



External Experts Advisory Board Meeting #2

WELCOME



AGENDA

10:00am Meeting opening, welcome (GoToMeeting)
10.15am Review of agenda (GoToMeeting)
10.20am Introduction and presentation of each expert (GoToMeeting)
10.40am Review of BIM & Energy Efficiency requirements and use cases (CU)
(GoToMeeting)
10.55am BIMEET Outputs presentations (BRE, VTT, CRES) (GoToMeeting)
11.30am Comments, discussions and classification by the experts (brainstorming /
offline)
12.00am Feedbacks to the whole group by the 3 facilitators
12.15am --- Lunch break
01.15pm Wrap-up and discussion (LIST) (GoToMeeting)
01.30pm BIMEET Outputs presentations (#2) (CSTB, CU, LIST) (GoToMeeting)
02.00pm Towards BIM&EE Training (INES, Eksergia, LIST) (GoToMeeting)
02.45pm Brainstorming BIM&EE label and training (brainstorming / offline)
03.45pm Wrap-up of group discussions
04.00pm Conclusion (LIST)
05.00pm Meeting closing



External Experts Advisory Board Meeting #2

INTRODUCTION

SYLVAIN KUBICKI



BIMEET External Experts Advisory Board 2nd Meeting
November 26th, 2019 – Brussels, Belgium





SECTION 1

INTRODUCTION

BIMEET

BIM-BASED EU-WIDE STANDARDIZED
QUALIFICATION FRAMEWORK FOR
ACHIEVING **E**NERGY **E**FFICIENCY
TRAINING

POLICIES AND REGULATIONS

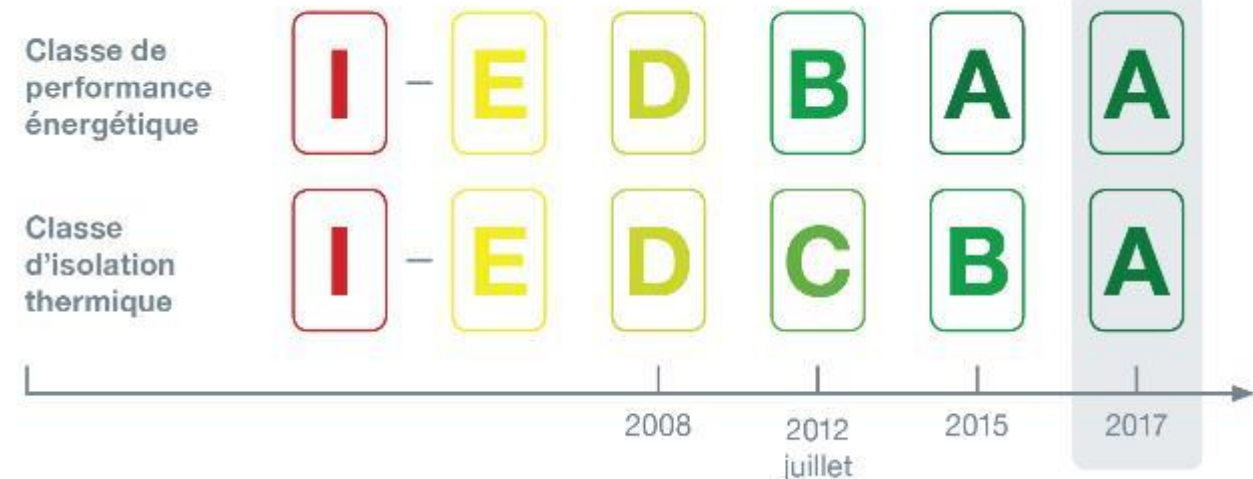
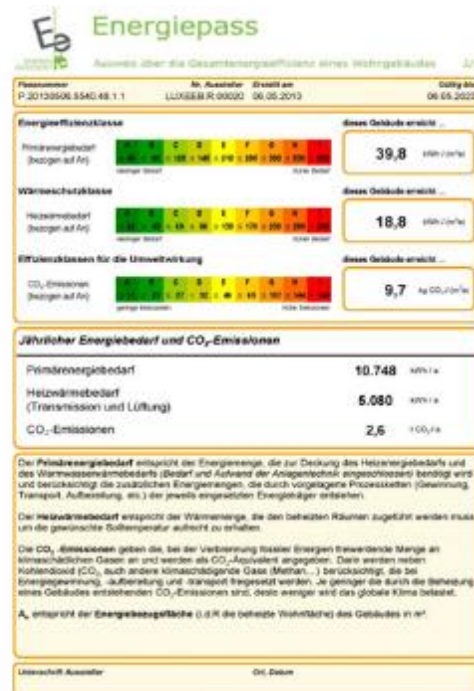
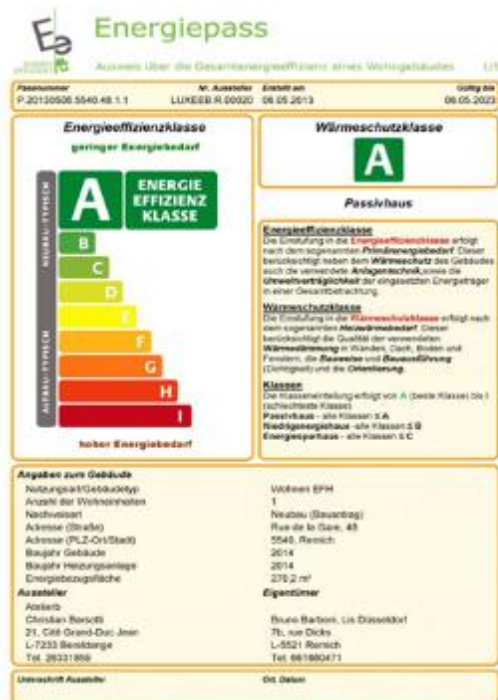
ENERGY EFFICIENCY IN BUILDINGS

