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## Business in the North

This chapter concerns doing and creating a business in the BIN area. Business creation requires confidence in the market and trust in the growth potential. Institutional settings play a crucial role in new business creation. Finding reliable and comparable information for the BIN area on a company level presented a challenge. Therefore, this chapter only underlines some trends with available and comparable data. Firstly, applying data from World Bank we study the ease of doing business on a county level. The ease of doing business demonstrates the processes required to set up a business. Secondly, business activity is studied through an Active Enterprise Index (AE Index) that compares counties in the BIN area with the respective country averages. Active enterprises<sup>1</sup> here refer to a limited liability company that had either turnover or employment at any time during the reference period (without data on how many people the company employed). The AE Index accounts for enterprise opening and closures. The AE Index is used to analyzing the evolution of the enterprises' population over time as well as the growth rate of industry sectors. The limitation of this analysis is the lack of comparable data on enterprise openings and closures in the BIN area that would complement the AE Index. To mitigate this limitation, a longer time period 2008-2015 covering eight years is used to account for the effect of volatility of enterprises openings and closures.

The Active Enterprises Index is calculated for limited liability companies. Creation of limited liabilities companies requires more capital and is more complex in terms of management than other forms of business organization, e.g. a sole proprietorship. In 2016, the minimum amount of share capital required for establishing a company equaled EUR 2 500 in Finland, SEK 50 000 (EUR 5 300) in Sweden and NOK 30 000 (EUR 3 400) in Norway. The creation of limited liability companies is used as a proxy for business activity and market confidence in the BIN area. Income tax for limited liabilities companies varied from 20% in Finland to 23% in Sweden and 25% in Norway at the end of 2016. The AE index captures activity in all industries in the BIN area as well as in total for Norway, Finland, and Sweden during 2008-2015. Furthermore, in-depth analysis on selected industries within the BIN counties is conducted. For comparability reasons across countries, the following industries were omitted in this analysis: public administration (human health and social work activities, education, and defense) and agriculture, forestry, and fishing. We also estimate production value of goods and services using regional GDP statistics, excluding public sector and non-profit organizations. This indicator is used to measure private sector value creation in the BIN area.

Results suggest that:

- The BIN area is potentially attractive for establishing businesses in the form of limited liability company, because it is easy to do business

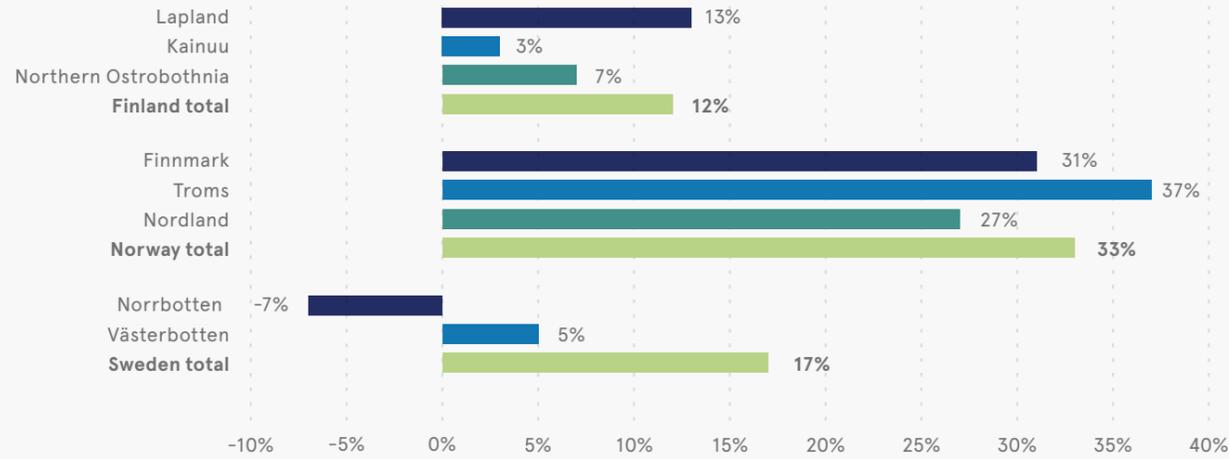
in Finland, Norway and Sweden, which are ranked in the top of the ease of doing business lists worldwide

- The BIN area accounted for 6% of active enterprises in the form of limited liability out of total for Norway, Sweden and Finland in 2015
- The BIN area's AE index lagged by 6% behind the total for Norway, Sweden, and Finland (33.4%). This lag in growth can be explained by lower population density in the BIN area and the differences in the maturity of start-up ecosystems in the BIN area
- The Northern Ostrobothnia, Troms, and Norrbotten counties saw the largest increase in AE index during 2008-2015
- The five industries that experienced the biggest growth in the AE index in the BIN area are financial and insurance activities, arts, entertainment and recreation, administrative and support service activities, professional, scientific and technical activities and construction.
- On average, the BIN area's production value grew by 32 % in the last 10 years, compared to 42 % in the BIN countries as a whole. Norwegian counties saw the largest growth in production value averaging 80% during 2005-2015; Swedish counties' growth was volatile as a result of the crisis negative influence on global mineral and ore prices. Finnish counties experienced stagnation of production value growth as aftermath of the 2008 crisis.

<sup>1</sup> There are cross-country differences in identifying what constitutes an active enterprise. All enterprises included in this analysis are classified as active enterprises by Statistics Finland, Statistics Sweden and Statistics Norway.

