

Enabling the use of state-of-the-art Construction Digital Technology in Portugal

AGENDA

1. Construction Digital Technology in Portugal
2. BUILT CoLAB Presentation
3. BUILT CoLAB Research Areas

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1. Construction Digital Technology in Portugal

In the last few years **significant steps** were taken to proceed to the **Twin Transition in Portugal**:

Portuguese
Technology
Construction
Platform
(PTPC)

AEC
Cluster

Sectoral Pact
Signed with the
Government

BUILT CoLAB
+ AEC Cluster/PTPC
+ dozens of Associates
(Construction, Design, RTOs)

Future of Construction Project

REV@Construction Project

Agenda Mobilizadora PRR

BUILT
CoLAB

DIH
DIGITALbuilt

2011

2017

2020

2021

2022



2. BUILT CoLAB Presentation



Research, Innovation and knowledge transfer, to increase productivity, competitiveness and sustainability of the ecosystem of the AEC Sector.

We follow a “Technology to Market” approach”.



2. BUILT CoLAB Presentation

We promote the digital and environmental transition of buildings and infrastructures, making them adaptable, intelligent, resilient, and sustainable.

2. BUILT CoLAB - Presentation



We promote the **digitization**, based on **BIM** methodology and technologies that promote the use of a **Digital Twin** in the built environment.

We promote the **industrialization** through the modularization of the construction, also developing innovative technologies for assembly on site.



2. BUILT CoLAB - Presentation

Aggregation of knowledge centers, industry and end users in a collaborative environment, promoting a common creation model that will contribute to the transformation of the built environment of the future.



