

HELSINKI Quarterly

CITY OF HELSINKI ► URBAN RESEARCH AND STATISTICS

02
2019

CLIMATE ACTION

Helsinki aims for
carbon-neutrality by 2035

INNER CITY

Rise of densification

POPULATION

Finns continue moving
to big cities

Helsinki

Helsinki

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PIXABAY / KOSTI KEISTINEN

Securing sustainable growth has been set as the main goal of Helsinki in the City Strategy for the present council term. Helsinki and the surrounding region have a significantly higher rate of population growth than the rest of Finland. In order to prepare ourselves for answering the needs of a growing city and its residents, we need a solid and up-to-date information basis. The article by Pekka Vuori in the present issue of Helsinki Quarterly sheds light on the future population trends in the Helsinki Region and the rest of Finland.

TO A LARGE DEGREE, population growth in Helsinki rests on migration from other countries, with people of foreign origin moving to the city either directly or via other Finnish municipalities. The birth rate has been declining in Finland and Helsinki in recent years, and this is likely to impact our population structure fairly soon. At the present moment, the population structure of Helsinki remains young in Finnish comparison, and the city has a large number of working-age people. At the same time, however, the number of senior citizens – over 75-year-olds in particular – is growing rapidly.

IN THIS ISSUE of Helsinki Quarterly, we also look at the ways in which the City and its residents react to the ecological challenges facing the world today. Environment Director Esa Nikunen focuses on the climate goals of Helsinki in his article. Jukka Hirvonen’s article sums up the results of a recent survey mapping the citizens’ attitudes towards the

environment. Following the example of New York City, Helsinki has conducted a local review of UN Sustainable Development Goals and analysed how these match the City’s own strategic goals. This topic will also be discussed on these pages.

IN A GROWING CITY, a perennial theme of debate is how to ensure sufficient housing production and how to build good neighbourhoods. These issues have been handled in markedly different ways in various periods of Helsinki’s history. Currently, city planning in Helsinki is oriented towards producing a densely built and efficient urban structure that favours rail connections and cycling. In an interview with researcher Miika Norppa, we review the history and influences behind these planning trends.

HELSINKI QUARTERLY is an English-language journal covering the most recent urban research about Helsinki. Three annual issues are published in Finnish and Swedish under the title Kvartti. ■

TIMO CANTELL

*Director for Urban Research and Statistics
City of Helsinki*

Denser, livelier, more ecological: How Helsinki put the inner city back in focus



Thirty years from now, Helsinki will be preparing to celebrate its 500 years of existence. During the past centuries, the focus of the growth and development of the city first expanded outwards from a historical core and is now, after a period of suburbanisation, shifting back towards strengthening the city centre and surrounding inner city. Helsinki Quarterly interviewed researcher **Miika Norppa**, whose doctoral thesis covers the development of Helsinki's central areas from 1550 up to the present day.

Iwalk around a block in Jätkäsaari, one of Helsinki's new maritime neighbourhoods that has been under construction for a little over a decade now and is due to be completed by 2030. What would Miika Norppa want me to notice as I look at the buildings and urban structure, in terms of architectural and planning solutions?

THERE IS the irregular shape of the city blocks, or the high-rise towers that break the traditionally low skyline of Helsinki. It could be the Hyväntoivonpuisto park, whose curved shape was inspired by Venice's Canal Grande. Or perhaps the bicycle lanes, the artificial hillocks, the decorative details on building walls, the street names inspired by long-distance shipping, or the innovative underground waste management system.

THE CURRENT interest in developing inner Helsinki has its roots in the turn of the 1960–70s when the city planners

saw the need to react to the diminishing population trend in the inner city due to strong suburbanisation. The master plans of 1970 and 1976 sought to redress the situation.

FOR THE first time in the post-war period, the main focus of planners was returning to the inner-city areas. The devices they used included the construction of new, modernist, urban districts at Merihaka and Itä-Pasila at the fringes of the inner city, as well as addressing the 'officialization' of residential blocks and improving the public transport system.

CHARACTERISED BY the slogan *compact city = contact city*, those new districts of the 1970s were still based on a separation of car traffic and multi-level pedestrian decks. Subsequent development projects in inner Helsinki have been characterised by a gradual return to an older, city-centre style of planning. This is manifested in enclosed city blocks, increase in brick-and-mortar retail, emphasis on pedestrian and bicycle traffic, as well as attractive, often maritime, public spaces.

European influences and traces of uniqueness

The geography of the narrow peninsula on which Helsinki is built has long restricted any significant expansion of the inner city. However, the relocation of cargo port facilities from the centrally located West Harbour and Sörnäinen to the suburban Vuosaari Harbour in the 2000s has freed up a considerable amount of land for redevelopment.

"IT HAS been estimated that the major development projects now under construction – Jätkäsaari, Kalasatama and Pasila – will enable almost 60,000 more people to live in inner Helsinki", Norppa says. The population of the inner city has already grown by 47,000 in 1993–2017 after a long period of decline¹.

1) Norppa, 578.





DESPITE THE high density and enclosed blocks, the new neighbourhoods are actually not 100% similar to traditional inner-city areas.

“URBAN PLANNING is similar in terms of block design, but there are various differences on the level of details. Bay windows, ornamentation or gambrel roofs have not returned in exactly the same way. Ceiling heights are still lower and courtyard buildings are no longer constructed.”

COMMERCIAL ACTIVITIES are now often concentrated in local malls rather than markets or market halls. While traditional brick-and-mortar businesses exist, the commercial dynamics of the new districts are perhaps less dependent on them than in older inner-city areas.

DESPITE THE increase in population, it has in fact proved challenging to create the kind of lively, vibrant public space promised in the city strategies and district visions. “The scale of squares is often too large, especially when combined with a lack of market trading or other enlivening functions”, Norppa argues. “Places that are very centrally located, such as the Narinkka square in Kamppi, tend to be full of people, but in other locations they are often less likely to be so.”

NEVERTHELESS, THE human environment is now in focus. Squares in the city centre, such as Kasarmitori, have been liberated from traffic and returned to pedestrians. Influences for the plans of new districts have been sought from lively, small-scale places, of mediaeval origins even. The gridiron plan has been partly broken in the Jätkäsaari and Hernesaari plans in favour of winding lanes, on which one can sense the presence of the ghost of urban theorist Camillo Sitte.

THE FLOWS of influences governing the physical and spatial development of Helsinki is one of the major themes that Miika Norppa discusses in his thesis. The construction of the Finnish capital has been influenced in different periods in history by Scandinavian, Russian and German urbanisms as well as several others. With the exception of the American ‘car city’ ideal of the 1950–70s, the main sources of influence have

tended to be European. Recently the ‘catchment area’ of influences has again widened, with places like Vancouver or Spanish cities playing a role.

THE NEW seafront developments have been influenced, in particular, by similar projects in Stockholm, Gothenburg and elsewhere in northern Europe. But with all these flows of influences, what elements are unique for Helsinki? Are we only replicating foreign ideas in urban planning and architecture, or is there a local brand of urbanism?

“OFTEN, IT’S not an either–or question. Many ideas have their origins abroad but are then interpreted differently in Finland and other countries. International Art Nouveau, for example, developed into Finnish National Romanticism and Karelianism in the early 20th century and these ideas are still easy to spot in the Helsinki streetscape, for instance in Katajanokka.”

HELSINKI ALSO has a strong local modernist tradition with prominent architects. “Of course the Modernism of Helsinki was influenced by Sweden, among others, but the internationally renowned contribution of Alvar Aalto, in particular, helped develop it into something distinctly Finnish”, says Norppa. “Many significant examples of Finnish Modernism can be found in the Töölö district and the Olympic area.”

LOCAL CHARACTER is also added to new neighbourhoods through street names or building materials. For instance, the district of Kalasatama will have addresses inspired by the historical slang of Helsinki, and the red brick characteristic of its buildings can be seen as a nod to old warehouses and other harbour heritage.

WHAT ABOUT contemporary and recent architectural styles – how to know which buildings are likely to have lasting value? Norppa points out that contemporary buildings are listed for protection in some countries. “We can speculate which might be first ones to be listed if this policy was adopted in Finland. Would it be Oodi, the new central library, or the annex building of Parliament, or the university library Kaisa?”

Eco-city and alternative plans

In his thesis, Miika Norppa also analysed the economic aspect of the development of Helsinki inner city by using the concept of *city roles*. These are the dominant industries or



The city has a healthy economy and attracts a growing population, but there are also possible obstacles for continued good fortunes.

sources of livelihood that characterise different historical periods from the founding of Helsinki in 1550 up to the present day. Some of these are presented in the illustrations on the following pages (Figures 1–6).

IN THE 1990–2000s, Helsinki held a global pioneer status as a city of information and communication technologies. For this reason, the past couple of decades could be called a ‘golden period’ in the history of Helsinki.

WHILE THE decline of mobile phone maker Nokia was a reminder that fortunes may change, Norppa says Helsinki still holds the keys for future success. The city has a healthy economy and attracts a growing population. However, there are also possible obstacles for continued good fortunes, including the expensive housing market, or the dependence on the national government for large-scale transit investments.

IN THE current situation, Helsinki is growing out of its former role as an ‘ICT city’ and developing towards an ‘eco-city’. While some city roles recede over time (‘military city’, ‘industrial city’), others have more staying-power. For example, Helsinki as a capital retains its position as the most important ‘government city’ and ‘finance city’ of Finland. It is also a ‘university city’ since 1828, as well as a ‘service city’. Moreover, the ICT contingent is still present, for instance through a thriving gaming industry.

“BUT THE ambition to be an ecological city features strongly in the plans and strategies of Helsinki, and it is closely related to the aims of densification and the development of cycling routes or rail traffic”, says Norppa. “Cleantech companies have a big role to play in these endeavours. Eco-friendliness is also an image factor.”

APART FROM his academic undertakings, Miika Norppa is active in the alternative city planning community. These citizen voices in Helsinki have long been calling for densification of the urban structure. Now that the same ideal is also firmly on the official planners’ agenda, are the alternative planners satisfied or are there still some grievances they would like to see rectified?

ACCORDING TO Norppa, the current orientation of the planning profession is in the right direction. “Are we satisfied? Yes and no. We would like to see even larger units planned and constructed, even more of the inner-city liveliness spread across the city.”

“THE IDEAL of a dense old European city centre structure is nonetheless shared, at least to a large extent, now both by the planning officials and the alternative planning activists.”

NORPPA SAYS that the trend of densification and urbanisation has recently begun to affect the suburbs of Helsinki, which were originally planned with considerably lower intensity. While small

suburban malls and stations were once surrounded with parking lots and individual high-rise buildings, they are now being replaced with inner-city type of blocks combining shopping and residential functions. A case in point would be the suburban district of Myllypuro.

“IT WOULD perhaps be inaccurate to say that inner Helsinki as such is expanding, but we can safely say that *seeds of the inner city* are spreading ever further. Another example is Helsinki’s plan to transform some of its entry routes – motorway-like roads built in the 1960s – into city boulevards lined with residential buildings and parks.”

ARE THERE any challenges as to how to construct good, liveable urban space with a dense, intensified structure, apart from the obvious pressures on the amount and quality of green areas?

“THERE IS a lifestyle-related contradiction in that a city like Helsinki, with its superior consumption opportunities, attracts well-heeled people. Of course these people then consume a lot, which is not exactly ecological.”

“ANOTHER BIG challenge is the quality of construction. Although we now build an enormous amount of houses in a short timeframe, they should last in good shape for more than just a few decades. There are warning examples in the past.” ■

– TEXT: TEEMU VASS

City roles and influence flows



CITY OF HELSINKI / JUSSI HELLSTEN

FIGURE 1.

The maritime fortress of Sveaborg, present-day Suomenlinna, defined Helsinki's role as a **military city** from the mid-18th century onwards.

FIGURE 4.

Helsinki Olympic Stadium was constructed in the Functionalist Style in 1934–1938. Helsinki hosted the Summer Olympics in 1952. The stadium is the most famous manifestation of Helsinki as a **sports city**.



CITY OF HELSINKI / LAURI ROTKO



CITY OF HELSINKI / JULIUS KONTTINEN

FIGURE 2.

Senate Square was mostly constructed after Helsinki became a **capital city** in 1812, in the 'St Petersburg Empire Style'. It is also an important location for present-day Helsinki as a **tourism city**.

FIGURE 5.

Helsinki High Tech Center, built in 2001, is a physical manifestation of Helsinki's **ICT city** orientation. In the district of Ruoholahti, opposite the now dismantled cargo port, it was inspired by the cranes and containers typical of the history of the neighbourhood.



CITY OF HELSINKI / JUSSI HELLSTEN



CITY OF HELSINKI / JULIA KIVELÄ

FIGURE 3.

Helsinki Central Station, inaugurated in 1919, is the second incarnation of the city's main railway terminal. In the latter part of the 19th century, the railway strengthened Helsinki's position as a **logistics city**. The current station building was inspired by the National Romantic Style.

FIGURE 6.