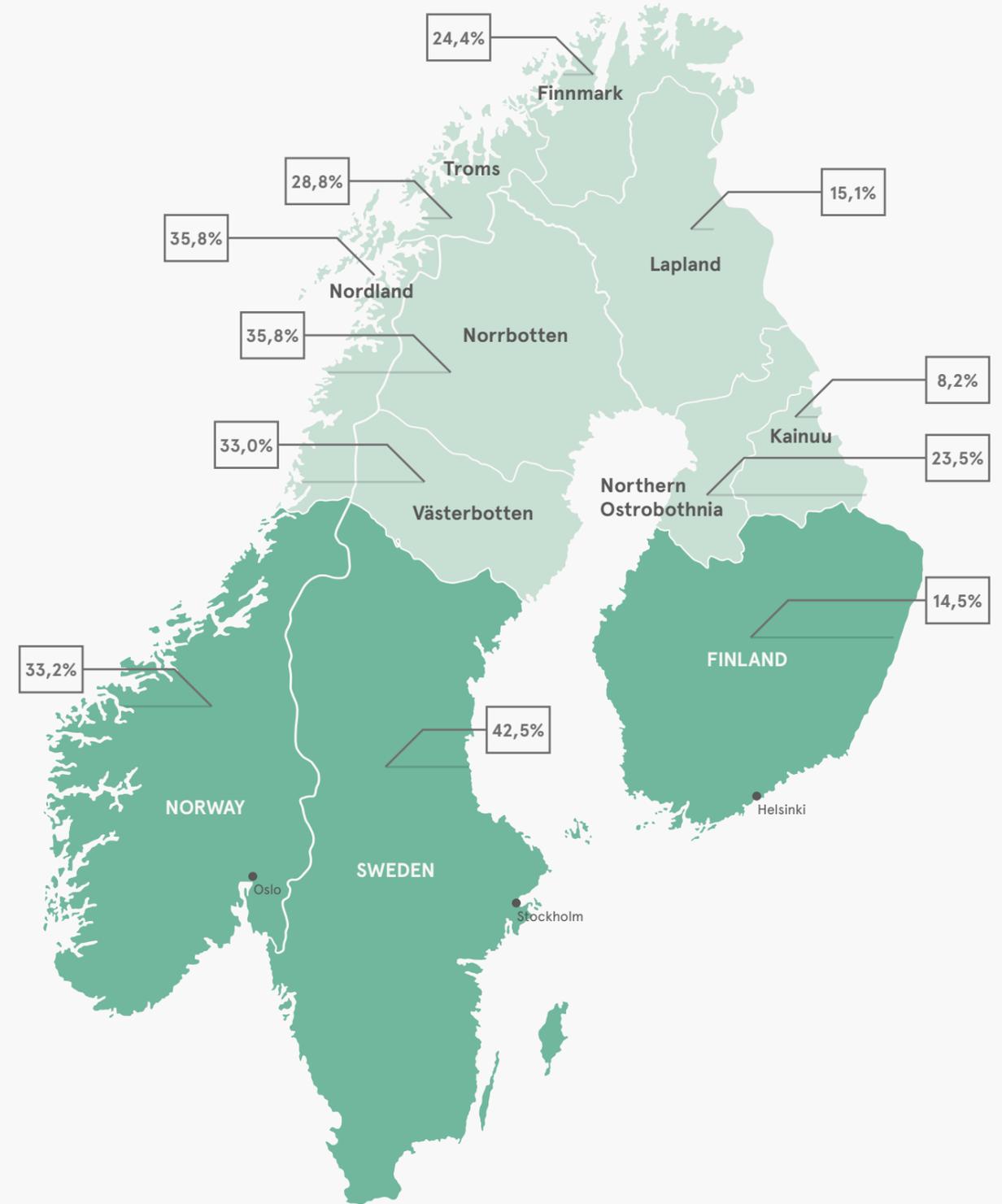
### Growth in production value expressed as index

2010–2015, index 2005 = 100



### Growth in number of active enterprises measured as index compared to countries averages

index 2008 = 100, 2008–2015



### 5 most growing industries in active enterprises

Index (excluding other services), 2008–2015

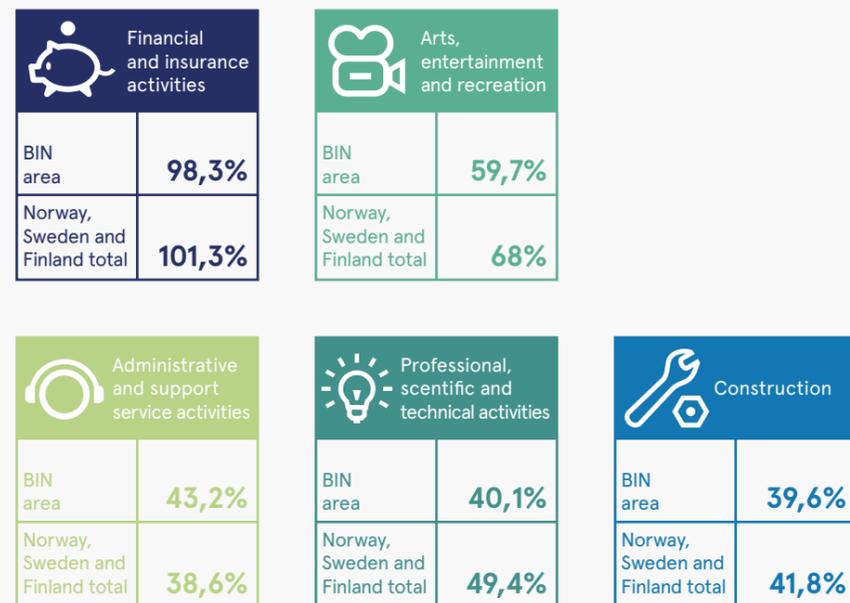


Figure 1 – Ease of doing business in Finland, Norway, and Sweden in 2016. (Source: The World Bank)

Figure 1 demonstrates the ease of doing business<sup>2</sup> rank and subsequent legal and institutional procedures associated with doing business in Finland, Norway, and Sweden. The data from the World Bank on ease of doing business are comparable across 190 countries in the world. Finland, Norway, and Sweden rank high compared to the rest of the world, but there are substantial cross-country differences. Norway is the 6th country in the world at the ease of doing business rank, while Sweden ranks 9th and Finland 13th and out of 190 countries in the world. Cross-country differences relate for instance to getting credit, in this respect Finland's ranks 45th in the world while both Norway and Sweden are ranked 75th, meaning that it is easier to get credit for business purposes in Finland than in Norway and Sweden. With regard to protecting minority investors, Sweden (19) and Norway (9) rank higher than Finland, which ranks 70th in the world. It appears to be more difficult to enforce contracts in Finland (30) compared to in Sweden (22) and Norway (4). In 2015 BIN area accounted for 6% of active enterprises in the form of limited liability companies out of total for Norway, Sweden and Finland (773 921 enterprises). On the country level in 2015 Finland in total had 160 060 active enterprises, out of which 0.8 % were in Kainuu, 2.7 % in Lapland and 5.2% in Northern Ostrobothnia. Sweden had 420 599 active enterprises in 2015, with the share of Västerbotten 2.4 % and Norrbotten 2.1 %. In Norway out of 193 262 active enterprises, Nordland accounted for 4.0 % , Troms for 2.6 % and Finnmark for 1.4 %. The numbers of active enterprises reflect low population density of the BIN area.

