

# IS SIBERIA THE TRANSNATIONAL CORPORATION?

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Urban Theory Lab: Operational Landscapes of Planetary Urbanization

Siberia — Russia’s hinterland — historically supported the building of empire. This continues as the interests of an intricate network of corporate power capitalizes and re-articulates prior rounds of industrialization.

A series of industrialization waves, driven by sociopolitical concerns and State policies—from prison camps, to Soviet socialism, and then mass privatization—created a framework for the present-day Siberian urbanization process. The case of Norilsk Nickel, a copper, nickel and platinum-based mining mega-complex in northern Siberia, is representative of the monoindustrial corporate strategy within the post-Soviet backdrop of oligarchic monopoly, corruption and political unrest. The company’s territorial scale mobilization through logistics networks, energy development, and corporate alliances are strategies sought to reduce corporate exposure while leaving unchecked the ecological and social risks of their own creation.

The significant land use transformations resulting from primary commodity extraction have come at great environmental cost, inscribing the land and atmosphere surrounding these sites. Soils around Norilsk have elevated levels of copper and nickel concentrations within a 60-kilometer radius of the city. Severe deforestation surrounds Norilsk; notably there are not any living trees within 50-kilometers of the smelter, mainly due to acid rain. The high level of minerals in the soil has lowered the freezing temperature of the groundwater, resulting in land subsidence due to accelerated permafrost thaw. With climate change, a similar but larger scale effect will result, taxing existing infrastructure and buildings. An added concern is the potential to further these effects, as carbon sequestered in permafrost soils will be released as greenhouse gases once the soil thaws.

The critique of the corporate urbanization project is its drive for unabated development stemming from the corporation’s own need for self-preservation through capital accumulation, without regard for degradation of the environment, health and societal well-being

