Chapter 13
AIR ACCESSIBILITY: Passenger numbers increasing, but the best is yet to come

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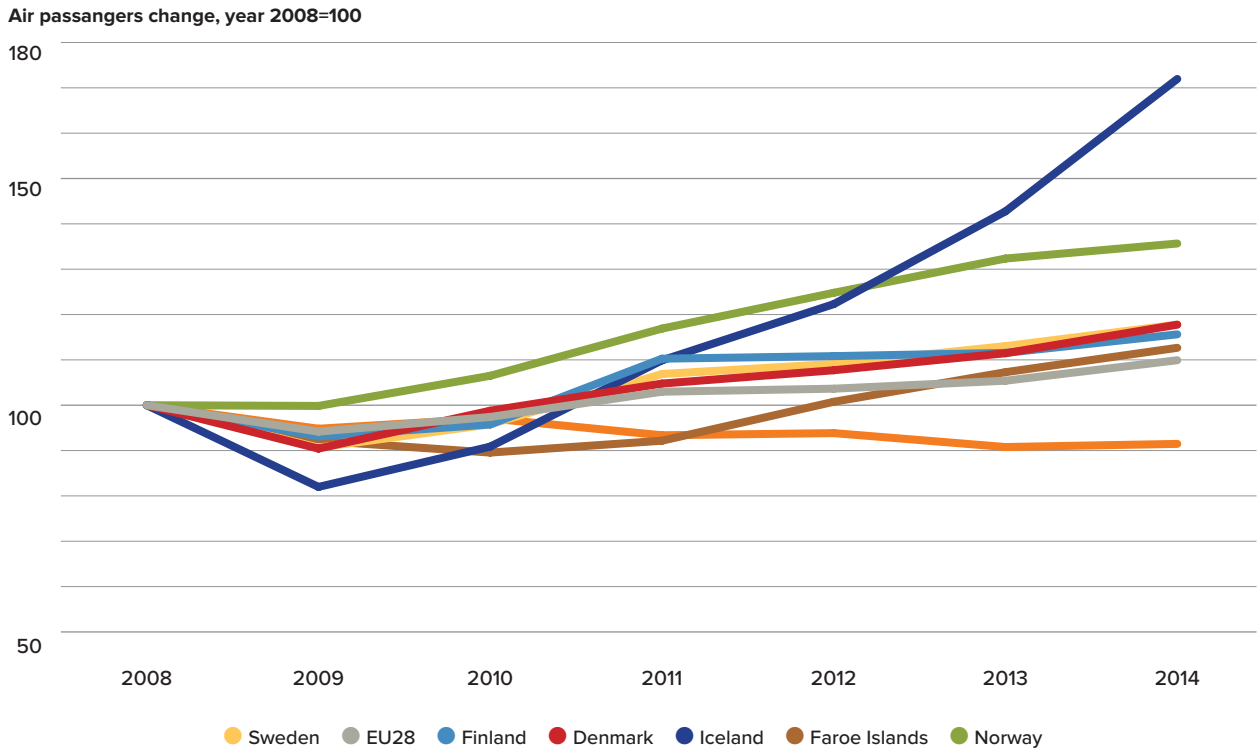
In 2014, nine airports located in Europe were included in the top 50 busiest airports in the world in terms of total number of passengers: none were located in the Nordic Region. Air traffic in Europe is largely dominated by five countries (France, Germany, Italy, Spain and the United Kingdom) which together absorb more than 60% of the total number of passengers. The Nordic Region's peripheral location and, in a broader European context, relatively low densities of both people and cities, result in a relatively low number of air passenger journeys being undertaken. In 2014, the share of air passengers in the Nordic Region was 13.7% of all passengers in European airports (12.2% in 2008). Looking at the European scale, Copenhagen-Kastrup is 15th, Oslo-Gardermoen is 17th, Stockholm-Arlanda is 21st and Helsinki-Vantaa is 30th.