2. Built CoLAB - Areas of Expertise



BIM AND
PARAMETRIC
DESIGN



LCA AND
CIRCULAR
CONSTRUCTION



BUILDING
DIGITAL
TRANSITION



DIGITAL
TWIN AND
POINT CLOUD

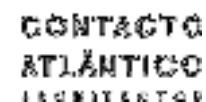


IoT AND
CYBERPHYSICAL
SYSTEMS



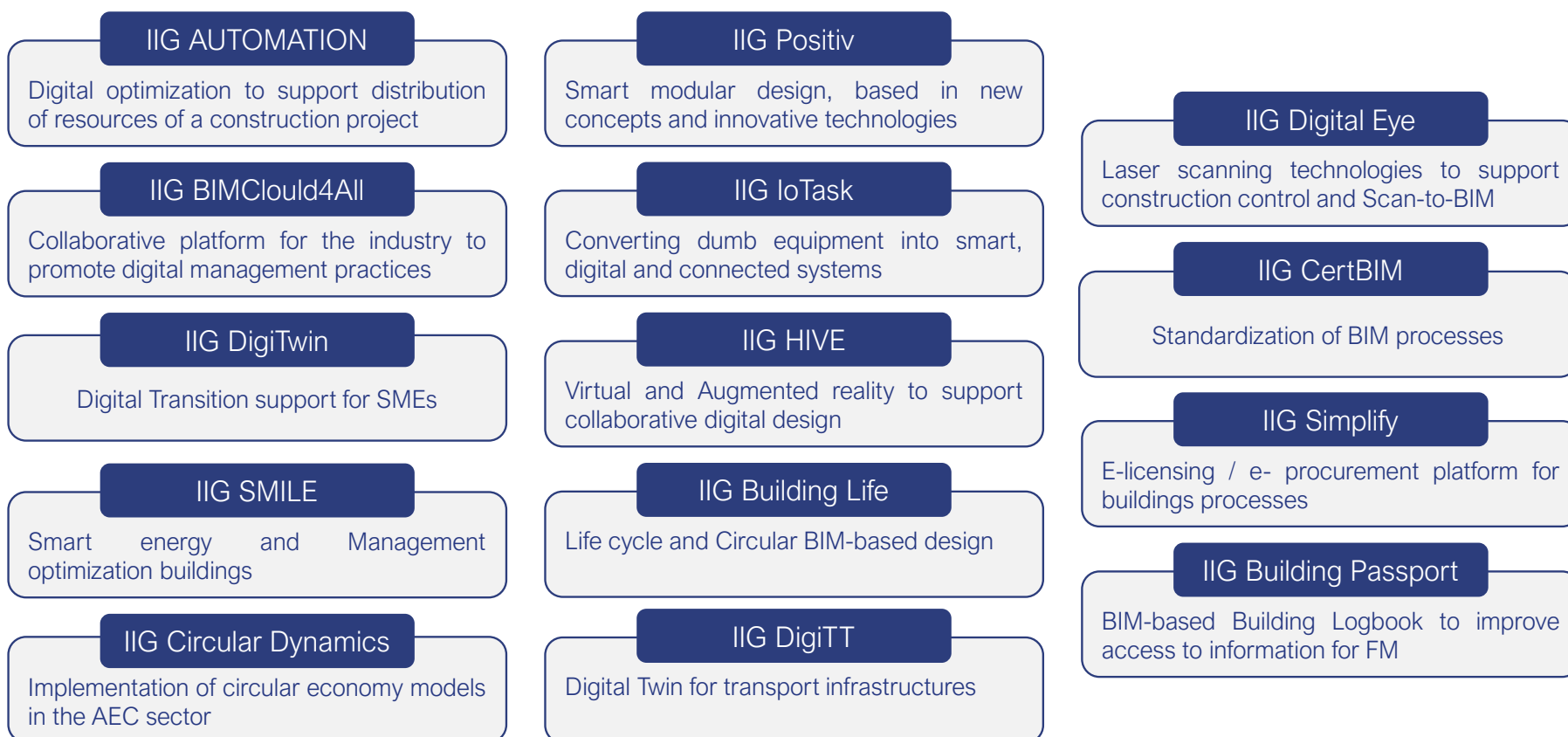
AUGMENTED/
VIRTUAL REALITY

