



## Press Release

# PORR joins sustainable research project EPSolutely pledges to combat polystyrene waste

Vienna, 19.05.2022 - Only about a quarter of the polystyrene waste in the construction sector and half of all polystyrene packaging is returned to the circular economy - even though the material is particularly well suited to this. This is now about to change. Together with eleven partner companies and Fraunhofer Austria, PORR has launched a two-and-a-half-year research project that should massively increase this recycling rate.

Recycling building materials is an essential component of PORR's Green and Lean strategy. PORR recycles 2,2 million tonnes per year. Now, as part of a new research project, PORR Umwelttechnik is addressing a construction material that has achieved little attention so far - polystyrene. "Polystyrene plays an important part in many construction projects", says Karl-Heinz Strauss, PORR CEO. "It is cheap, can be mass-produced and has excellent insulation properties". What's more, Styrofoam, also known as expanded polystyrene, EPS for short, is very recyclable. It can be used to make EPS again, cutting CO2 emissions by 80% compared to new production.

The problem? Studies on EPS show that only 26% of the construction waste and only 56% of the packaging waste is actually being recycled. "The majority is not returned to the circular economy to produce new polystyrene but is instead used for polystyrene concrete, for example. Of course, this means that more EPS needs to be made to meet demand. And that places a huge burden on the environment", says Strauss. 13,200 tonnes of polystyrene waste are generated in Austria each year.

### Recycling rate of up to 80% from 2025

This is why PORR has launched the research project "EPSolutely", together with eleven partner companies from across the entire EPS value chain. The 30-month project is being led by Fraunhofer Austria Research. The goal is to massively increase the EPS recycling rate in line with circular economy principles. Strauss: "From 2025, the solutions we develop should help increase the rate by up to 80%, thereby promoting recycling as part of a circular economy".

Karl Ott, Head of Intralogistics and Materials Management at Fraunhofer Austria: "What makes this research project unique is that manufacturers of polystyrene and the companies who use it as packaging material are just as much a part of it as PORR as a construction company and many other partners. This covers all potential aspects".

### Removing hurdles

PORR Umwelttechnik will apply its extensive knowledge in implementing all aspects of environmental projects and of process development. It is on board as an expert for the demolition and removal of EPS, among other things. "EPS does not currently leave construction sites without residue", explains Strauss. "It is often stuck together with other materials like plaster, adhesives and reinforcement netting. The individual components first have to be separated in order to make new polystyrene from them". The best way to do this is now being worked out as part of the project. A solution is also being sought for the problem of the flame-retardant material hexabromocyclododecane (HBCD), which



was added to polystyrene until 2016. EPS containing HBCD can currently only be recycled properly using a specific process developed by Fraunhofer IVV.

As the most sustainable construction company on its home markets, PORR prioritises a circular-economy approach. Strauss: “We are ensuring that today’s buildings provide tomorrow’s raw materials. Polystyrene is an essential component of this strategy”.

### **Facts and figures: EPSolutely**

**Project management:** Fraunhofer Austria Research GmbH

**Project partners:**

- PORR Umwelttechnik GmbH
- Sunpor Kunststoff GmbH
- Austrotherm GmbH
- Steinbacher Dämmstoff GmbH
- Hirsch Porozell GmbH
- Flatz GmbH
- LuSt Malereibetrieb & Vollwärmeschutz GmbH
- Liebherr-Hausgeräte Lienz GmbH
- XXXLutz KG
- Saubermacher Dienstleistungs AG
- O.Ö. Landes-Abfallverwertungsunternehmen GmbH (LAVU)
- Lindner-Recyclingtech GmbH

**Project support:** Business Upper Austria, Plastics Cluster

**Runtime:** January 2022 to June 2024 (30 months)



*Most polystyrene is not recycled as part of a circular economy - and this should now change @ Fraunhofer Austria*

The press release including high-resolution image material is available for download from the [PÖRR Newsroom](#).

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