

Circular materials run in circles, unless they are on a break

The essence of the circular economy is that materials and products will never become waste again, and will continuously be used in various cycles. Materials have to move in those circles, but sometimes they also need a moment of rest. Also, with circular construction we want to extend this line... uhm circle of thinking. When buildings are demolished or renovated, existing materials and products must be able to be reused, or at least recycled. This can be done by performing an audit that lists which materials can be collected and harvested. And just like in agriculture, a storage location must be provided for (part of) this material harvest: the Material Exchange Platforms (MEP's).

These platforms are intended to exchange materials recovered from buildings between different parties and owners. The first step is: a correct harvesting. A harvest audit can be used to see what is the outcome of a building that is going to be demolished and how this demolition should be done:

1. First an evaluation is made of the potential for reuse of materials and products (what). Some items will not be suitable for exchange, such as: materials containing asbestos.
2. It must then be examined which harvesting techniques can be used to preserve the materials and products as well as possible (how).
3. During the audit, potential buyers/users can already be searched for. For example, some items can already be transported directly to the location for subsequent use.

After the 'what' and 'how' have been mapped, the harvest can begin. Before a physical start is made, it is necessary to have a proper plan of action. It may be interesting – and sometimes necessary – to make an analysis of the environment and what effect this will have on the works. At the same time, it is useful to consider how other construction activities should or could be done on the construction site and whether useful synergies can be made.

It is utopian to think that the entire harvest can be used directly into other construction projects. That is precisely why the MEP's are important. They are used as so called hubs where the materials can be stored temporarily and later on can be collected by interested parties. These hubs are linked to an online platform, that acts as a kind of "eBay" of recycled building materials. A purely online variant is also possible, whereby the storage is either done by the construction parties involved or the items are moved directly from construction site to construction site.

Setting up Material Exchange Platforms is exactly what [Kamp C](#) is going to do within the [CHARM](#) project. During the previous partner meeting in Paris, at the end of July 2019, we were inspired by existing similar initiatives. Below follows a brief overview of existing organisations and their initiatives, including some other relevant organisations.

[Backacia](#) is a French start up, that has a marketplace for building materials and also provides advice. Among other things, they work for the city of Paris. Here, they support a demo project of Paris Habitat: a building – with the typology of a building that is often demolished in the city – is analysed by them. Backacia advises both the city and the contractor to see what the options are. They will also capture the lessons learned from this demo project, so it enables them to apply the knowledge within other projects.

[International Synergies](#) is an international player, that offers customized databases and a platform for resource management with their [Synergy 4.0](#). With these tool, they help organisations to efficiently identify opportunities for the reuse of resources. Their focus is also on industrial symbiosis and they are therefore not exclusively focused on the construction sector. In addition to IT resources, International Synergies also offer advice: they provide assistance with the implementation of methodologies and they support workshops to create symbiosis. They also helped the Dutch province of Zeeland to turn [Zeeland into a hotspot for industrial symbiosis](#).

In our own country, Belgium, we find [Werflink](#). Werflink is an initiative of Besix and Confederatie Bouw. Werflink wants to connect all kinds of construction sites and construction companies and ensure sharing, renting out, selling, lending and exchanging equipment, (residual) materials, cargo space and facilities with fellow construction companies. In this way, not only materials and products are used more effectively, but other resources are also used more efficiently. A win-win-situation indeed. In Sweden, we find a similar initiative, called: [Looprocks](#). Looprocks has been started by [NCC](#) to combat inefficiency and loss of materials.

[Rotor Deconstruction](#) is – just as Werflink – a Belgian pioneer on this topic. Rotor Deconstruction wants to facilitate the reuse of building materials in all sorts of ways. They take care of the dismantling, the conditioning and the selling of used materials. Furthermore, they provide advice to developers, contractors and architects. They also develop new ways to treat used materials so that they can be reused again afterwards. Rotor Deconstruction is the initiator of [Opalis.be](#), an online inventory of the professional sector in harvested building materials around Brussels.