Jätkäsaari, one of Helsinki's new seafront districts, has the density of an old city centre area, and as such, exemplifies the **eco-city** role. Malmö and Venice, among others, have inspired the irregularly shaped blocks in the area.



CITY OF HELSINKI / JOHANNES ROPPANEN



What is Helsinki doing to fight climate change?

● ESA NIKUNEN

Last summer was in many ways an ambivalent experience for myself and many other people in Helsinki. During the holidays, I was able to walk around in shorts all day, and in the evenings, it did not matter if you had forgotten to bring along a long-sleeved shirt. In the archipelago, I noticed for the first time that I was looking for breezy or shadowy places. There was plenty of heat, with lots of ice cream and refreshments consumed. On the other hand, in the back of the mind was the awareness that something is wrong. During the tropical nights, the people in Helsinki were sweating in their homes. Cooling devices were sold out. In the news, people were told to put out cups of water for hedgehogs and other small animals weakened by the heat. Agriculture suffered from drought and the domestic lack of grains had to be compensated with imports (Maaseudun tulevaisuus 2018).

In May, June and July, the average temperature in Helsinki was more than three degrees above average (Finnish Meteorological Institute, 2018a, 2018b and 2018c). In July, the average temperature for the entire country, 19.6 °C, was the highest in Finnish measurement history. (Finnish Meteorological Institute, 2018c). Regardless of how much one enjoys the heat waves, an increasing number of people in Helsinki became acutely aware of climate change. After the summer, the attention has been turned more towards the City: what is Helsinki doing to mitigate climate change?

DURING HUMAN existence, the concentrations of carbon dioxide in the atmos-

phere have never been higher (NOAA 2018). Climate change is already happening, and there are attempts to mitigate it through international agreements. The commitments made three years ago in the Paris agreement are not yet enough to restrict the warming to the agreed maximum of two degrees (UN 2018). Thus far, the global average temperature has already risen by 1.1 degrees, while the average temperature in Finland has risen by two degrees. If the emissions are not restricted, the average temperature in Finland may rise by as much as seven degrees by the end of the century.

IT HAS been estimated that the average temperature in Helsinki will rise by

2.3–3.4 °C before the middle of the century (when compared to the 1971–2000 average), depending on the global success rate in the fight against climate change. The winter temperatures will rise more than the summer temperatures. The total rainfall in Helsinki is also higher than before. (Pilli-Sihvola et al. 2018)

IF HELSINKI wants to achieve its strategic goal of being the most functional city in the world, investments have to be made in the adaptation to climate change. We have to ensure that Helsinki is safe and functional regardless of what the weather conditions are, also in quickly changing climate conditions.

HELSINKI'S MOST significant weather and climate risks are associated with heavy rains, extreme winter conditions (slippery conditions, snowstorms, severe frost) and heat waves (Pilli-Sihvola et al. 2018). During the previous heat wave in 2010, there were approximately 300 premature deaths in Finland, of which 30–40 occurred in Helsinki (Pilli-Sihvola et al. 2018). According to an international research team, the mortality rate caused by hot weather in Finland may triple during 2031–2080 compared to 1971–2020 (Guo et al. 2018). People in the Nordic countries are not used to hot weather and that poses a health risk especially to elderly persons and those suffering from chronic illnesses (Pilli-Sihvola et al. 2018).





PHOTOS: CITY OF HELSINKI



Goals of Helsinki and other cities

A lot of countries and cities have toughened their climate goals during the last few years. With the election of the new City Council in 2017, Helsinki also got new, increasingly ambitious climate goals. According to them, Helsinki will be carbon neutral by the year 2035. The new City Strategy brought forward the previous carbon neutrality goal by no less than 15 years (City of Helsinki, 2017).

HELSINKI ADHERES to the definition of carbon neutrality commonly used by Finnish municipalities. The greenhouse gas emissions are initially reduced as much as possible, at least by 80 per cent compared to the 1990 level (City of Helsinki 2018a). The remaining ≤ 20 per cent of the emissions are compensated for by increasing Helsinki's carbon sinks and/or by making emissions reductions outside Helsinki in a way that ensures that Helsinki's emissions impact is zero. The City Strategy provides a good footing for Helsinki's climate work: the goals are clear.

ARE HELSINKI'S climate goals up to par in international comparison? The City of Copenhagen has a globally unique goal of being carbon neutral as early as by 2025 (City of Copenhagen 2012). The City of Oslo aims to be carbon neutral in 2030 (City of Oslo 2016). The City of Stockholm's goal is to be fossil-fuel free by the year 2040 (City of Stockholm 2016).

IN NORTH America, ambitious goals have been set by the likes of Vancouver, who wants to abandon fossil fuels and has

cleverly branded greenness into a competitive advantage (City of Vancouver 2015). However, some caution should be taken when comparing the climate goals of different cities, because there is variation in the definitions of carbon neutrality (Huuska et al. 2017). For example, Copenhagen is going to reduce its emissions by 50 per cent and allows compensation of the remaining 50 per cent (Huuska et al. 2017). In Helsinki, the corresponding ratio is 80 per cent emissions reductions and 20 per cent compensations (City of Helsinki 2018a).

DURING THE last few years, many Finnish cities have stepped up their climate goals. Despite being strict, Helsinki's new goal is not the most ambitious among the cities of Finland. Turku is aiming to be the first carbon neutral city in Finland, in 2029 (City of Turku 2018). The HINKU (Towards a carbon neutral municipality) network has been active for several years in Finland. The 39 HINKU municipalities are committed to reaching for an 80 per cent reduction in the greenhouse gas emissions before 2030, compared with the 2007 level (Finnish Environment Institute 2018). Mainly small and middle-sized municipalities have joined the network, together with three larger cities, Joensuu, Lappeenranta and Pori.

THE CLIMATE goals of the large cities in Finland are, with the exception of Turku, aimed at the years 2030 and 2035. All these cities have the same definition of carbon neutrality as Helsinki.

- Turku 2029
- Tampere 2030
- Espoo 2030
- Vantaa 2030
- Lappeenranta 2030
- Vaasa 2035
- Helsinki 2035

THE COMPARISONS also serve to spur Helsinki's climate goals. Setting goals is important, but in the mitigation of climate change, it is the actions that count.

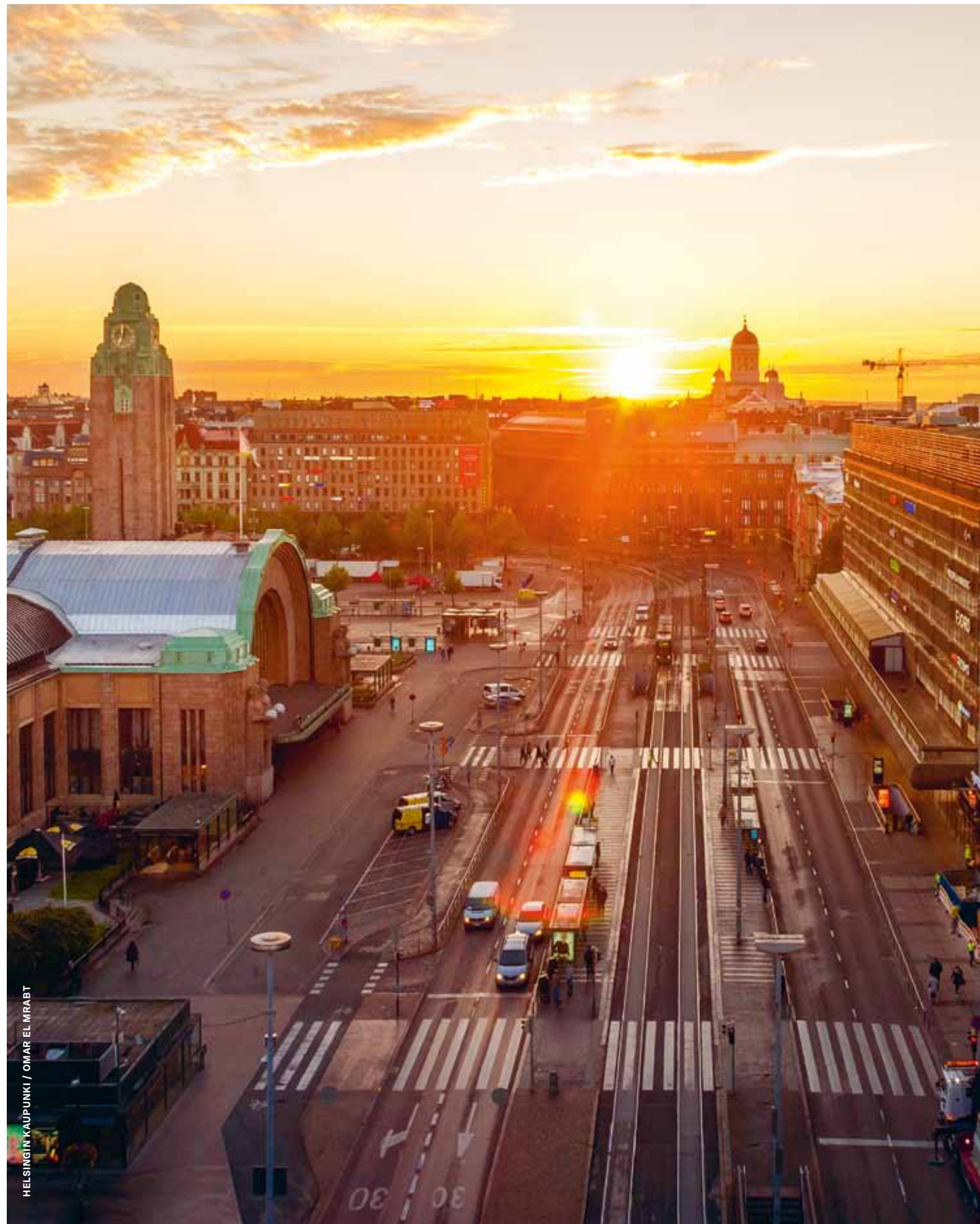
IT IS often asked what the climate goals of the cities are based on and how a specific year has been chosen. The decisions concerning the climate goals are a political process, but in Helsinki, they have been preceded by rigorous background work. It showed that our goals are challenging, but that they are achievable if we truly want to.

ARE HELSINKI'S goals for the mitigation of climate change sufficient and fair in a global comparison? There is no unambiguous answer to this. A clue was given in the Finnish Innovation Fund Sitra's study, according to which Finland's fair share would be to cut emissions by 60 per cent by 2030 and by 150 per cent by 2050, compared to 1990 (Sitra 2016).

THE FAIRNESS was considered, for example, based on what kind of historical responsibility Finland has in climate change and on our capability of reducing emissions (Sitra 2016). In addition to the carbon neutrality goal for 2035, Helsinki has an intermediate goal for 2030, which is in fact a 60 per cent reduction compared to the 1990 level (City of Helsinki 2017). Very soon after reaching carbon neutrality, Helsinki should be able to post negative emissions, or we should bind more carbon dioxide from the atmosphere than we release in the air (Sitra 2016).

EXPANDING HELSINKI'S carbon sinks by increasing the vegetation in green areas is difficult, because the city is growing and becoming increasingly dense. The City Plan provides for 140,000 new residents by 2035 (City of Helsinki 2018a). The building stock will increase by around 14 million floor square metres

“ Expanding Helsinki's carbon sinks by increasing the vegetation in green areas is difficult, because the city is growing and becoming increasingly dense. The City Plan provides for 140,000 new residents by 2035. ”



HELSINKI KAUPUNKI / OMAR EL MRABT

(City of Helsinki 2018a). The current carbon sinks must be maintained and the binding of carbon must be increased in urban green areas, such as green roofs and walls, waterbodies and the ground. We must also participate in the introduction of solutions that recover carbon dioxide from the atmosphere.

THE HELSINKI Region Environmental Services Authority HSY counts Helsinki's annual emissions to keep us up-to-date with the situation. Helsinki's greenhouse gas emissions in 2016 were around 2.7 million tonnes of carbon dioxide equivalent, or 4.3 tonnes of carbon dioxide equivalent per resident (HSY 2018). At the moment, a little more than half of Helsinki's emissions come from heating of buildings, a quarter from traffic and around 15 per cent from consumer electricity (HSY 2018).

HELSINKI'S TOTAL greenhouse gas emissions have successfully been reduced by 24 per cent from the 1990 level (HSY 2018). This is a good achievement considering that the population of Helsinki has grown by 150,000 during this time (Mäki & Vuori 2017). The greenhouse gas emissions of the average resident of Helsinki are actually 40 per cent lower than in 1990 (HSY 2018). Helsinki's favourable emissions development of the last few decades is due to the following reasons (City of Helsinki 2018).