Energy Performance Building Directive (EPBD)

Energiepass (Certificat de Performance Energétique)

Energy requirements in Luxembourg

01/2017: "Nearly Zero Energy Building" (AAA) for new buildings

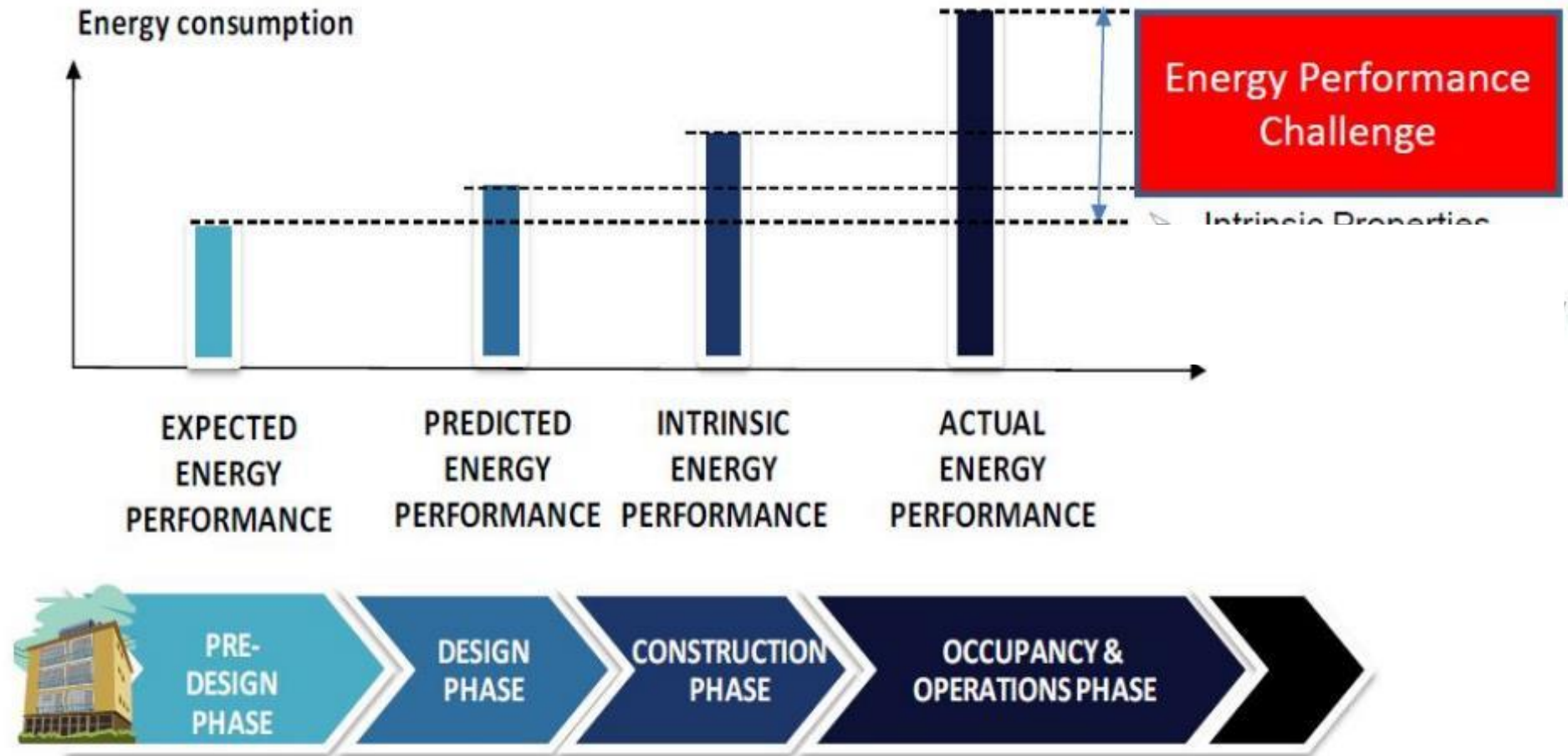


CHALLENGES

THE "ENERGY GAP"

Energy use **predicted in the design** stage of buildings **vs.** the energy use of those buildings **in operation**

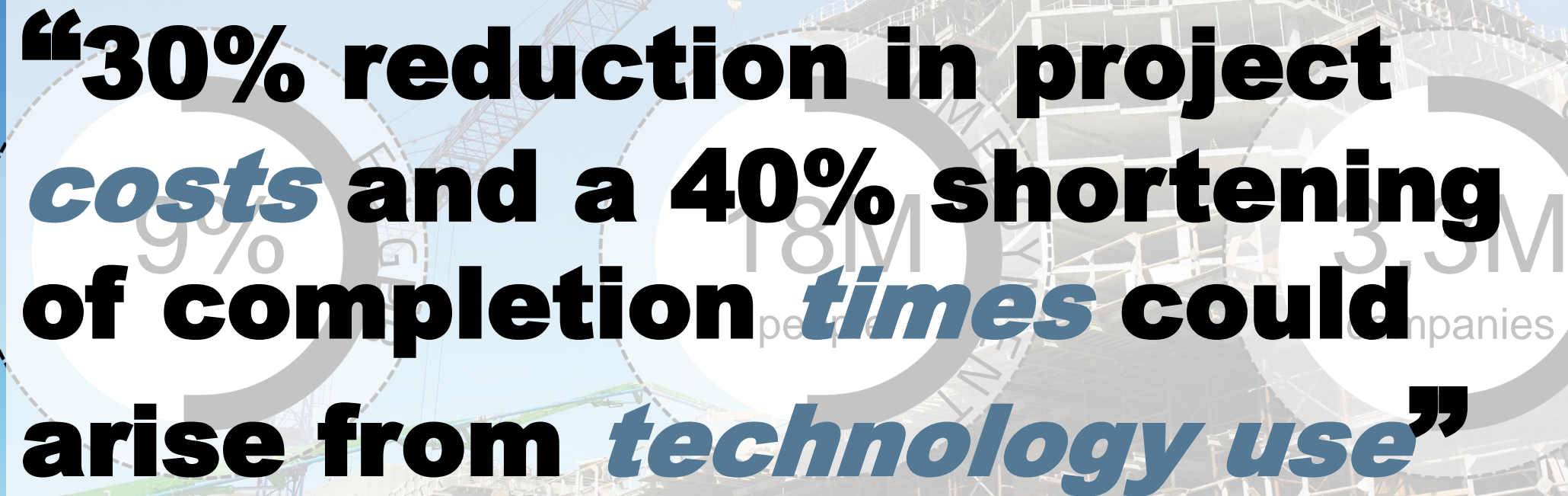
- Intrinsic properties
- Dynamic conditions
- Environmental uncertainties
- *Workmanship*
- *Occupants* behaviour
- BMS Operational Policy
- ...



