



### 05. Design

#### Design Scenarios

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Stewart Brand once said: “*All buildings are predictions, and all predictions are wrong*”. When we design a building today, we design it for the future. Materials will last for 20, 30, 60 or even more than 100 years. By fixing them in a building, we seem to assume that they will still be used in the same way after all that time. How then can we make better predictions or better yet, design buildings that can adapt to future scenarios?

*The conventional design approach for buildings is fairly linear.* You develop a singular design brief and design a building for one predefined use. Both brief and design are based on the situation at the time of the design, possibly including some future projections. You then use the building for its intended purpose. Generally, this will be the only purpose for which you have made the design.

*But what now if the context and the requirements for the building change over time?* If your state-of-the-art shopping centre becomes vacant due to the popularity of online stores? *In the best-case scenario*, you were lucky and *the building can in fact adapt to the new needs*. More likely, adapting it will require intensive renovations, lots of time and even more money. *In the absolute worst-case scenario*, the project context and needs change already during the planning and construction process and *the building becomes outdated or irrelevant even before it is finished*.

By designing with future scenarios, you try to anticipate changing contexts and needs. Not by looking into a crystal ball, but by integrating a range of potential future uses. The predominant scenario will still be the initially intended use of the building. But apart from that you also start to implement other scenarios. The magic words for the development of these scenarios are “*what if*”. What if the company that uses my office building starts to grow and needs more space? What if that new tramline finally gets realised and my parking garage remains largely vacant?

By considering these scenarios and designing a building that can adapt to them, you considerably increase its reuse potential. Not only for the scenarios you have developed, but also for other, unexpected ones. The more divergent the future scenarios, the bigger the reuse potential.

You can easily start designing with future scenarios in three steps. First, you *consider a change in the project context* that would affect the building. This can be a very big demographic or technological change, like a strongly declining population or a switch to remote working. But it can also be a smaller or local change, like a change in the composition of a resident family. Second, you *define what this change entails for the building* you are designing. Would it require a bigger capacity?



## Circularity for Educators

Or a reorganisation of the floor plan? Maybe the building would have to be removed, completely or only in part. Third, you *start designing for the new scenario*. You can first design for the intended building use and use the other scenarios to improve the adaptability. What would need to change to allow adaptation? What would be a better structural grid? Which walls should be demountable and where is the best positioning of vertical circulation or services? A more systemic approach is to design a building system using the different scenarios and only later develop that into a design for the intended use.

*Scenarios* give insight in the potential future use of a building. That *can be very helpful in defining the most relevant design approaches and principles*. Optimally, scenarios are used from the beginning of the design process. They are also *very useful in checking or demonstrating the adaptability when finishing the design*. In competitions for circular building projects, this is often one of the deliverables. Finally, developing scenarios is *a good way to explore the project context*. Doing this with the project stakeholders can help you define which future changes should but also which changes shouldn't be incorporated in the building design. After all, a building can never cater to all needs. In whatever way you use them, remember that *future scenarios and scenario thinking are not so much a design method as they are part of a design philosophy*. They help you think about and imagine an unknown future. After all, that is the only way to abandon the concept of single use buildings and work towards a more open-ended circular design practice.