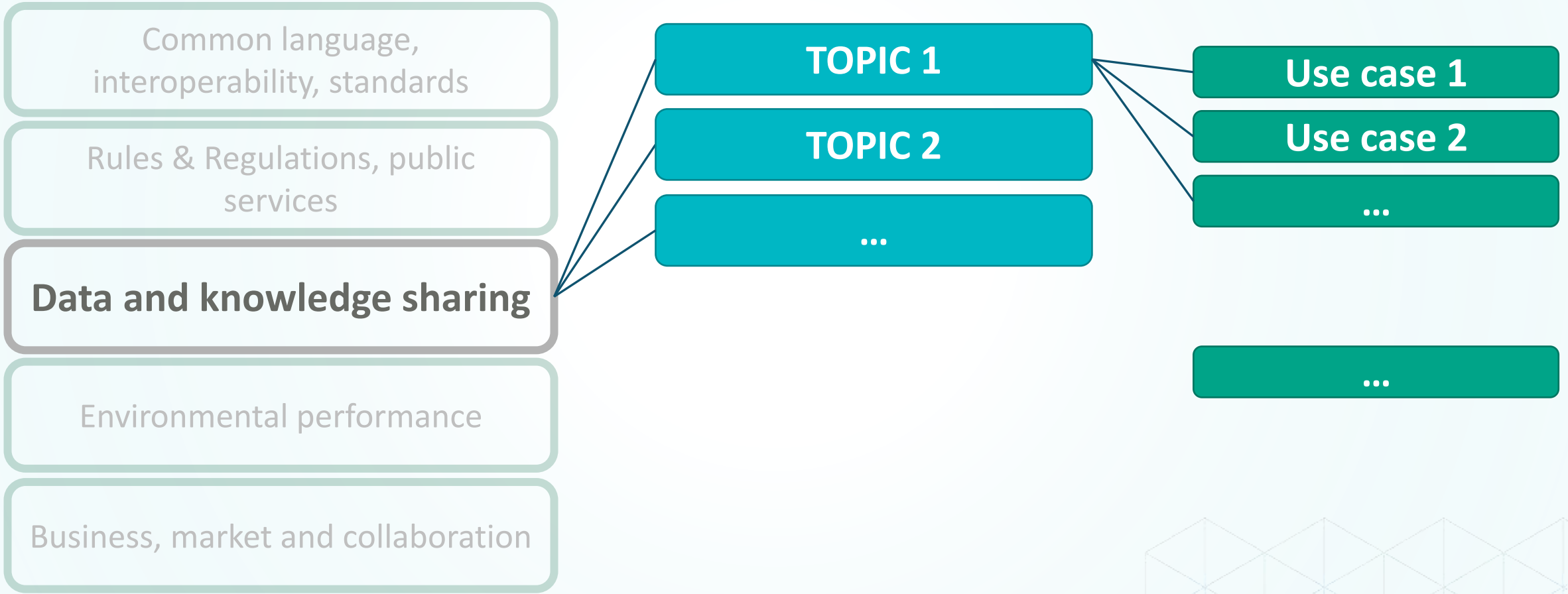
Collaborative work to identify the key use cases : the strategy



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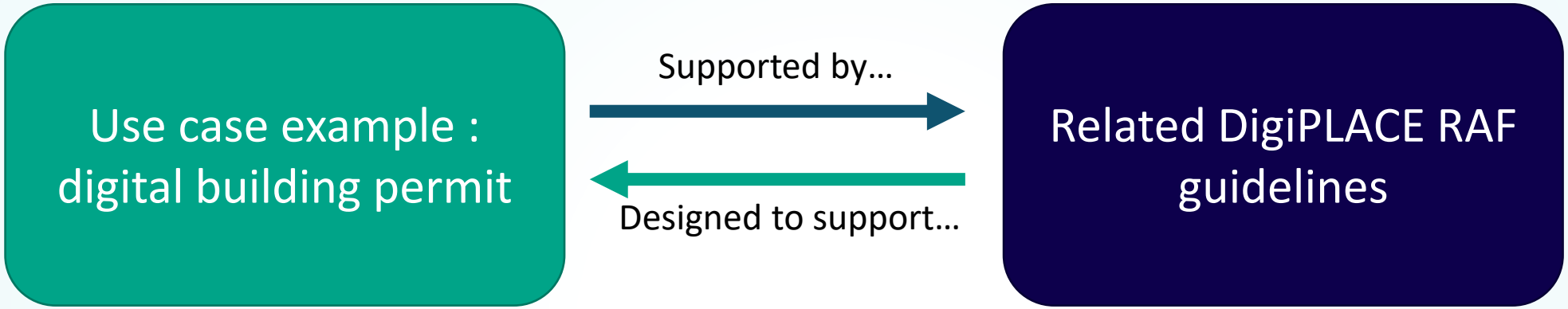