https://en.wikipedia.org/wiki/Performance_gap

Extract from: Prof. Yacine Rezgui. Cardiff University. *Sustainable Places A Multi-disciplinary Perspective to Built and Natural Environment Challenges in the 21st Century*. Presentation. LIST Seminar. August 2016.

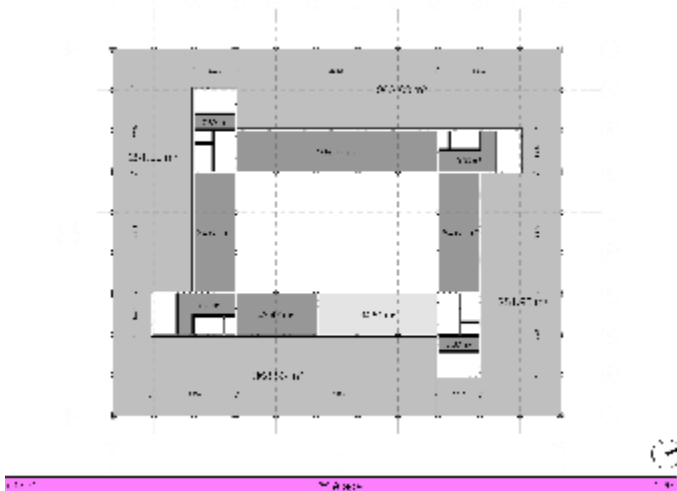
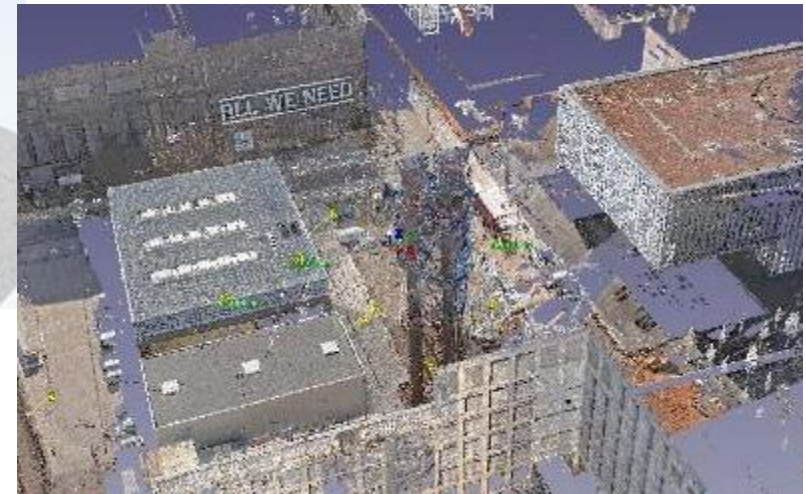
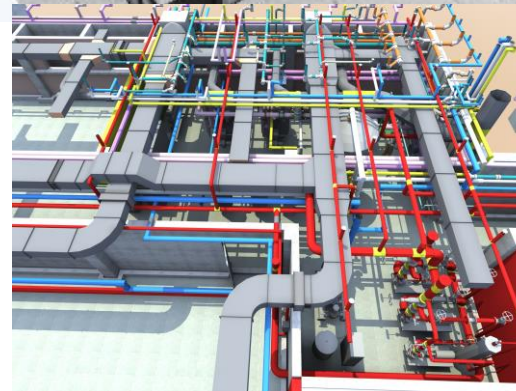
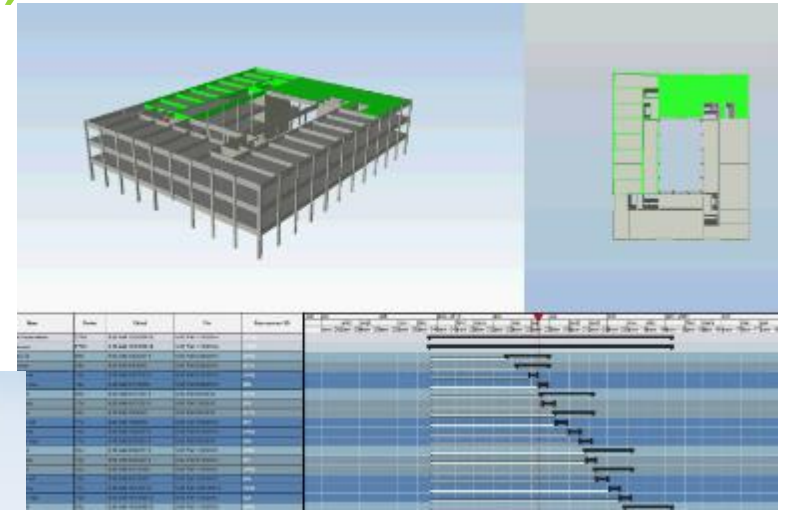
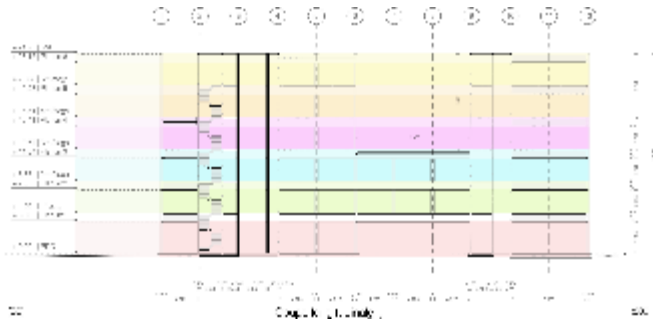
DIGITALIZATION OF ARCHITECTURE, ENGINEERING, CONSTRUCTION & FM SECTOR IN EU