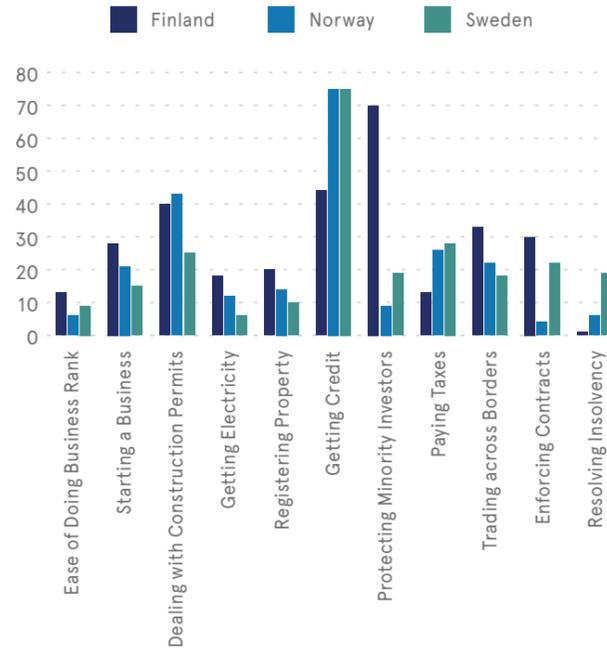


Figure 3 – Growth in active enterprises index at the BIN county level, 2008–2015, % change

Figure 3 demonstrates the differences on a BIN county level in the AE index. On a country level, Sweden saw the biggest growth (42.5%) in the AE index in the form of limited liability companies, followed by Norway (33.2%), while Finland saw the lowest growth with 14.5% during 2008-2015. All BIN counties lagged behind their respective country averages except Northern Ostrobothnia. Northern Ostrobothnia county saw an increase of 23.5% in the AE index, which is larger than country's total of 14%. This could be attributed to a more developed start-up ecosystem in Northern Ostrobothnia county, compared to other BIN area counties and the rise of newly started businesses as result of Nokia and Microsoft demises.

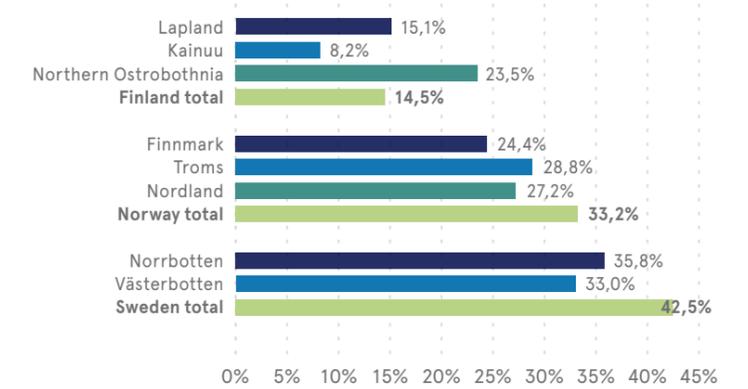


Figure 2 – Growth in active enterprises index, 2008–2015, index 2008=100

Figure 2 demonstrates trends in the AE index in the BIN area as well as in Norway, Sweden and Finland in total during 2008-2015. The BIN area's AE index (127.4) lagged behind the total for Norway, Sweden and Finland, which saw a growth in active enterprises population of 133.4%. This lag in growth can be explained by the lower population density of the BIN area and the differences in the maturity of start-up ecosystems<sup>3</sup> in the High North compared to the respective countries' capitals, i.e. Helsinki, Oslo and Stockholm, which have high-functioning start-up ecosystems.

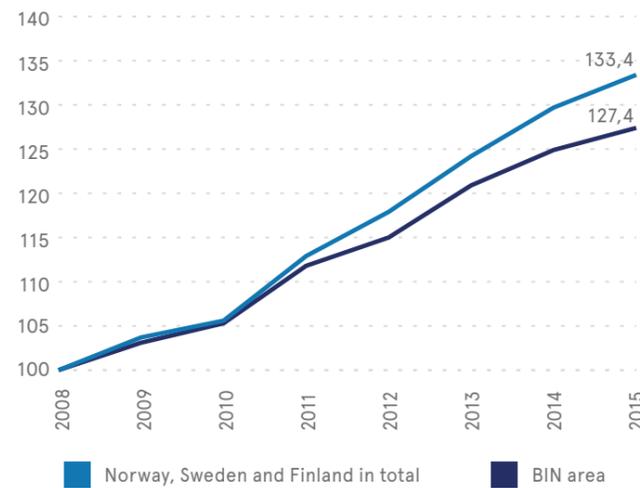
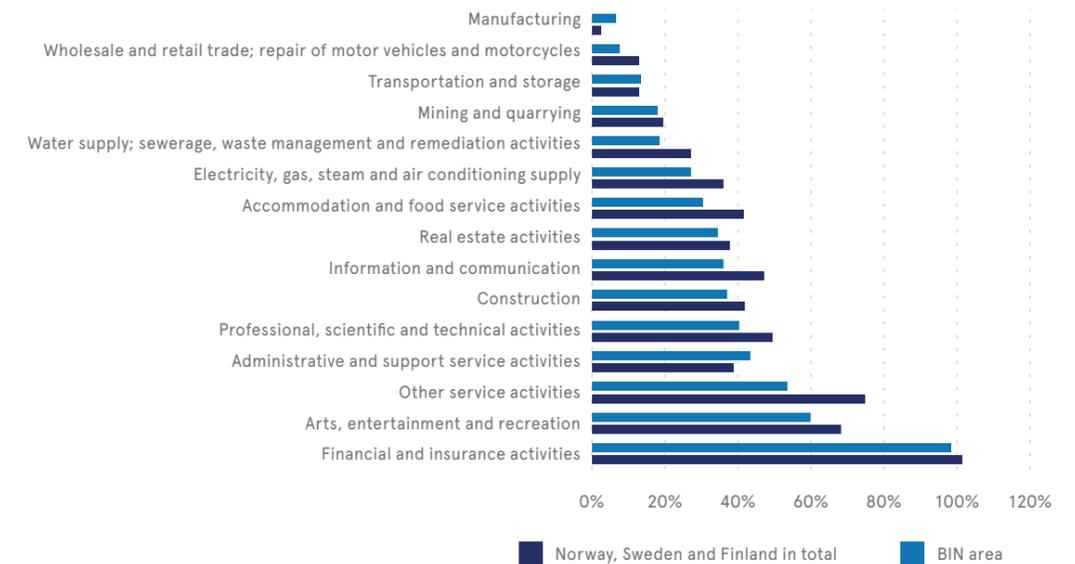