- Use case description : digitalized building permit application using BIM models. Automatized rules checking

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- Need of ontologies for urban planning rules
- Required public tools & services
- …

Area 1 : Common language, interoperability, standards

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- DigiPLACE is not replacing stantardisation bodies. Provide guidelines for successful standards implementation

Topics addressed :

- Interoperable product databases
- Link between BIM and IoT or telematics
- Open BIM implementation guidelines, promote the use of open standards
- Harmonize data requirements in public or private contracts

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Area 1 : Common language, interoperability, standards

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

Key outputs of the discussions

- Rely as much as possible on semantic standards (extensive definitions of terms, agreed naming, examples, etc);
- Add syntax standards like (file)format and structure to optimize accessibility of the semantic standards;
- Publish all kinds of standards in a publicly available repository (GitHub for example) to engage with a broad community;
- Define a process for end-users to engage more to help develop the standard and help create user-guides for end-users.

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Area 2 : Rules & Regulations, public services

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- Address all the interactions of the construction project with the administration
- Public procurement
- Regulatory issues

Topics addressed :

- Digitalized Building permits
- Use of BIM in public procurement
- Coordination of national regulations
- Building passport, B-LOG…
- Access to rules, rules checkers

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Area 3 : Data and knowledge sharing

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

Key topics discussed

- Access to European technical databases (administrations, standards, universities and research centers, etc.)
- Sharing of product data (performance, environmental, etc.)
- Data sharing between industries
- Best practices and knowledge transfer
- Data analytics and knowledge generation

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Area 4 : Environmental performance

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- Transversal : strong overlap with other areas, with a focus on environmental performance issues

Topics addressed :

- Environmental product data for BIM
- Generalization of LCA
- Calculation of Energy Performance Certificates
- Circularity
- Promote LEVEL(s) framework, sharing of environmental performance data

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Area 5 : Business, market and collaboration

Common language, interoperability, standards

Rules & Regulations, public services

Data and knowledge sharing

Environmental performance

Business, market and collaboration

General approach :

- Digital transformation of the construction project (based on PLM)
- Collaborative platforms, CDE
- Contracts and market issues

Topics addressed :

- CDE implementation
- BIM services marketplaces
- Digital supply chain, industry 4.0
- Contract standardization, Smart contracts, blockchain

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Area 5 : Business, market and collaboration – key outputs

Identified topics	Key use cases or sub-topics to be addressed by DigiPLACE RAF and strategy roadmap
Access to BIM and other services, marketplaces	Directory of public and private BIM platforms
	Public platforms with access to BIM services, particularly for SMEs
Collaborative platforms, Common Data Environments	Common guidelines for implementing CDEs
	Guidelines to ensure interoperability/data exchange between different CDEs
	Formal information exchange agreement (example of VISI)
Digital Supply chain, industry 4.0	BIM approach in the call for tender phase
	E-catologues, integration of manufacturers' BIM objects into BIM models, and related transformations of the supply chain
	Link between design and manufacturing
	Integration of construction equipment in digital supply chain, use of construction equipment data

Area 5 : Business, market and collaboration – key outputs

Identified topics	Key use cases or sub-topics to be addressed by DigiPLACE RAF and strategy roadmap
Tools and services for SMEs	Create an easily usable toolkit, approved by public authorities, and specifically targeting SMEs
Contractualisation, smart contracts, blockchain	Public platforms with access to BIM services, particularly for SMEs
Collaborative platforms, Common Data Environments	BIM-related contracts standardisation: sharing of best practices, contract agreements templates
	Implementation of blockchain technologies for different aspects of the construction project (see detail above)
Other use cases reletad to the digitalization of the construction project lifecycle	Digitalized building permit application and delivery, with automated rules checking
	Preparation of the digital twin, contribution of the stakeholders involved in the construction project to prepare the operation phase