Analysis period 1990–2005

- The use of natural gas as the main fuel in the production of district heating instead of coal
- The deployment of the A and B power plants in Vuosaari
- The improvement in energy efficiency when the joint production of electricity and heating increases
- The industry's structural change and the improved energy efficiency
- Recovery and utilisation of gases from the waste management
- The improvement in the energy efficiency of vehicles in road traffic

Analysis period 2005–2016

- Reduced emissions from Finland's electricity production (nuclear power, joint production, renewable fuels, acquisition of low-emissions electricity from the Nordic countries)
- The Katri Vala heat pump facility and the deployment of district cooling
- The industry's continuing structural change
- The improved energy efficiency of vehicles and the use of bio fuels

EVEN THOUGH the emissions of Helsinki have decreased from 1990, the favourable development does not proceed on its own. During the last couple of years, the total emissions have remained almost unchanged and the emissions from energy production have even grown, because more coal was used instead of natural gas in Helsinki (City of Helsinki 2018a). If the use of coal remains at the current level, the 30 per cent emissions reduction goal for the year 2020 set by the previous City Council is endangered. To reach it, Helsinki's must reduce its total emissions by a further six per cent (City of Helsinki 2018a). Reaching the goals solely through reductions in other emissions sectors is almost impossible, because the emissions from energy production are so significant. According to our estimate, the City of Helsinki's emissions in 2035 would be 52 per cent lower than in 1990, if the current trend continues and if the decisions already agreed upon are hung on to (City of Helsinki 2018a). Therefore, the pursued 80 per cent emissions reduction is missed by a country mile, if the pace of the emissions reductions is not intensified.

How the goals can be achieved

In order to ensure that the climate goals are not just words on paper, and to make sure that the responsibilities and resources are clear to all parties, we crafted at the beginning of the year the Carbon Neutral Helsinki 2035 action plan (City of Helsinki 2018a). The action plan is a presentation by the

experts of which party is responsible for each action, when they are realised, what they cost and what kind of impact they have.

HELSINKI'S CLIMATE goals concern all emissions created within the borders of Helsinki, regardless of who causes them (City of Helsinki 2018a). When we crafted the Carbon Neutral Helsinki 2035 action plan, we considered it important that the plan should be as realisable and concrete as possible. Less than 10 per cent of Helsinki's emissions are caused directly by the City's actions: energy consumption of its own buildings, street lighting and public transport (City of Helsinki 2018a).

HELSINKI CARRIES a significant responsibility of how big the emissions of the city residents are. The city has a great possibility to make an impact, especially as the owner of an energy company. We can create prerequisites for carbon neutral everyday life – or we can complicate it considerably. In the action plan, we collected measures through which Helsinki can find the right path towards carbon neutrality. It is obviously not an all-encompassing list. During the next few years, the direction has to be revised continuously and new actions have to be agreed upon. Carbon neutral Helsinki is created through co-operation between the people of Helsinki, companies, institutes of higher education, research institutes, organisations and the City. We also need a consistent and ambitious energy and climate policy from the Government. Furthering the circular economy is also beneficial to the mitigation of climate change.

THE HELSINKIAN'S true carbon footprint is more than double the size of the emissions which are created within the borders of Helsinki and which consequently are included in Helsinki climate goals (City of Helsinki 2018a). My own carbon footprint includes not only the emissions that I cause in Helsinki, but also all the emissions that are caused by the production of my food, for example in another part of Finland, or the manufacture of my mobile in China or my vacation in Spain.



Helsinki's total greenhouse gas emissions have been cut by a quarter since 1990, despite a population increase of 150,000 people over the same period.

MANY PEOPLE in Helsinki have asked why we do not consider the entire carbon footprint in the emissions calculations, as the climate impact of food, for instance, is known to be considerable. This is because the City does not have precise information on what the people of Helsinki consume and what the climate impact of each product is. The goal must be set in a way that makes it measurable.

HOWEVER, WE have also wished to include actions that reduce the carbon footprint outside Helsinki, even though we are not able to precisely measure these emissions. We can guide people towards a climate-friendly lifestyle through education and upbringing, among other things. We can also make a considerable impact with our public procurement policy. Procurements make up more than 40 per cent of the City of Helsinki's expenditure. In the entire City Group, their value is more than €2 billion annually (City of Helsinki 2018a). The City must further the introduction of sustainable, climate-friendly products and services, whether it is ICT equipment, food services or construction materials.

Drafting of the action plan

The Carbon Neutral Helsinki 2035 action plan could have been drafted as traditional official work. The action plan's tight schedule, the extent of

the topic and the vast amount of data forced the group nominated for the task to use more effective methods in the work on the plan. We also wanted to give all interested parties a chance to participate in the drafting of the action plan. In this way, we want to ensure that every perspective and all bits of information are included in the analyses and that everyone is committed to the actions, when we agree upon them together. We wrote the action plan from start to finish on a joint writing platform, which was accessible online. We arranged nine workshops, where we discussed, for example, how the City should encourage the residents to buy electric cars, whether the planning regulations can include goals for solar power, and how much the construction of a new tramline costs. All the results were registered in an open web document, where they were worked into actions. Almost 300 people participated in the work.

THE DRAFTING of the action plan is an example of our aim that the decision-making process should be as open and transparent as possible (Tuomisto et al. 2017). The data is collected into one place where it is available to anyone interested. The analysed topic is divided into smaller, easily digested pieces, knowledge crystals (Tuomisto et al. 2017). A knowledge crystal deals with, for example, congestion charges or re-

covery of heating from buildings. Anyone with knowledge of the topic can participate in the writing. In conflicting situations, the best argument wins, no matter which party has presented it. Open decision-making includes open preparation, which I think was realised quite well in the drafting of the action plan. I would like to see similar transparency in the next phase of the process, the political decision-making. The decisions should be motivated and they should reveal what facts or valuations they are based on.

HELSINKI WANTS to be a pioneer in openness and participatory practices. We are developing a tool for the follow-up and updating of the action plan, where anyone can follow in real time how we are progressing with reaching the climate goal. At the same time, we want to improve the cost estimates for the actions and help politicians recognise the benefits connected to them. For example, investing in emission-free public transport means better air quality, less noise and an easier everyday life for the people of Helsinki. Good solutions have a global market, too. Climate change is an immense global problem. Helsinki wants to take its own responsibility in solving it and be among the pioneers. ■

Esa Nikunen is Director General of Environment Services at the City of Helsinki.

Sources:

- City of Copenhagen, 2012. CPH 2025 Climate Plan short version - English. Available: <http://kk.sites.itera.dk/apps/kk-pub2/index.asp?mode=detalje&id=931>
- City of Helsinki, 2017. The Most Functional City in the World – The Helsinki City Strategy 2017–2021. Available: <https://www.hel.fi/helsinki/en/administration/strategy/strategy/>
- City of Helsinki, 2018a. The Carbon-neutral Helsinki 2035 Action Plan Proposal of the emissions reduction working group 28 February 2018 (12 June 2018). Available: https://www.hel.fi/static/liitteet/kaupunkiymparisto/julkaisut/julkaisut/HNH-2035/Carbon_neutral_Helsinki_Action_Plan_1503019_EN.pdf
- City of Helsinki, 2018b. Environmental report 2017. Available: <https://www.hel.fi/static/ymk/yrap/en/environmental-report-2017.pdf>
- City of Oslo, 2016. Climate and Energy Strategy for Oslo. Adopted by the City Council in Oslo 22 June 2016 (Proposition 195/16). Available: <https://www.oslo.kommune.no/getfile.php/13166797/Content/English/Politics%20and%20administration/Green%20Oslo/Plans%20and%20programmes/Climate%20and%20Energy%20Strategy%20Oslo.pdf>
- City of Stockholm, 2016. Strategy for a fossil-fuel free Stockholm by 2040. Ref. no. 134-175/2015. Available: <https://international.stockholm.se/globalassets/rapporter/strategy-for-a-fossil-fuel-free-stockholm-by-2040.pdf>
- City of Tampere, 2018. Sustainable Tampere 2030 Roadmap. Miten hiilineutraali kaupunki tehdään? Council seminar 22 February 2018. Available: https://www.tampere.fi/tiedostot/e/oOLzkD3Zz/Kestava_Tampere_2030_tiekarttaluonnos_-_miten_hiilineutraalia_kaupunkis_tehdaan_Seppanen.pdf
- City of Turku, 2018. Climate Plan 2029. Turun kaupungin kestävä ilmasto- ja energiatoimintasuunnitelma 2029. Draft 24 May 2018. Available: https://www.turku.fi/sites/default/files/atoms/files/ilmastosuunnitelma_2029.pdf
- City of Vancouver, 2015. Greenest City. 2020 Action Plan. Available: <https://vancouver.ca/files/cov/Greenest-city-action-plan.pdf>
- Guo, Y., Gasparrini, A., Li, S., Sera F., Vicedo Cabrera, A. M., de Sousa Zanotti Stagliorio Coelho, M., et al. (2018) Quantifying excess deaths related to heatwaves under climate change scenarios: A multicountry time series modelling study. *PLoS Med* 15(7): e1002629. Available: <https://doi.org/10.1371/Journal.pmed.1002629>
- HSY, 2018. Greenhouse gas emissions. Www-site. Updated: 13 August 2018. Available: <https://www.hsy.fi/en/experts/climatechange/mitigation/Pages/Greenhouse-Gas-Emissions.aspx>
- Huuska, P., Lounasheimo, J., Jarkko, M., Viinainen, J. and Ignatius, S.-M., 2017. Selvitys Helsingin uusista ilmastotavoitteista. Hiilineutraalisuustavoitteen päivitys sekä vuoden 2030 päästötavoite ja toimenpiteet. Helsingin kaupungin ympäristökeskuksen julkaisu 4/2017. ISBN (PDF) 978-952-331-261-6. Available: <https://www.hel.fi/static/ymk/julkaisut/julkaisu-04-17.pdf>
- Finnish Environment Institute SYKE, 2018. HINKU municipalities. Www-site. Published 27 May 2016, updated 21 February 2018. http://www.hinku-foorumi.fi/en-US/About_Hinku/Hinku_municipalities
- Finnish Meteorological Institute, 2018a. Toukokuun kuukausikatsaus. Published 4 June 2018. Available: <http://www.ilmastokatsaus.fi/2018/06/04/toukokuun-2018-kuukausikatsaus/>
- Finnish Meteorological Institute, 2018b. Kesäkuun kuukausikatsaus. Published 4 July 2018. Available: <http://www.ilmastokatsaus.fi/2018/07/04/kesakuun-2018-kuukausikatsaus/>
- Finnish Meteorological Institute, 2018c. Heinäkuun kuukausikatsaus. Published 6 August 2018. Available: <http://www.ilmastokatsaus.fi/2018/08/06/heinakuun-2018-kuukausikatsaus/>
- IPCC / Finnish Meteorological Institute [in Helsingin Sanomat], 2018. Olemmeko valmiit kaikkeen, mitä ilmastomuutos Suomelle tekee? Näin muuttuvat talot, kaupungit ja jääkaappimme sisältö. Takala, A. and Vihavainen, S. Published 3 August 2018. Available: <https://www.hs.fi/kotimaa/art-2000005778023.html>
- Maaseudun tulevaisuus, 2018. Viljasato jäämässä pienimmäksi sitten katovuoden 1987. Published 2 July 2018. Available: <https://www.maaseuduntulevaisuus.fi/maatalous/artikkeli-1.263945>
- Mäki, N. & Vuori, P., 2017. Helsingin väestö vuodenvaihteessa 2016/2017 vuonna 2016. [Helsingfors befolkning vid årsskiftet 2016/2017 och befolkningsförändringar år 2016]. Statistics, 2017. City of Helsinki. Available: https://www.hel.fi/hel2/tietokeskus/julkaisut/pdf/17_06_28_Tilastoja_1_Maki_Vuori.pdf
- NOAA, 2018. National Oceanic and Atmosphere Administration www.noaa.gov/resource-collections/carbon-cycle
- Pilli-Sihvola, K., Haavisto, R., Leijala, U., Luhtala, S., Mäkelä, A., Ruuhela, R. & Votsis, A., 2018. Sään ja ilmastomuutoksen aiheuttamat riskit Helsingissä. Kaupunkiympäristön julkaisu 2018:6. ISBN | 978-952-331-422-1 (web version). Available: <https://www.hel.fi/static/liitteet/kaupunkiymparisto/julkaisut/julkaisut/julkaisu-06-18.pdf>
- Sitra, 2016. What does the Paris Climate Agreement mean for Finland and the European Union? Technical report. June 2016. Climate Analytics gGmbH. Available: https://media.sitra.fi/2017/02/28142626/What_does_the_Paris_climate_agreement_mean_for_Finland_and_the_European_Union.pdf
- Tuomisto, J., Muurinen, R., Paavola, J.-M., Asikainen, A., Ropponen, T. & Nissilä, J., 2017. Binding knowledge to decision making. Publications of the Government's analysis, assessment and research activities 39/2017. Available: https://tietokayttoon.fi/documents/10616/3866814/39_Tiedon+sitominen.pdf/6274f29e-6f1c-422f-bbd7-4d95287adafb?version=1.0
- UN, 2018. United Nations Climate Change Secretariat. Progress Tracker Paris Agreement Work Programme version 3 July 2018. Available: https://unfccc.int/sites/default/files/resource/PA_Progress%20tracker%203%20July.pdf



CITY OF HELSINKI / JUHANA HURTIQ

Environmental awareness

is at a good level, but actions do not always reflect attitudes

● JUKKA HIRVONEN

Cities have adopted an active role in influencing global environmental issues and climate change, and consequently the opinions of city residents and their consumption patterns and choices are important as cities steer their activities in a more ecological direction. According to an environmental attitudes survey conducted in Helsinki and Vantaa, eco-friendly attitudes are common and there is even willingness to pay more for the environment, but the extent to which city residents' everyday choices reflect these attitudes is mixed.