2. Built CoLAB - Associates

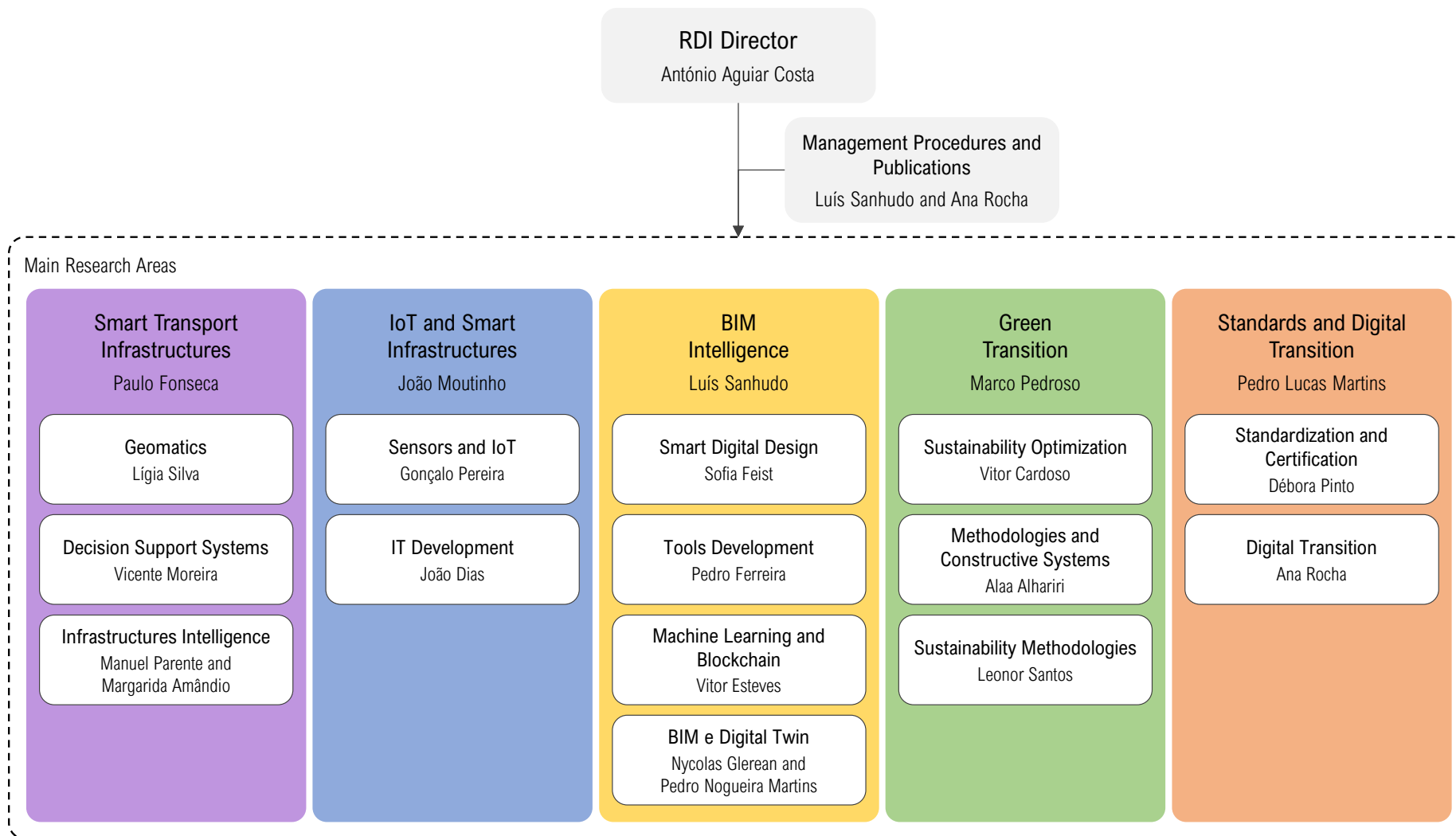


3. Research Areas - Intensive Innovation Groups

The work is developed from an Intensive Innovation Groups (IIGs) perspective that, adding knowledge and accelerating innovation, capitalizes the relationship with agents in the AEC sector.