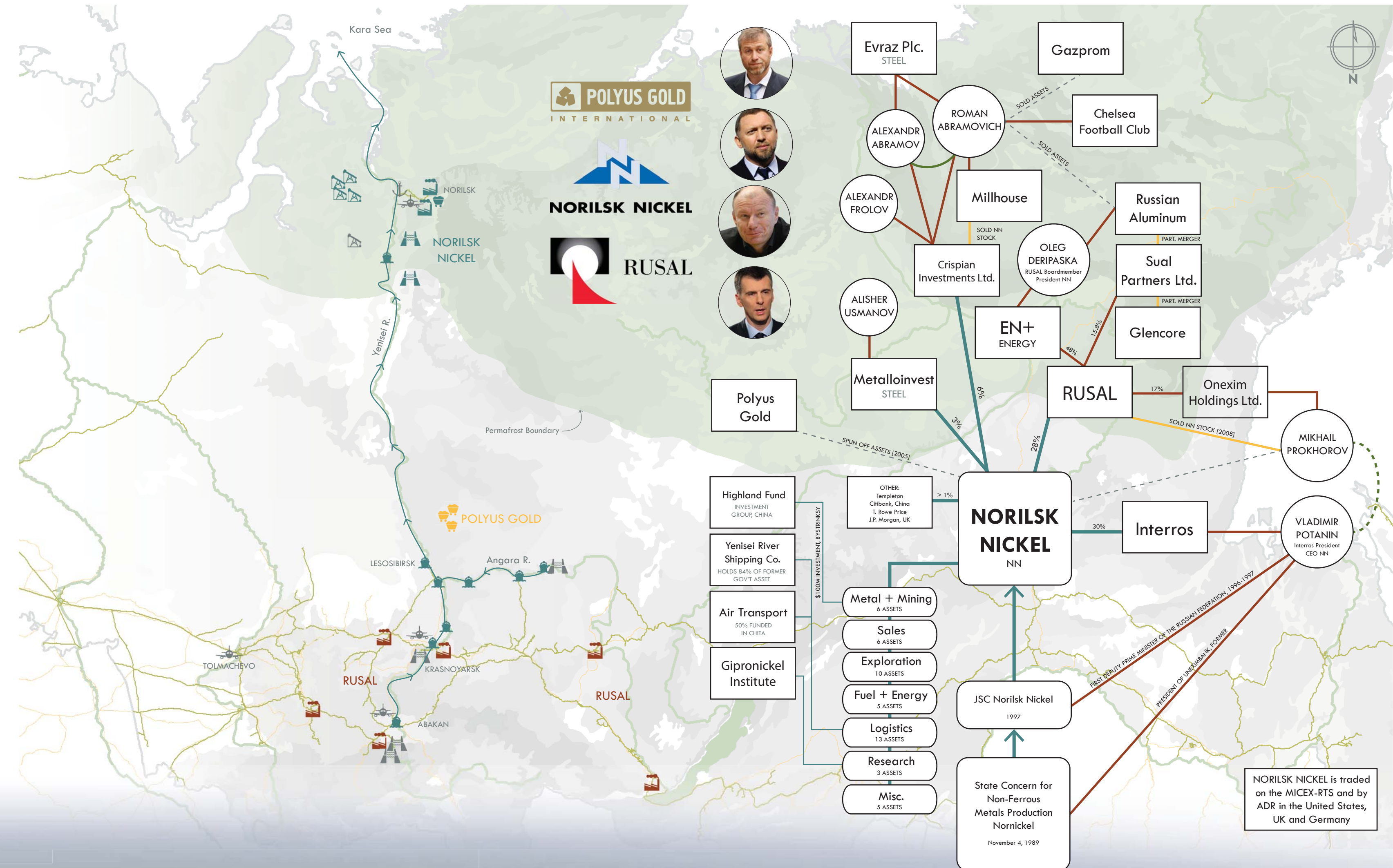
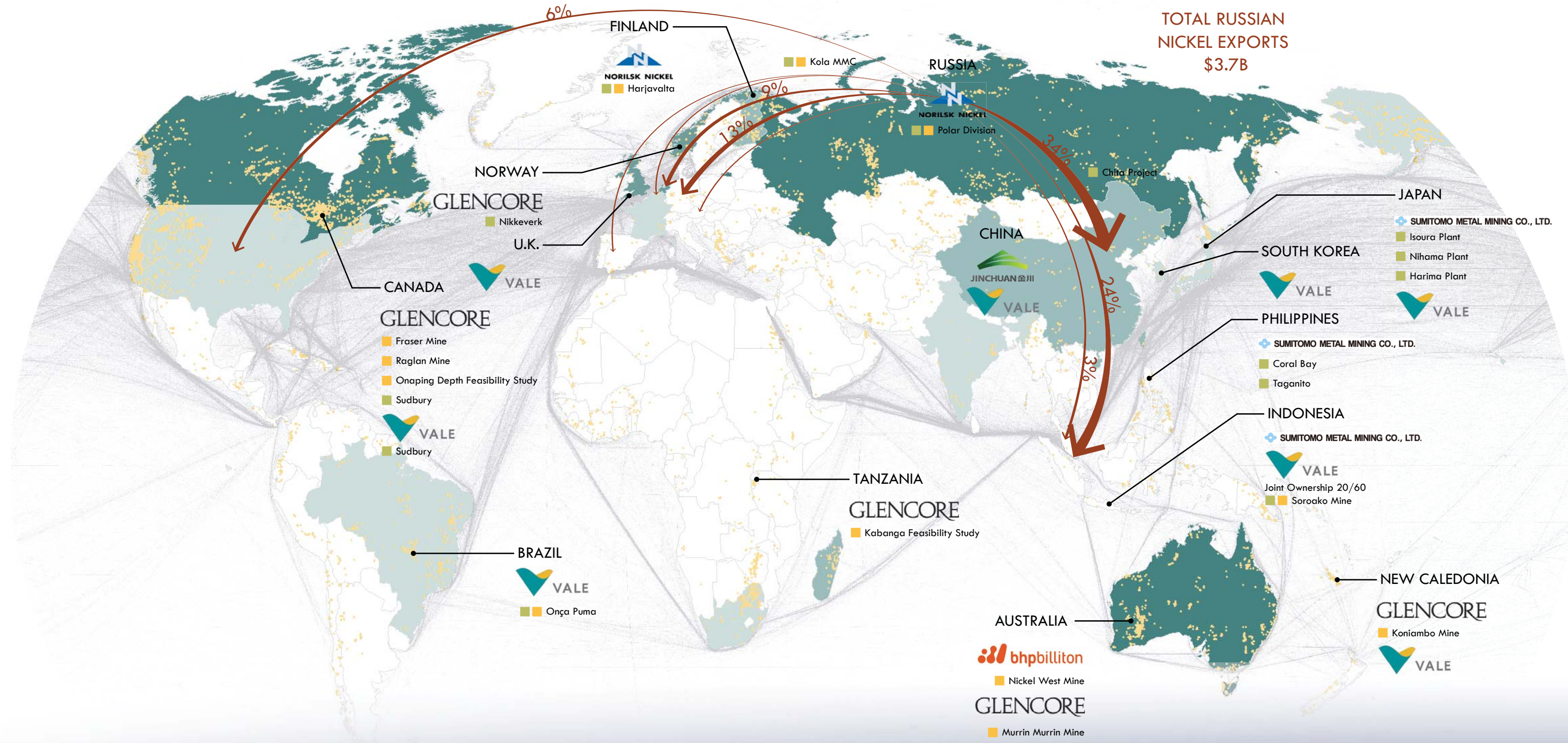




