External Experts Advisory Board Meeting #1

INTRODUCTION

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BIMEET External Experts Advisory Board Meeting
February 6th, 2018 – Brussels, Belgium

European Commission

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SECTION 1

Introduction

BIMEET

BIM-BASED EU-WIDE STANDARDIZED QUALIFICATION FRAMEWORK FOR ACHIEVING ENERGY EFFICIENCY TRAINING

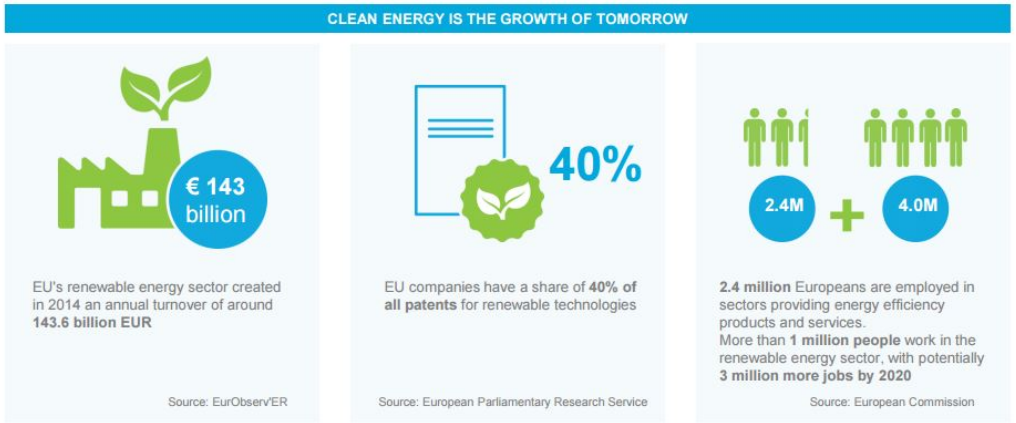
CHALLENGES
EMPLOYMENT AND THE GREEN ECONOMY

International competition in construction

- Job losses, decrease of prices and margins

Green economy

- COP 21/22
- Energy Union: energy efficiency and decabornization

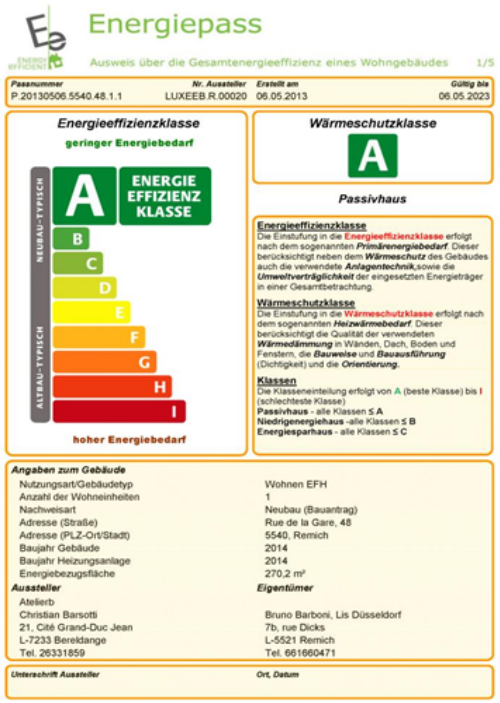


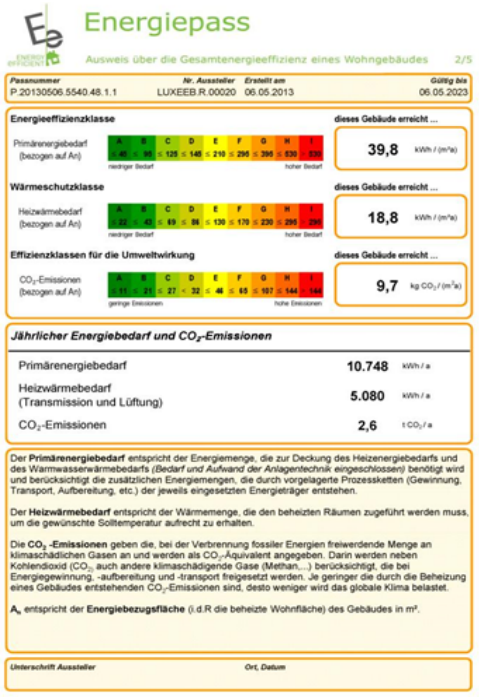
POLICIES AND REGULATIONS

ENERGY EFFICIENCY IN BUILDINGS

Energy Performance Building Directive (EPBD)

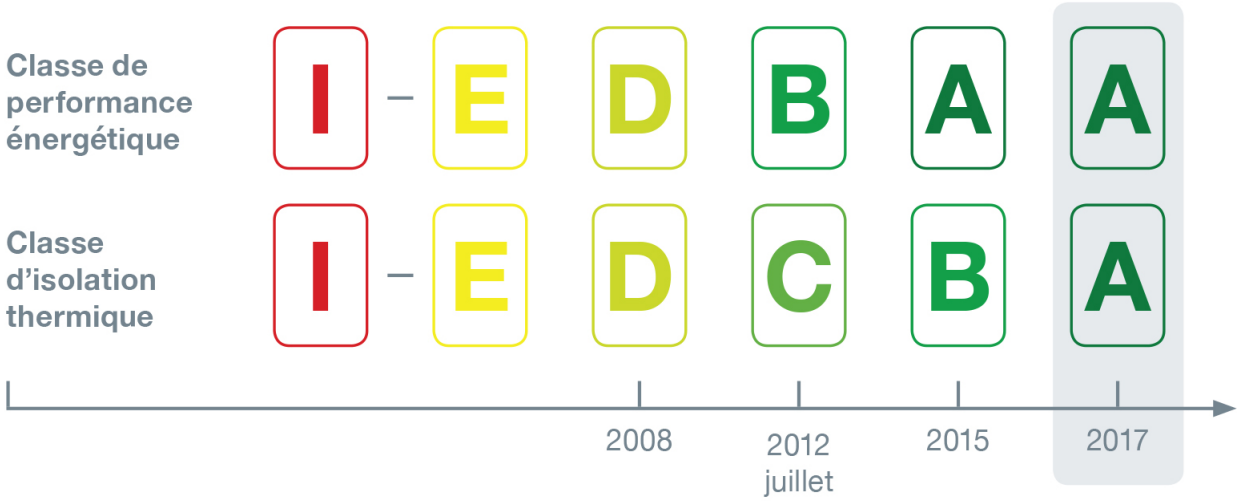
Energiepass (Certificat de Perfomance Energétique)





