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Design for Change, panel debate report

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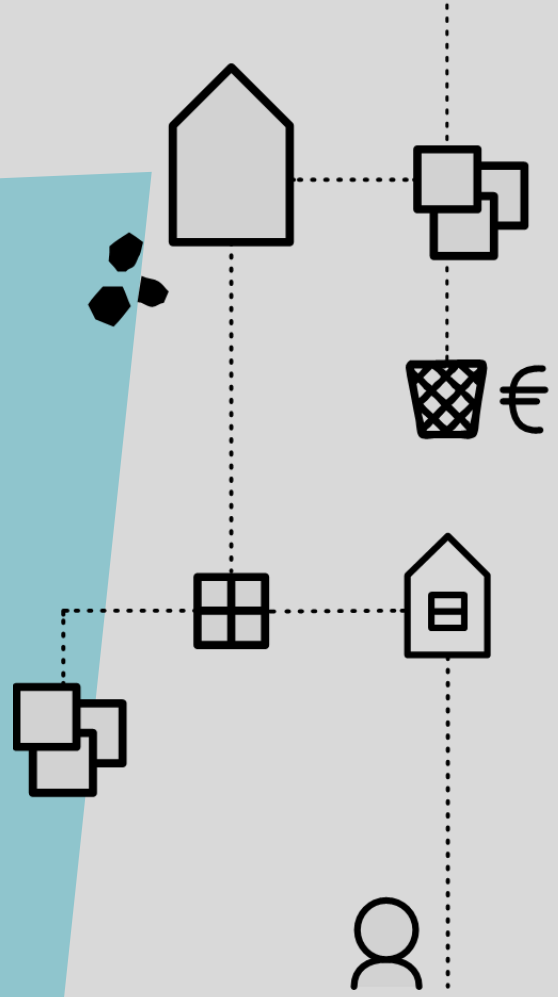
Workshop at Le Bati Bruxellois, Source de Nouveau Matériaux Meeting, 22 February 2018
An ERDF research project in collaboration with UCL, BBRI and Rotor



LE BATI BRUXELLOIS SOURCE DE NOUVEAUX MATERIAUX

VUB VRIJE UNIVERSITEIT BRUSSEL

As design takes place at the beginning of each building's next lifecycle, it is key to the saying: the best waste is no waste at all. For that reason, the BBSM project wants to foster the reuse of spaces, buildings and components by anticipating future reuse, as well as enabling reuse today.

In addition to informing students and professionals about existing strategies such as Design for Change, it is important to anticipate the impact of reuse on the design practice and understand the creative opportunities or constraints it brings at a moment practice is already under pressure.

During this workshop, we tested four hypotheses, followed by a semi-structured discussion between our keynote speaker, the invited respondents and the audience. The projects they brought were the cases that fed our discussion with real life conditions and challenges.

Image De Temmerman N. BBSM Meeting 20180222

Design for Change,
creative opportunity or
another constraint?

Waldo Galle
Vrije Universiteit Brussel

Hypothesis 1
Using reclaimed components requires a different design process

Invited respondent
Olivier Breda (Dzerostudio architectes)

Experienced with the Tomato Chili project, the greenhouses designed, built and marketed according to the principles of the circular economy, Olivier Breda has become a reuse expert. In the City Gate project, in Anderlecht, he invests that expertise in the creation of a temporary infill for vacant estate with Entrakt.