**“30% reduction in project
costs and a 40% shortening
of completion *times* could
arise from *technology use*”**

EU Building Information Modeling Handbook 2017

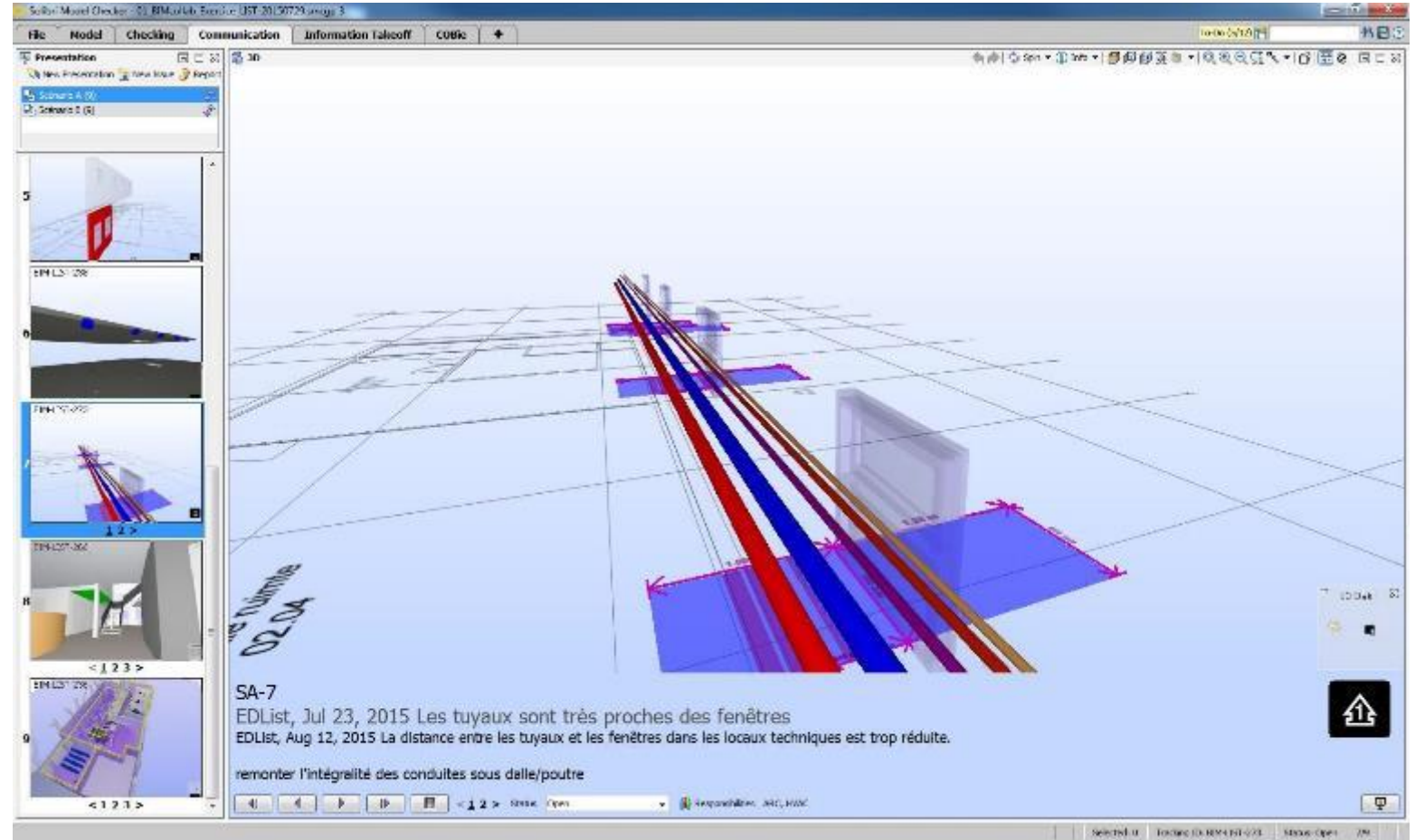
BUILDING INFORMATION MODEL(S) AUTHORING



MODELS COORDINATION

Quality
control

Issues
management

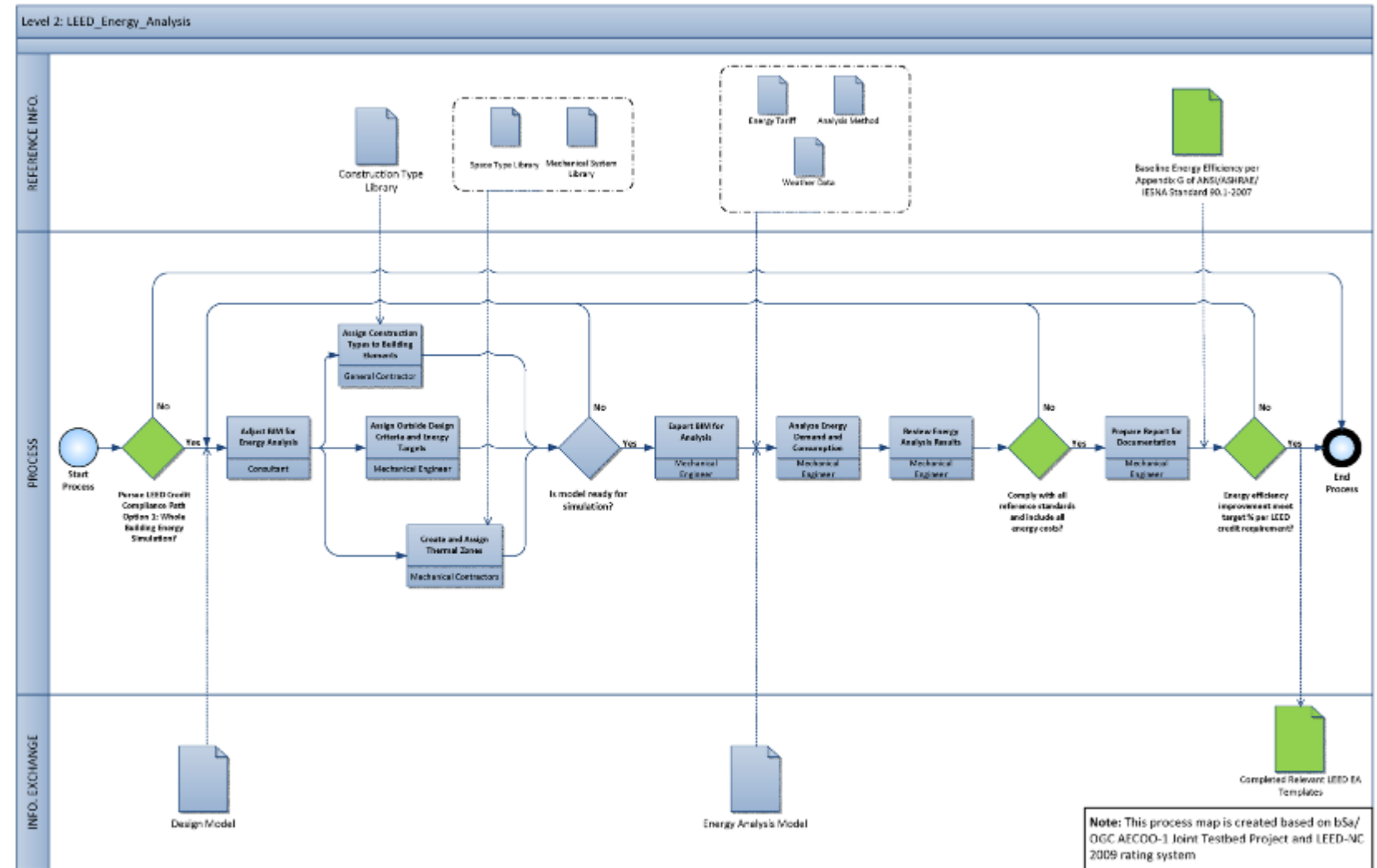


BUILDING INFORMATION MODELING MANAGEMENT

Management of Information Exchanges

- Requirements
- Follow-up