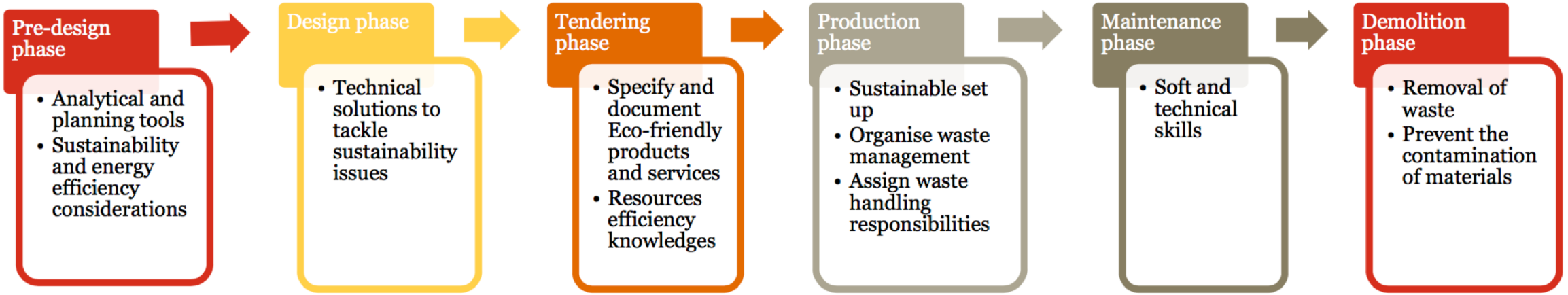
Energy requirements in Luxembourg

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



EE SKILL NEEDS ACROSS THE CONSTRUCTION PROCESS

Sustainable construction and energy efficiency open up significant market opportunities for EU construction companies



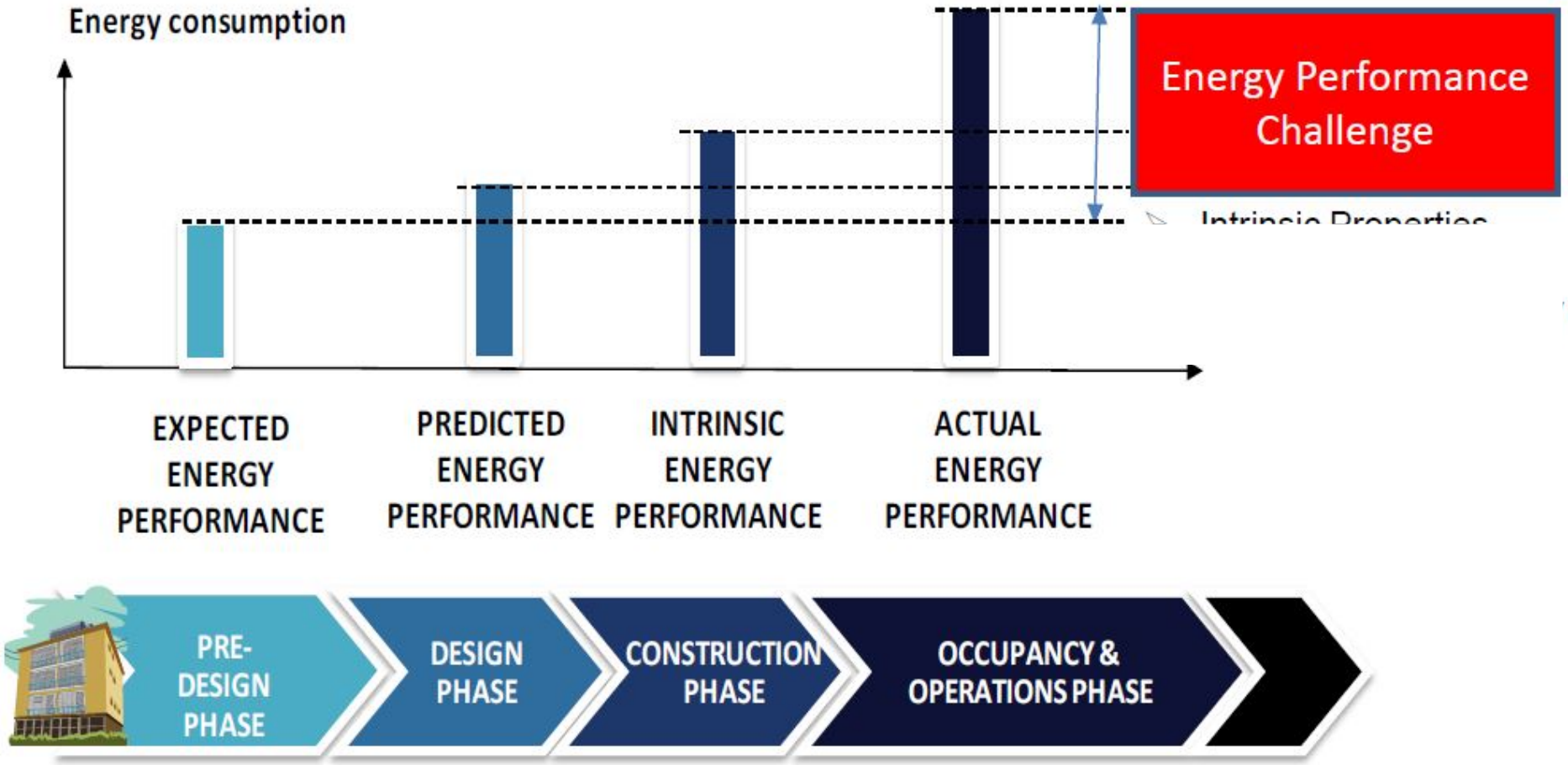
Source: PwC analysis.