Area 5 : Business, market and collaboration – key outputs

Identified topics	Key use cases or sub-topics to be addressed by DigiPLACE RAF and strategy roadmap
Others	Evolutions of ERP and CRM tools (trend to take into account, to be precised
	Sharing data of big public infrastructures (transnational projects)

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Next steps

- Deliverable 5.1 : Platform specifications > end of September
- Consultation of the CoS on high level specifications
- Deliverable 5.2 : Reference architecture framework > December
- WP6 : strategy roadmap > April, 2021

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DigiPLACE community of stakeholders

We are waiting for you in the community of stakeholders:

https://docs.google.com/forms/d/e/1FAIpQLSdvtdZ_C9N-4QrJfF0ahcL0IJ0-TKP-6sLe1ucW5qLF8dR6mA/viewform?vc=0&c=0&w=1

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TOWARDS A EUROPEAN DIGITAL PLATFORM FOR CONSTRUCTION

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Lunch Break

“ The next steps: towards a Strategic Roadmap for DigiPLACE

Alain ZARLI
ECTP

Understanding DigiPLACE main ‘technical’ output (RAF)

Overall objective

A (European) reference architecture framework (RAF) to support the vision of a digital transformation of the European construction industry and all stakeholders for the progressive generalization of digital platforms, data spaces, apps and services (including public ones).

RAF = a delimited, deployable, evolving set of specifications and development/deployment guidance fundamentally relying on the following principles:

- The principle of commonly agreed minimal, but sufficient interoperability levels (data-level, software level)
- The use of common standards, forming a baseline for the current state-of-the-art of existing solutions as well as a technical commitment to identify needs and required evolution of those standards
- A generalised access to data spaces, infrastructures (and their components) and (catalogues of) services available to all – and in particular technical aspects related to public services, including procurement and public contracts, as well as identified future generic digital services (Building permits, digital Building Logbooks, etc.)

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A (DigiPLACE) strategy roadmap for future achievements

Overall objective

Define a Strategy Roadmap to support the stakeholders for the progressive implementation(s) of the Reference Architecture Framework and applications

ROADMAP = a set of delimited, measurable and time-stamped actions (with associated instruments) supporting a generalised deployment and use of RAF-compliant digital platforms by 2027

Nurture the establishment of a common market of digital platforms and apps – supporting:

→ the FAIR Data Principles as a set of guiding principles in order to make data Findable, Accessible, Interoperable and Reusable (*Wilkinson et al., 2016*), allowing data producers and data publishers to promote maximum use of data and information, still ensuring various degrees of data ownership and privacy

→ the interconnection among (European, National, local) data spaces and platforms, to establish a pan-European network of (potentially certified) data spaces and related services.

Create a sample European set of experimental projects and facilities implementing and assessing the RAF set of specifications and development/deployment guidance, relying on a representative set of business scenarios, data spaces, and applications/services

Develop awareness, expertise and skills related to platform and services deployment, integration, and use, both for users of digital platforms, tools and services and for Third-party software/service developers and vendors – e.g. through Digital Innovation Hubs (DIHs)

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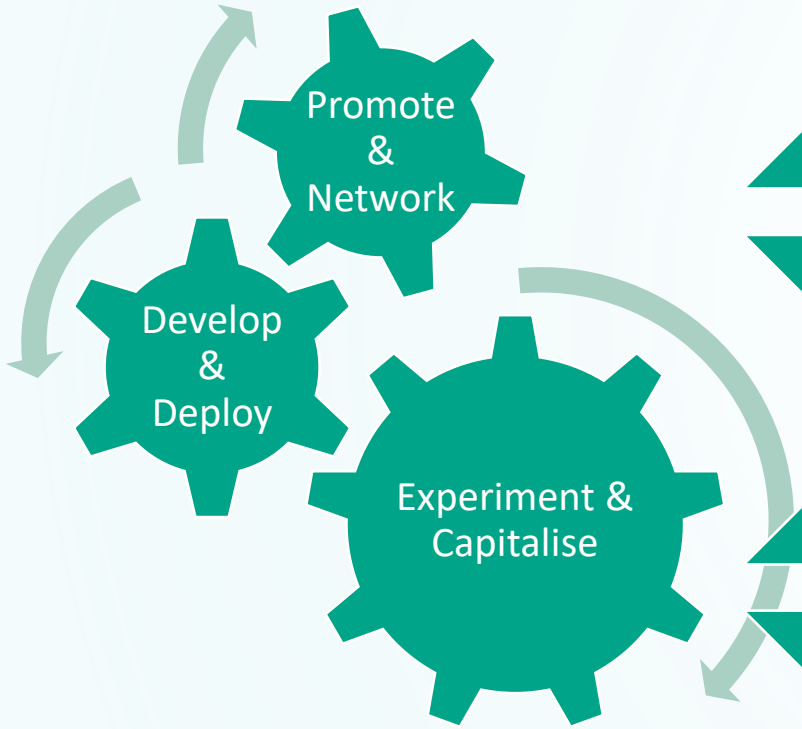
A ‘3 corner-stones’ approach