Contractual implications



Integrated Process Mapping For bim Implementation In Green Building
Project Delivery. Wu, W. & Issa, R. (2013). 13th International Conference
on Construction Applications of Virtual Reality

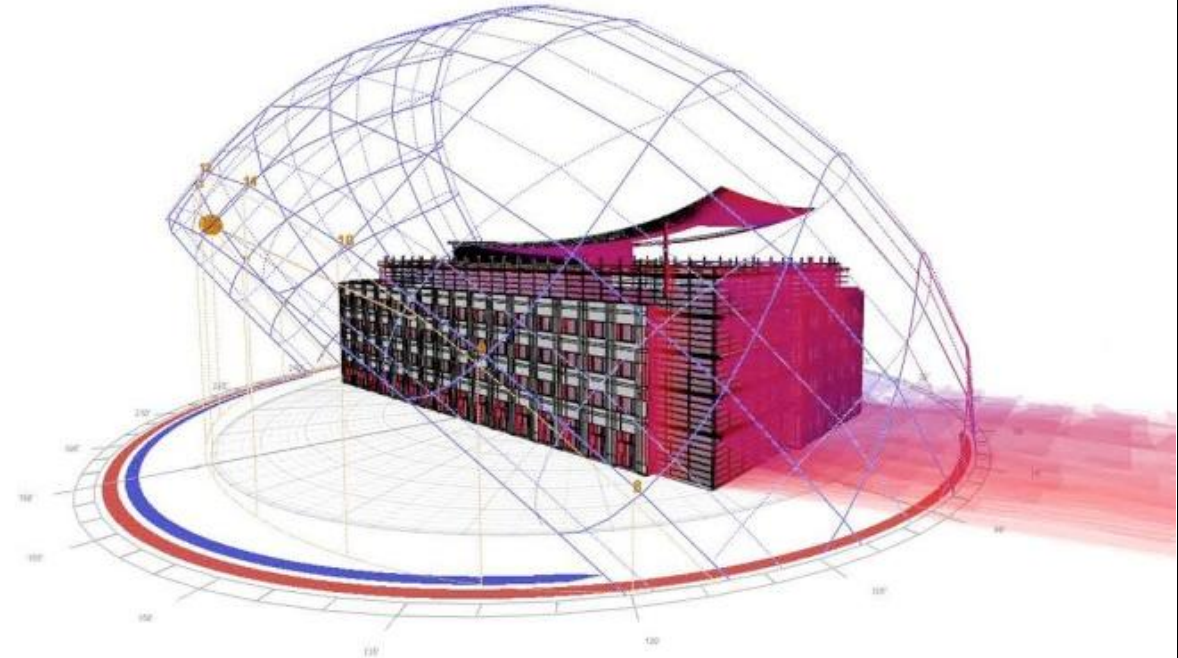
BIMEET - TOWARDS A BIM-EE EUROPEAN QUALIFICATION FRAMEWORK

BIM for Energy Efficient Buildings

Bridging the gap between **improved design and actual EE measurements** in **Operation & Maintenance**