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
- …

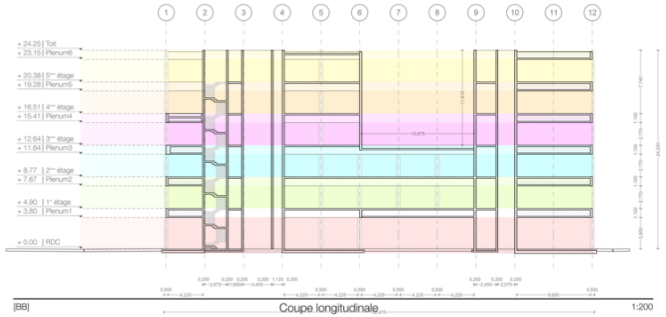
https://en.wikipedia.org/wiki/Performance_gap

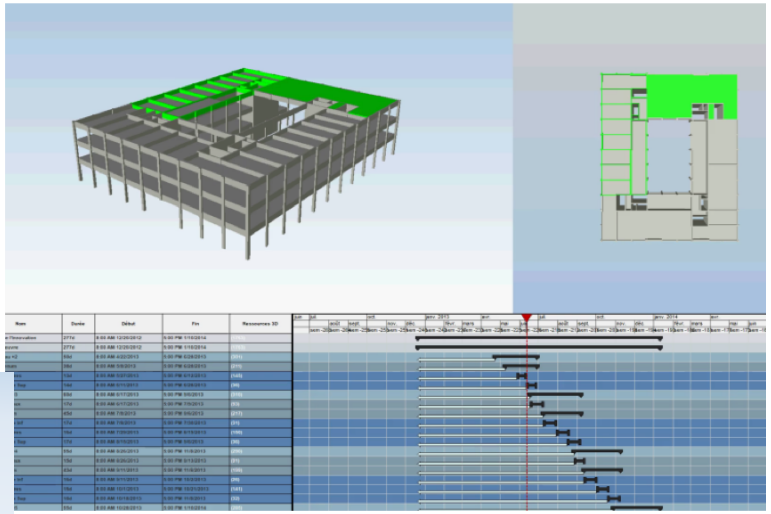


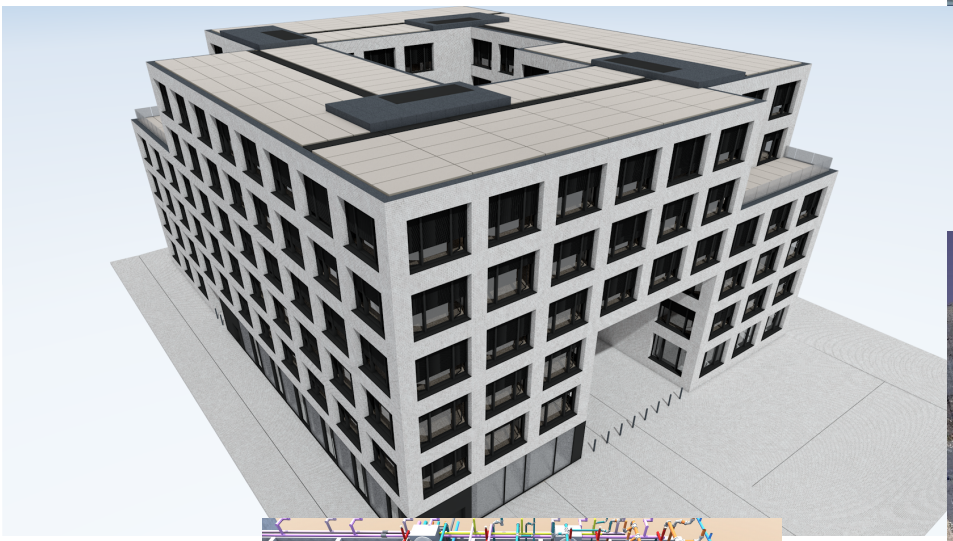
Extract from: Prof. Yacine Rezgui. Cardiff University. *Sustainable Places A Multi-disciplinary Perspective to Built and Natural Environment Challenges in the 21st Century*. Presentation. LIST Seminar. August 2016.

