

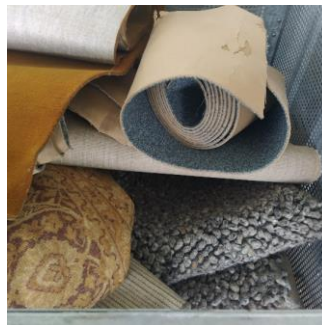
Where does your old carpet end up?

Within the Living Lab CARPET, Balta, Belysse, Centexbel, Cobot, Designregio Kortrijk, Fedustria, IMOG, Material Mastery and Weerwerk join forces to find solutions for carpet at the end of its life (EoL). The focus within the Living Lab CARPET is on **reuse, repair, refurbishing, remanufacturing** and the use of the carpet in another application (**re-purpose**).

This article presents the first findings regarding the monitoring of EoL carpet. A first task consisted of investigating where our old carpets end up and what quality they have in order to be able to assess whether one or more of the above routes are feasible and if so, which ones. To this end, both recycling centres and thrift shops were visited.

Recycling centre

The first results were encouraging. On the one hand, there are recycling centres where carpet is collected separately. However, it is a collection of various carpet types and materials, sometimes they contain prohibited, because harmful, products and finally they end up in the incineration plant. Encouraging? Yes, because there is a separate stream, a screening is already carried out so that the carpets in the specific collection bins look good in quality and can therefore be reused after cleaning.



The table below lists how much carpet was collected in recent years in 15 IMOG recycling centres under the same umbrella.

Tabel: amount of carpet per inhabitant collected annually in the IMOG region

2020	150.861 kg	0.6 kg/inhabitant
2021	133.597 kg	0.53 kg/inhabitant
2022	125.000 kg	0.5 kg/inhabitant

An average of 135 tonnes of carpet is collected annually in the IMOG region, with 250,000 inhabitants. Extrapolation to Flanders (6.6 million inhabitants) gives 3,564 tonnes and to Belgium (11.6 million inhabitants) 6,264 tonnes of potential for re-use, re-purpose, repair or refurbish. A broader survey is planned to determine whether these results are representative for other regions.



Thrift shops

This concerns only carpets; only the nice and clean ones are displayed in the shops for 2 to 3 weeks. They may rotate from one shop to another and - if not sold yet - are offered via stock sales.

In 2022, approximately 1000 carpets were sold in the thrift shops of Kringwinkel Zuid-West-Vlaanderen (350,000 inhabitants). Extrapolation to Flanders gives 19,000 carpets; and to Belgium 33,200 carpets with potential for re-use, re-purpose, repair or refurbish. Here too, a further survey is being carried out to see whether this generalisation can be substantiated.

Preliminary conclusions

The first, preliminary conclusion can be stated that there are 3 different residual flows with different quality within the recycling centres and thrift shops.

- Recycling centre: heavily soiled carpets go directly to residual waste → incineration
- Recycling centre: there is a separate collection of carpets that are also ultimately incinerated → here there is potential to use in one of the above-mentioned routes such as repair, refurbish, repurpose.
- Second-hand shop: focus is on the sale of carpets; the rest is incinerated → here we see potential for reuse given the short period of time that they are offered.

However, all carpets with potential will require treatment such as vacuuming or washing before further steps can be taken.



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