- Research results
- Examples
- Policies and public BIM guidelines

But only a few dedicated training offer across EU focus on this challenge

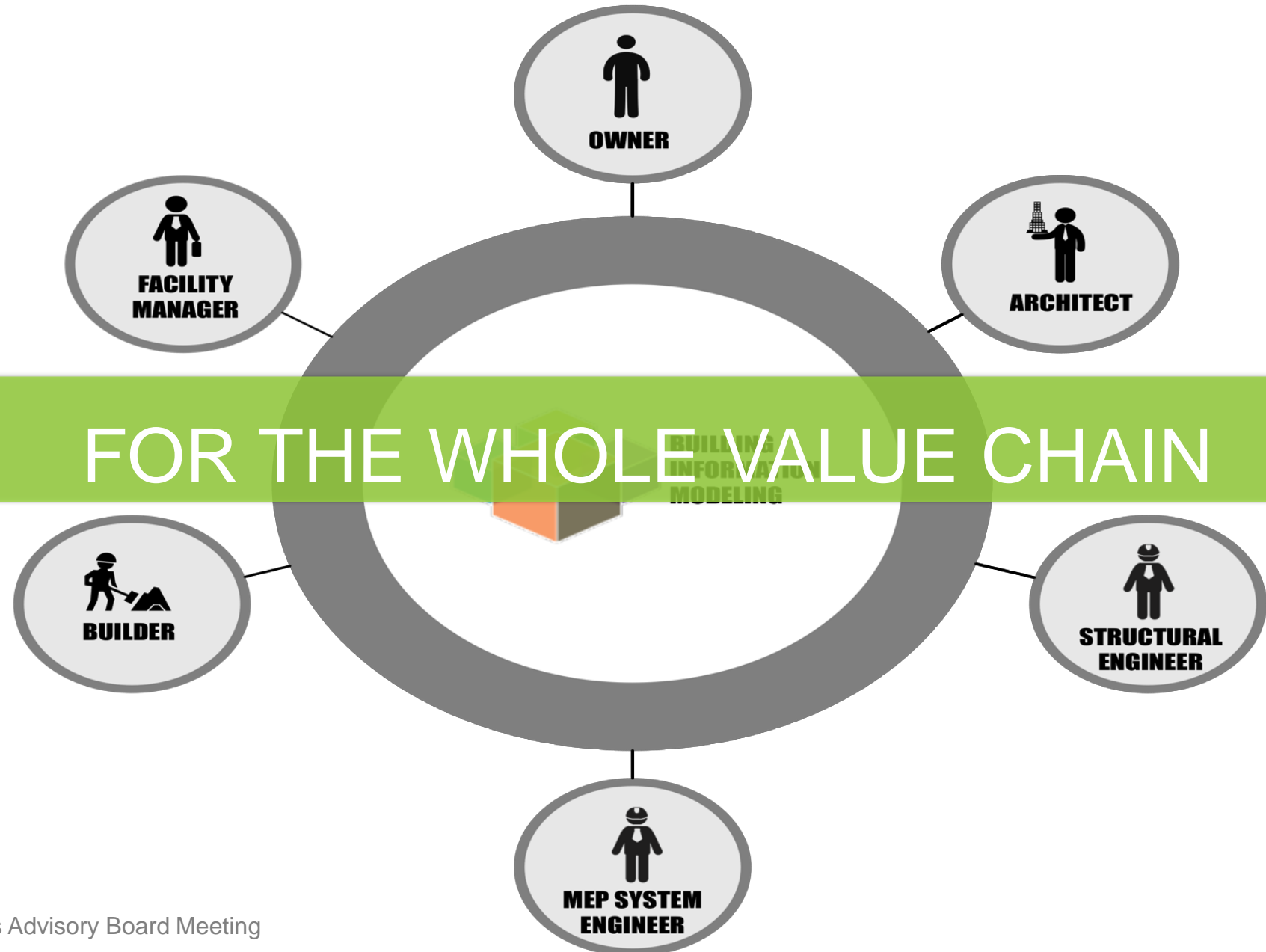




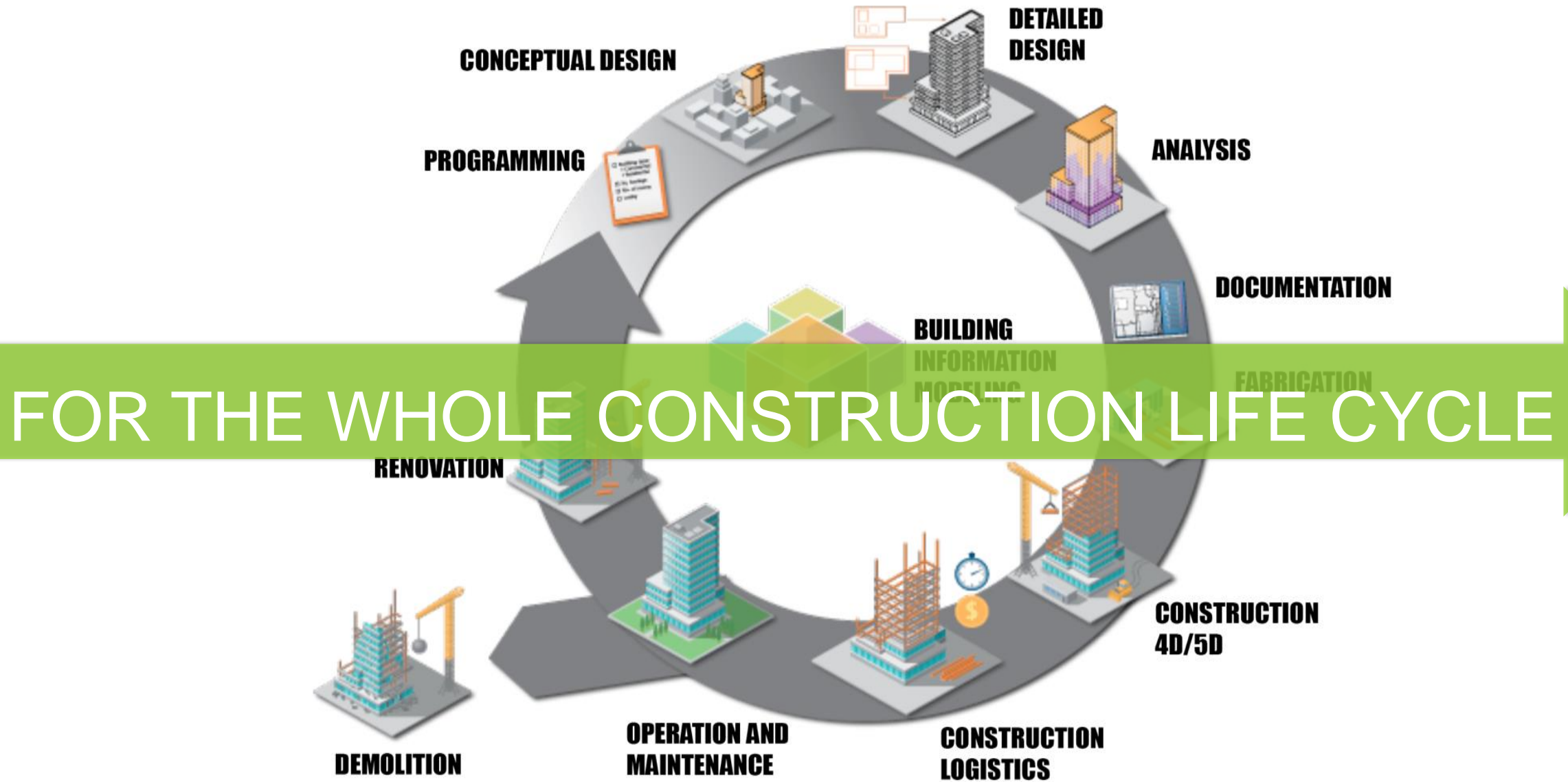