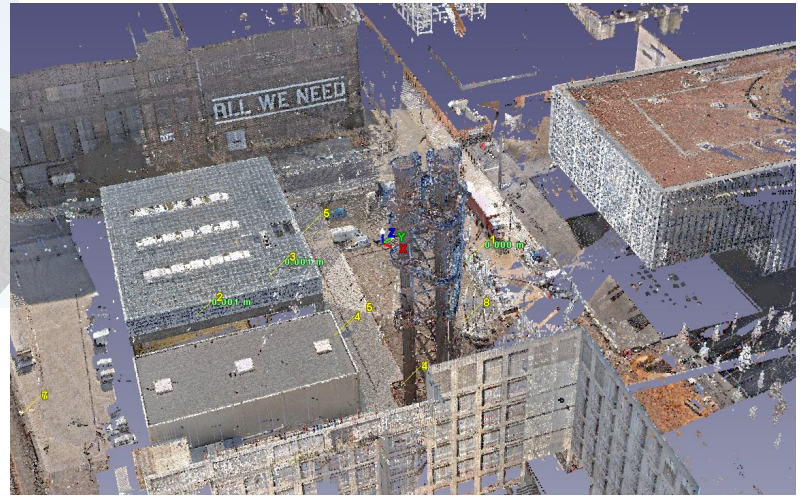
BUILDING INFORMATION MODEL(S)