Rising passenger numbers and substantial growth potential

Despite its relatively unimpressive performance in terms of absolute passenger numbers, air traffic volumes routing through Nordic airports suggest that the market remains underdeveloped, i.e. characterised by its immaturity. In other words, opportunities for growth remain in volume terms of across the vast majority of Nordic Region airports. This stands in stark contrast to those countries with mature airports where the capacity for growth is very limited (for instance: Paris-Charles de Gaulle and London-Heathrow). The figure 13.1 shows air passenger development for the Nordic countries and territories and for the EU28 for each year between 2008 and 2014, using the year 2008 as a reference. Since 2011, the increase in air passenger numbers has been higher in all the Nordic countries and the Faroe Islands than the European Union average, and has been largest in Iceland and Norway. This immaturity is clearly highlighted in the data on air passenger development, where all of the Nordic countries have a growth above the EU28 average of 9.9% for the period. Since 2012 Iceland has had the strongest increase reaching an index value of 172 in 2014. Norway has experienced a period of continuous increase since 2008 and attained an index value of 136 in 2014. Finally, Denmark, Finland and Sweden all developed rather similarly in terms of air passenger numbers during this period with each having index values around 117 in 2014. A recent study (European Commission, 2015) states that Denmark and Sweden are expected to see annual growth between 2-4% in the coming years. Iceland will have an even more impressive annual growth above 6% up to 2020, whereas Finland and Norway will only see an annual growth rate of 1-2%. The graph (figure 13.1) also shows that, with the exception of Iceland, the 2008 financial crisis has had only a limited impact on air traffic in the various domestic markets of the Nordic Region.

One of the reasons for the rapid growth in air passenger numbers in the Nordic countries since 2011 is the new strategies adopted by airports and airlines. Some of the airports and airlines based in the Nordic Region used their peripheral but strategic location in a European context as a natural competitive advantage to market themselves as gateways to other continents. This has been the primary strategy in both Finland and Iceland. The pairing of Finnair/Helsinki-Vantaa airport succeeded in marketing themselves as the gateway to Asia, offering the shortest route between Europe and East Asia and very efficient transit. Similarly, Icelandair/Keflavik airport produced a similar strategy as a new gateway to North America. It is also worth mentioning here the growth of the airline Norwegian Air Shuttle which has, since 2008, on a budget carrier basis significantly increased the number

Figure 13.1: **Air passengers by country for commercial flights in the Nordic countries**



Air passengers index development between 2008 and 2014

Data source: Eurostat, Statistics Greenland, Statistics Faroe Islands.
Note: Finland: Includes Åland

of operations and passengers in its two main Nordic hubs (Oslo Gardermoen and Stockholm Arlanda airports)

These new strategies developed by various Nordic airports and airlines have significantly increased air accessibility between the Nordic countries and other continents, via the main airports of the capital cities in each Nordic country. Figure 13.2 highlights intercontinental routes with an origin or destination in the main airport of each capital city in the Nordic countries. The map only includes direct scheduled commercial flights (situation as of January 2016) having at least one weekly flight. In other words, it does not include connecting flights, charters or cargo routes. Both North America and East Asia are relatively well connected to the Nordic countries, as are the Middle East and South East Asia, though to a lesser extent. A number of these intercontinental routes have been established quite recently, particularly those with the Middle East and Asia most of which were opened between 2011 and 2015. Routes to Africa and South America are more problematic to operate as the Nordic countries have no comparative advantage in developing them, hence the limited number of routes to the former and the complete lack of any routes at all to the latter.

Air transport in the Nordic countries is also characterised by strong moral and regulatory pressure towards the creation of more energy efficient operations, initiated by both the public and the private sectors (World Bank, 2012). The public sector contributes by means of various fiscal and policy measures, while the private sector contributes by using new, less pollutant emitting, planes (Norwegian Air Shuttle has one of the newest fleets in the world, while Finnair is the first European airline to buy and operate the new Airbus A350) and by employing such practices as for instance the continuous descent operations to reduce emissions during landing.