SECTION 2

BIMEET PROJECT

BIM



BIM



BIMEET CONCEPT

BIMEET considers

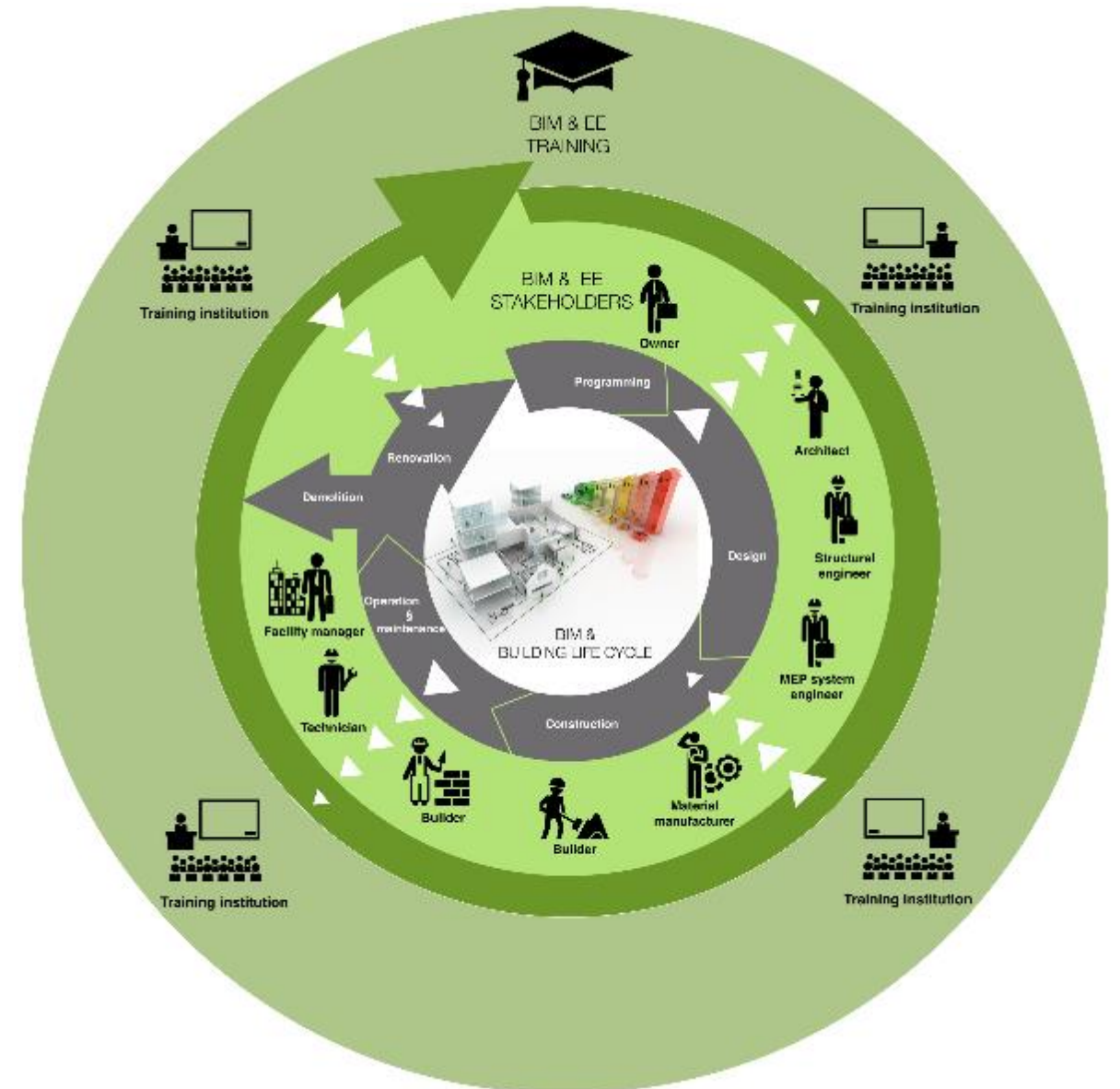
- Each stage of building's life-cycle
- All actors involved
- To highlight specific skills required