# OPERATIONAL LANDSCAPE OF SIBERIAN NICKEL

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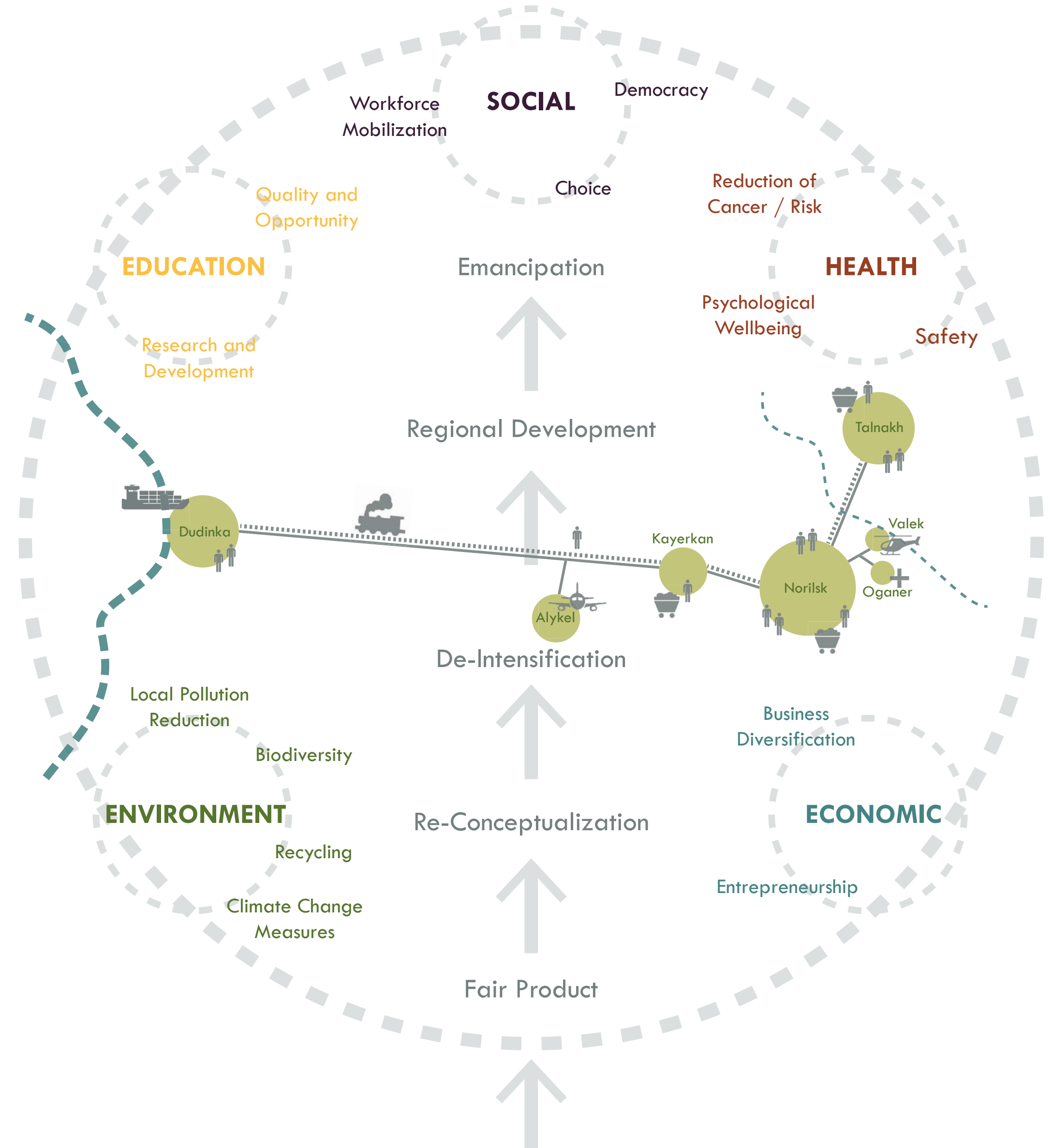
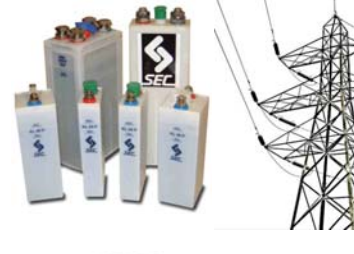
Norilsk Nickel's internal diversification strategy can be described as the territorialization of the corporation. To overcome the disadvantages of fixed resource extraction economies, their self-serving corporate project manifests in energy independence through their own gas fields and hydroelectric dams, and their own logistics infrastructure which includes an icebreaker cargo fleet, airline and rail. Alliances with other private industrial conglomerates reinforce this corporate machinery along shared interests in logistics, trade, banking, plus complementary production ventures such as steel, and even media. Operating on a global market, Norilsk Nickel has taken advantage of various forms of economic exchange within and beyond the territory, capitalizing on fiscal advantages in the international resource trade and labor costs within its borders. Their worldwide view connects nickel as not only a base commodity of extraction, but part of a larger network, dominated by transnational corporate power.