Promote & Network

- Creating a long-lasting European stakeholders ecosystem / Forum to promote and continuously refine the DigiPLACE RAF
- Developing a cartography of emerging or future initiatives and alliances dedicated to (RAF-compliant) digital platforms, apps and services

Develop & Deploy

- Building Digital platforms (new or adapted) and Common Data Spaces leveraging on DigiPLACE RAF
- Deploying Large-scale Pilots (LSPs - supported by European or MS-based projects, regional or private initiatives), along with common assessment methods
- Erecting a EU repository of Industry (Construction) Digital Commons (e.g. common data ontologies, reference data library, data sharing protocols…)

Experiment & Capitalise

- Providing an observatory of LSPs and Construction Digital Innovation Hubs (DIHs), contributing to training / digital skills development in Construction
- Contributing to RAF-based digitalisation of EU and National regulations & directives, and to standard developing organisations

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Example: Develop & Deploy, Deploying European LSPs (1/2)

Develop & Deploy

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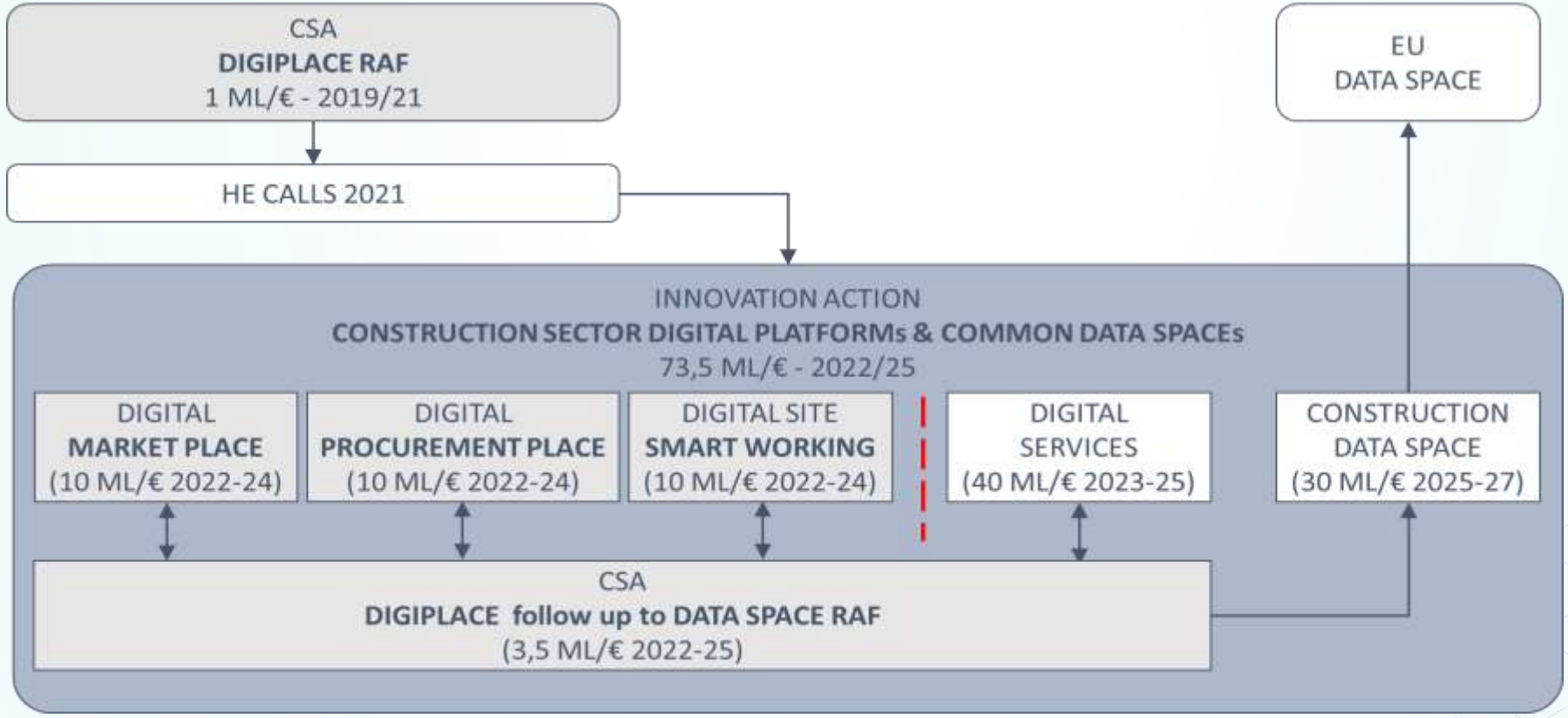
Overall objective (*under discussion*)

