

1 event, 2 days, 3 locations

10 minutes walk from Brussels Midi station !

24 th April

stress test @ LIRL

rue de la Croix de Pierre 73 • 1060 Brussels

stress test @ hangar Rotor DC

Rue Prévinaire 58 • 1070 Brussels

**conference and debates (around a
barbecue) @ hangar Rotor DC**

Rue Prévinaire 58 • 1070 Brussels

25 th April

Congress BIM Game @ La tricoterie

158, rue Théodore Verhaegen • 1060 Brussels

EVENT BIM GAME

BIM & Sustainability

24 & 25 th April 2019

Organization



Laboratoire de culture Numérique en
Architecture LNA
Faculté d'architecture
Université de Liège
Boulevard de la Constitution 41
4020 Liège

www.lna.uliege.be

What is BIM Game ?

BIM Game: Playing to build the 21st century

The BIM Game is a **role-playing game** whose objective is to **learn to collaborate through the B.I.M.** (Building Information Modeling) process. The participants play the different roles involved in the building environment (project owner, architect, engineer, craftsman,...) around a scenario led by a trainer. Getting the right information to the right people at the right time is the challenge of learning the BIM Game. This is **a European issue** and each country has the same question about the best method to adopt to spread this new culture and especially to integrate it into professional practices. This project, **financed by Erasmus+ and supported by the Besançon GIP**, is based on numerous project follow-ups carried out in the partner countries. This pooling makes it possible to work not only on national scenarios, in relation to local regulations, but also on simulations of international architectural projects, which today correspond to the reality on the ground.

What is the stress test?

The BIM Game is a collaborative role-playing game and, as such, it requires a scenario through which learners will work. A BIM Game scenario will therefore include:

- A problem arising from a real case
- The pedagogical objectives targeted by the trainer
- The distribution of roles
- A welcome letter corresponding to each role
- All the resources and software necessary to solve the problem
- A BPMN diagram

Since the project is built using an agile method, the content of a scenario has evolved since the first tests.

www.bimgame.eu

BIM
G A M E

What is BIM ?

by Abdelkader Boutemadja, Charlotte Dautremont, Sylvie Jancart
LNA - ULiège

BIM is a collaborative process that has been revolutionizing the workflow of construction stakeholders for over a decade. Often translated as a Building Information Model (digital model), BIM is also a modeling process and project management.

Through collaboration around the digital avatar, BIM provides better knowledge and anticipation at different stages of the building cycle: better design, planning, construction and project management.

With other methodologies such as Lean Management or the Materials Passport (BAMB project), BIM offers many pathway towards the sustainable development of the construction sector.

"Le processus BIM (Building Information Modeling) révolutionne le flux de travail des acteurs de la construction et particulièrement celui des architectes. Cette lente révolution contribue à de meilleures planification, conception, construction et gestion du projet (Lebegue et Segura, 2015). Malgré ces atouts, le BIM semble être un excellent terrain de promotion des fabricants, avec pour conséquence de transformer les projets d'architecture en catalogue de produits. Ce renouvellement constant va l'encontre du cadre normatif (Directive CE, 2008) sur les déchets et de l'engouement général croissant pour le « zéro déchets ». Si actuellement, nous recyclons beaucoup (+/- 44% de déchets municipaux sont recyclés en 2017) (Europa, 2018), nous réutilisons peu. Le BIM, et son lien direct et constant avec les plateformes de produits industriels, ne ferme-t-il pas la porte à une architecture circulaire ? "

extract from the article "BIM6D: un levier pour une architecture circulaire?" by Charlotte Dautremont, Charlélie Dagnelie, Sylvie Jancart, SCAN'18.