# ALTER-URBANIZATION PROCESS

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**40%** of World Reserves  
[Ni] Sulfide

**60%** of World Reserves  
[Ni] Laterite

**NORILSK NICKEL**

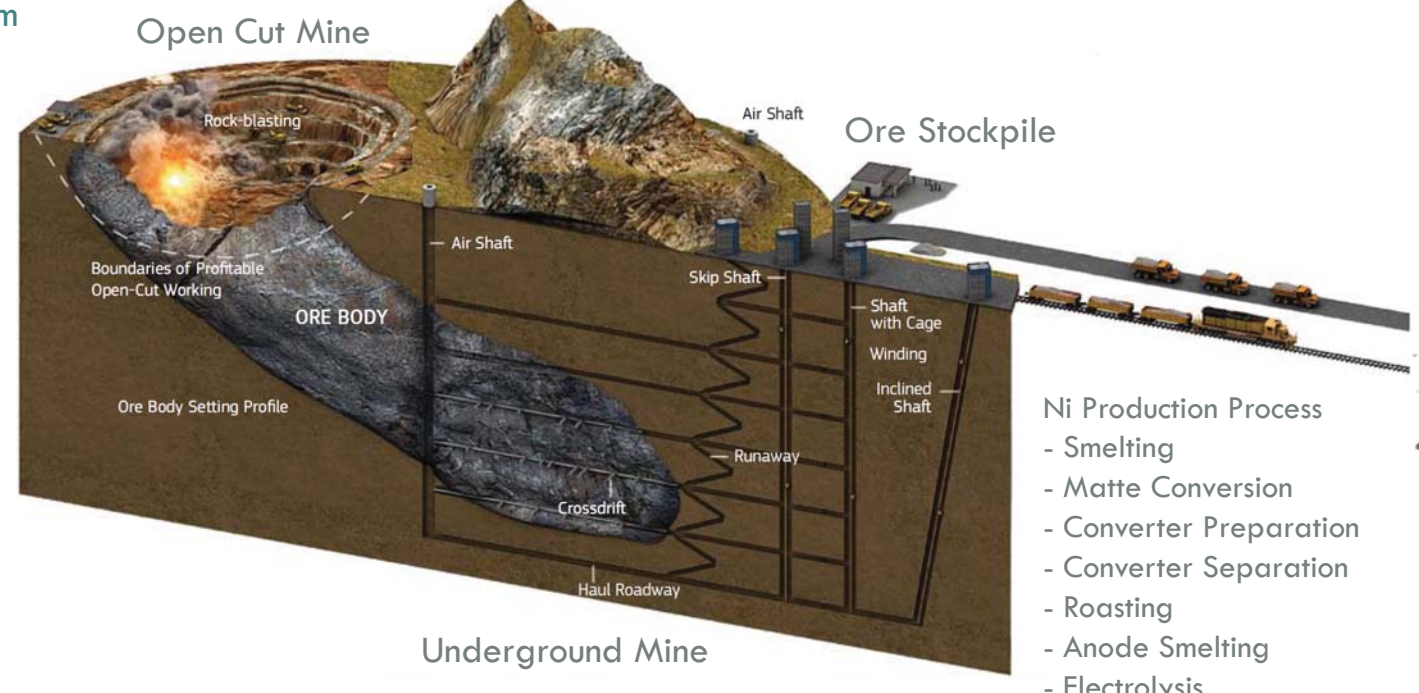
Easier and Cheaper to Extract Deeper Deposits  
Open Cut or Underground Mining  
Easy Separation through Flotation  
Dominant Production Today  
Reserves Depleting Fast