Hypothesis 1

Using reclaimed components requires a different design process

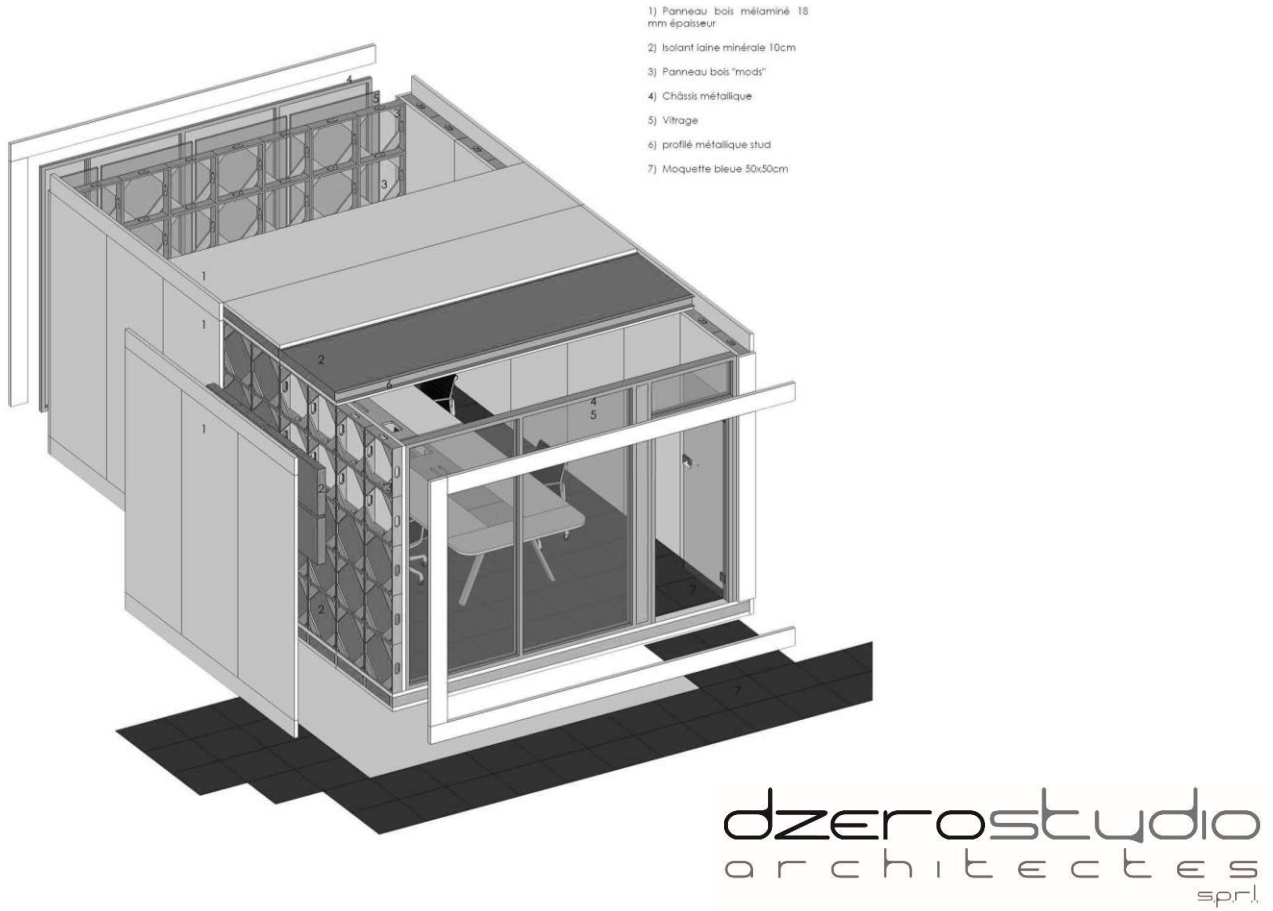


Image Dzerostudio architectes, office module for the City Gate project, Entrakt Anderlecht.

Hypothesis 1
Using reclaimed components requires a different design process

The first hypothesis starts form the idea or misconception that if designers want to reuse components, they must adopt a different design process. After all, the availability reclaimed components is limited, they have specific properties, … Indeed, the bank of existing and reusable components is not as large as the stock of new products. But to what extent must the design workflow be adapted to that?

Hypothesis 1

Using reclaimed components requires a different design process

Designing with reclaimed components is a challenge, like every design is. How to shape an ambition using a given set of spaces, structures and components? Designers are skilled to deal with that boundary condition.