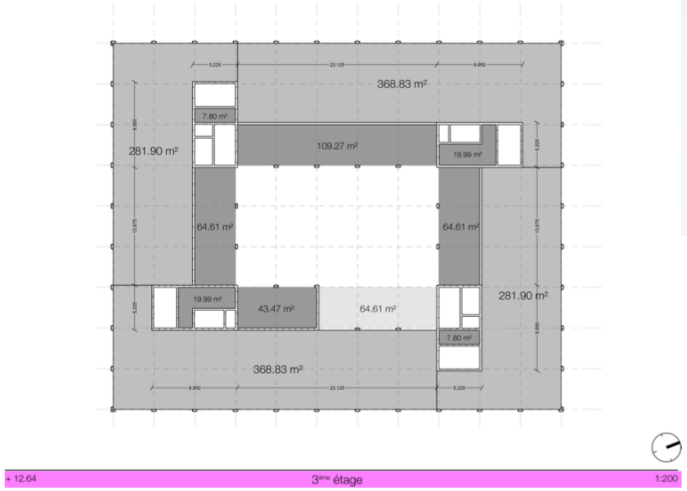
AUTHORING

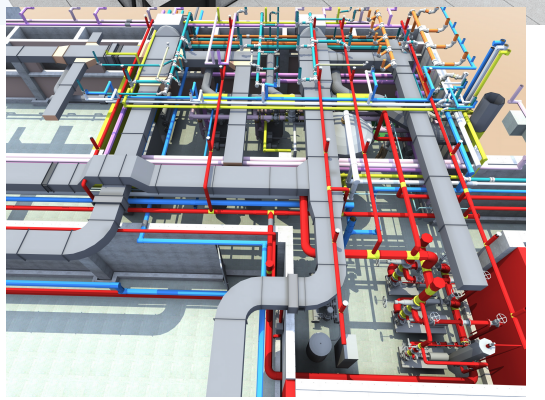








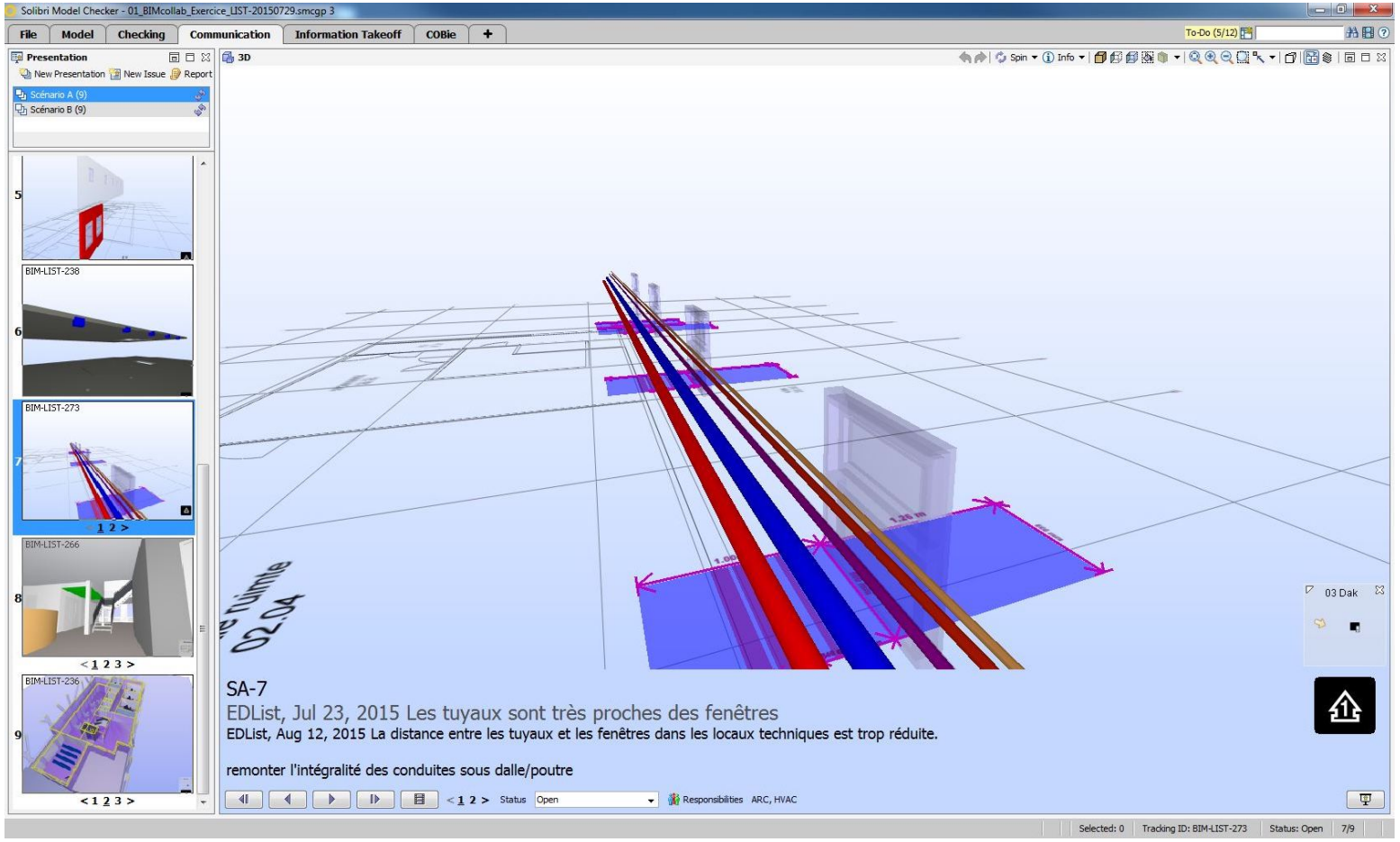




MODELS COORDINATION

Quality control

Issues management



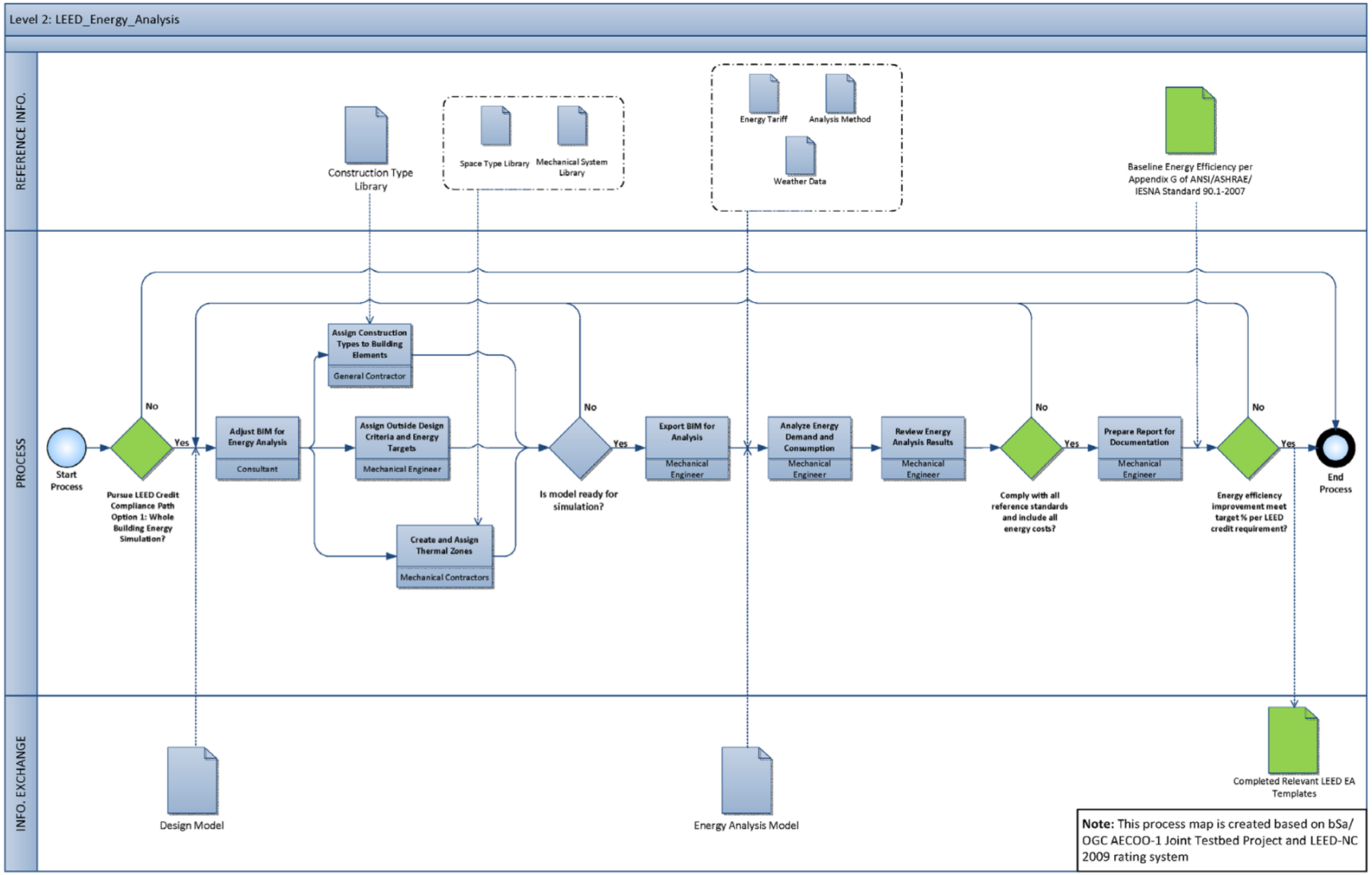
BUILDING INFORMATION MODELING

MANAGEMENT

