A promised land? First summary of the research program

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Introduction

This document lays out the background for the research program “A promised land? Drivers, challenges and opportunities related to the (green) industrialization of Northern Sweden,” (nr. M22-0029) awarded by the Swedish Riksbankens Jubileumsfond’s in 2022. The document summarizes work in progress and may therefore be updated and republished in different versions according to the requirements of the program.

This interdisciplinary program aims to understand the economic, social, and political challenges and opportunities of the ongoing industrial transformation in northern Sweden. A key element of the program is to identify drivers, obstacles, and preconditions in a historical, present, and forward-looking perspective.

Historical background1

At the forefront of Swedish industrialization

Sweden’s northernmost region, Northern Norrland, which includes the counties of Västerbotten and Norrbotten, were at the forefront of the Swedish industrial take-off during the second half of the nineteenth century. As the Swedish economy became connected to the emerging global market, investments were channeled into Northern Norrland’s natural resources, predominantly iron ore in Norrbotten and forestry products in Västerbotten, to supply other countries’ industrialization. These investments had significant effect on the economy of Sweden and Norrland. In 1800, both counties together produced 2.3 percent of Swedish GDP while housing 3 percent of the population. In 1900, the counties produced 6.3 percent of Swedish GDP while housing 5.4 percent of the population. Västerbotten and Norrbotten’s place in the Swedish and global economy remained strong until the 1960s.

The Norrland problem: a region in decline

After the 1960s, Northern Norrland has been in economic decline, fostering negative images of a place without future. Since the peak in the 1960s, industrial employment fell by almost 50 percent, from 78,000 people to 50,000 in 2000. Employment in agriculture decreased from 46,000 in 1960 to 7,000 in 2000, whereas employment in private services increased from 60,000 to 80,000 during the same period.

In total, however, private employment declined from 184,000 in 1960 to 138,000 in 2000. Employment in the public service sector, meanwhile, showed significant growth, almost tripling from 34,000 in 1960 to 92,000 in 2000.

The promise of new investments

In the 2010s, the perception of Northern Norrland as a place without future began to change. This was particularly due to announcements of multi-billion SEK industrial investments in technologies aiming to achieve zero carbon emissions in traditionally high-carbon industries.

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In 2016, the established Swedish state-owned companies, SSAB (steel production), LKAB (iron ore mining) and Vattenfall (electric utilities) announced a joint company by the name Hybrit, with the goal of developing fossil-free steel production using hydrogen instead of coal. As a first step toward full-scale production, the companies have set up a pilot plant in Luleå, Norrbotten. Together with the planned demonstration plant in Gällivare, Norrbotten, investments are estimated at least 15 billion SEK.

In October 2017, a Swedish start-up company called Northvolt AB announced that it would establish a battery production plant in Skellefteå, Västerbotten, estimating to employ 3,000 people and requiring investments of 40 billion SEK. Focused on supplying the car industry with batteries, Northolt’s commercial production began in 2021. The same year, the company secured a contract worth 14 billion USD to produce battery cells for the German carmaker Volkswagen.

In the beginning of 2021, the start-up company H2 Green Steel AB announced that the company were to establish a steel production plant in Boden, Norrbotten. Similar to Hybrit, H2 is building a large-scale fossil-free steel plant using hydrogen technology, expected to create thousands of jobs. Investment needs are estimated at 20 billion SEK.

In the bigger picture, it is estimated that Northern Sweden will receive 1,000 billion SEK in new investments during the forthcoming decades. To accommodate the need for related labor, the population of Västerbotten and Norrbotten is expected to grow at the same time by 100,000 people, or by 20 percent. In the 2000s and 2010s, Northern Sweden’s investments in manufacturing have been steadily increasing, where in which Västerbotten and Norrbotten have been receiving the most investments per capita in Sweden.

From having focused on managing decline up until the mid-2010s, several municipalities housing these large industrial investments are facing new challenges related to how to quickly manage growing labor markets, as well as public investments in building infrastructure, housing and utilities. Additional challenges at the state level and for utilities companies are relating to rapidly expanding electricity generation, transformation and distribution.

### Perspectives
This research program asks several questions related to the growth of industrial investments in northern Sweden. How will these investments affect labor markets from the local to the national level? How will these investments affect discourses concerning Norrland? How do municipalities plan to accommodate the local impact of these investments and what actors decides on planning priorities? Why are these investments taking place now and what do they tell us about the transformation of the economy? The research in this program is divided in to four work packages and the following sections lay out key research areas of interest to them.

### The labor market and local economic effects
A critical question leading the research in this work package is how these investments may change the course of development in the core municipalities and their vicinities by way of asking “How can this lead to a development for Northern Sweden and not only in Northern Sweden?”