Adapt a design to reclaimed components and vice versa, requires a renewed knowledge of materials and their processing. Knowledge that designers might be giving away, reducing themselves to virtual assemblers.

Education, association with specialist and data-driven tools seem therefore indispensable. For example in legal and technical aspects, to scout second hand materials or to assess their reusability, collaboration might become vital.

Still challenging is the timing, availability and financial liquidity related to and necessary for the purchase and use of second-hand components.

Hypothesis 2
For future reuse of spaces, buildings and components, we must now design systems, not artefacts

Invited respondent
Pieter Walraet (KPW architecten)

The redevelopment of the Gandhi neighbourhood in Mechelen by KPW architecten and their refurbishment of the social housing block in Zelzate featured as a laboratory for Design for Change research projects. But also in the design for the youth centres Oude God in Mortsel and Berg ter Munt in Tervuren, Pieter explored that ambition.

Hypothesis 2

For future reuse of spaces, buildings and components, we must now design systems, not artefacts

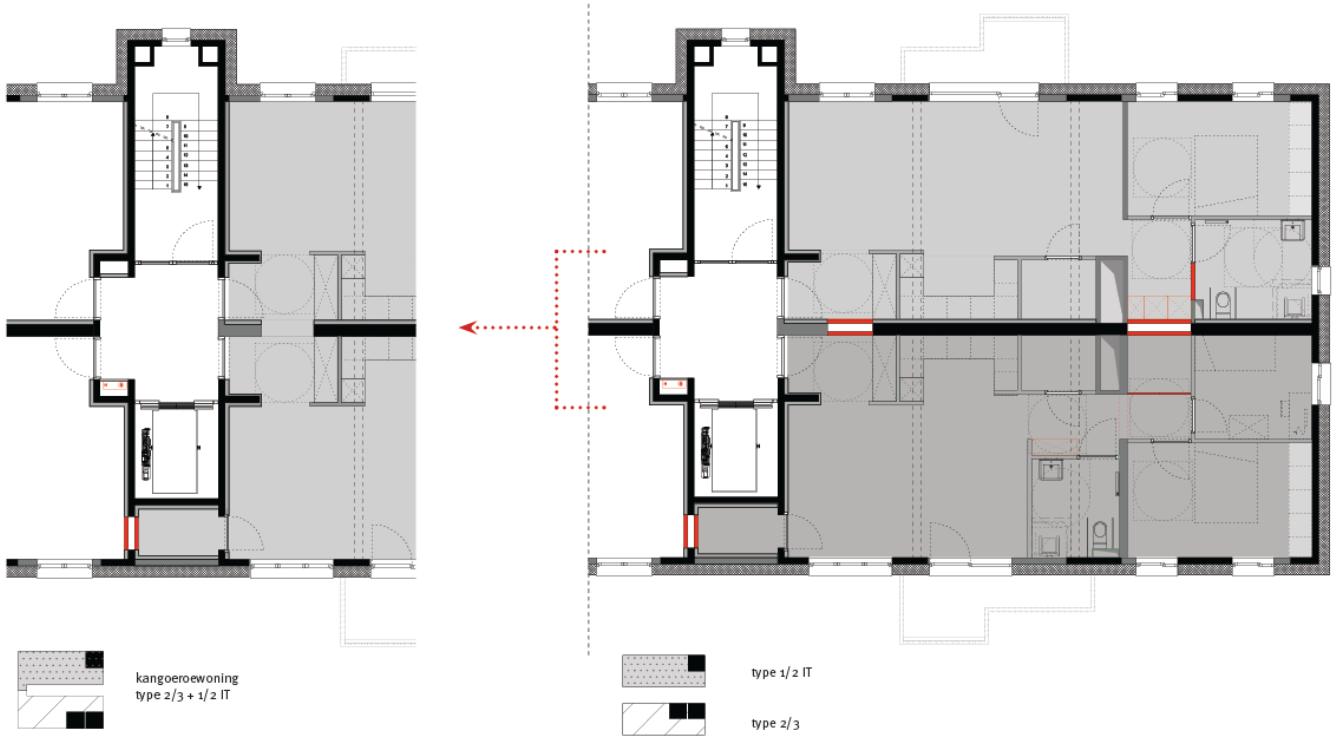


Image KPW architecten, transformation option in the social housing block in Zelzate, VMSW i.s.m. OVAM.