Figure 4 –Active enterprises index in the BIN area by field of business, 2008–2014, change %

Figure 4 provides a breakdown of the AE index by field of business<sup>4</sup> within the BIN area compared of the total for Norway, Sweden, and Finland. The composition of active enterprises during 2008-2015 has not changed much, with five industries making up about 70% of all active businesses: wholesale and retail trade; repair of motor vehicles and motorcycles, professional, scientific and technical activities, construction, real estate activities and manufacturing. Figure 4 is valuable for detecting industries that experienced the most rapid

growth in the active enterprises population. Financial and insurance activities experienced the biggest growth in both, in the BIN area with a growth of 98.1% and the total for Norway, Finland, and Sweden with a growth of 101.3%. The BIN area underperformed in all fields of business except manufacturing, with 6% compared to 2.5% in total for Norway, Finland and Sweden. A potential explanation for the growth in financial and insurance active enterprises is the rise of Fintech industry (the evolving intersection of financial services and technology, PwC). In order to understand the phenomenon, a case analysis of the financial and insurance activities industry should be conducted in a future BIN report.



<sup>2</sup> Doing Business records all procedures officially required, or commonly done in practice, for an entrepreneur to start up and formally operate an industrial or commercial business, as well as the time and cost to complete these procedures and the paid-in minimum capital requirement. This topic measures the paid-in minimum capital requirement, number of procedures, time and cost for a small- to medium-sized limited liability company to start up and formally operate in economy's largest business city.

<sup>3</sup> Start-up ecosystem is formed by people, start-ups in their various stages and various types of organizations in a location (physical and/or virtual), interacting as a system to create new start-up companies. (Source: Start-up commons)

<sup>4</sup> excluding agriculture, forestry and fisheries

Figure 5 – Active enterprises index in at the BIN county level, Construction, 2008–2015, % change

Figure 5 shows the trends in the AE index in the construction industry at a BIN county level. The leaders on the AE index were Troms 40.3%, Nordland 39.4%, Västerbotten 36.3% and Northern Ostrobothnia 34.1% counties. The rise in the AE index for the construction industry corresponds to the positive trends of population growth in these counties and hence increased demands for housing and other construction services.

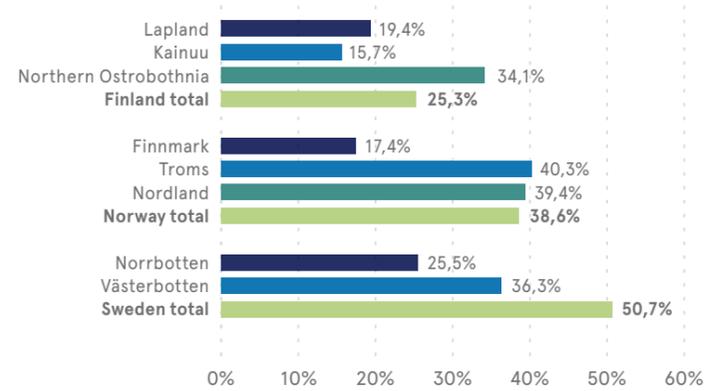


Figure 6 –Active enterprises index at the BIN county level, Real estate, 2008–2015, % change

Figure 6 shows the development of active enterprises in the real estate industry. Five out of eight BIN counties outperformed their respective country averages. The highest growth was observed in Norrbotten with 74.4% increase, followed by Northern Ostrobothnia 27.2%, Finnmark 37.6% and counties. The growth in the real estate active enterprises index both within the BIN area as well as within Norway, Sweden and Finland can be attributed to a low or negative interest rate policy. Following the 2008 financial crisis, a low or negative interest rate policy has resulted in attracting more capital investment and boosting confidence in the real estate market.

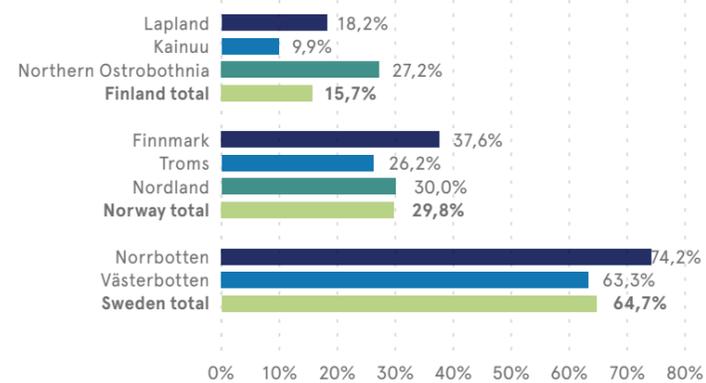


Figure 7 –Active enterprises index at the BIN county level, Accommodation and food, 2008–2015, % change

Figure 7 provides an overview of the AE index in the accommodation and food industry. All countries had an increase in their accommodation and food industry active enterprises index, with Sweden seeing a 55.8% increase, Norway 54.7%, and Finland 10.1%. The Finnish BIN counties Northern Ostrobothnia, Lapland, and Kainuu outperform Finland’s national average in the accommodation and food industry. A strong performance can be related to the growth in tourism in Finnish Lapland, and consequential increased demand for accommodation and food services. In Norway, Nordland county saw an increase of 55.5% in its accommodation and food active enterprises index during 2008–2015. This reflects the fact that the accommodation industry index in Nordland grew by 21.5% during 2008–2015. In Sweden, Norrbotten county had an increase of 53.0% in accommodation and food AE index. The growth in AE index in accommodation and food could be explained by the growing trend in tourists’ inflow and since 2010, the number of guest nights increased by 20% in Swedish Lapland.

