

Cross collaboration workshop "GAP" – morning session
June 27<sup>th</sup> 11:00 – 12:30



Presenter	Projects
Fergal Purcell/Suzanne Lesecq	TOPAs
Dawid Krysinski	MOEEBIUS
Dawid Krysinski	HOLISDER
Federico Noris	HIT2GAP
Martin Klepal/Christian Beder	Energy2District
Rizal Sebastian	INSITER
Jo Southernwood	NOVICE
Jo Southernwood	RECO2ST
Wilmer Pasut	ExcEED



# Brief introduction of the presenter: Dr Rizal Sebastian

- Background and affiliation
  - Education in architecture, design and construction management
  - Present: Director of Research at DEMO (NL). Past: TNO (NL) and ARCADIS (NL)
- Project Coordinator roles
  - H2020 INSITER (presented in this workshop)
  - H2020 P2ENDURE (Plug-and-Play renovation; presented in the parallel session to this workshop)
- Scientific Coordinator roles
  - H2020 SAFEWAY (Big Data for resilience of transport infrastructure)
  - H2020 BIM-SPEED (BIM for deep renovation)
- Former project & scientific coordinator of FP6 and FP7 projects in BIM, EEB, urban infrastructure



# Project overview

• Start date : 1 December 2014

Duration

: 48 months





## www.INSITER-project.eu

Large construction firms	Architectural, engineering, ICT firms	University, research institutes knowledge platform
Dragados (Spain) Hochtief ViCon (Germany)	Ipostudio (Italy)	
	3L (Germany)	
	AICE (Italy)	UNIVPM (Italy)
	DWA (Netherlands)	Fraunhofer IPA (Germany)
	RDF (Bulgaria)	CARTIF (Spain)
	Siemens SW (Belgium)	ISSO (Netherlands)
	DEMO (Netherlands)	
	Coordinator	

 Budget : EUR 5,936,010

Partners



## **Project summary**



### Key objectives (addressing challenges in H2020-EeB-3-2014)

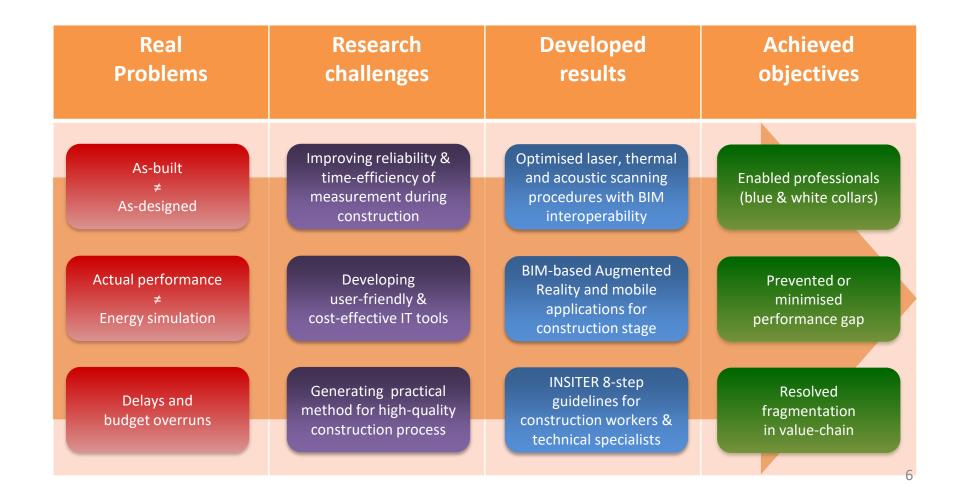
- New self-inspection techniques and quality check measures for efficient construction processes
- Portable and robust systems easily handled in the construction site
- To avoid the presence of thermal bridges or to ensure and control proper air-tightness
- To avoid or reduce economic and time deviations of the construction processes
- Solutions validated in a relevant construction environment (TRL 6)



# **Project summary**



#### **Current status**



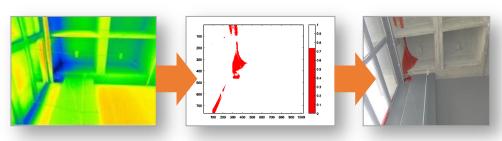


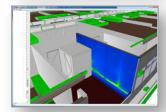
## Key innovation



### **Building Performance Optimisation & Gap Reduction**

- Optimised & faster thermal, acoustic, ultrasound, laser measurement procedures during on-site construction
- Integration and interoperability of measurement output data to BIM and Clash Detection
- BIM-based Augmented Reality on Microsoft HoloLens and tablets with Clash Cubes in AR
- 8-step Process Method and Mobile App for Self-Instruction & Self-Inspection for construction workers

















## Key innovation



## Business/delivery models and market opportunity

 Awareness and skill trainings for workers and technicians through synergies with Build Up Skills and CSA projects



- Recommendations for standardisation:
  - Quality protocols in relation to EPBD
  - BIM interoperability to measurement devices and real-time data
  - Guidelines for Self-Instruction and Self-Inspection
- Business exploitation opportunities:
  - Spin-off SME to support construction firms and clients in EEB performance and quality assurance
  - Support to government and industry in the new law in the Netherlands for Self Quality Assurance