Hypothesis 2
For future reuse of spaces, buildings and components, we must now design systems, not artefacts

This second hypothesis starts from an assumed contraction between finished object or artefact made by the architect, the end-result of the design process, and the architectural design as the starting point of a building's life, a complex whole of things working together, a system. But is it necessary to see the building as a living thing and does that change the way we see the architectural discipline?

Hypothesis 2

For future reuse of spaces, buildings and components, we must now design systems, not artefacts

An artefact can be a system, and a system can result in an artefact. In any case, people do not, cannot or do not want to live in systems but in artefacts.

Today we already design with systems, products and elements, and not with materials. Developing and using them creatively is a challenge for designers.

Also buildings can be a system and facilitate change by their generality. Therefore, designers must think in scenario's, and imagine divergent user-path's.

To support change in an effective and efficient way, a building should be a system where it matters, where change is most expected.

To guarantee value however, all elements should be part of an open building system, a set of principles generating demountable and reconfigurable elements.

Hypothesis 3
Because designers have a long-term impact, they need a long-term involvement

Invited respondent
Jorden Goossenaerts (CONIX RDBM)

CONIX RDBM Architects wants to shape present and future by creating identity and enduring value. It does so not only by revaluing existing monuments like the Atomium, or the Brussels Brouckère or Multi tower, but also by the design of new residential care centers as Keyhof in Huldenberg in collaboration with Van Roey Groep as contractor.