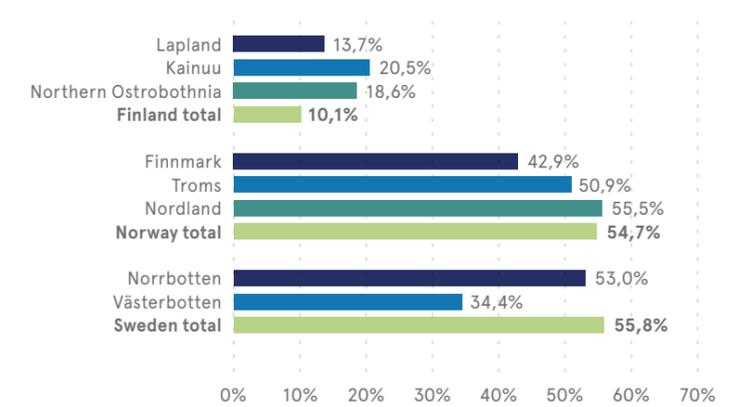


Figure 8 –Active enterprises index at the BIN county level, Arts, entertainment and recreation, 2008–2015, % change

Figure 8 demonstrates the AE index in the arts, entertainment and recreation industry. Troms (79.4%), Västerbotten (76.8%) and Northern Ostrobothnia (73%) counties saw the largest increase in the active enterprises’ population during 2008–2015. AE index in arts and entertainment industry reflects growth in tourism and appears to be more pronounced in the growing counties of Troms and Northern Ostrobothnia, compare to Kainuu’s (2.4%) and its diminishing population.

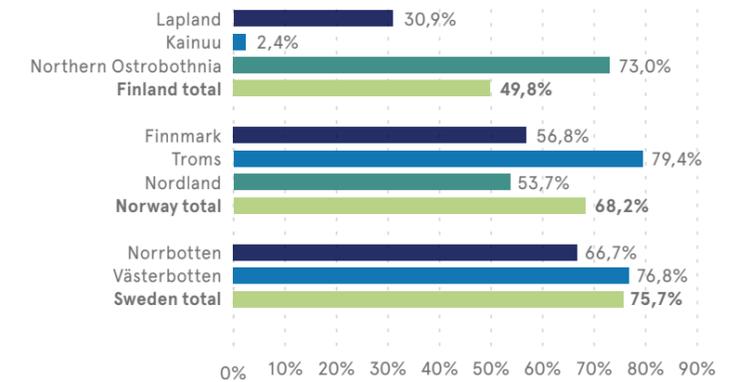


Figure 9 – Active enterprises index in at the BIN county level, Manufacturing, 2008–2015, % change

Figure 9 shows that the BIN counties succeeded outperform in the number of active enterprises in manufacturing compared to the total for Norway, Sweden, and Finland. A growth of 12.1% was observed in Norrbotten and 11.1% in Finnmark, while Kainuu county (-12.9%) experienced a reduction in the number of active enterprises in manufacturing. This phenomenon deserves further attention in order to identify the factors influencing the decision to develop manufacturing in the High North. One possible explanation could be the rise of manufacturing enterprises that use raw materials from the agriculture, forestry and fishery industry.

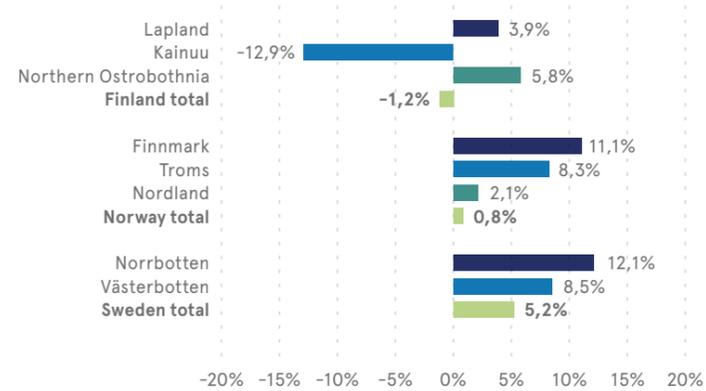


Figure 11 – Active enterprises index at the BIN county level, Water and sewage, 2008–2015, % change

Figure 11 shows the AE Index in the water and sewage industry. According to Cleantech Group, the way businesses and individuals think about water and waste is rapidly changing. New business models are emerging that reward conservation, reuse and recycling instead of consumption. The Swedish BIN counties Norrbotten and Västerbotten experienced the largest growth in the active enterprises' population with increases 55.6% and 70.8% respectively. This is much higher than Sweden's average of 37.3%. The growth in Norway occurred in Troms (30.0%) and Nordland (31.8%), while Finnmark lost 18.8% of its active enterprises since 2008. In Finland, only Lapland experienced a small growth of 2.4%, while Northern Ostrobothnia and Kainuu both had a decline in the number of the AE Index in the water and sewage industry. The AE index in water and sewage can be used as an indirect measurement of Cleantech enterprises' growth rate in water and sewage industry.

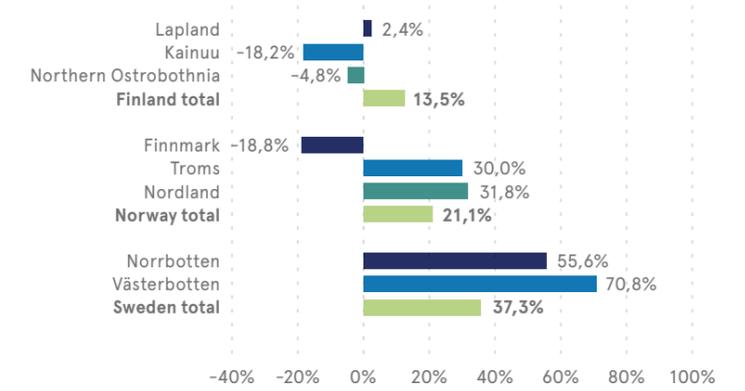


Figure 10 – Active enterprises index in at the BIN county level, Electricity gas, steam and air conditioning supply, 2008–2015, % change

Figure 10 shows the trend in the electricity, gas, steam and air conditioning supply active enterprises index. The leading county in the electricity, gas, steam and air conditioning supply active enterprises index was Northern Ostrobothnia 91.4%, followed by Västerbotten 47.5% and Finnmark 38.5%. The growth above the respective country's average can be attributed to the rise of Cleantech<sup>5</sup> industry in those counties. On the global scale Finland ranks 2<sup>nd</sup>, Sweden 4<sup>th</sup> and Norway 14<sup>th</sup> in the Global Cleantech Innovation Index<sup>6</sup>.