Management of Information Exchanges

- Requirements
- Follow-up

Contractual implications



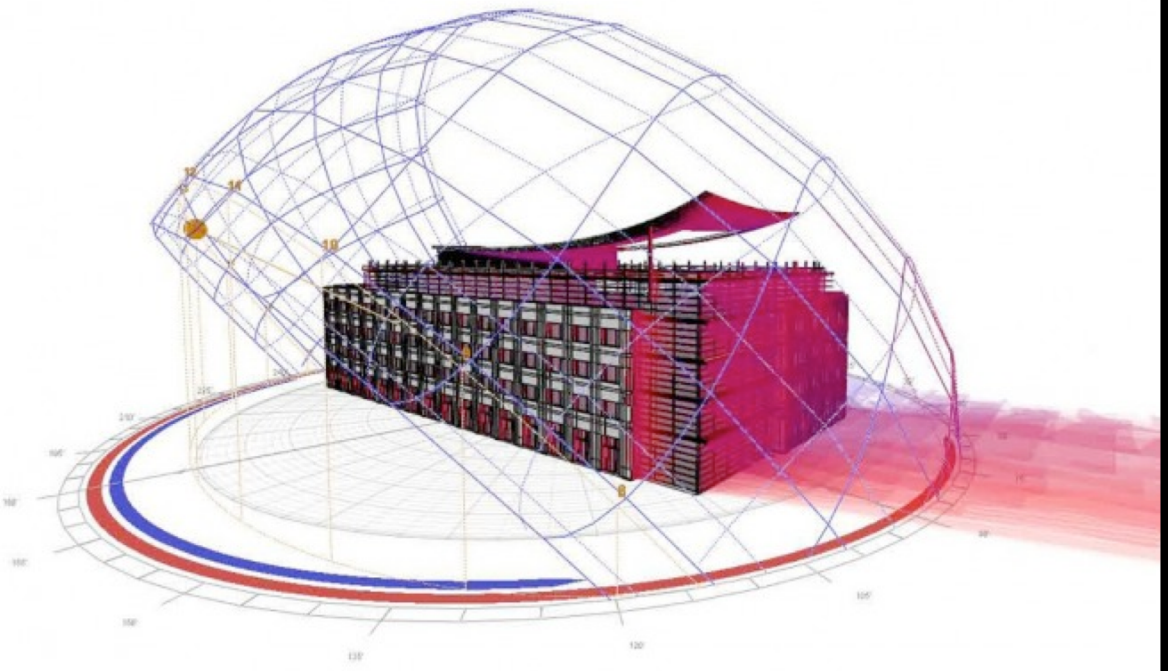
Integrated Process Mapping For bim Implementation In Green Building Project Delivery. Wu, W. & Issa, R. (2013). 13th International Conference on Construction Applications of Virtual Reality