Proposal for an overview and timeline on future actions at a European level for integrating, deploying, experimenting, assessing the use and monitoring the impact of (RAF-compliant) platforms and associated services



Example: Develop & Deploy, Deploying European LSPs (2/2)

INNOVATION ACTION
CONSTRUCTION SECTOR DIGITAL PLATFORMs & COMMON DATA SPACEs
30 ML/€ - 2022/24

COMMON PLATFORMs REQUIREMENTS:

1. DATA PLATFORM ARCHITECTURE(machine framework, DBMS)
2. DATA MINING ARCHITECTURE (knowledge management, AI)
3. DATA NETWORK ARCHITECTURE (interface to other DBs and platforms)
4. COMMON LANGUAGE (ontology, semantic web, linked data, etc.)
5. STANDARDS (technical rules machine understandable, etc.)
6. REGULATIONS (mandatory rules machine understandable, etc.)
7. API and APPs (rules to open access for market tools, etc.)
8. SERVICES (base services to envelop SME markets, etc.)

MARKET PLATFORM – up to 10 ML/€ – 2022/2024

DIDIGITAL MARKET PLACE

Product & Design

e.g. IoT, digital twins, construction product, renovation & re-cycling, real estate, design, etc.

PUBLIC PLATFORM – up to 10 ML/€ – 2022/2024

DIGITAL PROCUREMENT PLACE

Public Admin.

e.g. public procurement, E-permits, EU cadastre, urban plans, infrastructure, smart contract, etc

BUILDER PLATFORM – up to 10 ML/€ – 2022/2024

SMART WORKING

Builder & workers

e.g. smart approach to site working, knowledge, safety, construction 4.0, machinery, robotics, etc.