Hypothesis 3

Because designers have a long-term impact, they need a long-term involvement

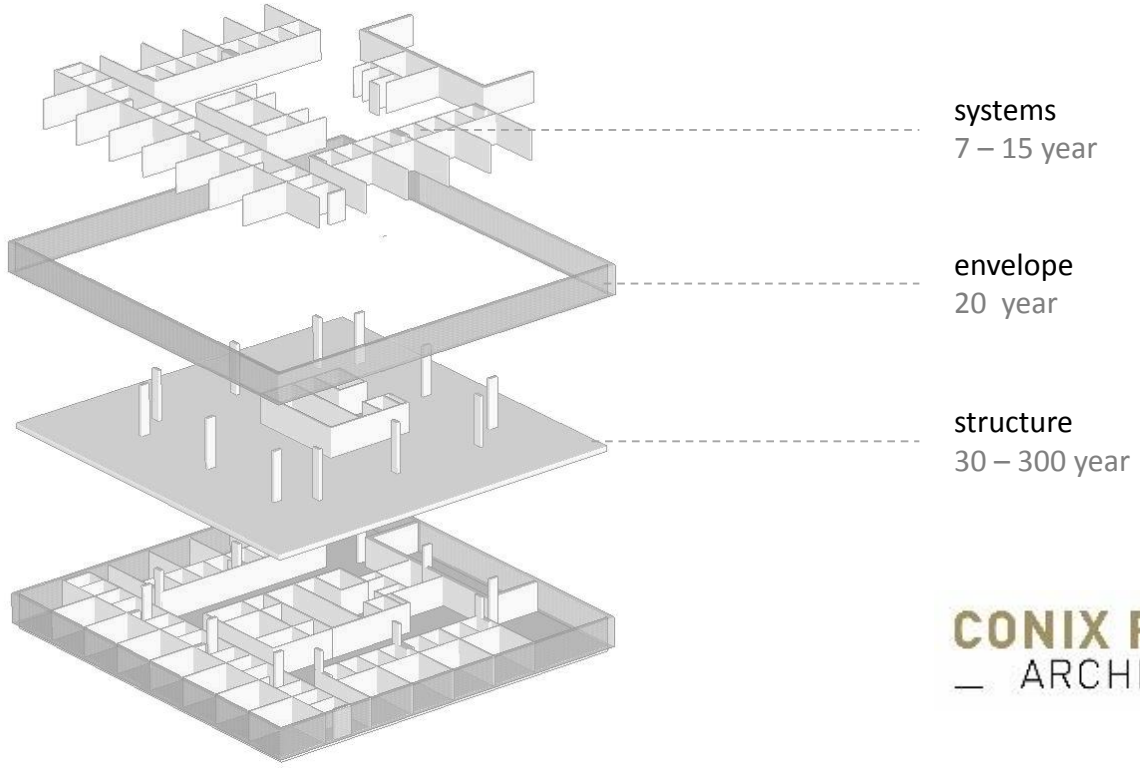


Image CONIX RDBM Architects, pace layering of the residential care center Keyhof in Huldenberg.

Hypothesis 3
Because designers have a long-term impact, they need a long-term involvement

Understanding that the shape of a building and the selection of materials made by an architect not only has an initial cost and environmental impact, but also determines its expected service life, the need for maintenance, and future reuse and recycling efficiency, why not giving designers much longer responsibility than the ten-year liability they have today? Or will it be normal to plan the future of the building, and do more in the same assignment? Or can the discipline build a new business on it?

Hypothesis 3

Because designers have a long-term impact, they need a long-term involvement

Designers have the skills to support the management and operation of a building: they imagine systems, enable dialogue, and build alliances. Whether this can and should happen from within the architectural office remains an open question.

Today, a long-term engagement of the client, investing in research, design and materials, is most essential for the creation of a sustainable building.

Moreover, the investment model of a building should be rethought (for example depreciation and ownership per building layer) and architects have the responsibility to support the client also in that aspect.

Existing design parameters regain importance: for example spatial proportions, gross-net efficiency, distribution of technical services, and accessibility of spaces determine the long-term value and meaning of buildings.

