Planning and decision-making guidelines for circular construction

CDW

Description

To address the implementation of circular economic practice in decision-making of construction and demolition projects, this tool will be based on a framework to map key decisions across the phases of demolition and construction, addressing the planning gap between demolition and construction projects. The tool will develop guidelines for incorporating circularity systemically in planning and decision-making processes. These guidelines will indicate when decisions should be taken, which stakeholders should be involved, and what knowledge inputs are needed during different stages of the process. Furthermore, this tool will address how relevant CityLoops-tools can be incorporated in the planning process supporting decision-making.

Activities in development projects such as CityLoops typically operate at a demonstrational level embedding experimental practices in real life situations. To secure adoption of experimental practices at a strategic level, thereby incorporating circularity systemically in planning and decision-making processes, it is essential to address the relation between the temporary, experimental and contextual level often based in partly random actions and the permanent, strategic and conceptual level based in formalized procedures. The planning and decision-making guidelines does not apply fixed operational procedures (e.g. generic procurement criteria), rather the tool applies a systemic frame for experimental and innovative practice to make the random actions conscious and aligned between actors in each phase of operation across departments and phases of demolition and construction.

Keywords:

- #Decision making; #Planning

Target user:

- Local governments involving actors across all the disciplines relevant in the planning and decision-making of construction and demolition projects (e.g. roads and parks department, buildings department, properties department, environmental department and planning department).

Format:

The tool is developed in two parts concerning a **visual** and a **methodological** element. The first part is a workshop format with a visual mapping framework, and the second part addresses the operationalisation of the planning and decision-making framework. The second part engages three levels: a *strategic* targeting how to implement circular economy in the municipal strategies to give mandate to focus on this but also obligate all parties to work in this ‘circular’ direction together across disciplines, an *organisational* targeting how to operationalize a ‘doing your normal job in another way’ based on the strategic/political mandate and lastly a *competencies* level targeting what new competencies are needed to support this organisational shift. Part two is also based on a workshop

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format, but it is important to establish an ongoing network/ group addressing this organisational transformation to secure a sustained commitment, thereby avoiding a fall-back to business as usual.

Development

First, a tool draft was co-developed in 2020 with Roskilde and Høje-Taastrup municipalities. Second, two overall activities were conducted: (1) Further develop the planning and decision-making framework with more stakeholders in Roskilde, Høje-Taastrup and Mikkeli, and (2) Organisational workshop in Høje-Taastrup targeting the operationalisation of the framework.

Barriers:

As decision-making processes in construction and demolition projects are highly complex, the relation between detail and simplicity in the tool is a difficult balance. Furthermore, the intentions were to make the tool physical, but due to COVID19 the tool was developed as an online platform in remote sessions. The online version was made as interactive as possible and the balance in level of detail was fine-tuned in additional workshops. The simplification of the tool was made by reducing the number of elements and so the level of detail was empirically stakeholder driven. The tool requires a great deal of commitment and resources by the organizations for the results to be nuanced enough and fully embedded in the process, which can be difficult to invest.

Deployment

In CityLoops, this tool will be used to map key decisions across the phases of demolition and construction in workshops in each city focusing on the demonstration projects taking place. Afterwards the method for organisational transformation targeting the three levels (strategic, organisational and competences) will be applied in a city (two optionally) as a workshop following the establishment of an ongoing network/ group.

Replication

The conceptual framework and method are applicable in other cities across countries, but has not yet been tested beyond the CityLoops project countries. The conceptual framework and method are generic. The contextual differences (e.g. legal, demographic, practice) will appear in the output of the tool. This also adds the possibility to compare cities nationally and across countries.

In order to make use of the tool successful, the developers recommend to be concrete and secure broad commitment and investment. To secure a strategic commitment and an organisational shift, it is important that both the managerial and operational level in the organisations are involved in all relevant departments. This secures managerial mandate of ‘doing your normal job in another way’ and cooperation at the operational level between departments each understanding their new mission based on a common vision. Furthermore, this gives the opportunity of knowledge sharing and highlights the competencies present and the competencies needed to embed circular practice in construction and demolition projects.

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Developed by

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