

SHORT SUMMARY

Organisation: Schiphol, www.schiphol.nl

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Product & sector: Construction | **Country:** The Netherlands



Circular hoardings pilot for Schiphol



“Don’t accept mediocrity. Keep searching until you’ve found a workable solution.”

Jeremy Croes, Programme Coordinator
Raw materials & Waste Streams, Schiphol

How can you produce building materials that you need for your own growth from the raw materials released from your own processes? That is one of the circular issues on which Schiphol is working.

Project description

Schiphol aims to be a Zero Waste airport by 2030. Schiphol has developed a Zero Waste Programme to programme the organisation to do business in a circular way. The programme focuses primarily on developing a circular infrastructure and retaining maximum value from waste streams released in the processes. A concrete pilot from this programme is the development of circular hoardings, in collaboration with ECOR.

Approach

Together with ECOR, Schiphol has been searching for an alternative to the MDF panels that are traditionally used for hoardings.

They also examined the functional and technical requirements that Schiphol places on the hoardings. This includes fire retardancy, waterproofing levels and simply, the colour. The builders (VolkerWessels Bouw) that make and install the hoardings, are also involved in developing the right panels. ECOR’s research and development facility in the United States developed the formula and tested this in practice together with the builders. The ECO hoardings are made from elephant grass and cellulose-retaining drink cartons (such as tetra packs) from the terminal. Elephant grass is being cultivated as a trial on Schiphol’s own grounds, as well as by farmers in the vicinity.



FACTS & FIGURES

- > Number of FTEs: approx 2,000
- > Schiphol uses approximately 2,000 MDF panels for hoardings every year.
- > Other projects include baggage carousels that are 99% recyclable and Light as Service in terminal 2. Schiphol is also producing linseed, a component of paint, which Schiphol then purchases.

Results

The result is a hoarding that satisfies Schiphol's requirements. The hoarding is relatively easy to disassemble. The panels are made from bio-based materials that are available at Schiphol and in the region. These do not contain any toxic substances. Circularity is also safeguarded in the future. At the end of the hoardings' service life, the panels are returned to ECOR. ECOR processes these into new panels, which are again returned to Schiphol.

"The circular economy is actually a design issue."

Jeremy Croes, Programme Coordinator Raw Materials & Waste Streams, Schiphol

Schiphol uses at least 6,000 m² of these panels for hoardings each year. Considering the significant renovations that are due, it is expected that the need for hoardings will increase. The challenge for Schiphol and ECOR is now also to produce circular economy battens, so that the entire hoarding is 100% circular.

As Schiphol both supplies the raw materials and purchases the end product, ECOR can (depending on the volume) supply the panels for a more favourable rate than the price of an MDF panel.

Lessons learned

- Involve the *key players* from the start. This safeguards quality, a support base and acceptance.
- Don't accept mediocrity and keep searching until you've found a workable solution.
- Start small, but focus from the beginning on having a greater impact at a later stage.
- Sometimes, you need to arrange matters outside the organisation, because otherwise, it takes too long or will not get off the ground.
- Emphasise why circular solutions are not only important for your organisation, but also for stakeholders. For example, the builders were informed about the negative health effects of formaldehyde that is released when working with MDF. They saw that this project was in their own interests and were pleased to cooperate to find a solution.

About REBus and the Green Deal on Circular Procurement

The Green Deal on Circular Procurement (GDPC) is an initiative of MVO Nederland (CSR Netherlands), NEVI, Central government, Duurzame Leverancier, PIANOo, Kirkman Company and Circle Economy. Various pilots originating from GDPC are partly financed by the European REBus project, implemented in the Netherlands by Rijkswaterstaat (Directorate-General for Public Works and Water Management). They are working together to support businesses and government organisations in their circular procurement ambitions.

Contact information

- > E-mail: Circulair@rws.nl
- > Website: [PIANOo](https://www.piano.nl)

Partners: ECOR | VolkerWessels Bouw | Suez (collection and transport of waste streams)

Relevant links & documents: [Broadcast of Be Sustainable pilot *light as a service*](#) | [Film 99% recyclable baggage carousel](#) | [Film circular projects](#)

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