3. Research Areas

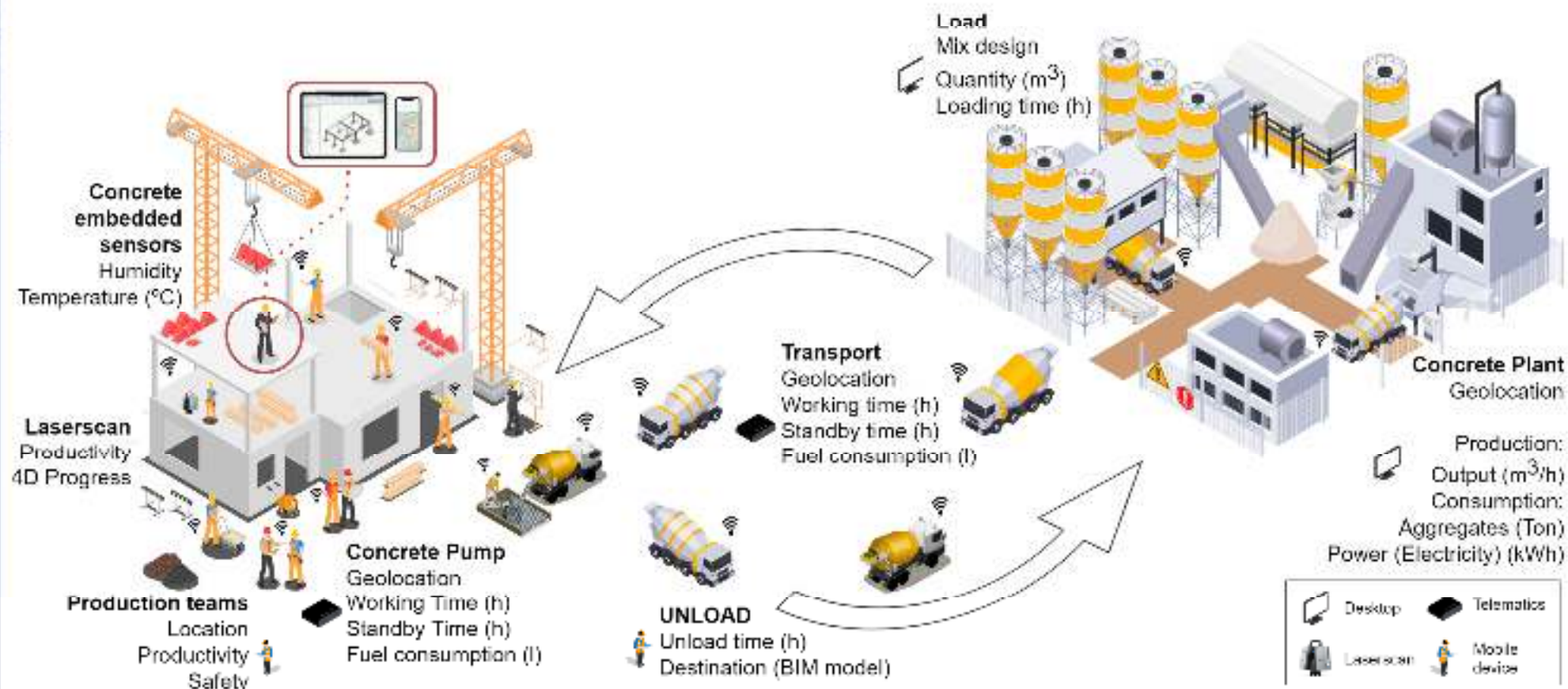


3. Research Areas - Developments

Smart Transport Infrastructures	IoT and Smart Technologies	BIM Intelligence	Green Transition	Standards and Digital Transition
<u>AUTOMATION</u> Automation PAV 4.0 BET 4.0	<u>IoTask</u> Retrofitting Smart Office Fuel Estimator SmartCommNode	<u>Positiv</u> ModuLIB • ModuLAB • ModuGEN • OPTIMIZE	<u>Building Life</u> EPD Database LCA Optimization BIM LCA plugin	<u>CertBIM</u> BIM Certification BIM Empowerment
		<u>Simplify</u> BIM Checker • BIM Classification		
		<u>SMILE</u> Smart Digital Twin		
		<u>BIMCloud4All</u> Digi4Construction • idBIM - National Object Library	<u>Circular Dynamics</u> Circularity GreenSpecs	<u>DigiTransition</u> DigiPME BIMSpecs
		<u>Building Passport</u> Blockchain4BIM • Construction Data Templates • BIMBench		
		<u>HIVE</u> BIM Exporter • VR Cockpit • Construction Simulation		
		<u>Digital Eye</u> Scan2BIM • ConstructionScan • PointLAB		
<u>DigiTT</u> Drilling Audit				

3. Research Areas

BET 4.0



3. Research Areas - Construction Simulation





3. Research Areas - EPD Database —

Main goal:

Gather EPD data that will allow to evaluate the potential of an optimization algorithm to choose from several materials and products and their integration in the BIM plugin





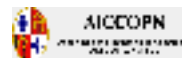
3. Research Areas - Circularity Action Plan

- Protocol with the Portuguese Ministry of Environment and Climatic Action
- Support SMEs and Public Administration of the Construction sector to promote **decarbonization** and efficient use of **resources** supporting the transition from a **linear** to a **circular economy**
- State-of-the-art report, organization of **Capacitation actions** and **Workshops** → gather information from all the actors

Main goal:

Develop an Action Plan for Circularity in Construction in Portugal

Partners:



FUNDO AMBIENTAL



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