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

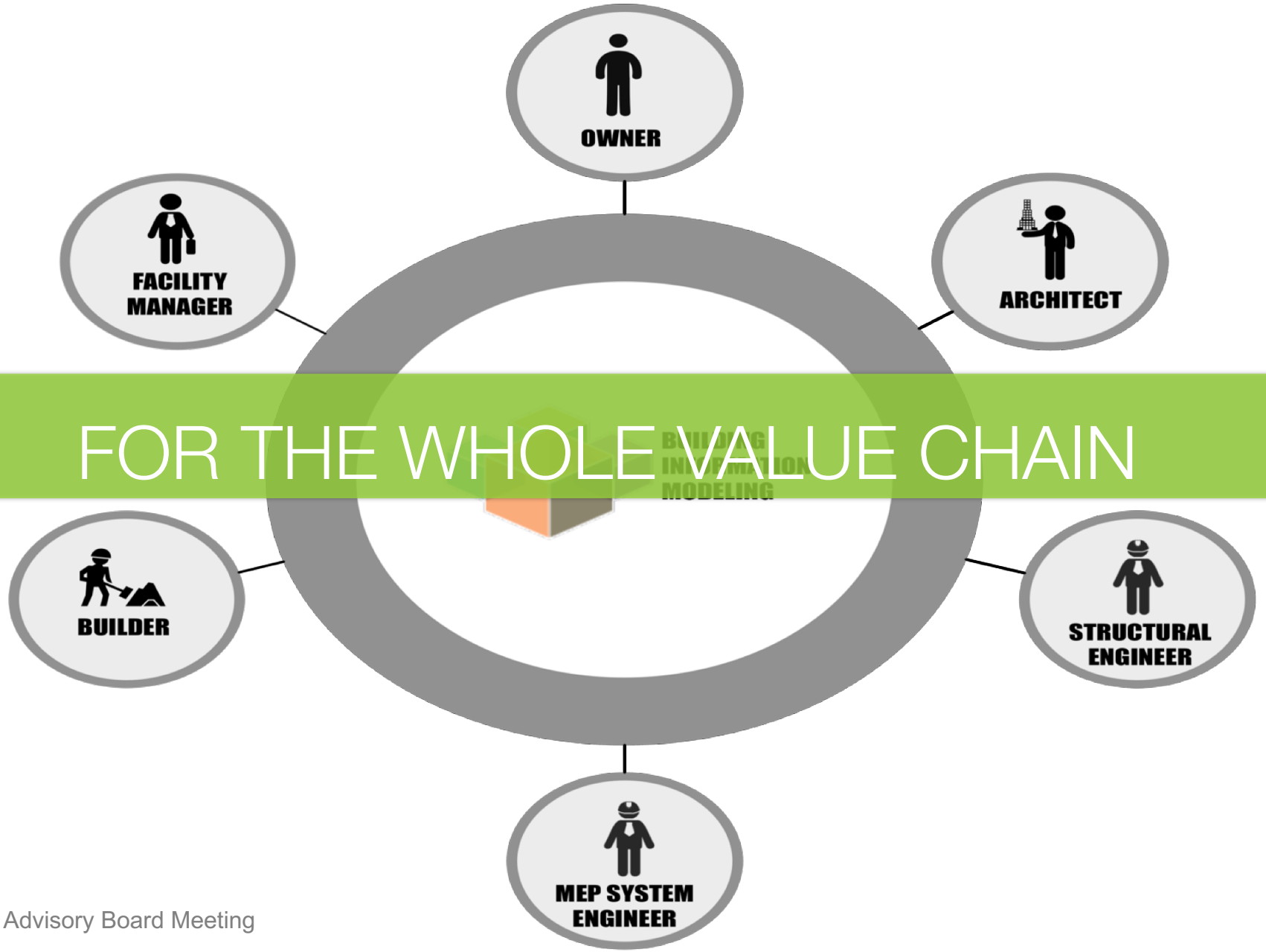


But only a few dedicated training offer across EU focus on this challenge

SECTION 2

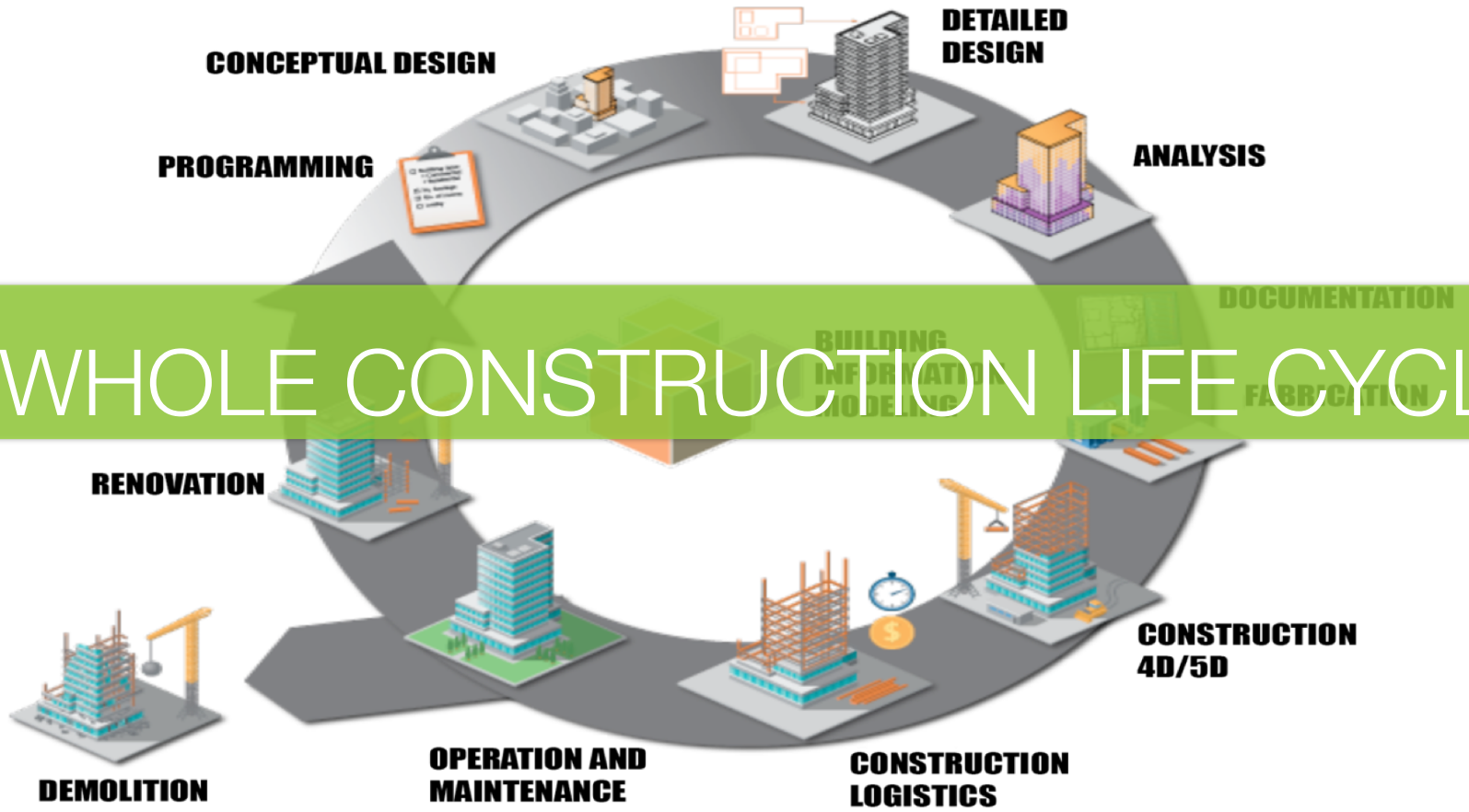
BIMEET Project

BIM



FOR THE WHOLE VALUE CHAIN

BIM



FOR THE WHOLE CONSTRUCTION LIFE CYCLE

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 learning (e.g. AR/VR)

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SECTION 3

Organisation, milestones and workshop agenda

CONSORTIUM

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

MILESTONES

	Milestone name	Time	Main Target
MS1	First expert panel workshop	M6	Expert panel
MS2	Role and Skills for BIM for Energy Efficiency	M9	Expert panel and community of interest
MS3	Harmonized BIMEET EQF	M12	Expert panel and community of interest, Governance bodies
MS4	Country-specific EQF mapping	M14	Expert panel and community of interest, Governance bodies
MS5	BIMEET Platform in use	M17	Expert panel and community of interest
MS6	5 trainings accredited	M19	Partners, Expert panel
MS7	Accreditation organization selected	M24	Public
MS8	Final project workshop	M24	Expert panel, Governance bodies