www.lna.uliege.be



PROGRAM of 25TH APRIL • Congress BIM Game

Most conferences will be in French with support in English

08.30 - 09.00	WELCOME COFFEE		
09.00 - 09.15	WELCOMING SPEECH // Why sustainable BIM ? by Charlotte Dautremont from LNA - ULiège		
09.15 - 09.30	BIM GAME PROJECT PRESENTATION : learning with BIM by Lionel Croissant from GIP BESANÇON		
09.30 - 10:00	CONFERENCE #1 // RESEARCH : The Brussels Building Stock as a source of new Materials (BBSM) by Emilie Gobbo from UCLouvain		
10:30-11:00	CONFERENCE #2 // BIM & circularity : The contribution of the BIM digital model to the circular economy by Lionel Bousquet from BXLmrs		
11:00 - 11:30	COFFEE BREAK		
11:30 - 12:00	CONFERENCE #3 // BIM & sustainable : BIM processes as a tool for integrating sustainable development concepts into the construction world by Vincent Martin from BSolutions		
12:00 - 12:30	Open discussion by Abdelkader Boutemadja from LNA - ULiège		
12:30 - 13:30	LUNCH		
13:30 - 14:30	BIM Game stress test presentation		
14:30 - 15:00	COFFEE BREAK		
15:00 - 15:40	WS#1 by Tanguy Pinxteren : alternative pedagogy from LIRL	WS#2 by Henri-Jean Gless : micro poker BIM from CRAI, ENSA NANCY	WS#3 by Renaud Haerlingen : Deconstruction and Reclaimed materials from ROTOR
15:50 - 16:30	WS#4 by Hervé Maillot : Circularity Fiction from GIP, BESANÇON	WS#5 by Catherine Cornu : Reuse and BIM contradictions from UCL London, UCL Louvain	WS#6 by Claire Roumet : Energy Cities from ENERGY CITIES
16:30 - 17:00	Awards for BIM GAME stress test + CLOSING COMMENT		

SPEAKERS



Emilie Gobbo

Postdoctoral Researcher at UCL, Graphic interpreter and Sketchnoting

The Brussels Building Stock as a source of new Materials (BBSM)



Lionel Bousquet

Architect, BIM expert & circularity • BXLMSR

BIM & circularity : The contribution of the BIM digital model to the circular economy



Vincent Martin

Architect, BIM expert
• BSolutions

BIM & sustainable : BIM processes as a tool for integrating sustainable development concepts into the construction world



Emmanuel Mossay

Advisor to the Parliament of Wallonia, Visiting Professor, Author of books (Economic Transition)

How could a biocapacitic economy solve several ecosystem issues?

Emilie Gobbo

The FEDER funded **BBSM project** aims to demonstrate that end-of-life materials are resources and that their reintroduction into the cyclical process is positive for the sustainable development of the Brussels-Capital Region: it considers the region as an urban mine, where materials in buildings could maintain their value. The presentation focuses on one part of the project: the analysis of the impact of different energy retrofit scenarios on material stocks and flows. These scenarios can directly influence the nature and quantity of the materials used (inflows) and discarded (outflows) by upgrading or renewing the existing building stock. They can also lead to different environmental impacts and vary the embodied potential (through reuse or recycling) of resources. The overall objective is to inform, sensitize, and lead various stakeholders to responsible and conscious choices when retrofitting a building by adding concerns of resources efficiency while focusing on reducing energy demands.

Lionel Bousquet

BXL MRS is an office of architecture and town planning. Represented by Lionel Bousquet and Antoine Chaudemanche trained at INSA Strasbourg. The practice of the office is based on a logic of flows and networks. **DETHY's project** is a passive renovation of a mixed building in Brussels. It's based around 4 goals: Passive renovation, Eco-conception, Circularity and BIM. We make the assumption that the combination of these different processes makes it possible to achieve for each one an increased efficiency which would be less by applying in isolation one or the other field. It's this mutualisation that can bring intrinsic and coherent qualities (architectural, economic, environmental, flexibility, replicability). The presentation focuses on BIM and circular economy.

Vincent Martin

As an evolving digital prototype of the building, **the BIM models** offer the opportunity to optimize many problems of the world of construction in a controlled industrialized collaborative process during the entire life cycle of a building. The technical applications for which BIM has the potential to bring environmental added value are multiple (technical simulations, prefabrication, asset management, monitoring, deconstruction, etc.) but this requires overcoming technical, social and legal constraints. The presentation will aim to understand some of the difficulties and outline few possible solutions for the future.

Emmanuel Mossay

The ecosystem approach offers many opportunities, starting from the limits of biocapacity and other societal issues, to offer answers to public deficits, and the reduction of externalities (and their financing).