Supporting regional development through increased air traffic

It is generally acknowledged that airports have a significant effect on regional economic development. In our contemporary service-dominated societies, moving people has a bigger effect on the economic development of regions than moving goods (Florida, 2012), hence the importance of good air accessibility for the population. An increase in the air accessibility of a region results in the creation of jobs; not only direct jobs, but also indirect, induced and catalytic jobs (SEO, 2012). The number

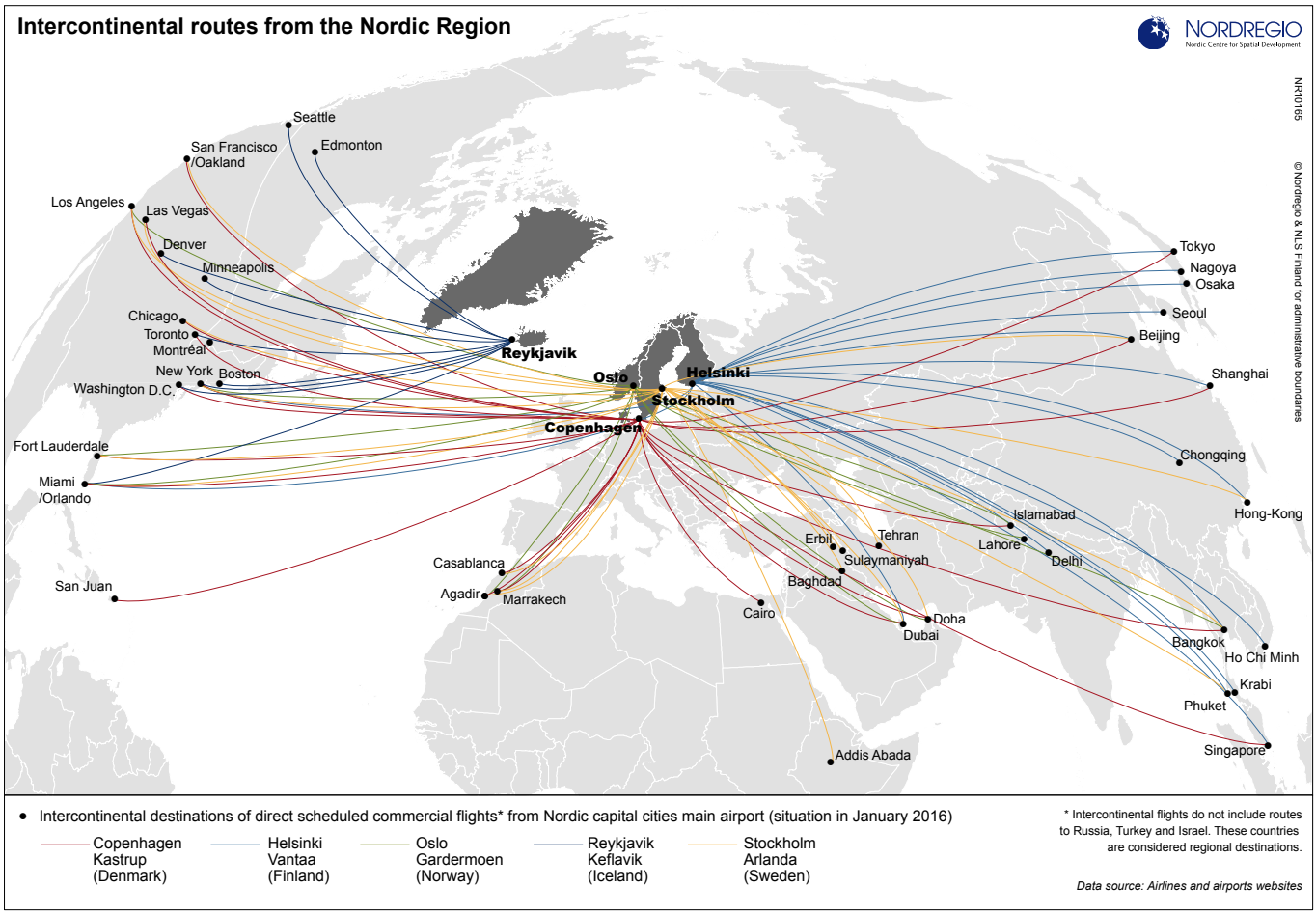


Figure 13.2: Intercontinental routes from the Nordic countries (direct scheduled intercontinental routes only)

of jobs in the Nordic Region generated by airport activities amounted to 612 800 in 2013 and their total contribution to national GDP varies from 4% in Norway to 9.5% in Iceland (InterVistas, 2015).

