

RENOVATION AND CIRCULAR ECONOMY

Materials At The Heart Of The Transition Towards A Sustainable City

Which Priorities and Objectives for Construction Materials? Safeguarding the value(s) of our architectural heritage

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NATURA MATER

PRESENTATION OF THE SPEAKER

Jeremy Boomer started his career in Architecture in Brussels before launching his own building company. Having seen first hand the many challenges to the sector in terms of sustainability, he decided in 2020 to launch the startup Natura Mater, whose focus is entirely on helping professionals from the sector to change their approach to construction. Bio-based materials, re-use, integrated approach to sustainable practices, ... Natura Mater has been helping architects, developers and builders to rise to the challenge of sustainability with a materials-based approach.

Jeremy's presentation highlights the importance of anticipating the impact of our choices on a longer timescale, and questions the values that guide these choices. Jeremy also presents the Level(s) framework, the European tool for sustainable buildings and introduces the concept of « Avoid-Shift-Improve-Measure-Collaborate » for the challenge of a low-emissions construction industry.

PRESENTATION OBJECTIVES

- Questioning the value(s) of an asset
- Understanding *Level(s) Framework*
- Understanding Life Cycle Costs (LCC)
- Understanding risk exposure

- I. Values
- II. Level(s)
- III. Life Cycle Costs
- IV. Risk exposure
- V. Conclusion: Anticipate

I. VALUE(S)

- Value

- ▶ The building as a material bank
- ▶ The city as a building stock

- Values

- ▶ The building as a driver of societal heritage
- ▶ The built environment as a common cultural space

II. LEVEL(S) - EUROPEAN FRAMEWORK FOR SUSTAINABLE BUILDINGS

- 1. GHG emissions along a building's life-cycle
- 2. Resource efficient and circular material life cycles
- 3. Efficient use of water resources
- 4. Healthy and comfortable spaces
- 5. Adaptation and resilience to climate change
- 6. Optimised life cycle cost and value
 - ▶ 6.1 Life cycle costs
 - ▶ 6.2 Value creation and risk exposure

III. LIFE CYCLE COSTS

- Take a longer term perspective on costs and decision
 - ▶ Production, Maintenance, Repair, Replacement, Disposal
- Quality and representativeness of cost data
- Schedule and estimate future costs, risks and liabilities
- Make the link between LCC and environmental performance
- Empowering building owners and occupiers

IV. RISK EXPOSURE

- Increased revenues for more stable investments
- Reduced operational overheads
- Reduced exposure to future risk
 - ▶ increased operational expenditure,
 - ▶ unhealthy conditions,
 - ▶ stranded assets as a result of emerging client and regulatory performance expectations, and
 - ▶ an associated loss of income and increase insurance premiums

V. CONCLUSION

- Anticipate the hidden cost of materials
- Anticipate future uses : generate seeds, not waste
- Anticipate a regulatory shift : disposal stage costing should be mandatory

KEY POINTS

Action!

- Avoid
- Shift
- Improve
- Measure
- Collaborate
- Do No Significant Harm

TOOLS, WEBSITES, BIBLIOGRAPHY

- Level(s)

Level(s) - European Commission (europa.eu)

- UNEP – Building Materials And The Climate

Building Materials And The Climate: Constructing A New Future | UNEP - UN Environment Programme

CONTACT

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