AGENDA

10:00am Meeting opening, welcome (Webex)

10.15am Review of agenda (Webex)

10.20am Introduction and presentation of each expert (Webex)

11.00am Review of BIM & Energy Efficiency requirements and use cases (by CU) (Webex)

11.30am Comments, discussions and classification by the experts (animated by BRE)

12.30 --- Lunch break

01.30pm Wrap-up and discussion (led by LIST) (Webex)

01.45pm Presentation of energy-bim.com, the BIMEET portal (led by CU) (Webex)

02.00pm Towards BIM&EE Training (animated by INES) (Webex)

02.30pm Brainstorming BIM&EE Skills (animated by BRE)

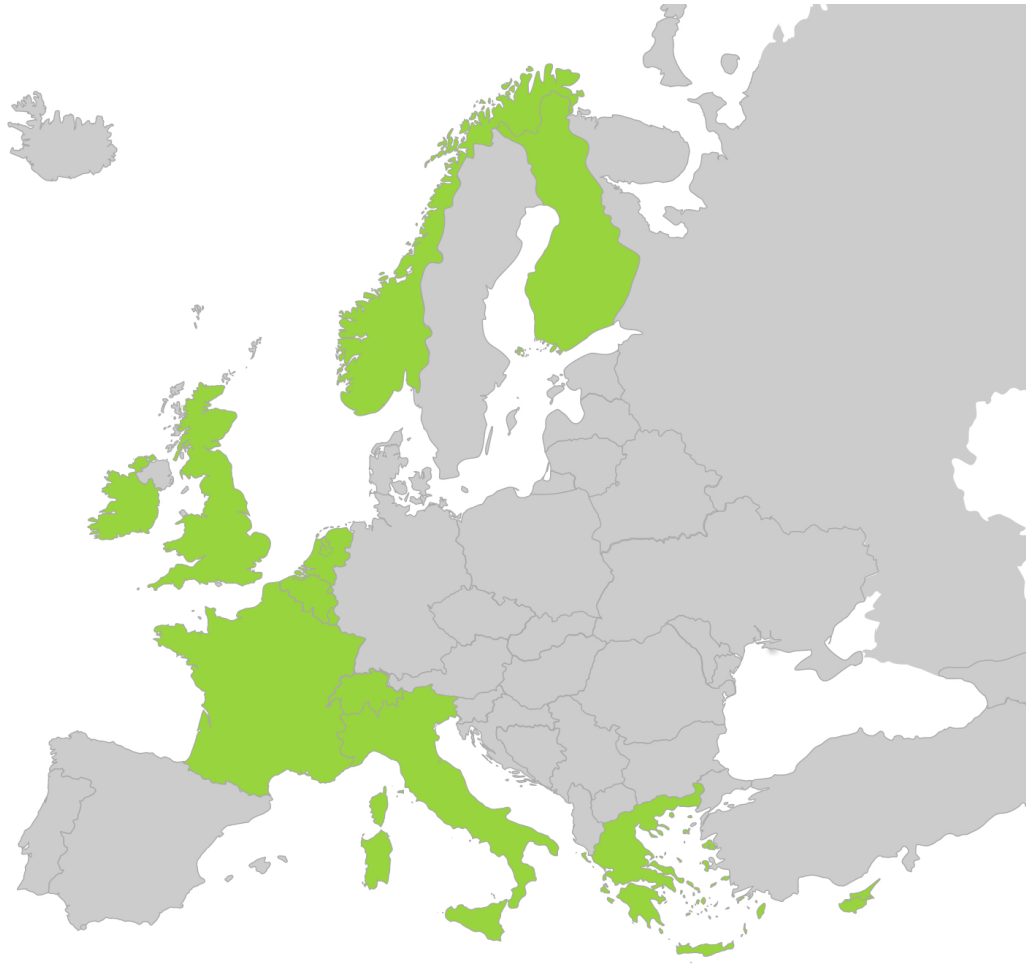
04.00pm Wrap-up of group discussions

04.30pm Conclusion (LIST)

05.00pm Meeting closing

EXTERNAL EXPERT ADVISORY BOARD

16 Experts + 3 Remote Participants



	Country	Name of expert	Organisation
1	Luxembourg	Marcel Deravet	IFSB
2	Luxembourg	Moreno Viola	CRTI-B
	Luxembourg	David Determe	Ordre des Architectes et Ingénieurs
3	Cyprus	Anthi Charalambous	Cyprus Employers and Industrialists Federation
4	Finland	Irmeli Mikkonen	Motiva Services Oy
5	Ireland	Elisabeth O'Brien	Limerick Institute of Technology
6	Italy	Anna Moreno	Institute for BIM Italy
7	Norway	Eilif Hjelseth	Norwegian University of Science and Technology (NTNU)
8	France	Guersendre Nagy	Mediaconstruct (BuildingSmart Chapter)
9	Belgium	Alain Zarli	ECTP
	United Kingdom	*David Comiskey*	*Chartered Institute of Architectural Technologists*
	France	*Gilles Charbonnel*	*Président d'ADN Construction*
10	United Kingdom	Mervyn Richards	Avanti Partnership
11	Greece	Nicoleta Panagiotidou	Break with an architect
12	NL	Arjan Schrauwen	ISSO
13	Finland	Vishal Singh	Aalto University
14	United Kingdom	Alexi Marmot	University College London
	Switzerland	*Simon Ashworth*	*ZHAW Zürcher Hochschule für Angewandte Wissenschaften*
15	Belgium	François Snoeck	BESIX
16	France	Henri Le Marois	Alliance Ville Emploi