A radical demand shock in regions where people in working age for a long time has been a scarce resource puts pressure on incumbent firms in general and the public sector in particular. By means of detailed micro-data on all firms and workers in Sweden we start by analyzing previous demand shocks to theorize on the geography of multipliers and the risks of poaching leading to a zero-sum game. We also focus on the local and regional possibilities for workers to switch between declining and growing activities and to what extent the public sector is affected by the ups and downs of manufacturing and mining. Of crucial interest is also

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**Table 2. Example of companies at the center of new investments in northern Sweden**

<table>
<thead>
<tr>
<th>Company</th>
<th>Est./Prod. start</th>
<th>Product</th>
<th>Main location</th>
<th>Main investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrit</td>
<td>2016/2020</td>
<td>Carbon free steel</td>
<td>Luleå, Gällivare</td>
<td>SSAB, LKAB, Vattenfall</td>
</tr>
<tr>
<td>Northvolt</td>
<td>2016/2021</td>
<td>Battery cells</td>
<td>Skellefteå</td>
<td>Volkswagen, Goldman Sachs, Vargas Holding</td>
</tr>
<tr>
<td>H2 Green Steel</td>
<td>2020/...</td>
<td>Carbon free steel</td>
<td>Boden</td>
<td>Vargas Holdings</td>
</tr>
</tbody>
</table>

Figure 2. Gross fixed investments in manufacturing per capita (SEK) in four economic regions. Source: SCB.
the heterogenous effects across places and groups in terms of men/women, local/foreign born etc. Big data analyses on job ads are also utilized to provide knowledge on whether the skills demanded in these new activities indeed are new, and hence whether we are experiencing the beginning of a new industrial revolution.

**Evolving discourses of Norrland**

Norrland has long been associated with issues of regional income distribution, unemployment, regional subsidies, and dependency on allowances, rather than with attractiveness for new large-scale investments and job growth. Traditional and prevailing representations of Norrland in media and popular culture has contributed to this image.

This work package explores the cultural production of meaning around the investments. It scrutinizes the marketing of the investing companies and the self-presentations of the concerned municipalities, and asks questions about whose voices are heard in this process. This work package comprises assessment of how discourses of attractive places are (re)produced, challenged, and changed with a special focus on the formulation and definition of Norrland. To include various and potentially conflicting views, data is collected broadly. It consists of public representations within media, policy and website presentations; interviews with local actors and stakeholders, policy makers and place marketers to gain an understanding of visions and concerns; and interviews with debaters and activists.

**Planning for a sustainable and inclusive transformation**

The current situation in Northern Sweden implies shifting focus from managing decline to plan for growth, and will likely require tough decisions on what and how to prioritize across different goals and responsibilities, while adjustments are continuously needed in order to adapt to the needs of the incoming companies whose goal is to make substantial investments.

To meet today’s challenges for sustainable development, policies that can navigate between public and individual interests, and manage and make visible conflicting goals and interests are required. At the same time, contemporary forms of governing and planning building on market and management ideals (like New Public Management), risk limiting the space for the articulation of different interests and political positions. Thus, although the on-going transformation opens up new possibilities for the future, municipalities are, at the same time, facing a considerable political challenge in handling the requirements stemming from large private investments, while developing a form of planning practice that is sustainable and inclusive is needed.

This work package will take the large investments currently underway mainly in Northern Sweden (most notably, Northvolt’s investment in Skellefteå and the establishment of H2 Green Steel in Boden, but also LKAB in Kiruna and Volo Trucks in Mariestad) as a point of departure for an analysis of the tensions between ideals of sustainable transformation and forms of governing and planning with roots in market and managerial thinking. By studying a concrete course of change while it is ongoing, the ambition is both to analyze challenges and conflicts, as well as to provide knowledge for developing strategies that can be useful in future events of the development processes in municipalities, and in other similar large-scale investments. The overall aim of this work package is to assess the possibilities for municipalities to, by way of planning practices, make visible and balance local and regional ambitions with national and international interests. Moreover, focus will be on the possibility to balance the needs of different groups of citizens in relation to investors.

**New industrial revolution: discontinuity or continuity?**

Transformation of economic activity and industry is neither a unique phenomenon to Norrland, nor a recent phenomenon. Norrland was at the center of Sweden’s industrialization in which natural resource utilization has been central, first relating to sawmills and mining, and later relating to hydropower and electricity transformation. Currently, investments into, for example battery cell production is occurring globally, but with centers in China, the Nordic countries, Germany and the United States.

This work package seeks to understand both the longer history of Norrland as a place of industrial development as well as the contemporary political and economic context in which the present-day transformation is occurring. Historical comparisons are of specific importance, for instance studies focusing on how industrial developments have related to the ebbs and flows of international market integration. We focus on how national and international politics have shaped the development of Norrland’s industries, or how national and international politics have been shaped by considerations as to Norrland’s specific role in the economy. Of interest here is also how geopolitics have positioned Norrland as a strategic area of exports and production.
Further reading