In 2017, the cities of Helsinki and Vantaa conducted a joint study on the environmental attitudes and behaviour of their residents. The data was obtained through an extensive resident survey (N = 1,560) directed at the adult population. The survey also examined, for example, environmental attitudes and environmental behaviour as well as connections between the two. This article presents some of the results of the survey. The analysis focuses on attitudes regarding climate change and some forms of environmental behaviour, in particular energy conservation at home, the avoidance of buying new items, as well as food-related choices. Results of the project are presented more extensively in the recently published report (Hirvonen & Vanhatalo 2018).

BOTH HELSINKI and Vantaa have a long tradition of environmental attitudes surveys. A corresponding survey was first conducted in Vantaa in 2009 (Kristiansson 2011) and in Helsinki in 2011 (Hakkarainen & Koskinen 2011). Another

useful set of data for comparison and reference for this survey came from survey data collected from the entire Helsinki Region in 2001 (Heikkinen et al. 2004). The analysis of this article includes environmental attitudes survey respondents from both Helsinki and Vantaa.

Good general awareness of climate change

Environmental issues feature clearly in the strategies and plans of Helsinki and Vantaa. For example, both cities aim to achieve carbon neutrality on a fairly rapid timetable. The environmental attitudes of the residents play an important role in achieving these aims. The questionnaire included a set of statements for mapping general environmental attitudes, such as concern about climate change and other environmental problems, views about the relationship between the environment and economic growth as well as awareness of personal responsibility and willingness to make sacrifices for the environment.



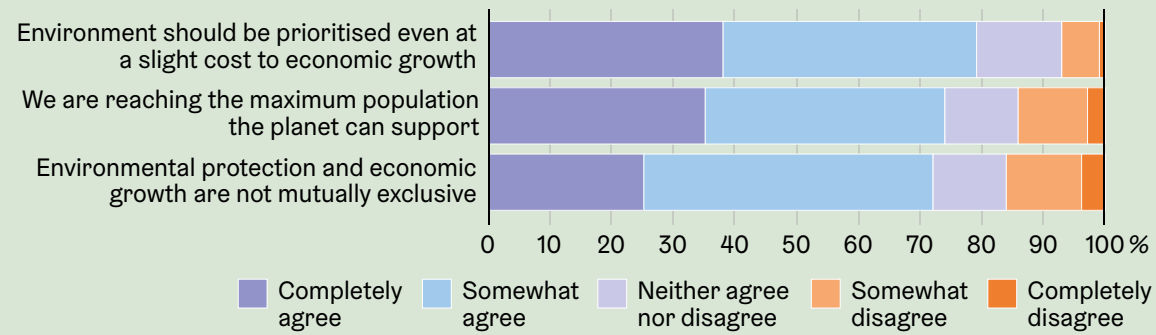


FIGURE 1. Responses to statements about the environment and growth.

All graphs in this article are based on the Helsinki and Vantaa Environmental Attitudes Survey.

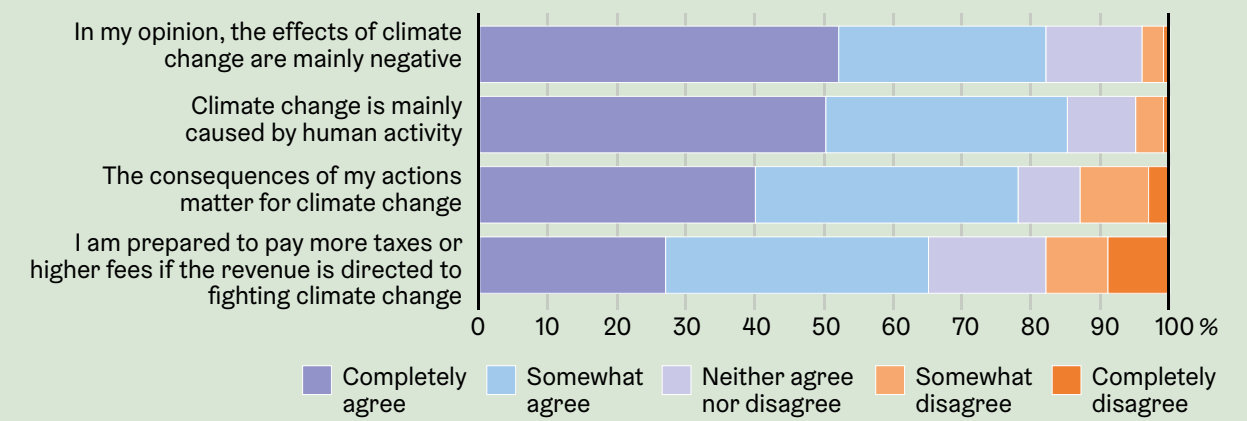


FIGURE 3. Responses to statements about climate change



MANY OF the respondents were concerned about global overpopulation (Figure 1). Two out of three at least somewhat agreed with the statement that we are approaching the limit of the number of people the planet can support, and only 14% disagreed. Another statement weighed the environment and economic growth as values – which should be weighted more if the two were pitted against each other? Based on the responses, a clear majority of the respondents – approximately four out of five – would favour the environment in such cases. Only 8% disagreed, apparently prioritising economic growth, and 14% neither agreed nor disagreed. However, nearly as many felt that it is possible to protect the environment and have economic growth at the same time. Young respondents were the most likely to agree with the statement. When this result is compared to earlier studies, it can be summarised that, in the long term, the number of respondents with this opinion has increased in the Helsinki Region (Heikkinen et al. 2004) as well as nationwide (Toivonen 2013). A possible interpretation is that economic growth is no longer considered to inevitably increase the consumption of material, or at least of natural resources, as much

as before. Growth could also take place through the strengthening of the circular economy.

CONCERN ABOUT global environmental problems was common among the respondents (Figure 2). Almost half of the respondents were “very concerned” about climate change and one-third were “fairly concerned”, amounting to a total of 80%. Only a few per cent were not at all concerned. However, this is not a new phenomenon, as the concern was already at the same level in the Helsinki Region resident survey conducted in 2001 (Heikkinen et al. 2004). Concern about deforestation and extinction of species was at around the same level. Indeed, these three issues are closely intertwined.

SEVERAL QUESTIONS about climate change generated a clear general opinion among the respondents (Figure 3). Firstly, climate change was considered to result from human activities. Secondly, its effects were primarily seen as negative, and thirdly, people felt that their own actions mattered in fighting it. Based on the responses, a clear majority, about two out of three respondents, would also be

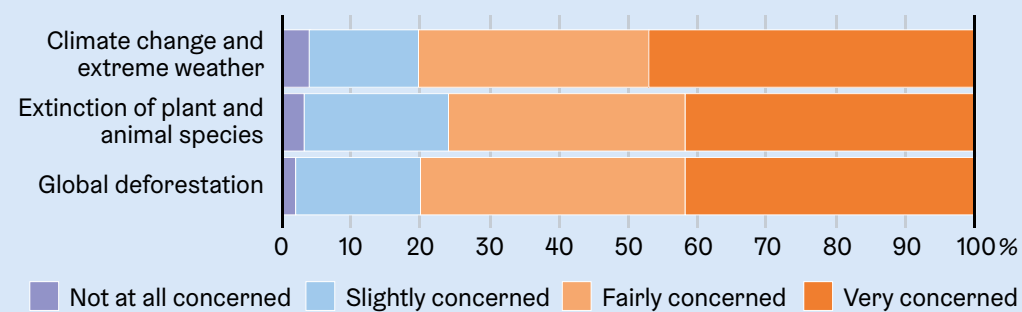


FIGURE 2. Concern about global environmental problems

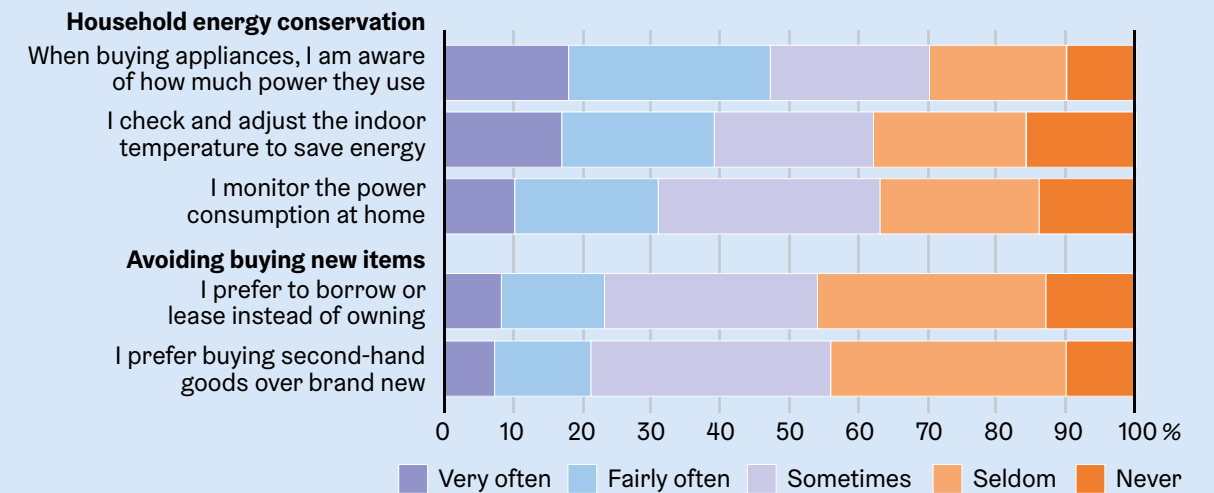


FIGURE 4. Responses to some questions on environmental behaviour

ready to make personal financial sacrifices in the form of taxes or fees if they would be “earmarked” for fighting climate change. A little under one-fifth disagreed with this, and roughly the same number neither agreed nor disagreed.

A COMBINED attitude indicator, which was named “climate change awareness”, was formed from the data. This sum variable included the four aforementioned statements and the question about climate change concern. The indicator’s reliability was high (Cronbach’s alpha = 0.77). It – and the other indicators formed from the data – were scaled to vary between 0 and 10; the higher the value, the higher the climate change awareness. Later on, this indicator will be used as an explanatory variable when studying connections between attitudes and behaviour.

Energy conservation at home is important for older respondents

In terms of environmental behaviour, the survey first enquired about some factors related to energy conservation at home. Next, it mapped how commonly different forms of the circular and sharing economy were practised.

SOME ENERGY conservation methods were more common than one might expect: nearly all respondents stated that they usually switch off unnecessary lights, use energy-saving light bulbs and only wash full loads of laundry. Apparently, the significance of these energy conservation methods is common knowledge. They are also fairly easy everyday choices that everyone can manage with little effort.

HOWEVER, THERE was more dispersion regarding some issues related to household energy conservation (Figure 4), such as consideration of the power consumption of appliances upon purchase as well as active monitoring of indoor temperature and power consumption. Roughly two out of three respondents did these at least occasionally. These three items also have a clear correlation, so they were formed into a sum variable named “intensity of household energy conservation”. Building type explained the values obtained by this indicator fairly strongly; people living in detached houses, in particular, were invested in monitoring and influencing energy consumption at home this way. This is not surprising, since owners of detached houses have much more control over energy choices – the costs fall directly on them and they often have more living space, which creates pressure to control costs. However, the person’s age was an even stronger explanatory variable. The older the respondent, the more aware they were about acting to minimise energy consumption at home. Age was a clear explanatory variable even after the building type was controlled for.

ANOTHER SUM variable connected to environmental behaviour was formed from the following points: “I prefer to borrow or lease instead of owning and “I prefer buying second-hand goods over brand new”. Over one-half of respondents practised these at least occasionally. We named this indicator “avoidance of buying new items”. It can be considered to reflect the idea of the sharing and circular economy.