For a global BIM approach

- Enabling achieving EE in buildings

BIM as a tool for improved multi-disciplinary approach across trades

- BIM-based material for enhanced energy efficiency learning





SECTION 3

ORGANISATION AND WORKSHOP AGENDA

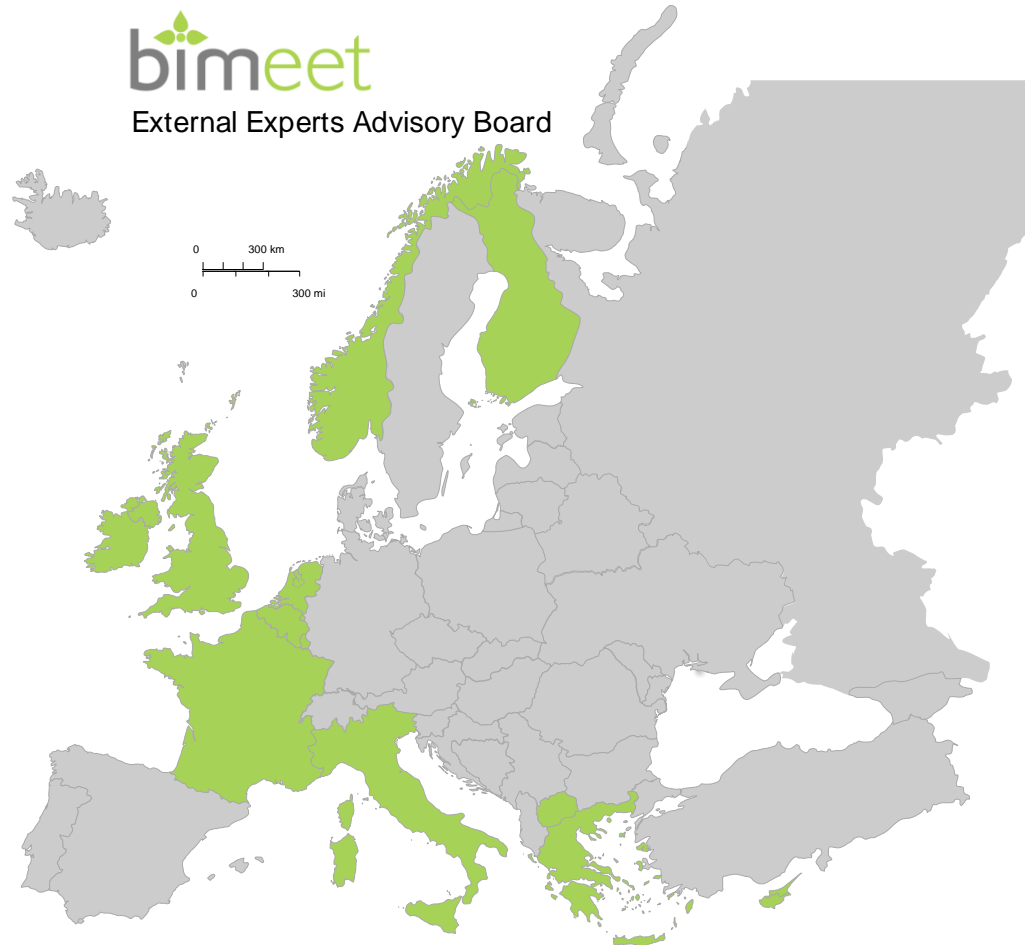
CONSORTIUM

1	Luxembourg (coordinator)	LIST	RT0
2	Luxembourg	House of training	"Training institute"
3	United Kingdom	Cardiff University	University
4	United Kingdom	BRE	"Training institute"
5	France	CSTB	RT0 & "Training institute"
6	France	INES Formation	"Training institute"
		CEA (linked-third party)	RT0
7	Finland	VTT	RT0
8	Finland	Helsinki Metropolia University of Applied Sciences	"Training institute"
9	Greece	CRES	RT0 & "Training institute"



EXTERNAL EXPERT ADVISORY BOARD

8 Experts + Remote Participants



BIMEET External Experts Advisory Board Meeting

Invited Experts

Italy	Anna Moreno	Institute for BIM Italy
Belgium	François Snoeck	BESIX
Belgium	Cléo Wiseman	BESIX
Greece	Nicoleta Panagiotidou	Break with an architect
Finland	Maaria Laukannen	Eksergia
New Zealand	Robert Amor	University of Auckland
Luxembourg	Guillaume Karman	Institut de Formation Sectoriel du Bâtiment
Canada	Jean Carriere	Trailloop

Partners

Luxembourg	Sylvain Kubicki	LIST
Luxembourg	Yu Li	LIST
Luxembourg	Nico Mack	LIST
Finland	Tarja Makelainen	VTT
Greece	Efi Mavrou	CRES
United Kingdom	Richard Hartless	BRE
United Kingdom	Ioan Petri	Cardiff University
United Kingdom	Andrei Hodorog	Cardiff University
Finland	Vishal Singh	Metropolia University of Applied Science
France	About Traore	CSTB
France	Donia Marzougui	INES Formation