Difficult and Expensive to Extract Shallow Deposits of Oxide  
Open Cut Mining Only  
Needs High Pressure Leaching  
Increasing Future Production  
More Environmental Degradation

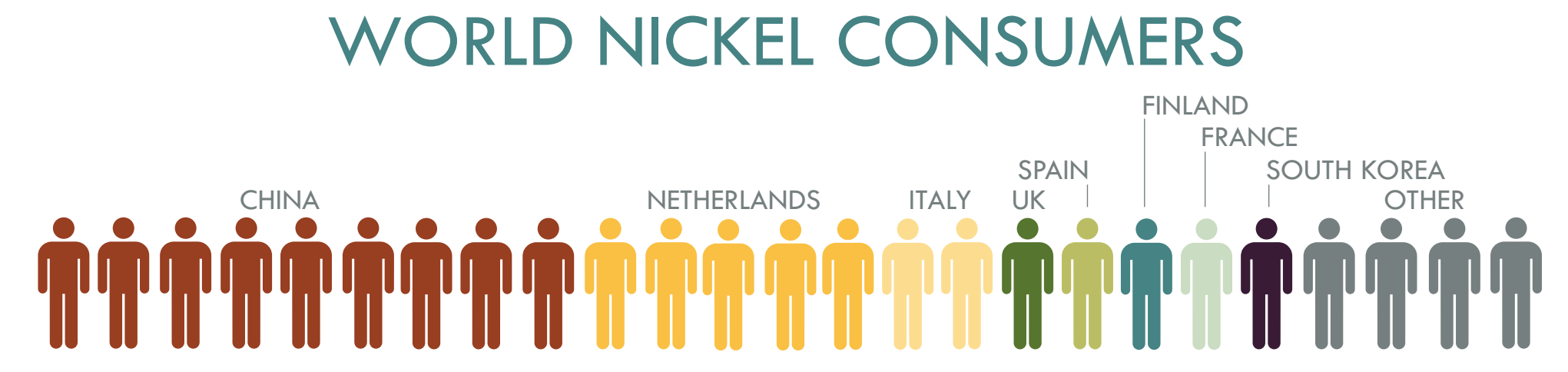
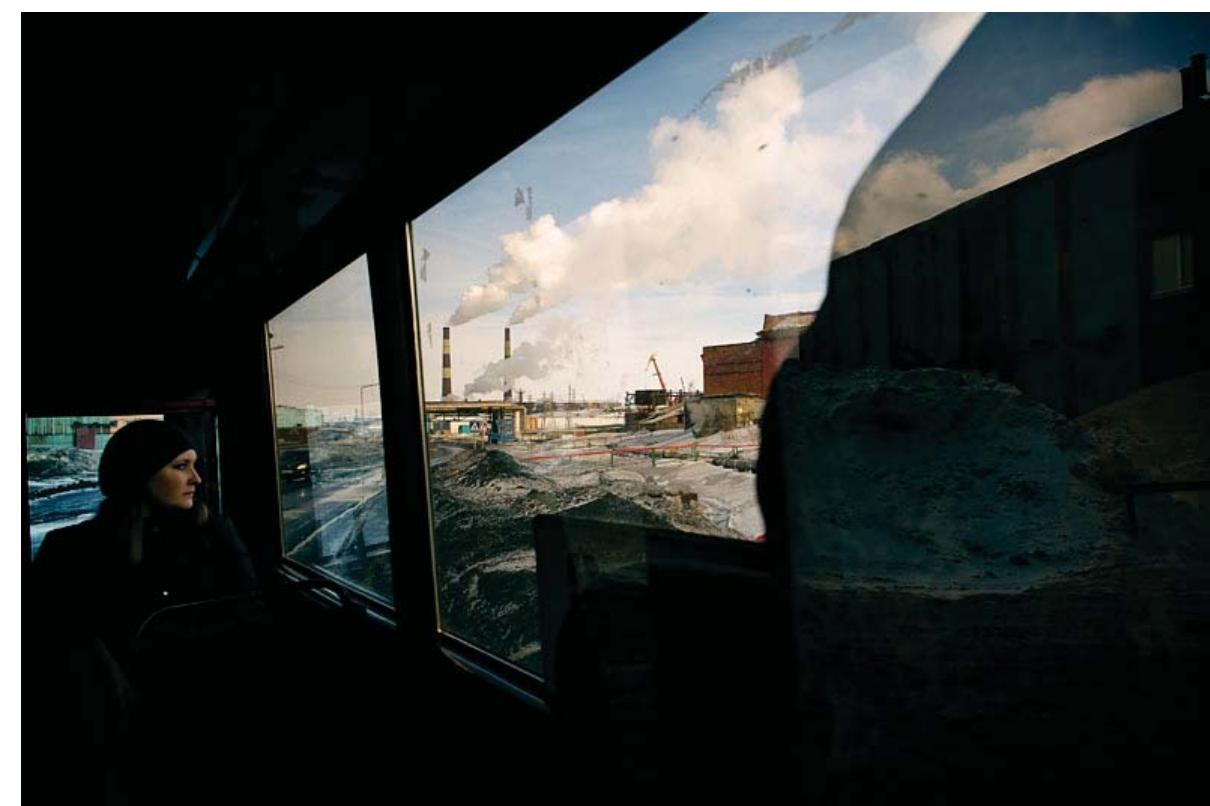
	World Production	World Rank
Nickel	13%	1st
Copper	2%	12th
Cobalt	5%	4th
Platinum	14%	3rd
Palladium	44%	1st
Rhodium	16%	3rd