Almost 150 million passengers travelled through the airports of the Nordic Region in 2014, which means an increase of 22% since 2008. Approximately two thirds of the passengers were international (a 28% rise since 2008) while 60% of the total number of passengers travelled through one of the four largest airports (Copenhagen-Kastrup, Oslo-Gardermoen, Stockholm-Arlanda and Helsinki-Vantaa).

The organisation of air traffic flows is reflected in the number of domestic and international passengers in the airports of the Nordic Region. The map on domestic and international air passengers in 2014 (figure 13.3) shows that the majority of international passengers are found in a limited number of airports, mostly in the capital city airports plus a couple of metropolitan area airports. Denmark produces a slightly different pattern where the share of domestic passengers is rather low in its two largest airports, located in Copenhagen and Billund. This can, in part, be explained by the relatively small size of the country where domestic transport distances do not favour air traffic with the exception of that between Copenhagen and Aalborg where air traffic has a competitive advantage, resulting in a large share of domestic passengers at Aalborg airport.

It is also generally acknowledged that accessibility is more important than location (Rasker et al, 2009). This is particularly true for remote regions particularly for those in the Nordic Region, where airports participate significantly in the integration of these more physically distant regions. Air accessibility also has a significant social impact in these regions. For instance, it contributes to the maintenance of local services and it reduces the local population's feeling of peripherality, contributing to the creation of a strong general desire not to leave the region. The map on domestic and international air passengers per airport in the Nordic Region in 2014 (figure 13.3) also highlights the importance of small and medium sized airports for domestic passengers in the

