

Remeo Oy Linjatie 6 01260 VANTAA remeo.fi



REMEO IS BUILDING FINLAND'S MOST ADVANCED MATERIALS RECOVERY FACILITY IN VANTAA

State-of-the-art technology will be used in the facility, which will start operating at the end of 2021.

- Remeo Oy, a Finnish company specialising in environmental management, is building a materials recovery facility in Vantaa, which will clearly promote the circular economy in Finland. The investment increases the company's capacity, enabling the recycling rate to be raised in Finland, and in practice making it no longer necessary to export construction waste. After its completion, the facility will cover more than 30 per cent of all waste recycling needs in the Helsinki region.
- The facility is designed for waste materials from the construction, trade and other sectors, and will use cutting-edge technology. The first spade hit the ground in May 2020, and the facility will start operating at the end of 2021.
- The estimated cost of the project, unique on a European scale, is approximately EUR 35 million.

With the technology used in the new materials recovery facility, Remeo helps its customers to meet the recycling rate objectives set in laws. From the beginning of 2020, Finnish law requires that instead of being burned to generate energy, 70 per cent of construction waste must be recycled for reuse. According to Remeo's estimates, only half of this goal has been reached.

"The materials recovery facility being built in Vantaa is the largest single project in our company's history, and it will reinforce our position as a pioneer in the Finnish circular economy. The circular economy calls for action, not words, and for this reason we have not stood still, waiting for any societal subsidy systems. Instead, we have boldly decided to invest in this project, which is significant for our customers and society at large. We believe that the economy and ecology go hand in hand", says Johan Mild, CEO of Remeo.

The future annual processing capacity of the facility will be 120,000 tonnes of construction waste and 60,000 tonnes of energy waste produced in commerce and industry. A significant part of these waste fractions is now trans-shipped and processed outside the Helsinki region or in Estonia.

An important project on a European scale

Remeo's facility project is unique in Europe, because it uses the latest technology and integrates two different processing lines for waste fractions. The facility's equipment suppliers are Stadler and ZenRobotics. The new facility will increase Remeo's processing capacity in the Helsinki region by a factor of four. The project's cost estimate is EUR 35 million.

"Until now sorting plants were designed and built for either commercial & industrial waste (C&I) or for construction & demolition waste (C&D). For Remeo, Stadler has designed what is effectively two plants in one: the C&D plant capable of processing 30 t/h and the C&I plant with 15 t/h capacity. This combination is unique and it is the first such plant in the world", says **Jürgen Berger**, International Sales Director at Stadler.

Thanks to the facility, material recovery, rather than energy recovery, will play a much greater role for the first time. According to the principles of the circular economy, recycled material should be processed as close to the point of origin as possible in order to minimise the environmental impact. The location of the new materials recovery facility – in the circular economy hub of Vantaan Energia and Remeo, and close to excellent transport connections – is an ideal solution in terms of the circular economy.





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> "The location of the new facility, excellent considering logistics, enables short transportation distances, and therefore the smallest transportation-induced carbon footprint in the markets. Carbon emissions have also otherwise been addressed closely in the project, as waste processing will be powered by energy generated at a solar power plant to be built in conjunction with the facility. Furthermore, the idea is to use any heat generated in the process in Vantaan Energia's district heating network", says **Mauri Lielahti**, Business Director of plant operations at Remeo.

Modern technologies that learn

The new facility will introduce new machine learning technologies that will replace mechanical material handling. Thanks to the new technologies, a much larger proportion of materials can be reused than at present. The main goal is to genuinely increase the recycling rate of waste materials produced in the Helsinki region.

"Remeo is one of the first customers of ZenRobotics and a pioneer in the use of robotics in the processing of construction, demolition and industrial waste. It is wonderful that based on its previous experience, Remeo invests in 12 new robotic arms at its new materials recovery facility. With its ten years of experience, ZenRobotics has delivered highly advanced waste processing robotics based on AI on nearly every continent. We are excited to be part of building this robotised industrial construction waste processing plant in Finland, which will be the most advanced in the world", says **Juha Mieskonen**, Head of Sales of ZenRobotics.

"In addition to the volumes of materials processed, the quality of the end products is what matters. Modern technology enables us to produce extremely pure and valuable reusable materials to replace virgin materials. This will clearly promote the circular economy in Finland", Lielahti says.

"This environmental permit is the first one based on the EU's new stricter Best Available Technology (BAT) standards. The entire facility has been designed on the basis of these standards and guidelines. The new facility follows the strictest environmental standards in Finland. As a result, it is extremely environmentally friendly", Lielahti continues.

The overall environmental impact of the project was first assessed during the EIA procedure and specified in the environmental permit process in cooperation with the authorities. The Regional State Administrative Agency granted the project an environmental permit in December 2019. The processing functions will mainly be located indoors, as a result of which any noise, dust and odour nuisances will be minimal.

FURTHER INFORMATION:

Mauri Lielahti, Business Director, Remeo, tel. +358 50 598 8158, mauri.lielahti@remeo.fi

Remeo Oy is a Finnish company specialising in environmental management. Together with our customers, we develop new circular economy solutions for recovering the waste of yesterday for use as the raw materials of tomorrow. We employ approximately 370 professionals in 13 locations and at seven materials recovery and reuse facilities. In 2019, our turnover totalled EUR 89.8 million. **remeo.fi**