We need you !

The logo for wooclap, featuring the word "wooclap" in a lowercase, sans-serif font. The "wooc" part is white and the "lap" part is green. The logo is centered on a dark blue rectangular background.

We invite you to participate in the Stress Test BIM Game team election!

To do this, go to the internet with your smartphone on:

www.wooclap.com

Enter the code:

BIMGAMEULG

and vote !

Thanks you for your participation ;-)

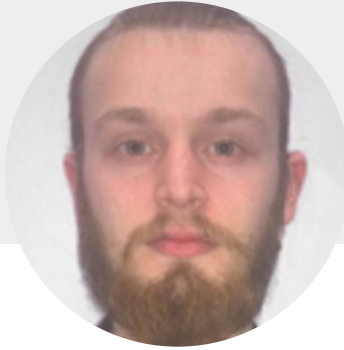
WORKSHOP'S LEADERS



Thomas Zech

LIRL teacher

Alternative pedagogy



Henri-Jean GLESS

Architect DE, Doctoral
Teacher at CRAI, Nancy

Micro poker



Renaud Haerlingen

Architect, Rotor Member

**Deconstruction and Reclaimed
materials**

Thomas Zech

The creation of the Lycée intégral Roger Lallemand (**LIRL**) in September 2017, is the meeting between enthusiasts of education (the association "The Pedagonauts") and the municipality of Saint-Gilles who both wanted to create a contemporary secondary school.

The educational project is inspired by the proposals of André Giordan (University of Geneva) and Jérôme Saltet (Editions Play Bac) who have supported and followed this initiative since its beginnings in 2010, and who make the bet to change the school by forming "Autonomous, responsible, enterprising and happy citizens!"

LIRL project with "Design with sense".

Henri-Jean GLESS

Micro poker is an agile practice to support meetings. It is a game composed of four cards that allows the different actors of a BIM project to exchange ideas about the BIM tasks to be done. The aim of the game is to estimate the complexity and duration of the tasks to be performed. For this purpose, each card offers several estimation scales: numerical, size, urgency or random. At the same time, the actors choose and play a card. This is followed by a phase of exchanges and debates to understand the choices of others and then rally them or try to convince them to join us. This practice then initiates so-called elicitation, refinement and evaluation activities of BIM design tasks between designers.

The objective of micro poker is to invite all participants in a meeting to participate in the creation of a common and accepted definition of a BIM design task.

Renaud Haerlingen

Illustrated feedback on the field practice of deconstruction and on the **current market of reclaimed materials**. The session will try to highlight the specific considerations that differentiate the reuse of materials from new streamlined products.

Rotor is a cooperative design practice that investigates the organisation of the material environment. We develop critical positions through research and design. Besides projects in architecture and interior design, we also produce exhibitions, books, economic models and policy proposals. Rotor was founded in 2005. In 2016, the spin-off Rotor Deconstruction was founded as a separate entity. Its mission is to facilitate the reuse of building components.

WORKSHOP'S LEADERS



Hervé Maillot

Officer on standby at the
French Ministry of Higher
Education and Research

Circularity fiction



Catherine Cornu

Architect
MSc Adaptive Architecture and
Computation - UCL London
Research / teaching assistant -
UCL Louvain

Reuse and BIM contradictions



Claire Roumet

Partnership and strategy
Energy cities

Energy cities

Hervé Maillot

If there is another world, it is in this one".

Circularity Fiction.

STOP.

Post peaks scenario.

STOP.

40 minutes to glimpse an unknown world, ours in just 50 years.

STOP.

Let us not lack imagination, nor courage, nor wisdom.

Catherine Cornu

Invited by Rotor to join the conference, Catherine Cornu has been trained to use BIM in professional practice and she is at the same time familiar with the production of architecture with 'not new' resources.

The session will make attempt at collecting and organize the arguments about **observed limitations and seeming contradictions** between the two approaches to project development.

Claire Roumet

Energy cities want a radical transformation of the energy systems and policies, giving our citizens the power to shape a decentralised and renewable energy future.

We believe that the energy transition is not just about clean energy or great technologies: it is about wise use of resources while strengthening local participation and well-being in a democratic Europe.



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