

A WORKING LANDSCAPE

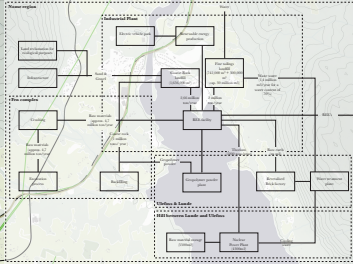
From mineral park to mineral network

We're not just building a mineral park; we're creating a mineral network. This system starts at the mine but expands regionally, connecting hubs for processing, reuse, research, and regeneration. These hubs will manage materials like coarse rock and fine tailings for uses such as geopolymers and other valuable regional resources.

The Value stays in the region

The mineral network ensures that the value created by the mine and additional activities is returned to the local community and region, both economic and intellectual. Profits are not extracted and exported but reinvested in infrastructure, education and innovation, and ecological progression.

NOME is crucial for Europe's shift to cleaner energy and a more localized economy. We aim to flip the



traditional mining model by making the mine a "force for good," benefitting both ecosystems and local economies. Our "Green Mineral Network" proposal prioritizes people, communities, and biodiversity during this industrial transition. Ultimately, Nome will be a flagship example of green industrial practices, showcasing sustainable growth and rehabilitation efforts globally.

GROWTH AND DEGROWTH

From the start of the operations every intervention will be a contribution to the green mineral network. Our position is that the mine is a place that is meant to be seen, it's a space that is part of our day-to-day lives that contributes to the phones we use, the trains we take and the energy we use. In Nome, minerals are taken out of the ground, which adds quality to life and landscape, to nature, and to the larger region.

With the aim to be as transparent as possible, the green mineral mine is not hidden away behind fences, but is part of the community. Materials flow from the mine to the processing plant, where it can be converted into other components or shipped to the larger factories of Frierijord to be further used for production and to become part of a circular economy. We build a network that is adaptive and can be expanded or shrunk when needed. The nodes of the network are connected but operate independently. The nodes are the processing plant, the mining operations stops, the nodes and the network will still be there for future generations and can be repurposed for recreational/touristic purposes.

Our goal is to use the mining operations as a way to transform landscapes and enhance biodiversity, viewing the mine as a means to an ecological end rather than the primary goal. All excavated materials will contribute to this land-building process.

A key aspect is sustainable water management. Instead of merely treating and discharging water used in mining processes, it will be integrated into the wastewater treatment plant. The wastewater treatment plant is using phytoremediation plants like reeds and willows to naturally filter the water. A polder system will progressively clean the water, eventually storing it in surrounding valleys to form extensive wetlands. The landscape will be enriched with a variety of wildlife, including beavers, wetland birds, moose, and water voles. The dikes forming these polders will be constructed from dewatered fine tailings, which are contained within geotextiles that act as a strong foundation and can also be used for land reclamation.

places

Terrestrial

- water
- forest
- arable land

Mineral network

- Thorium & affiliated facilities
- Neodymium & REES & affiliated facilities
- Chromium & affiliated facilities
- Platinum & affiliated facilities

H₂O

- new wetlands
- helophyte filterpond
- added urban tissue
- reclaimed land

Infrastructure

- national route
- road
- rail
- electric network
- REES transport by road and water
- Coarse material byroad and rail
- Fine tailings by road
- geotubes
- Flow direction water
- experience path

The rail transport of other substances in greater international stream

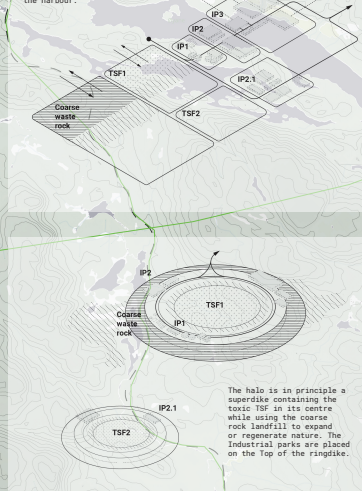
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We questioned ourselves, do we build for eternity or do we build for obsolescence? We can make constructions that could be repurposed for a different use when the mining activities have stopped. This could take 50-100 years, however in practice this is uncertain. For this reason, our mine is designed for growth and degrowth, for the current transition, and for nature to take over when it has served our purpose.

The start and base of our mining operations is a large ring dike which is made from material coming out of the first excavations. The dike stacks multiple uses: it uses the coarse rock, it creates a stable foundation for the mining buildings of the first phase, and stores the tailings temporarily within the ring. Coarse material is stored on the outside of the dike and can be moved for further reuse or used as a base for a second or third phase of construction, making the ring thicker. The ring helps to threefold: it stores material, while also keeping it accessible; operations are clustered in a logical sequence, and by putting the buildings on top of the stored 'waste' material we are clustering in a new manner.

The design of the mine is aimed at creating a building that serves multiple purposes and lays out the functional programme of the industrial process in such a way that it is as efficient as possible and has the least impact on the natural environment. A large round shape that looks like it's coming out from the mountain, hosts the different functional program of the industrial artefacts. The ring includes the electrical car park that is operated, a later stadium, by the thorium molten-salt reactor. The belt is designed in such a way that it can expand and modify easily.

The (temporary)landfills use 33% + 17% buffer of their projected capacity. Processing operations are outsourced to the surrounding municipalities and the backbone

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Lunde is set to become a high-tech and R&D hub, featuring a research center for building materials and vernacular techniques, alongside a material hub for sorting, processing, production, and logistics.

Central to Lunde's revitalization is its renovated and expanded train station, which will handle increased passenger and freight traffic. A new overpass will reconnect the historic town center with its western side. The sports complex will also be renovated and expanded, integrating with new watersports facilities along the Telemark Canal to foster community.

To accommodate growth, housing will be densified within existing areas and by upgrading underused camping infrastructure. A "poetic route" will guide visitors and locals through Lunde's circularity hub and industrial activities, culminating at the high-tech campus and museum in Ulefoss, showcasing the region's innovative and transparent approach.

Ulefos, the access point for the FEN-complex, will see significant investment to boost its historical, cultural, and ecological value, aiming to build community trust. The current waterfront is hindered by a highway, so new land will be reclaimed to create a vibrant public waterfront with cultural and recreational amenities like kayaking, sports facilities, a technical museum, and a cultural center.

Beyond this, an archipelago of small islands and shallows will emerge from mining materials, largely inaccessible to humans, forming a protected habitat for fish and wetland birds. The historic industrial harbor at the Ulefoss sluices will be revitalized into a center for nautical robotics research and education, with renovated warehouses accommodating high-tech functions while retaining their historical character. A new pathway will connect Lannavegen to the REE-port and the revitalized waterfront, making these areas accessible and engaging.