IT WAS to be expected that income level was a fairly strong explanatory variable of the values obtained in this indicator. People with low income were more likely to not purchase new items than people with high income. A less obvious result was that age and educational level predicted the values of the indicator even after controlling the income level; young and highly-educated persons were more open to these forms of the circular and sharing economy. Similar results were previously obtained in Helsinki regarding one form of the sharing

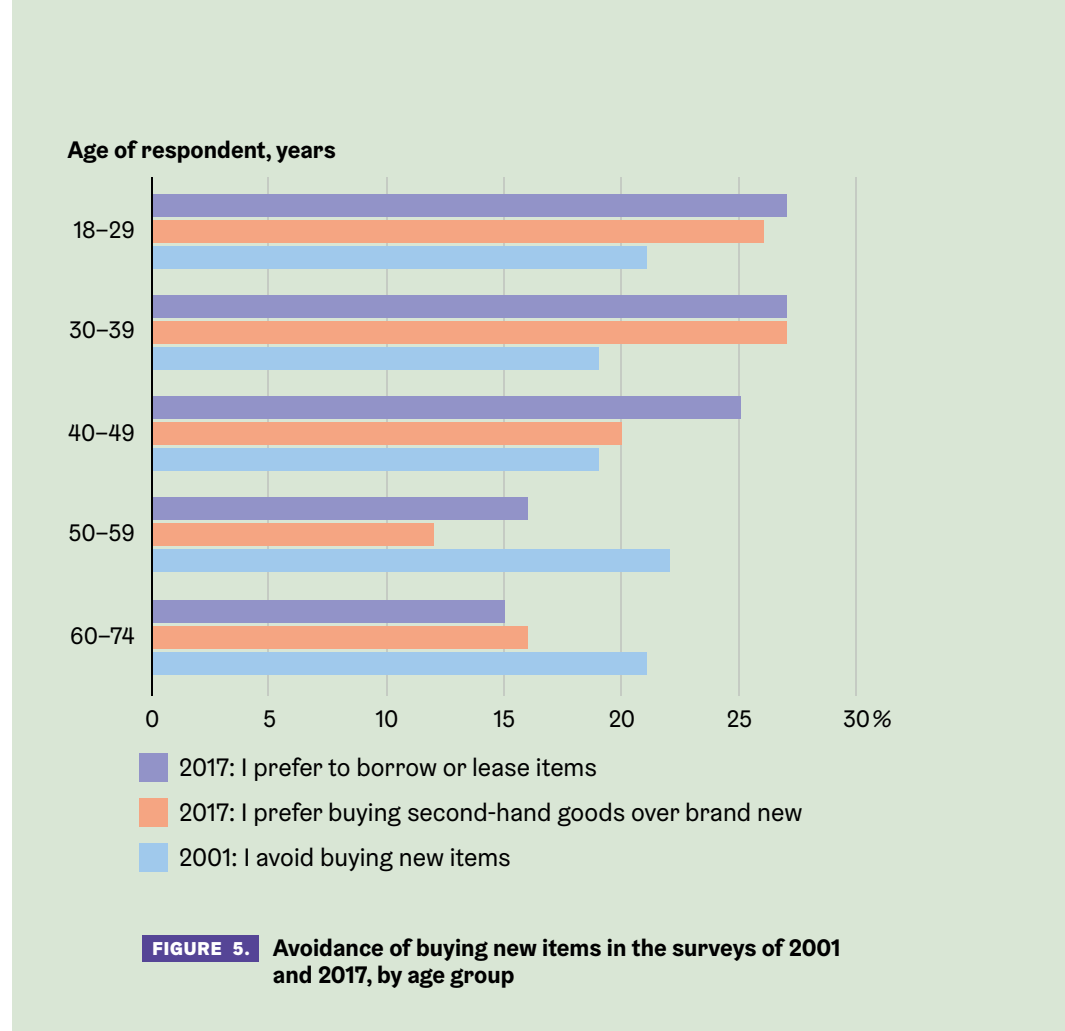


FIGURE 5. Avoidance of buying new items in the surveys of 2001 and 2017, by age group

and circular economy: consumer-to-consumer commerce. It was most popular among young adults and high educational attainment, while pensioners and persons with lower educational attainment had more reservations about it (Lindblom & Mustonen 2016).

WHEN COMPARING with the survey conducted in the Helsinki Region in 2001 (Figure 5), we can see that younger respondents under 40 years, in particular, were more likely to avoid buying new items than similar age groups in the earlier survey (Heikkinen et al. 2004). For respondents over 50 years, the difference between the survey years was rather the opposite. This suggests generational interpretation – the idea of the sharing and circular economy has gained ground, especially among the younger generation.

The most interesting result was that these two indicators – household energy conservation and the avoidance of buying new items – only have a very weak correlation ($r = 0.12$). These

forms of environmental behaviour were therefore independent dimensions and do not agglomerate on the same persons.

Vegetarian diet increasingly common among young generations

One part of environmental behaviour is food-related choices. We asked how much attention the respondent pays to minimising food waste and eating local or vegetarian food. These are all significant for reducing greenhouse gas emissions (Häkkinen & Kangas 2012). Minimising food waste was the most common food-related environmental act among the respondents. Four out of five respondents (80%) stated that they plan their grocery shopping at least “fairly often” with the aim of minimising food waste. Some 36% of respondents ate vegetarian food and 30% ate local food at least “fairly often”.

EATING VEGETARIAN food was significantly more common among women than

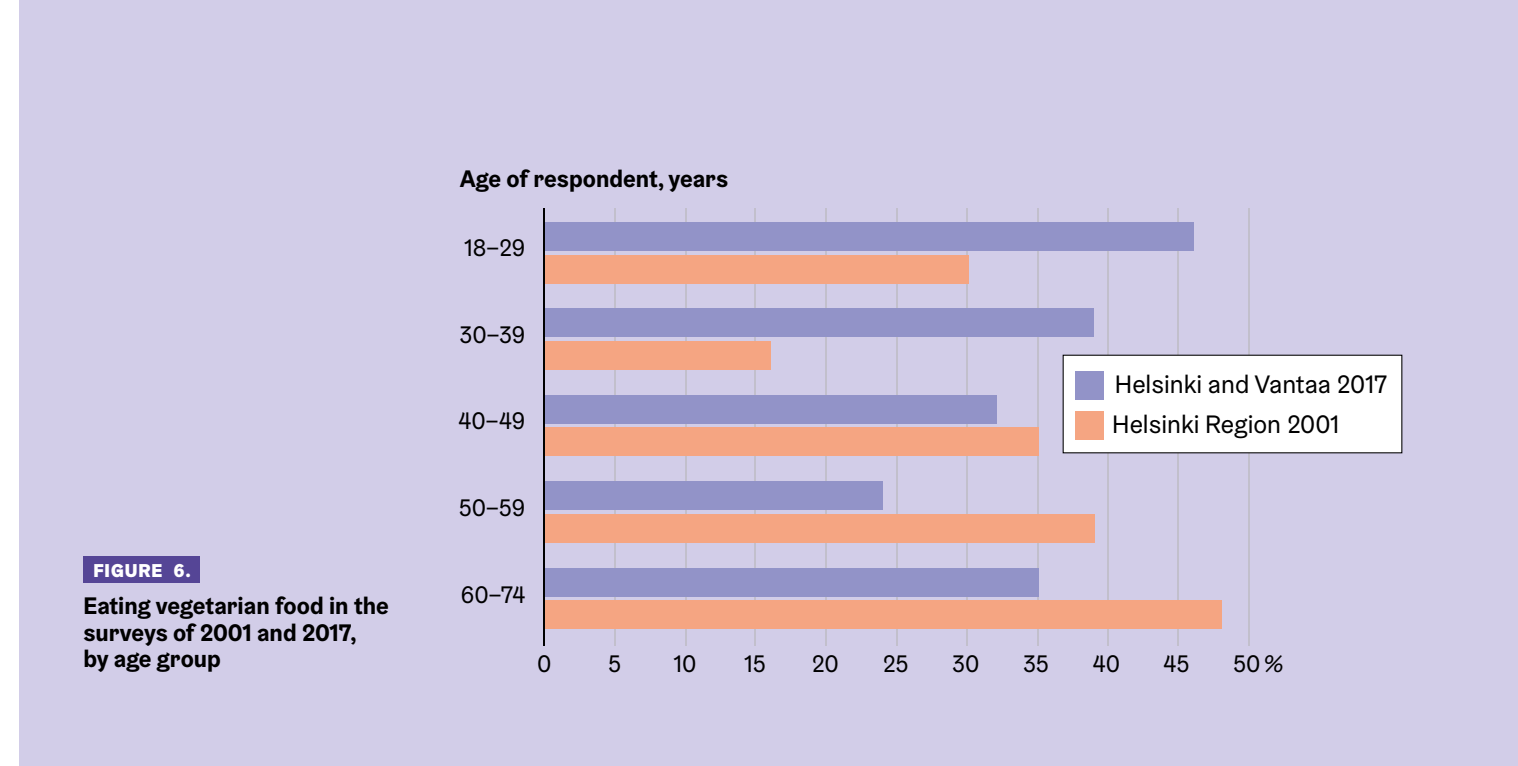


FIGURE 6. Eating vegetarian food in the surveys of 2001 and 2017, by age group

men. Roughly one-half (48%) of women but only one-fifth (20%) of men ate vegetarian food at least “fairly often”. Eating vegetarian food was also explained by educational level. The higher the person’s educational level, the more likely they were to eat vegetarian food. Vegetarian food was eaten “fairly often” by 45% of respondents with a higher education degree but by merely 25% of respondents with only basic education.

THERE SEEM to be generational differences in eating vegetarian food (Figure 6). A significantly larger share of respondents under 40 years old today ate vegetarian food than respondents in that age group in 2001. Although the latest survey’s target area was not identical to that of the previous survey, the difference was clear enough to draw this conclusion. In the new data, vegetarianism grew less common with age up to the 50–59-year-olds but took a slight upturn again among respondents aged 60 years or older. In 2001, the dependence on age was completely different; back then, vegetarianism increased consistently with age after the age of 30 years.

Climate change awareness as explanatory variable

What, then, was the relationship between attitudes and behaviour? To what extent are eco-friendly attitudes realised in eco-friendly choices? Cause-and-effect relationships cannot really be proven from this kind of survey data, but we can nevertheless study the correlation between attitudes and behaviour through statistical dependence. The correlation coefficient is one of the key figures indicating the strength of the dependence. The climate change awareness correlation r with home energy conservation intensity was quite modest at only 0.11. The correlation with avoidance of buying new items was slightly higher ($r = 0.25$) but still fairly low.

GRAPHIC ANALYSIS of dependences (Figure 7) gave a similar result: positive but weak. In an earlier phase of the study, it was demonstrated through regression analyses that climate change awareness was left with little predictive power for the values of both indicators, even after the relevant background variables are controlled for (Hirvonen & Vanhatalo 2018).