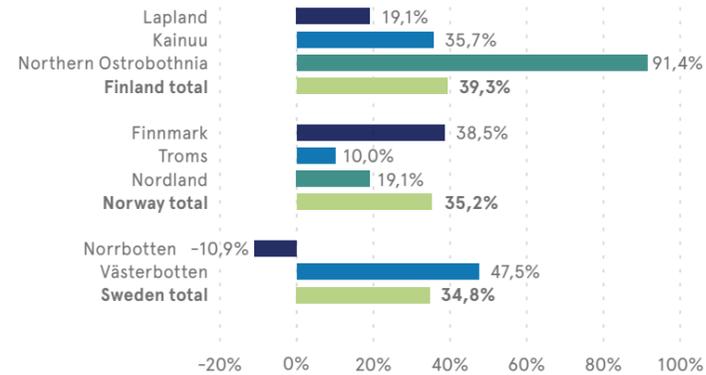
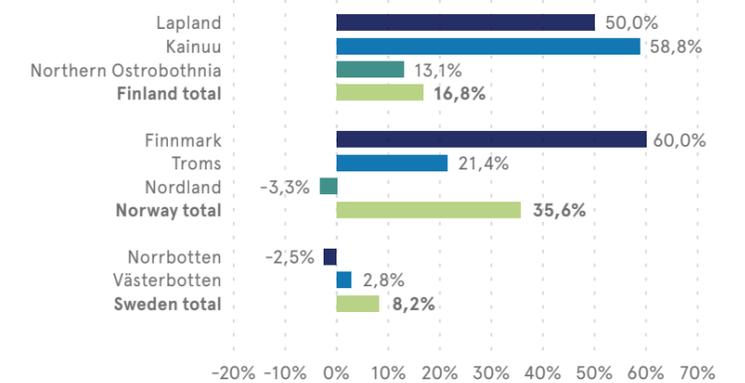


Figure 12 – Active enterprises index at the BIN county level, Mining and quarrying, 2008–2015, % change

Figure 12 illustrates the change in the AE Index in mining and quarrying during 2008–2015. The Finnish counties Lapland and Kainuu experienced a growth of 50.0% and 58.8% respectively, while the overall AE Index in Finland rose by 16.8%. In Norway, Finnmark saw a growth of 60%, followed by Troms (21.4%), Nordland experienced a decline of (-3.3%). For comparison, the AE index shows that the total growth in Norway was 35.6%. The growth pattern in Sweden was the slowest, with the total for Sweden reaching 8.2%, with Västerbotten's growth of 2.8% and a decline in Norrbotten (-2.5%). The growth in the AE Index in the Finnish counties Lapland and Kainuu can be attributed to the growing number of exploration projects<sup>7</sup> in search for precious metals as well as base metals (nickel

and copper). In Norway, permissions have recently been granted to proceed with development of a copper-noble metal mine at the Nussir and Ulveryggen deposits in the northern Norway. Nine deposits in Norway meet the specifications for deposits considered to be large or potentially large<sup>8</sup>. Low growth in the AE index for the Swedish counties may be due to dominant position large players have and high entry barriers for new businesses. Statistics on employment for the time period 2008–2014 reflect that the mining and quarrying industry experienced the largest job losses. Jobs losses in the mining and quarrying industry 2008–2014 combined with the growth in the AE Index for 2008–2015 may mean that the companies had not started employing people yet during the exploration phase. Moreover, missing employment statistic for the year 2015 may have had an impact on the results.



<sup>5</sup> Cleantech – or clean technology – refers to products, services and processes that promote the sustainable use of natural resources while reducing the harmful effects of industrial processes on the environment. Cleantech is cross-sectoral technology for the promotion of material and energy efficiency, renewable energy, water and material recycling, and environmental management (TEKES definition).

<sup>6</sup> The Global Cleantech Innovation Index 2014, where 40 countries were evaluated on 15 indicators related to the creation, commercialisation and growth of cleantech start-ups.

<sup>7</sup> Geological survey of Finland (Statistics on active metal ore mines and current projects)

<sup>8</sup> Mineral Resources in the Arctic (2017). Geological survey of Norway, p.47.

Figure 13 – Active enterprises index at the BIN county level, Financial and insurance activities, 2008–2015, % change

Figure 13 demonstrates the change in the AE index for financial and insurance activities. This industry had the highest growth in the number of active enterprises since 2008. However, the growth is not uniform on a BIN county level. The highest growth in the AE index in financial and insurance activities is observed in Norrbotten (116%) and Västerbotten (109.8%), much higher than Sweden's total of 95.6%. The total for Norway has grown by a record-high 194.8%, followed by Finnmark (160.0%), Troms (140.7%) and Nordland (138.0%). In Finland, the growth in the AE Index for financial and insurance activities has been moderate, compare Finland's total of 12.3% to Northern Ostrobothnia's (28.1%) and Lapland's (18.4%), and with a decline in Kainuu (-21.4%). This industry deserves a more thorough study in order to understand what created an increase in the index. A potential explanation could be the uptake of digitalization in financial and insurance activities and openings of Fintech enterprises.

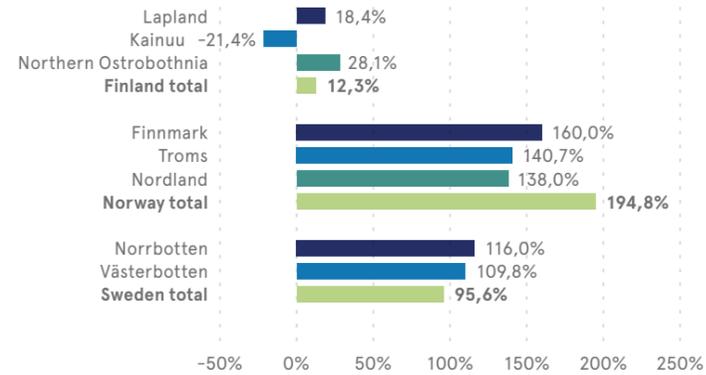


Figure 15 – Active enterprises index at the BIN county level, Professional, scientific and technical activities, 2008–2015, % change

Figure 15 shows the trend in the AE index for professional, scientific and technical activities. The rise in the number of enterprises in professional, scientific and technical activities is illustrative for measuring how many of high-skilled workers with tertiary degrees (human capital) are contributing to business creation in the BIN area. In Finland, the counties Northern Ostrobothnia (33.3%) and Kainuu (30.4%) outperformed Finland's total of 21.9%. At the same time, Lapland saw an increase of 15.2% in the AE index for professional, scientific and technical activities. In Norwegian BIN counties, the rise varied from 27.1% in Nordland to 37.5% in Finnmark, while the total for Norway's the AE index in professional, scientific and technical activities grew by 45.1%. In the Swedish BIN counties Västerbotten (55.1%) and Norrbotten (49.4%), growth lagged behind the country's total of 61.3%. Growth in the BIN area (excluding Kainuu and Northern Ostrobothnia) below Nordic countries' average in professional, scientific and technical activities can be attributed to the still-developing start-up ecosystems in the BIN area and the ability to attract capital, when compared to the more metropolitan areas of Finland, Norway and Sweden.