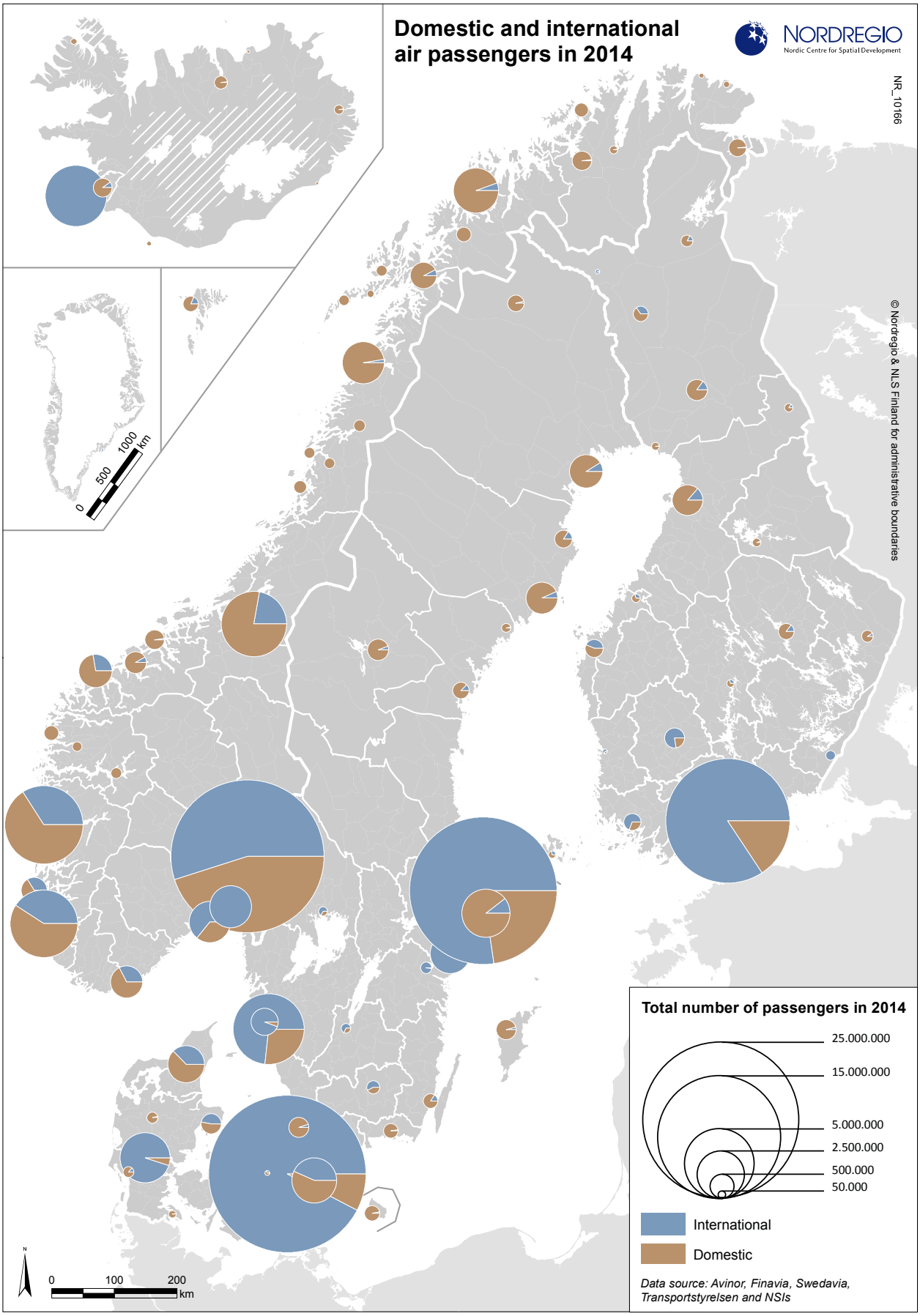


Figure 13.3: Domestic and international air passengers per airports in the Nordic Region in 2014