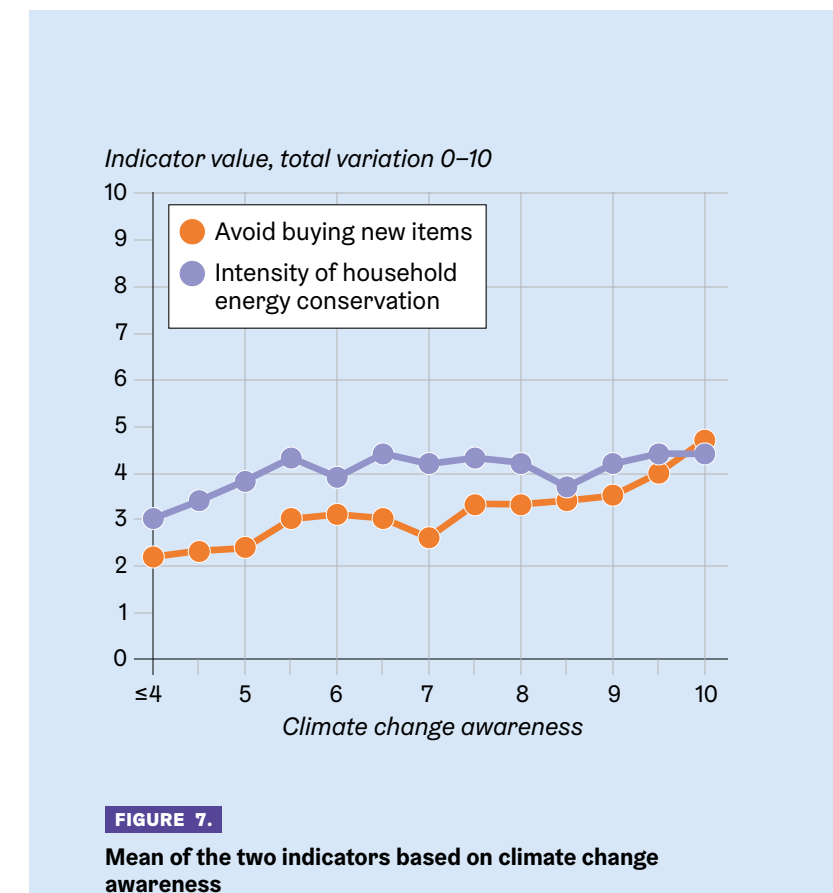


FIGURE 7. Mean of the two indicators based on climate change awareness

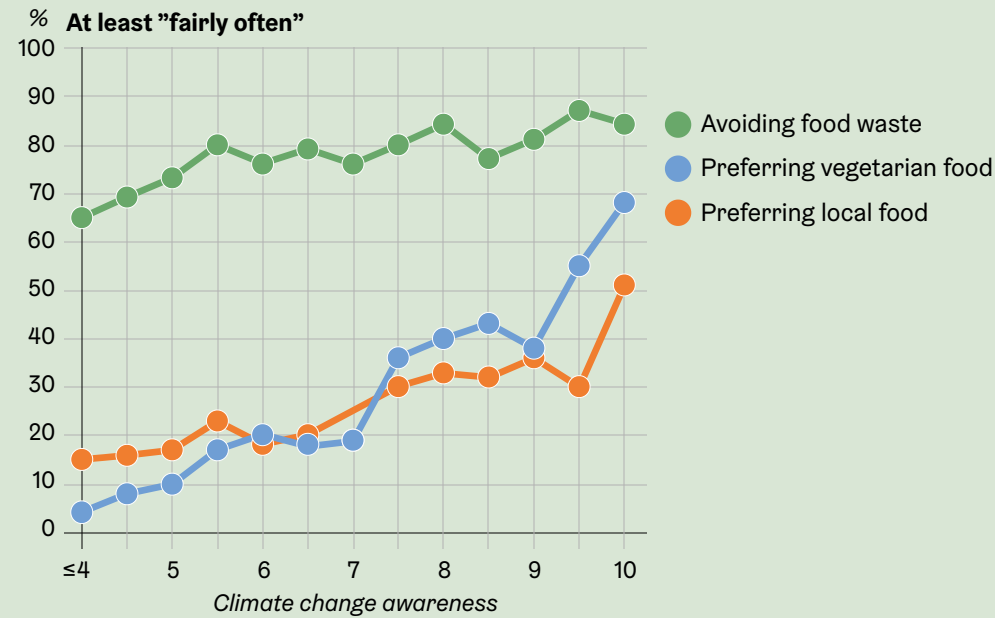


FIGURE 8.
Commonness of food-related choices based on climate change awareness

THE CORRELATION of climate change awareness to eating local food was 0.26, and its correlation to minimising food waste was 0.16. The correlations were positive and statistically significant, although not very high. The graphic dependence analysis draws a similar picture (Figure 8). Indeed, there is a second, probably stronger motivator for minimising food waste: saving money. On the other hand, there was a relatively high correlation ($r = 0.41$) between eating vegetarian food and climate change awareness. The graph shows that their dependence is roughly linear. In the category with the lowest climate change awareness, vegetarian food was eaten at least “fairly often” by only a few per cent but, in the category with the highest climate change awareness, it was nearly 70%. The connection is logical in that the climate effects of animal products, especially beef and dairy, are significantly higher than those of vegetarian options.

EATING VEGETARIAN food was taken under further analysis. It was revealed above that there are many dependences in the background connected partly to the respondent’s socio-demographic background and partly to attitude factors. The preference of vegetarian options was studied more closely using logistical regression analysis in order to specify the independent explanatory power of certain factors. There was particular interest in the extent to which climate change awareness still had explanatory power left once the key background variables were controlled for. The analyses and their results are presented in more detail at the end of this article. Logit analysis demonstrated that climate change awareness had strong explanatory power for eating vegetarian food, even after three key background variables were controlled for.

THE ATTITUDES among the respondents proved to be very eco-friendly in-

deed, and awareness of climate change proved strong. But to what extent do attitudes and behaviour align, and to what extent does each “have a life of their own”? This article introduced three dimensions of environmental behaviour: household energy conservation, avoidance of buying new items, and food-related choices. Climate change awareness predicted all three, but to very different degrees. In terms of household energy conservation and avoidance of buying new, the predictive power was weak. However, it was a strong explanatory variable for eating vegetarian food. In conclusion, we can state that although general environmental awareness was high, the extent to which everyday behaviour reflects the attitudes was mixed. ■

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Sources:

Hakkarainen, Tyyne & Koskinen, Jenni (2011). Helsinkiläisten ympäristöasenteet ja ympäristökäyttäytyminen vuonna 2011. Research Series 2011:3. City of Helsinki Urban Facts.

Heikkinen, Timo & Hirvonen, Jukka & Sairinen, Rauno (2004). IT-arki ja ympäristö. Matkapuhelin ja internet ympäristömyönteisen arjen mahdollistajana. Suomen ympäristö 672, ympäristönsuojelu. Ministry of the Environment.

Hirvonen, Jukka & Vanhatalo, Maaria (2018). Ympäristöasenteet ja kaupunkikehitys Helsingissä ja Vantaalla. Research Series 2018:1. City of Helsinki, Executive Office, Urban Research and Statistics.

Häkkinen, Hille & Kangas, Hanna-Liisa (2012). Suomalaisen vaikuttavimmat ilmastoteot. WWF Finland.

Kristiansson, Tina (2011). Vantaalaisten ympäristöasenteet ja -käyttäytyminen. Vantaan kaupunki, tietopalvelu ja ympäristökeskus [City of Vantaa, information services; environmental services.]

Lindblom, Taru & Mustonen, Pekka (2016). Helsinkiläiset myönteisiä vertaiskaupalle. Kvartti 3/2016. City of Helsinki Urban Facts.

Toivonen, Sarianna (2013). Kohujen keskellä – Suomalaisen ympäristöasenteet keväällä 2013. EVA analyysi. Finnish Business and Policy Forum EVA.



Logit analysis: which factors explain eating vegetarian food?

In the logistic regression analysis done for this article, the dependent variable was coded as follows: 1 = eats vegetarian food at least “fairly often”, 0 = eats it seldom or never. Independent variables of the analysis included the respondent’s sex, educational level, age, and climate change awareness. Educational level and climate change awareness were treated as continuous variables. The classified age data was formed into five binary variables (or dummy variables).

LOGISTIC REGRESSION produces an odds ratio (OR) key figure for each independent variable. A figure above 1 indicates a positive dependence between the independent variable and dependent variable, while a figure under 1 indicates a negative dependence. For example, in Model 1, the educational attainment OR = 1.20, which means that a higher educational level increases the likelihood of eating of vegetarian food. However, the ORs received by different independent variables are not directly comparable with each other because they depend on the measurement units of the variables.

IN THE first phase, one variable at a time serves as the independent variable (models 1–4). All four variables explained the eating of vegetarian food significantly. The table presents two key figures that describe the suitability of the models. The superiority of the models can be approximately de-

termined based on them. The first of these is the Nagelkerke R Square; the closer to 1 this key figure is, the more suitable the model is. The second key figure, -2 Log likelihood, indicates the suitability of the model in that the closer it is to 0, the better the model is. It can be deduced from these figures that climate change awareness was the best independent variable for eating vegetarian food, with the respondent’s sex as the second best. Age and educational attainment were weaker independent variables but still statistically significant.

DURING THE second phase, three background variables were placed into the same model as independent variables: age, sex and educational level (Model 5). The overall picture has not changed very much compared to the models of separate background data explanatory factors. The model predicted correctly in 66% of cases.

IN THE third phase, climate change awareness was added to the previous model as an independent variable (Model 6). The suitability of the model improved significantly from the previous model according to both key figures. The predictive power of certain variables (the respondent’s sex, youngest age group) decreased somewhat, but all the significant independent variables of the previous model remained significant. The model predicted correctly in 72% of cases. ■

Table: The ORs produced by the logit analysis and other key figures, with eating vegetarian food as the dependent variable.

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Educational level	1.20***				1.25***	1.22***
Sex						
Male		ref.			ref.	ref.
Female		3.46***			3.47***	2.91***
Age group						
under 30			2.71***		2.64***	2.27***
30–39			2.09***		2.03***	2.06***
40–49			1.51*		1.33	1.38
50–59			ref.		ref.	ref.
60–74			1.68**		1.81**	2.04**
Climate change awareness				1.63***		1.55***
Constant term	-1.217	-1.339	-1.17	-4.444	-1.47	-4.941
Nagelkerke R Square	0.019	0.104	0.033	0.180	0.152	0.269
-2 Log likelihood	1986.1	1875.2	1972.5	1774.5	1803.5	1617.6

The significance of the ORs was tested with the Wald test: ***=p<0.001, **=p<0.01, *=p<0.05.





Helsinki Region continues to draw people in

– an overview of the population projections for Finland, Helsinki and the Helsinki Region until 2050

● PEKKA VUORI

In summer 2018, the City of Helsinki made a population projection for the capital and the entire Helsinki Region. In November, Statistics Finland published a national projection, and will publish separate projections for Finnish municipalities in autumn 2019. The City of Helsinki has, however, used its own projection for city planning, since Statistics Finland publishes the municipal projections only at 3–4-year intervals. Helsinki’s own projection makes it possible to account more accurately for, for example, the outlook of construction and its role for future population growth. Besides the “most likely” scenario, the City of Helsinki’s projections have, for the last 25 years, presented two alternative scenarios: slow growth and rapid growth. The latest City of Helsinki projection has been drawn up independently of the Statistics Finland projection and is uninfluenced by it.

The present article estimates how the situation in the Helsinki Region and Helsinki proper may develop as compared with the projected development in the rest of Finland (according to Statistics Finland’s new projection). Although the projection of the City and that of Statistics Finland have been made from slightly different premises and their assumptions and grounds are not identical, we may yet draw certain conclusions about how the population and different age groups in Helsinki and the Helsinki Region are going to develop compared with the rest of Finland. Predictions can also be made about the impact of foreign migration on the population changes in the region and Finland at large. Since the different parts of Finland – large and medium-size cities and rural areas – are developing in markedly different directions, this article will compare Helsinki and the Helsinki Region with the average for the rest of Finland.

During the last few decades, annual population growth in Finland has varied between 10,000 and 30,000. It was at its strongest in the early 1980s and 1990s, and again in 2005–2017 as a consequence of fast-growing immigration. In 2017, Finland's population growth amounted to 9,833. Since 1970, it has been equally low only once.

During the last ten years, population growth has been rapid in the Helsinki Region, peaking at nearly 19,000 in 2016. Helsinki itself has also had rapid population growth in recent years, after the former migration loss to the outer Helsinki Region turned into an average annual gain of 8,000 people in 2012–2017. In Finland outside the Helsinki Region, aggregate population growths have been negative since 2015.

In Finland as a whole, population growth is expected to continue until 2035. In Helsinki and the Helsinki Region, the growth is likely to continue all the way to 2050 – the end of the projection period – albeit slightly slower than at present. In the rest of Finland, the population is set to decline throughout the projection period (2018–2050) by a total of 400,000,

assuming that the predictions for the whole country and the Helsinki Region hold good.

Births and fertility

In 2016, natural population growth turned negative as the number of births fell rapidly. During the period 1990–2017, the excess of births over deaths in Finland was 260,000. The last projection forecasts that during a corresponding period ahead, i.e. up until 2045, there will be 360,000 more deaths than births.

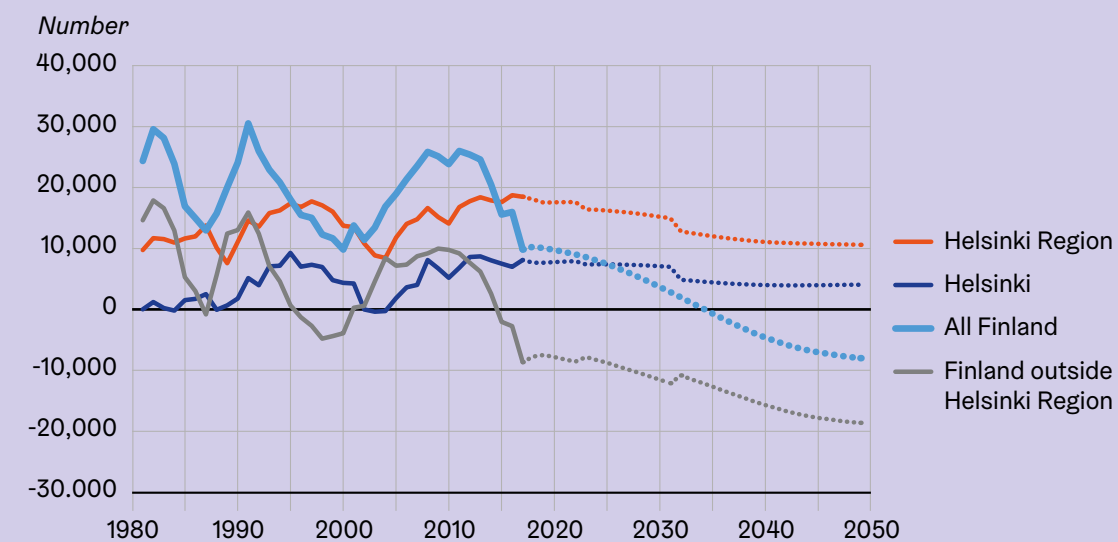
Between the peak year 2010, and 2017, the number of births in Finland had decreased by 10,700, or 17 per cent. In Helsinki, the number of births fell by only 143 (2%), and in the Helsinki Region by 1,660 (10%), but in Finland outside the Helsinki Region by no less than 9,000, that is 20 per cent. Thus 85 per cent of the decrease in the number of babies born in Finland in the 2010s occurred outside the Helsinki Region.

Statistics Finland's projection for all Finland is based on the assumption that in future, fertility will remain constant. The total fertility rate 1.45 is almost the same as the estimate of

the level in 2018. In the City of Helsinki projection, fertility rates have been calculated for the years 2015–2017, and this average is used as an assumption for the whole projection period. The same method has been used by Statistics Finland in their earlier projections. This is how Statistics Finland describes the assumed birth and death rates:

Statistics Finland's population projections are long-term projections. Therefore, they do not always give a reliable picture of e.g. the number of births or deaths in the coming years. Since the 1970s the birth rate has fluctuated up and down so that the total fertility rate has varied between 1.49 (2017) and 1.87 (2010). In population projections fertility has been kept constant at some average or initial level, because it would be impossible to guess the turning points in development. Likewise, mortality has fallen quickly at times and slowly at others. In the projections, the change coefficients for mortality have been calculated for around 20-year periods so that they would include periods of both quick and slower decrease.