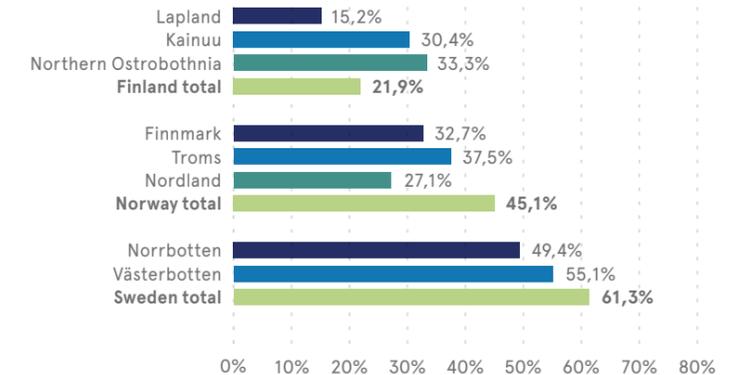


Figure 14 – Active enterprises index at the BIN county level, Information and communication, 2008–2015, % change

Figure 14 demonstrates the change in the AE index for information and communication. Comparing growth on a country level, Sweden led with its 56.6% increase in the AE index for the information and communication industry, followed by Norway (39.8%) and Finland (29.7%) during 2008–2015. The Norwegian counties Finnmark, Troms and Nordland all followed the country's pattern, with nearly 40% increase in the AE index for the information and communication industry. The Swedish counties Västerbotten (38.9%) and Norrbotten (23.7%) fell behind the country's total of 56.6%. In Finland, the growth in active enterprises in the information and communication sector was concentrated in the county of Northern Ostrobothnia, which has served as a hub to global product development units in ICT<sup>9</sup>.

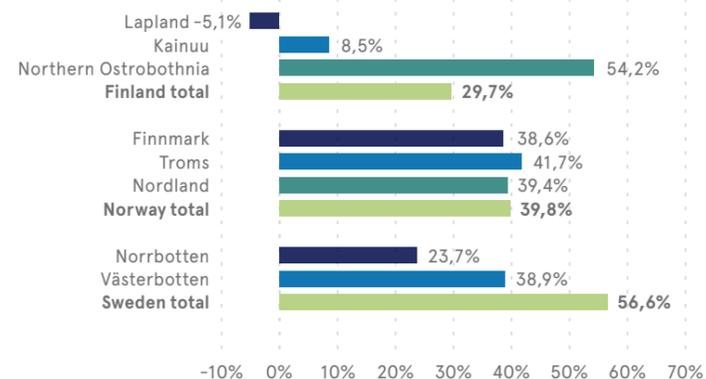


Figure 16 – Active enterprises index at the BIN county level, Wholesale and retail trade, repair of vehicles and motorcycles, 2008–2015, % change

Figure 16 illustrates patterns in the AE index for the wholesale and retail trade, repair of vehicles and motorcycles. On a country level, Sweden (17.9%) saw the biggest growth in its the AE index, followed by Norway (8%) and Finland (6%). In Finland, Northern Ostrobothnia and Lapland counties both saw a growth in their AE index of 11.8% and 9.7% respectively, while Kainuu experienced a decrease of 3%. In Norway, a decline was observed in Finnmark (-3.5%) and Troms (-2.5%), and a slight increase in Nordland (0.1%). The Swedish counties Västerbotten and Norrbotten experienced growth of 12.2% and 16.6% respectively. The interpretation of these results can be twofold. Counties experiences declines may have oligopolistic markets dominated by few strong players, which creates barriers for the entry of new enterprises. The decline could be also attributed to the increase in online shopping, whereby the local active enterprises population suffers as result of competition with online shops.

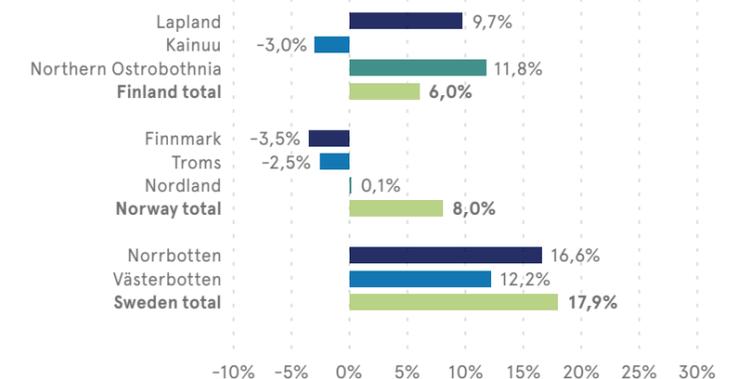
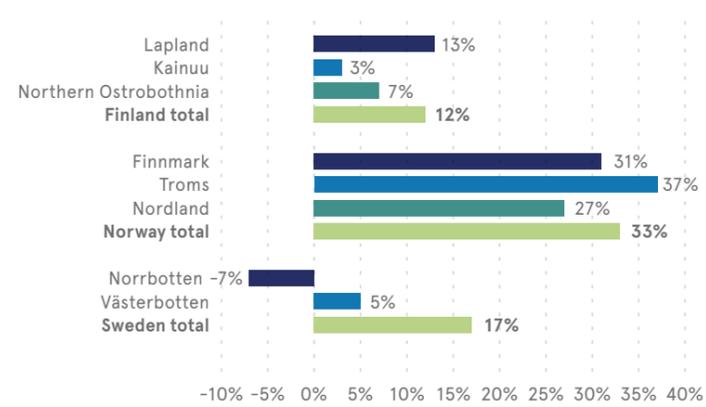


Figure 17 – Growth in production value expressed as index (index 2005=100) for the period 2010–2015