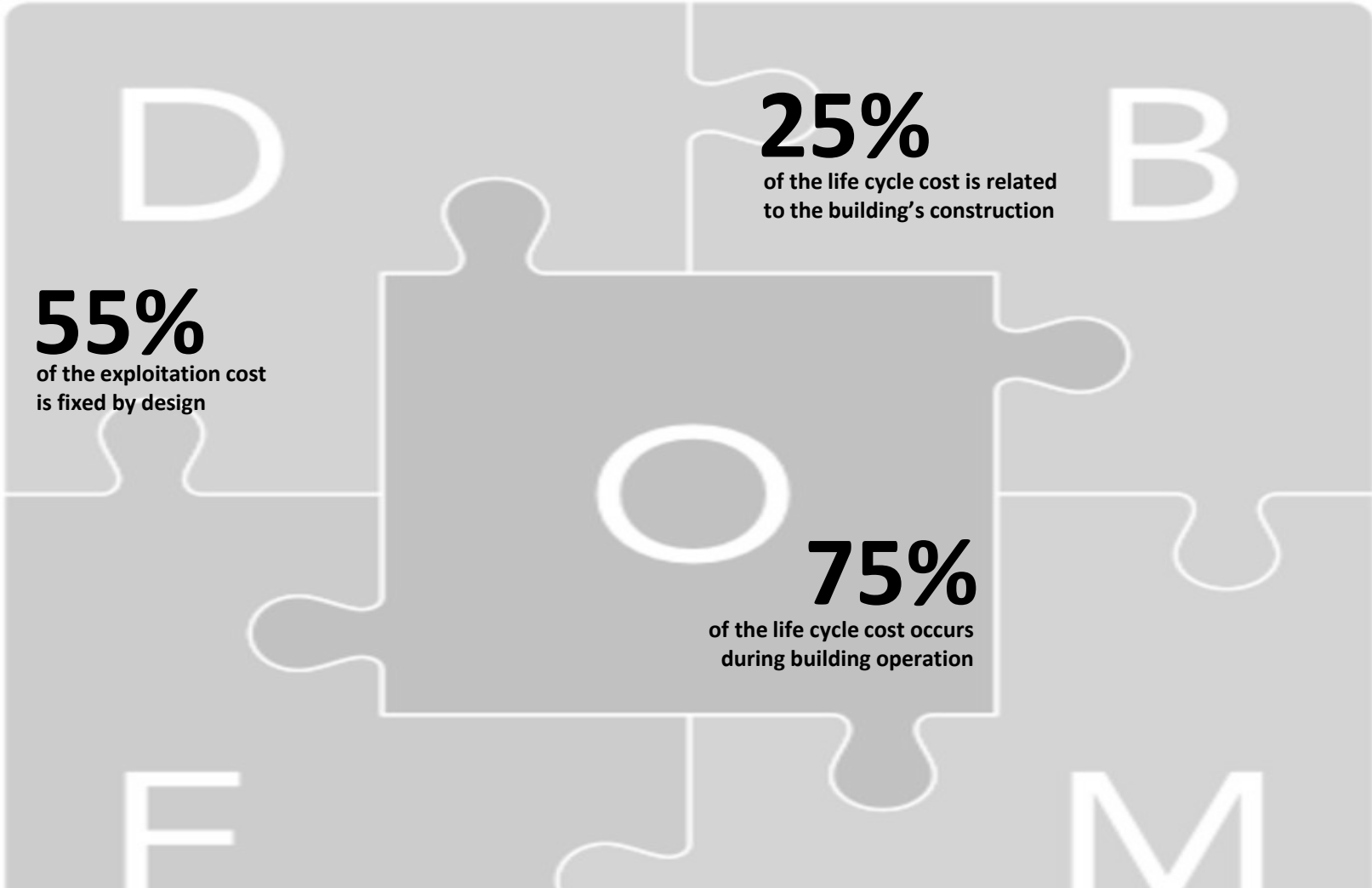
Hypothesis 4
In a circular economy, designers don't design for building users, but material managers

Invited respondent
Geert Verachtert (Groep Van Roey)

Van Roey is a contractor that takes a long-term responsibility. For example with the SportOase projects (i.e. sport centers often including a swimming pool) it builds and operates contacts in a public–private partnership of around 30 years. This activity frames in a larger group of contractor, service and estate development companies. Van Roey therefore understands the added-value of closing material loops.

Hypothesis 4

In a circular economy, designers don't design for building users, but material managers



Hypothesis 4
In a circular economy, designers don’t design for building users, but material managers

This last hypothesis looks further into the future, to the construction sector being fully circular, with pay-per-use and performance-based buildings, with components that are part of building bank and can be reused over and again. In this economy just design and refurbishment don’t exist anymore. But the built environment has become a living system, maybe managed by contractors. What is the role of design in this future? To whom does the designer offer his services?

Hypothesis 4

In a circular economy, designers don’t design for building users, but material managers

For maintaining the power to act, to refurbish and upgrade to changing needs or buy and resale components, it seems advisable to centralize ownership. This can be done by letting, leasing, through a cooperative organization or a fund.

Nevertheless, hybrid models can be interesting: for example support and infrastructure with open plan layout are part of a collective ownership, while interior fit-out are private (cf. Patch22, Amsterdam).

Whoever the owner will be, the architect is always engaged with the future user, even for an unknown ‘third user’, as in the idea of open school buildings, the architect has to design the common and the individual.

Moreover we should looks at technologies and concepts such as BIM and Blockchain to ensure transparency in the construction process. The management of that data could be business case in itself.