FIGURE 1. Population change in Finland and the Helsinki Region in 1980–2017, and projection until 2050, according to Statistics Finland and City of Helsinki Executive Office



“ During the last ten years, population growth has been rapid in the Helsinki Region.

FIGURE 2. Numbers of births in Finland and in the Helsinki Region in 1980–2017, and 2018–2050 projections by Statistics Finland and the City of Helsinki (2018)

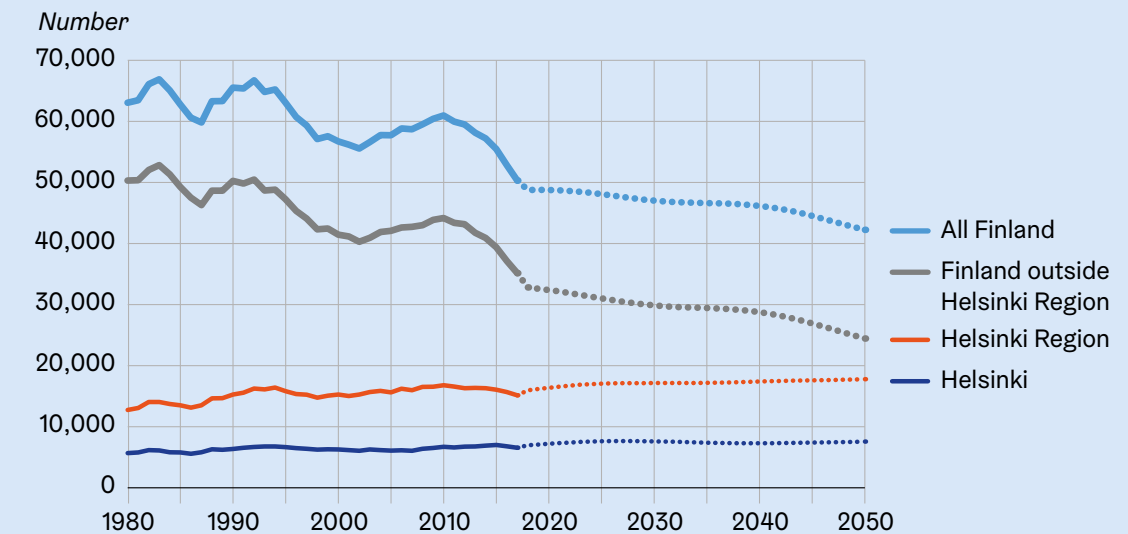
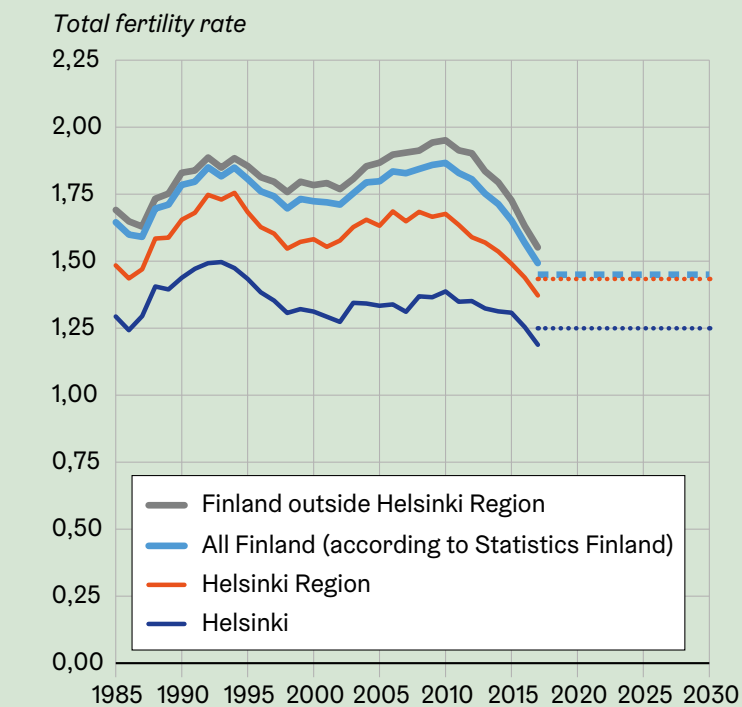


FIGURE 3. Fertility trends in Finland and the Helsinki Region 1985–2017, and the assumptions used in the projections by Statistics Finland and the City of Helsinki



IN THE CITY PROJECTION, the assumed fertility rate for the Helsinki Region is 1.43 – thus slightly more prudent than in the Statistics Finland projection – and 1.25 for the Helsinki itself. The assumed decrease in mortality in the Helsinki Region is the same in the city's latest projection as in Statistics Finland's projection made in 2015.

Immigration

Finland's net immigration in 1990–2017 totalled 270,000 people. In the Statistics Finland projection, the estimate for 2018–2045, a period of corresponding length, is even higher, namely 420,000.

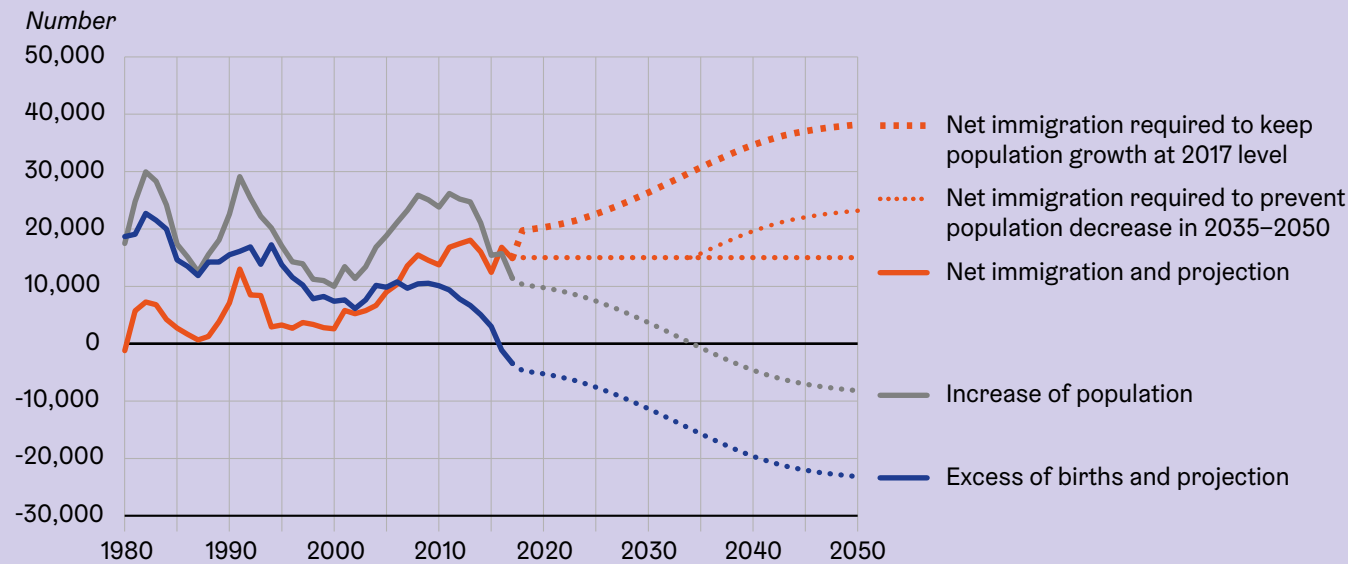


FIGURE 4.
Net immigration, natural population growth and population change in Finland 1980–2017, and the Statistics Finland projection to 2050

SINCE IMMIGRATION is not going to compensate for the decline in natural population growth, Finland’s population is projected to start decreasing in 2035. Figure 4 describes the future trend in the country as a whole. For population growth to continue, annual net immigration should increase from 15,000 in 2035 to 23,000 in 2050.

FIGURE 4 also shows the level of net immigration that would enable total population growth to remain at the current rate until 2050. Immigration should increase to 20,000 immediately and, in order to reach 38,000 by 2050, it should continue to rise.

IN THE projection made by the City, the Helsinki Region is predicted to have distinctive population growth all the way to 2050. It is expected that the population of the Helsinki Region would constitute no less than one third of the entire population of Finland by the early 2040s.

Working-age population trend

Statistics Finland predicts that Finland’s working-age population would decline by 184,000, or 6 per cent, by 2050. The City of Helsinki projection predicts that this population segment would have grown by over 200,000 in the Helsinki Region, of which almost 100,000 in Helsinki proper.

THUS, ACCORDING to the projections, the number of people of working age (18 to 64 years) would develop completely differently in the Helsinki Region and the rest of Finland on average. In the rest of Finland, the working-age population would decline owing to the age structure and migration to the Helsinki Region. If the City of Helsinki projection holds good, the Helsinki Region’s proportion of the working-age population in Finland will grow from 29 per cent today to 37 per cent by 2050. The proportion of Helsinki proper would grow from 13 per cent today to 17 per cent.

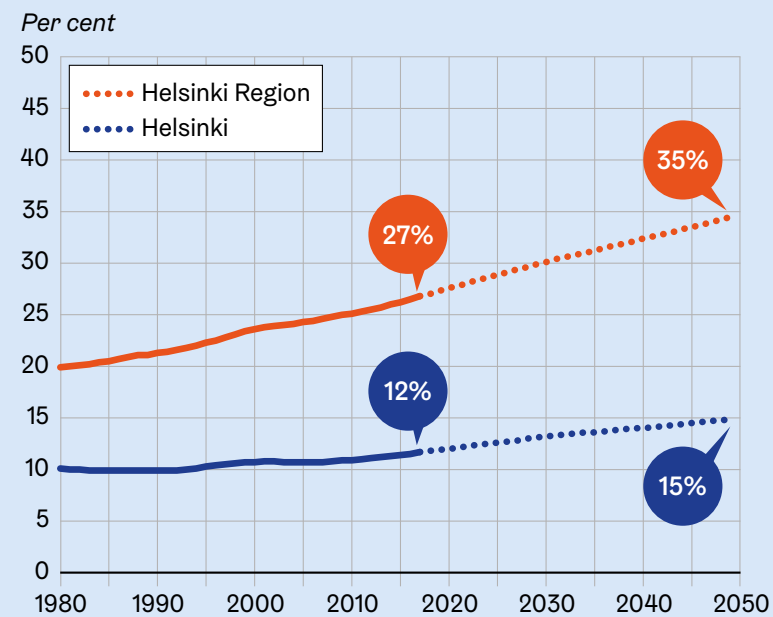


FIGURE 5.
The population proportion of Helsinki and the Helsinki Region of the entire population of Finland in 1980–2017, and the projection to 2050 by the City of Helsinki

FIGURE 6 describes the development also as it appears in Statistics Finland’s latest municipality-level projection made in 2015. In that projection, Statistics Finland estimated that the number of the working-age population (18-to-64-year-olds) in the Helsinki Region would develop slightly slower than predicted in the most recent City of Helsinki projection. Furthermore, it was prognosticated that the population in the rest of Finland would start to grow again in 2034, since Statistics Finland had predicted that the working-age population would return to an upward trend that year. However, in Statistics Finland’s new projection, the working-age population of Finland in 2040 would be no less than 85,000 people smaller than in the previous one, and thus the age group of 18-to-64-year-olds would continue to decline in the rest of Finland – assuming that the projections of both Statistics Finland and the City of Helsinki hold good.

IN THE Helsinki Region, the number of people of working age is predicted to have grown by 212,000 by 2050. In the rest of Finland, however, it is expected to have declined by almost 400,000 by 2050. The 18–64-year-olds’ proportion of the population of Helsinki would remain at almost the same level as today, namely 64 per cent, while in the entire Helsinki Region, it would be 60 per cent in 2050. In all of Finland, people of working age represent a mere 59 per cent of the population today, and this proportion is expected to decline to 56 per cent.

IN THE Helsinki Region, growth in the working-age population is strongly based on immigration. In the 2000s, 45 per cent of Finland’s net migration has come directly to the Helsinki Region. A comparison between the projections of Statistics Finland and that of the City of Helsinki for 2018–2030 shows a decrease in the Helsinki Region’s share of Finland’s net migration gain, but it is

projected to remain above 40 per cent. Almost half of the net migration to the region will be received by the capital Helsinki.

Migration assumptions in the population projections

Of the total net migration of the Helsinki Region in the 2010s, 86 per cent consists of people with a foreign mother tongue. The proportion of those with a domestic mother tongue (Finnish, Swedish or Sami) has grown slightly in recent years, standing at 27 per cent of the total net migration in 2017. It is noteworthy that half of the region’s net migration gain from the rest of Finland in the 2010s has consisted of people with a foreign mother tongue. While the proportion of those with a domestic mother tongue has grown, it was still only 55 per cent of the region’s net migration gain in 2015–2017.