PRODUCTS	Ni Content
Ni Cathodes	99.9%
Ni Briquettes	99.8%
Ni Sulfate	22%
Ni Hydroxide	62%
Ni Hydroxide Carbonate	45%
Ammonium Sulfate	16%



- FIRST USE**
- Stainless Steels
  - High Nickel Alloys & Superalloys
  - Low Expansion, Magnetic & Shape Memory Alloys
  - Alloy Steels
  - Cast Irons & Cast Alloys
  - Copper Alloys
  - Pure Nickel & Other Alloys
  - Plating & Electroforming
  - Nickel Chemicals
- END USE**
- Architecture, Building & Construction
  - Automotive Industry
  - Chemical, Pharmaceutical & Petrochemical Industries
  - Design, Fabrication & Welding
  - Electronics
  - Energy & Power
  - Food & Beverage Industry
  - Medical Applications
  - Heavy Transportation Industry
  - Water Industry



## Emancipation from Corporate Monopoly: Global client demands for accountability, territorial economic diversification and localized workforce mobility for social mobilization and de-intensification

The monoindustrial corporate complexes in Siberia exemplify the simplification of urbanization to meet the needs of corporate values. We propose a shift in this territorial imaginary on three interrelated and dependent scales—starting from the global and ending at the local. On the international scale, we hope to harness the growing desire, of consumers and clients vital to corporate markets, for fair and clean production chains. Nickel commodities should be ecologically accountable at the site of extraction and through processing and shipment. Socially, the production needs to occur in environments that reflect worker's rights, health and safety. Nickel extraction needs to be held to a higher standard through consumer demand.

Simultaneously, we see the potential for state or non-governmental incentivization of economic diversification and the concurrent de-intensification of the operational landscape. New developments could center on scientific research and entrepreneurship, given the territory's unique position relative to issues of climate change and permafrost thaw, and incorporate conservation as a focus. Forays into studying the unique ecological conditions of the Siberian tundra and taiga would also be accessible from this site. The proximity to the Northern Sea Route must also not be discounted, as this is an increasingly vital passage from China to Europe, reducing travel distance by nearly 25% or 4,500 kilometers. We also accept that currently, further development may be deemed ecologically unsustainable; however, we see some of this as necessary to the third, local-scale intervention—social mobilization of the workforce. These combined interventions will help free existing communities from their reliance on monoindustrial work and monopolies. Despite the odds, in Norilsk a strong community exists that could advantageously mobilize new opportunities created from greater choice. Educational opportunity brings greater diversification and entrepreneurship. A more democratized society could provide the engine through which these systems would operate. With freedom, urbanization strategies could center on benefiting the wellbeing of the community and the planet.