Figure 13.4: **Total number of passengers per commercial airport in 2014**

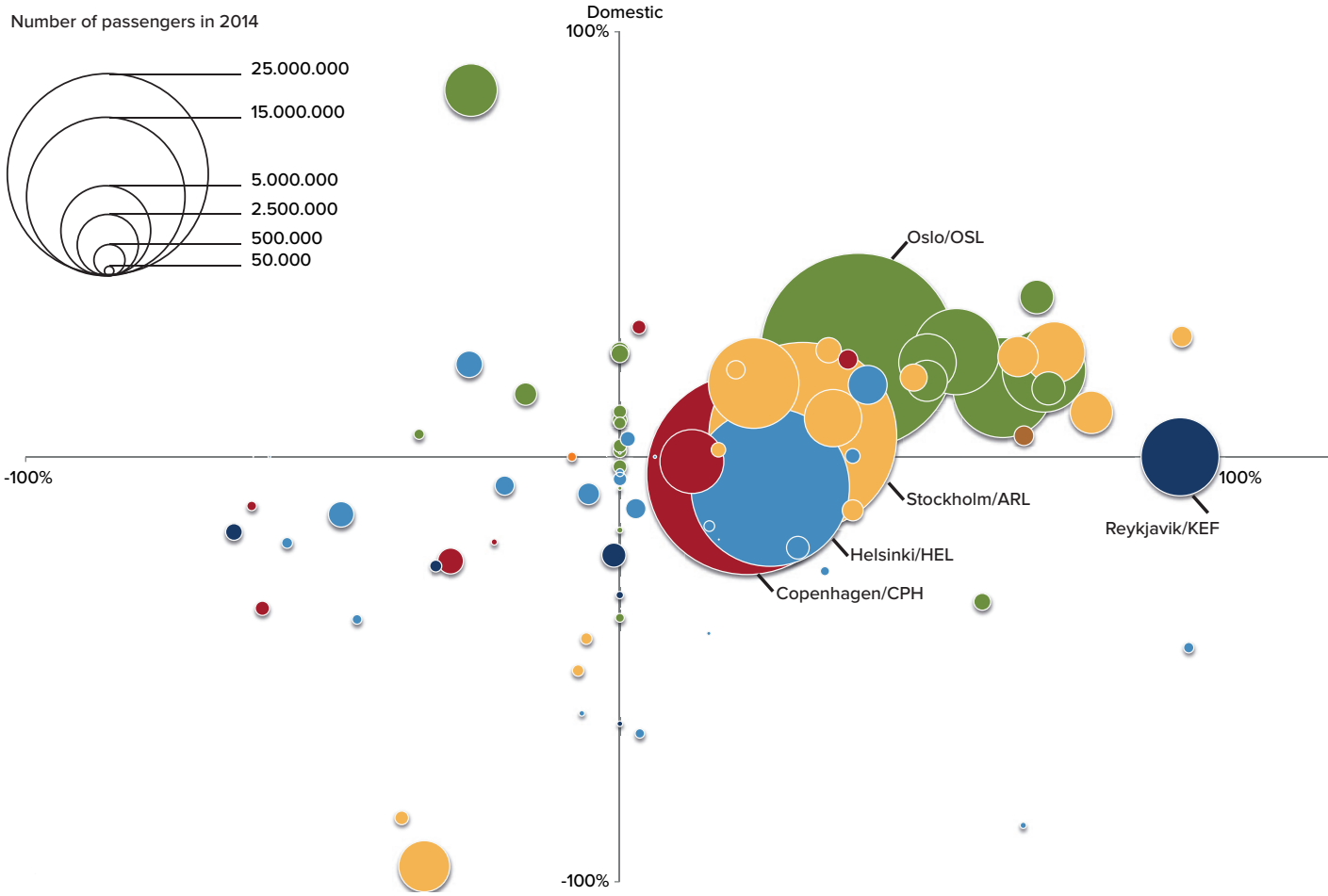


Figure 13.4: Total number of passengers per commercial airport in 2014, and domestic and international air passenger changes between 2008 and 2014 per commercial airports in the Nordic Region

northern parts of Norway, Sweden and Finland, as well as most of Iceland (with the exception of its capital region). The most remote areas of the Nordic Region undoubtedly suffer from a lack of transport infrastructure, mainly due to the low population densities, as well as the relatively long distances between urban settlements. These areas can also be challenged by both their topography and climate. As a consequence, these remote regions have no realistic alternative to air transport in terms of accessing the health and other public services lacking in their regions. Hence the population in these remote parts of the Nordic Region often displays a relatively higher number of domestic flights per inhabitant than national averages for the Nordic countries (Halpern & Bråthen, 2011). In terms of healthcare issues, population growth in these peripheral regions is more dependent on access to air transport than less remote regions. Air transport is thus the most viable option from a cost-benefit perspective for both patients and authorities (Halpern & Bråthen, 2011). Public subsidies for air routes are one solution to ensuring access to and from remote regions. In Norway, public subsidies through public service obligation (PSO) strongly contribute to the existence of domestic air routes. Indeed, Norway has the largest number of PSO routes in Europe (Bråthen, 2011) with a number of airports exclusively relying on PSO traffic, such as Hammerfest and Leknes (Bubalo, 2012).

Finally, the relatively large share of international passengers outside the capital regions can be explained by the existence of charter flights.