Figure 17 demonstrates growth in production value as % during 2010–2015 at the BIN county level. Production value of goods and services is calculated using GDP statistics, excluding public sector and non-profit organizations. This indicator can be used to measure the growth in private sector value creation. This indicator does not measure directly growth in production value of active enterprises (limited liability companies), it only provides indicative and approximated estimation of private sector value creation in the BIN area. Production value exceeded 103 billion euro in the BIN area in 2015. This accounts for 8 % of mainland production value for goods and services in the BIN countries. Lapland experienced stronger growth than Finland’s average. In Norway, Troms (37%) had the largest growth in production value, followed by Finnmark (31%). Nordland’s production value (27%) grew slower than Norway’s country average of 33%. In Sweden, BIN counties of Västerbotten (5%) and Norrbotten (-7%) did not achieve the growth at national level (17%). Negative growth in Norrbotten is attributed to mining industry challenges. Strong growth in production value in Troms is due to high government activity, increased tourism, and aquaculture activity, while Finnmark benefited from higher oil and gas activity and aquaculture.

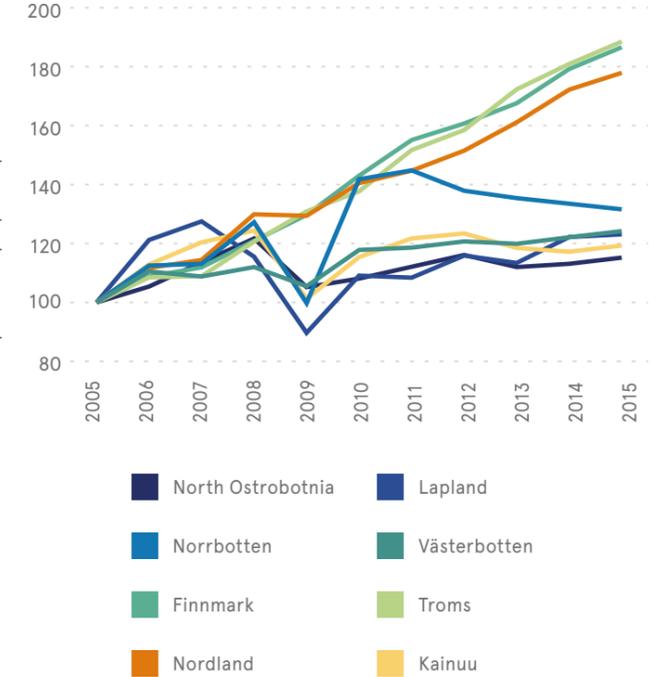


Production value exceeds 103 billion euro in the BIN area. This is 8 % of mainland production value for goods and services in BIN countries. Lapland experience stronger growth than Finland's average. In Norway, Only Nordland grows slower than country average in Norway. In Sweden None of the regions achieve growth at national level. Norrbotten, due to mining industry challenges, experience reduced product value. Strong Growth in Troms is due to high government activity, increased tourism, and aquaculture activity, while Finnmark benefits from higher oil and gas activity and aquaculture.

Figure 18 – Growth in production value expressed as index (index 2005=100) for the period 2005–2015

Figure 18 presents growth in production value expressed as index (index 2005=100) for the period 2005–2015. Counties of Lapland and Norrbotten have by far experienced the most volatile production value fluctuations in the 10 years between 2005 and 2015. These counties are heavily influenced by the financial crisis negative influence on global mineral and ore prices. Northern Ostrobothnia struggled to grow production value in the aftermath of the 2008 crisis, resulting in the lowest 10-year growth in the BIN area. Weak growth in the Swedish and Finnish BIN counties, contrast powerful mainland production value growth in all BIN Norwegian counties. A mix of increased exports of fish from farming and wild catch, increased metal and chemical product export, and multiple large oil and gas site developments fuel the strongest growth in Norwegian counties out of the BIN area. On average, the BIN area’s production value grew by 32 % in the last 10 years, compared to 42 % in the BIN countries as a whole.

Counties of Lapland and Norrbotten have by far experienced the most volatile production value fluctuations in the 10 years between 2005 and 2015. These regions are heavily influenced by financial crisis negative influence on global mineral and ore prices. North Ostrobothnia struggles to grow production value in the aftermath of the 2009 crisis, resulting in the lowest 10 year growth in the BIN area. Weak growth in Sweden and Finland, contrasts powerful mainland production value growth in all North Norwegian counties. A mix of increased exports from fish from farming and wild catch, increased



metal and chemical product export, and multiple large oil and gas site developments, fuel the strongest growth found in the Bin area. On average, BIN areas production value grow 32 % in the last 10 years, compared to 42 % in the BIN countries as a whole.

## Implications

Statistics from the AE index provides a useful tool for stakeholders interested in the BIN area. It allows mapping areas of economic activity and profile counties based on the goods and services provided by its active enterprises organized as limited liability companies. Growth in the active enterprises population can serve as an indicator of future job creation in and increased inflows from taxes to the BIN area. Moreover, through analyzing the active enterprises population, policymakers can evaluate the vitality of each individual county and if needed target support to business creation. The limiting factor of this study was finding comparable and reliable information on business openings and closures, therefore only an aggregated AE index was used instead.

For policy makers recommendations include:

- Joining efforts for creating unified detailed statistics at a county level in the BIN area. Statistics created by National Bureaus should be easily accessible and comparable. Adding data levels on the people employed and turnover of active enterprises would create a very meaningful set of data for future analysis
- Mapping the areas of expertise in the BIN area including the developing fields of Healthtech<sup>10</sup>, Cleantech and Fintech and facilitation of each cluster cooperation

- Evaluation of service economy impacts on traditionally public services (e.g. health care, education) in the BIN area
- Learning from BIN counties that are more successful in growing active enterprises population and from those that have grown their production value during 2005-2015

For business:

- The Active Enterprises Index may aid in important decision-making by highlighting areas of growth and decline in the active enterprises population and in production value on a county level in the BIN area
- Enterprises in the BIN area with similar expertise fields (e.g. Cleantech) could join forces to enter international markets through facilitated cooperation platforms in the BIN area
- Ripening the advance of digitalization by enhancing the visibility of the BIN area. Use the brand of High North to attract capital investment. The brand implies abundance of natural of resources, highly educated people and a destination to establish business ranked as easy to do business in on a world scale.

<sup>10</sup> Application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives (WHO definition)