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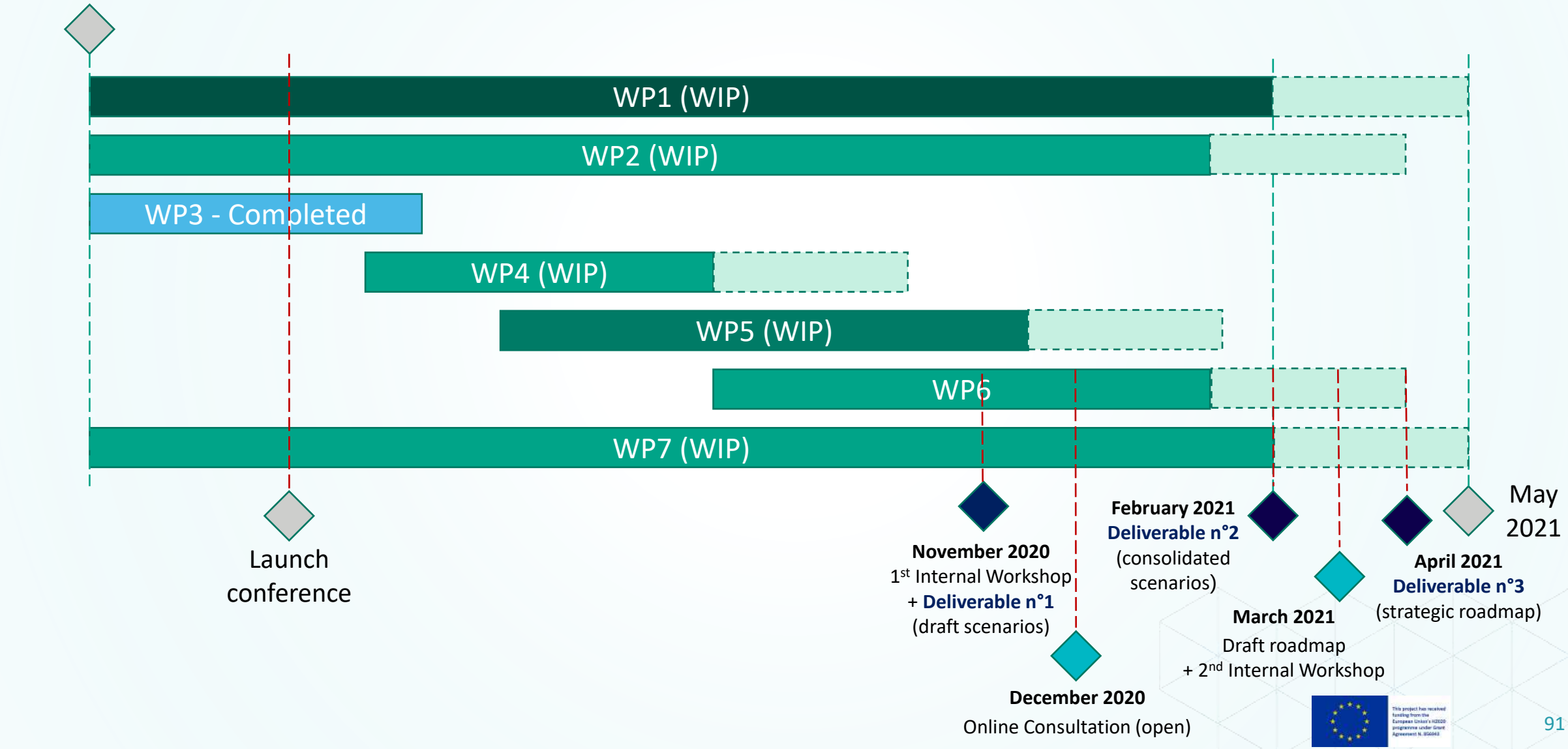
Timeline of actions within DigiPLACE (WP6)



“Involving the construction stakeholders – the role of the DigiPLACE CoS

Luigi PERISSICH
Federcostruzioni

This project has received funding from the European Union's H2020 programme under Grant Agreement N. 856943

WP 2 Long-Term Community Building: why CoS important?

Creation of an industry driven EU Central Community of Stakeholders (CS) that will contribute to **create communities of practice in Member States** focused on accelerating the take up of digitization by the construction sector.
The CoS performs 3 main functions:

1) **inform** the stakeholder about the project objectives and very preliminary outcomes;

2) **Communicate** with a selected number of stakeholders with the capacity to disseminate the Pan-European approach and methodology to digitization developed within the project

3) **Influence** power at institutional, national or European level to “lobby” for supporting/deploying the results of the project.

Clustering of the CoS

Cluster Categories	
Communities of practices	
Construction product manufacturers	
Contractors	
Designers	
Educational institutions	
Individuals	
Industry associations	
Operators	
Owners	
Policy makers	
Private clients	
Public clients	
Software developers	
Technology advocates	
Value-adding resellers and rental companies	

Country: we need more members from all over europe

Country		%
Italy		48,8
France		6,7
Spain		7,4
Germany		6,3
Nederland		3,5
Danmark		3,2
UK		3,9
Belgium		4,2
Portugal		2,1
Austria		1,4
Norway		2,1
Hungary		1,1
Ireland		1,4

Country		%
Bulgaria		0,4
Czech Republic		0,4
Europe		0,4
Finland		1,4
Grecia		0,4
Lithuania		0,4
Poland		0,4
Slovakia		0,4
Slovenia		0,7
Sweden		1,4
United States		0,4
Canada		0,4
Luxembourg		1,4

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TOWARDS A EUROPEAN **DIGITAL PLATFORM** FOR **CONSTRUCTION**

DigiPLACE is a framework allowing the development of future digital platforms as common ecosystems of digital services that will support innovation, commerce, etc.

Join the Community of Stakeholders

and actively contribute to the building of the European Digital Platform for the construction ecosystem

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“Join now and be part in building the European construction digital infrastructure”

Join now the DigiPLACE community of Stakeholders

Q&A

CONCLUSION

Miimu AIRAKSINEN
Association of Civil Engineers Finland

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