



The building and construction industry is the industrial economy's biggest consumer of natural resources, and the largest producer of waste. **The construction industry accounts for approximately 50% of materials used on the planet, and 48% of all waste (6.2 million tonnes) in Ireland,** which is why the opportunity to re-think the input to output process and to implement circular economy principles to reduce waste and increase materials reuse is so vital. There is a significant resource value in these materials that is simply going unrealised. Very little of this waste is reused or even recycled. Where recycling does take place, it is often in the form of downcycling, creating aggregates and backfill at best.

The **CMEx project** is a pilot scheme to demonstrate **a feasible, transparent, fair, user-friendly system for the reuse of construction materials** that would otherwise enter the waste stream. The project will identify and track resources through the supply chain; identify the potential value of matching materials; and apply these insights to steer organisational processes towards supporting a circular economy. It will identify materials from the waste stream with the potential for diversion to reuse and develop mechanisms to enable reuse through an online platform that generates materials passports, facilitates material matches, and utilises blockchain technology to document transactions.



The outcomes of the project such as lessons learned, training materials, materials data, match data, are all replicable and scalable and will be readily applicable to other types of construction materials. **Material passports** will also be an outcome of this project. Material passports are a digital document containing information on all the parts in a building. The passports list the 'ingredients' of a building, which can be useful to manage a facility or to make changes if it is redeveloped or extended in the future. These passports allow all material sources to keep flowing and avoid landfill or incineration. The processes in this demonstration pilot such as the training and development of material passports, will be similar whether the material is glass, or timber, or metal.

IGBC will team up with experts operating in this sector in the Netherlands, **Excess Materials Exchange (EME)** who run a materials exchange platform and have already undertaken pilots in several other countries. Ireland can benefit from their experience and avail of the formal structures already in place. We will be seeking to engage with organisations in Ireland who have a significant level of construction and demolition waste generated through ongoing construction operations, or through maintenance and upgrading works, which has the potential to be salvaged for reuse, and with organisations who wish to re-use construction materials either in construction projects, or elsewhere.

If your organisation is interested in the reuse of construction materials and in transitioning to a circular economy, we would love to hear from you.

We are looking for organisations that have a regular waste stream of materials and that are eager to divert this waste from landfill, incineration and downcycling. You will receive training and mentoring in the creation of material passports, and in using the material exchange platform to help generate suitable reuse outlets for your materials through its matching facility.