We are part of a transition, with increasingly more reuse over time. But if we don’t make different choices now, the next refurbishment it will be as difficult as today.

Designing with and for reuse demands many changes. Each requires us to adapt, but offers also opportunities to the relevance and impact of design.

If the economy changes, it might be wise to rethink the role of the architect and the added value of the profession. Should we offer the same services, to the same people?

The change is ongoing.

CHANGE + SHARE

Image Romnée A. BBSM Meeting 20180222

Waldo Galle
Vrije Universiteit Brussel

To survive the transition towards an economy of closed material loops in construction, it is not only important to understand the opportunities it brings for the architectural practice. As important will be the possibility to learn in the most effective way. Therefore, sharing experiences, knowledge, materials and businesses is identified amongst the participants as a key aspect. This is what they need.

Conclusions

Design for Change, creative opportunity or another constraint?

Designers need …

… more examples and lessons leant. Also small experiments deserve attention, and must be translated in practical lessons learnt.

… knowledge that is shared with product manufacturers and contractors, but also with legal and financial stakeholders.

… strong alliances wherein complementary businesses are connected and stable partnerships are created.

It is clear we should look into the future. But it is tempting to start predicting, … and fail. Wiser is to consider more than one future and different stories of development. They allow us to test our buildings, strategies and improve their generality and adaptability. If a building and the architectural discipline survives all scenarios, it is probably more futureproof. This is how architecture's future might look like according to some participants.

Conclusions

Design for Change, creative opportunity or another constraint?

In the best case scenario …

… designers guide from today onwards, building managers in the circular way of building and are the implementers of innovation in construction. Innovation that supports the changing needs of all current and future building users.

In the worst case scenario …

… designers are too late in rethinking their creative role. Continuing to try to keep control, their impact on the process and the result has vanished. They only execute what the client asks, while still believing to be creative.

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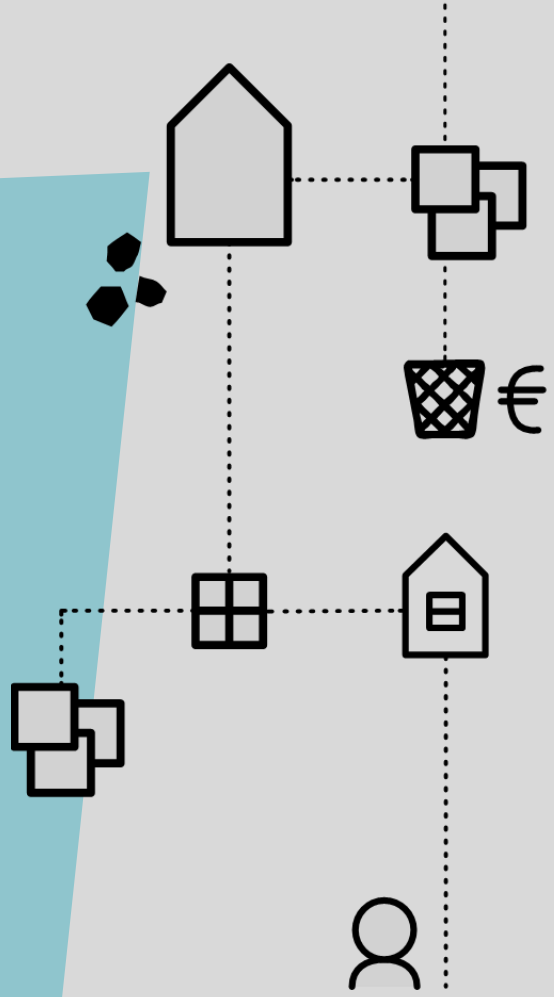

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Reference to this document

Galle W. (2018) *Design for Change, creative opportunity or another constraint (panel debate report)*. Workshop at Le Bati Bruxellois, Source de Nouveau Matériaux Meeting, 22 February 2018. Vrije Universiteit Brussel, Brussels. 15 p.

More information

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