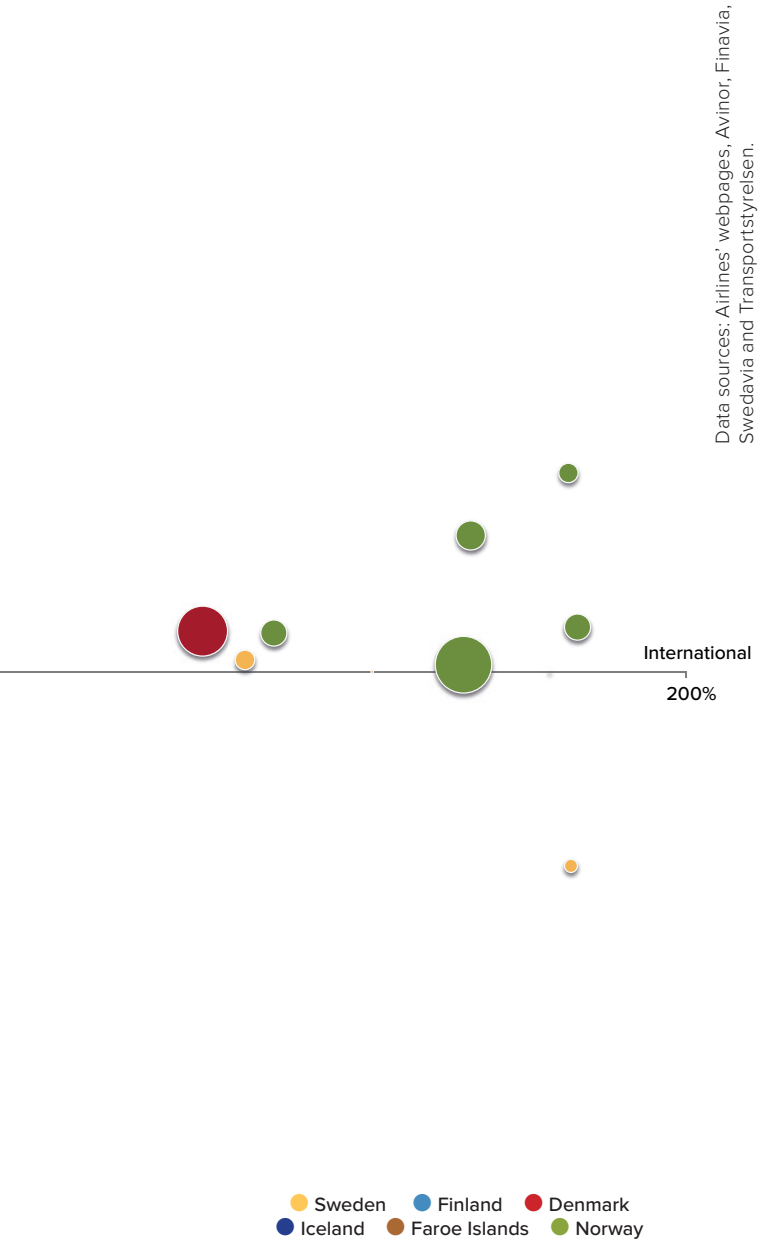


Figure 13.4 highlights changes for all types of flights (scheduled and charters) between 2008 and 2014 separated between domestic (vertical axis) and international passengers (horizontal axis) of all the commercial airports in the Nordic Region. Each colour corresponds to a country or territory of the Nordic Region and the size of the circles is proportional to the total number of passengers for each airport in 2014. The graph indicates growth in both domestic and international passengers for airports in Norway, as well as in Sweden, but to a lesser degree. The situations in Denmark, Finland and Iceland are rather similar with the main airport(s) seeing an increase in both domestic and international air passengers, while most of the other airports are either stagnating or suffering declines in both types of air passengers. The graph also shows that a number of very small airports have seen significant reductions in both domestic and international passengers. The graph also indicates that growth has mostly occurred in the main hub in each country. Finally, the growth of international passengers in small airports corresponds to the introduction of charter destinations to southern Europe.

Complementarity between airport and high speed train services

The high speed rail network (maximum speed of 200km/h and more) in the Nordic Region is rather limited compared to that of other European countries such as France, Spain and Italy. A number of projects to either update existing tracks or build entirely new sections for high speed train services are in their planning phases or under development, such as the line between Stockholm and Linköping in Sweden, that between Copenhagen and Fehmarn Belt in Denmark and between Helsinki and Turku in Finland. However, three of the Nordic countries have been particularly successful at integrating the two modes of transport (rail and air) by developing efficient rail services to their main airports. Oslo-Gardermoen airport has often been cited as the best example in the world of the integration of public transport (64% market share in 2008), which includes high speed train services with a market share of 39% (Transport Research Board, 2008). Stockholm provides another well-known example of such service integration with the 20 minute connection between Stockholm's main train station and Stockholm-Arlanda airport. Copenhagen Kastrup airport is also well integrated to the rail service network, even though most of the train traffic is not high speed train services (the only high speed trains are the X2000 coming from Sweden and crossing the Öresund). Helsinki Vantaa has recently been connected to the local commuter rail network, which allows connecting to the high speed train line to St. Petersburg with a change at Helsinki main train station and a joint ticketing.