



Rudus LUMO -programme

Preserving and promoting biodiversity



The Ryttylä area in the municipality of Hausjärvi is an old gravel extraction site that has been transformed through restoration under the Rudus LUMO programme. The site is now known as the Kakslammi Nature Conservation area and is owned by the Vuokko Foundation for Nature Conservation. The area also has a popular disc golf course.

Actions speak louder than words

Biodiversity stands for all plant and animal life in a broad sense: genetic variation, abundance of species and the diversity of their habitats.

The Rudus LUMO programme is a way of promoting biodiversity.

The programme creates new and more sustainable methods for excavation, restoration in soil extraction areas and in the vicinity of industrial plants. By promoting and enriching biodiversity, wastelands after aggregate extraction areas can be transferred into habitats for both ordinary and endangered species.

The Rudus LUMO programme is a set of practical measures to protect and maintain biodiversity.

From project to policy





Ridge landscapes are treasure troves of nature

Biodiversity loss is one of the biggest environmental problems of our time. Humans change nature and the habitats of animals and plants living in it.

Habitat change can lead to biodiversity loss and species extinction. Almost 12% of the 22,418 species found in Finland are endangered (The Red List of Finnish Species 2019).

For example, an original, open ridge landscape is a rare sight in today's Finland. However, similar landscapes can be found at sandpits in areas where aggregate has been extracted. By preventing or slowing down the afforestation of these pits, we can create suitable habitats for rare ridge plants and endangered insects.

From sandpit to nature attraction

The restoration of the Suomies area in Hyvinkää has been carried out in cooperation with the Uusimaa district of the Finnish Association for Nature Conservation and the City of Hyvinkää. The area has a popular nature trail and is also home to two works of environmental art.





In Porvoo, an old gravel extraction area is now home not only to the moor frog but the area also popular among the locals enjoying the outdoors. Rudus built new ponds for the moor frogs, and the frogs have begun to spawn in them.

Restoration – more than just taking care of nature

Building and maintaining a modern society requires natural resources, such as aggregates. Fortunately Finland is self-sufficient in terms of aggregates.

Rudus carries its responsibility for the environment also when extracting aggregates. The company takes care to produce all aggregates as locally as possible to minimise logistics and the emissions arising from them. Rudus is a forerunner in the recycling of aggregates and soil.

However, aggregate and soil must be sourced from nature. This leaves a mark, which can be improved through restoration and by planting trees.

In the Rudus LUMO programme, the team approaches restoration from a different starting point. Rudus consults environmental experts for the restoration of each site. In fact, restoration already begins while extraction is still in progress.

While aggregate extraction is necessary to keep society running, it can also help to preserve biodiversity.

Natural attractions and recreation areas

Restoration takes into account not only biodiversity but also the needs of local residents. During the course of the restoration process, extraction areas are partially converted to recreational sites: nature trails, ponds for swimming, and disc golf courses.

This way, Rudus is able to bring together aggregate extraction, nature protection and human needs.





Common, shared information gives more

The Rudus LUMO programme brings together a range of industry operators, experts, authorities and decision-makers. These include the Rudus staff and anyone near Rudus plants and aggregate extraction areas.

This is good, because as stated in the Constitution of Finland "nature and its biodiversity, the environment and the national heritage are the responsibility of everyone". Rudus is well placed to promote biodiversity. The company has many extensive industrial plants and soil extraction areas in various parts of Finland. Caring for them is significant for the preservation

and success of many species.

Rudus also works together with many nature and soil experts. Together, we have been able to acquire valuable information about sites around Finland and shared this information to our staff, who have been very eager to learn more.

The Rudus LUMO project has been successful thanks to the high level of commitment of management, staff and the extensive cooperation network with various experts and local residents.



Towards carbon restoration

Restoration that promotes biodiversity will help the environment to adapt to climate change. According to a study conducted by Rudus, the areas landscaped under the Rudus LUMO programme can be used to increase carbon sequestration. More research is still required, but the initial results are promising: plants in sunlit habitats sequester carbon well into the soil and can therefore help the area to adapt to and also slow down climate change.



The aggregate extraction area of Noro in Kuopio has been landscaped for years by transferring and sowing the seeds of plants that thrive on ridges that are sunlit. The sunlit ridges in the area have been studied to learn more about carbon sequestration in such areas.



Carbon is sequestered not only in plants but also in concrete. The Rudus Betoroc concrete aggregate has been established to be a carbon-negative construction material. It can sequester up to half of the carbon dioxide emissions that went into making the concrete.





Finland's first ecosystem hotel was established together with the Finnish Environment Institute in the Raasepori production area, with valuable species living in ridge habitats transferred there as road 25 was being widened. The plants thrive in their new habitat and an endangered butterfly, the thyme plume, has been found near the hotel.

The restoration of an aggregate extraction area in Oulunsalo has been planned together with Wild Zone NGO. No trees will be planted on the site; instead, the restoration project will utilise plants typical for the area.

Mellilänjärvi Lake in Loimaa, created as a result aggregate extraction, is a reservoir with clean and clear water, a popular swimming place for families in the summer.

A decade of LUMO

Rudus launched the LUMO programme in 2012. The programme was kicked off with several pilot sites. In ten years, it has evolved into a proper operating model with an expert network, trained staff, known opportunities and challenges and specified goals. Today, important measures under the Rudus LUMO programme are being carried out in dozens of different areas.

Rudus has turned the challenges presented by the environmental impacts of aggregate production into an asset.

Rudus builds a lot – also ridges for plants that thrive in such a habitat, and wetlands for insects, ponds for moor frogs, rock piles for snakes and northern wheatears, and nesting places for birds and bats.



In 2022, Rudus joined the Science Based Targets for Nature (SBTN) programme, expanding its LUMO programme into the entire value chain. The impact of the work is increased significantly by the science-based targets involving direct action and supply chains.



Rudus has been supporting the work of WWF Finland for the benefit of water bodies by giving away aggregates and their transportation for projects to create fish passes for endangered migratory fish and to prevent unwanted nutrient flow into inland waters and the Baltic Sea.



Preserving biodiversity calls for the right attitude and practical measures.

Rudus LUMO is part of Rudus' environmental responsibility programme.
Read more about LUMO and our environmental responsibility work:

www.rudus.fi/lumo
www.rudus.fi/ymparistovastuu

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