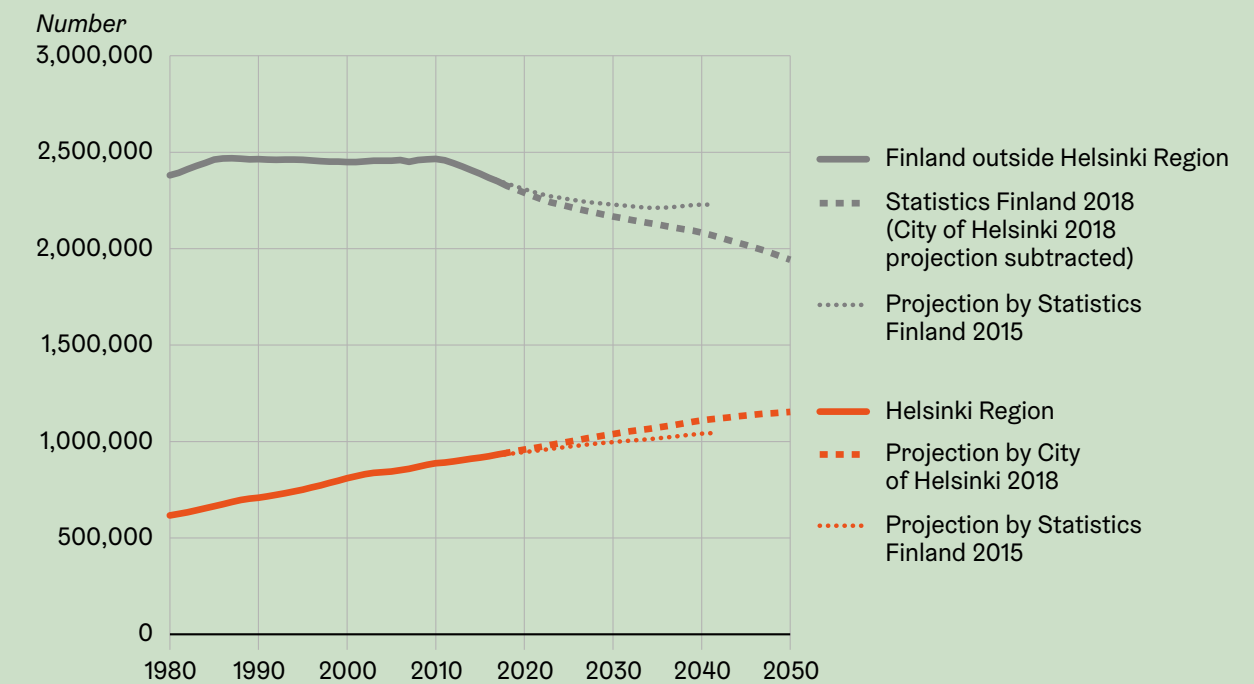
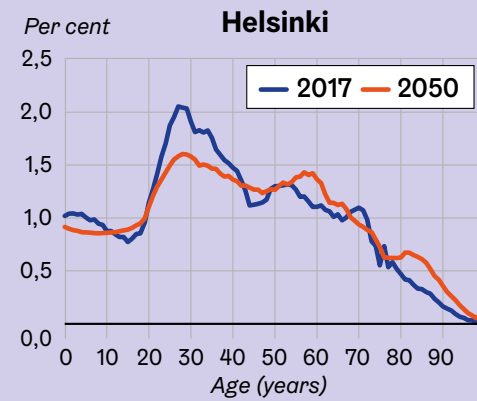


FIGURE 6.
Number of people of working age (18–64 years) in the Helsinki Region and the rest of Finland 1980–2017, and projection to 2050 (according to City of Helsinki 2018 projection and Statistics Finland 2015 and 2018 projections)

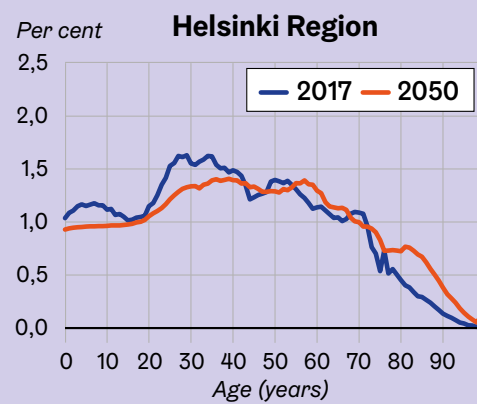


Increase of working-age population in 2017–2050

95 600 (22%)

Proportion of total population
in 2017 in 2050

66% **64%**

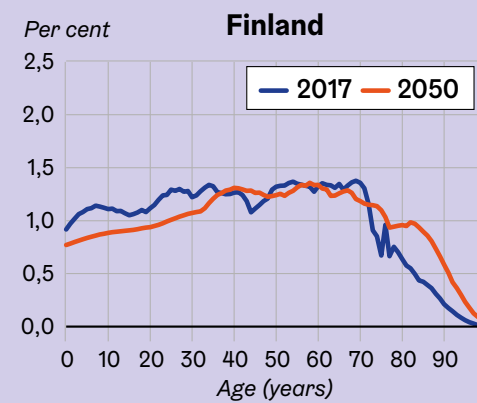


Increase of working-age population in 2017–2050

212 000 (23%)

Proportion of total population
in 2017 in 2050

64% **60%**



Increase of working-age population in 2017–2050

184 000 (-6%)

Proportion of total population
in 2017 in 2050

59% **56%**

FIGURE 7.

Age structure of the population in Helsinki, the Helsinki Region and all Finland in 2017, and projection to 2050 (City of Helsinki and Statistics Finland).

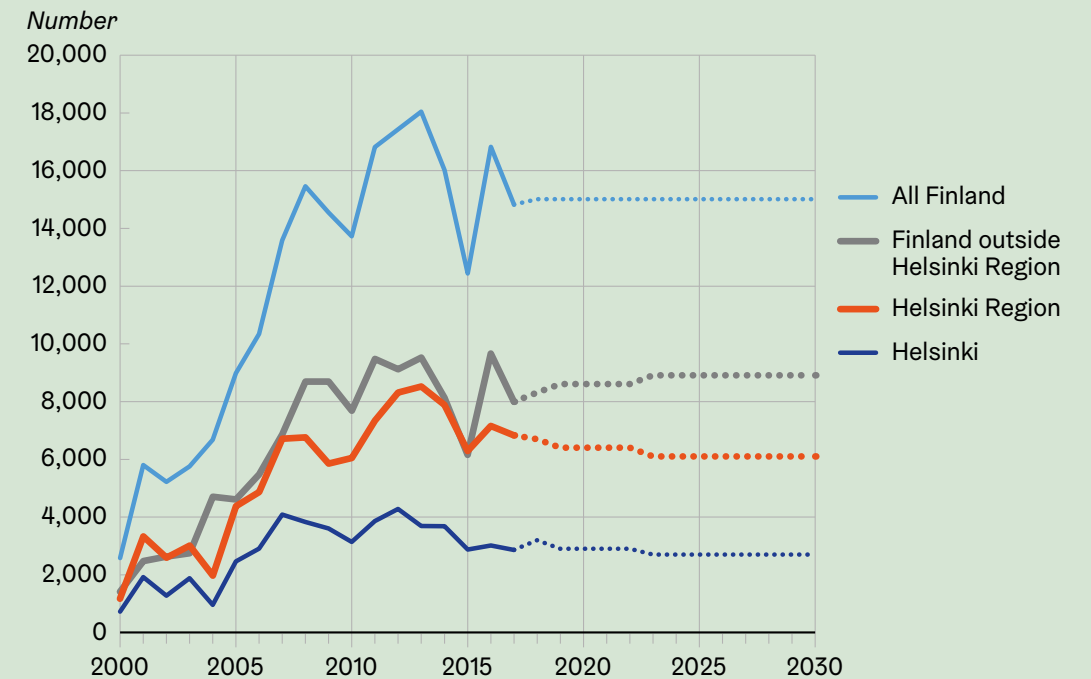


FIGURE 8.

Net migration to Finland and the Helsinki Region in 2000–2017 and a projection to 2030

IN 2010–2017, people with a foreign mother tongue made up two-thirds of Helsinki’s total net migration gain, and 20 per cent of the city’s net domestic migration gain. This is largely due to the fact that one-third of Helsinki’s average annual net migration loss (of 1,500 people) to the other municipalities of the region consisted of people with a foreign mother tongue. Thus, the majority of the growth in the region’s population with a foreign mother tongue comes via Helsinki.



The migration gain from Estonia has lost its former significance and declined close to nil. The number of asylum seekers is also back at the pre-2015 level.

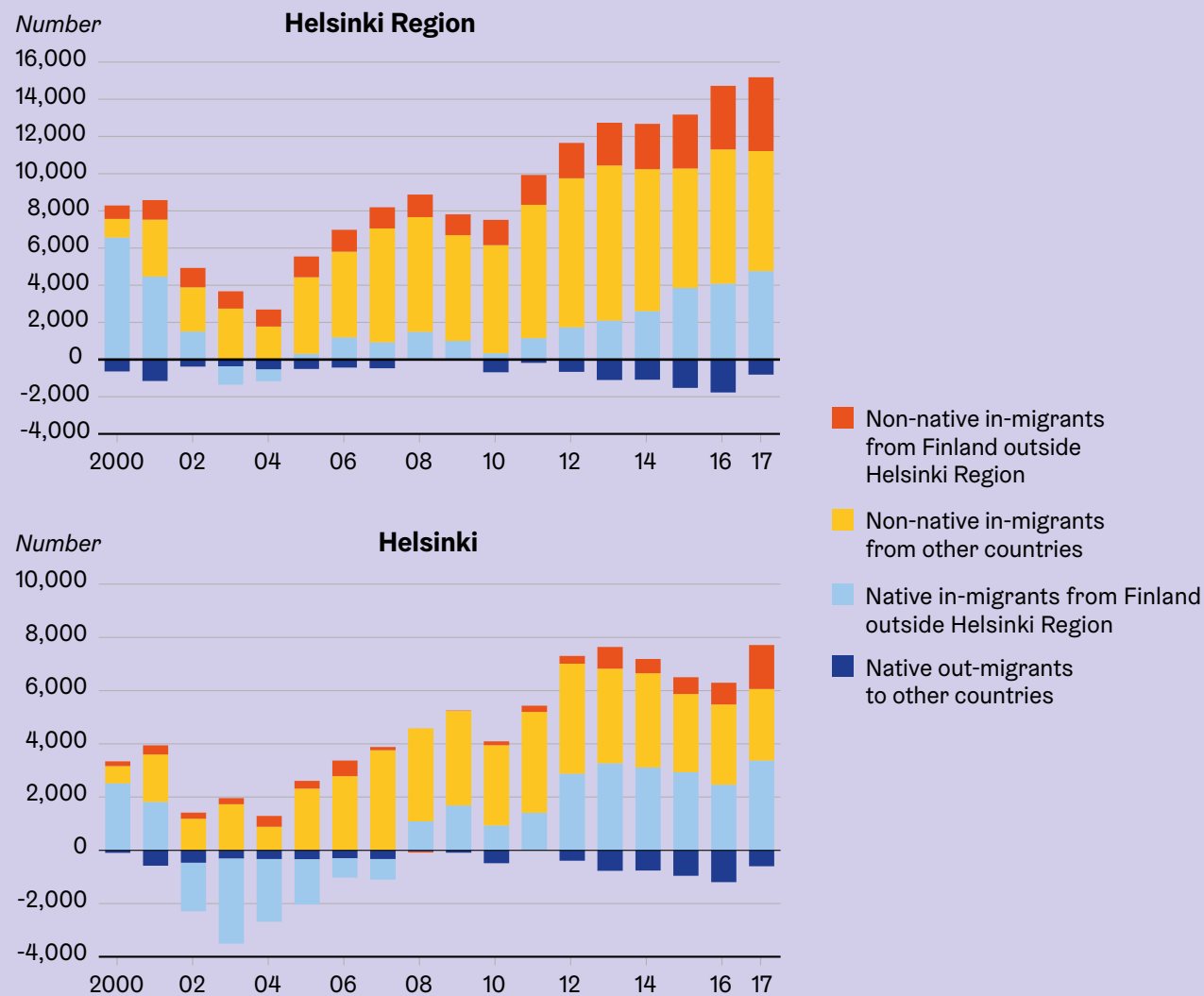


FIGURE 9. Domestic and international net migration in Helsinki and the Helsinki Region, by mother-tongue category in 2000–2017

OVER THE LAST TEN YEARS, the Helsinki Region’s net international migration gain of foreign nationals has amounted to an annual average of 7,000. In the projection made by the City of Helsinki, the assumption is that the region’s net migration gain will remain near the current level. Since 2013, the migration gain from Estonia has lost its former significance and declined close to nil. The number of asylum seekers is also back at the pre-2015 level. However, the number of immigrants in total continues to grow, and this growth originates from Asia, in particular. The projection also assumes that work-related immigration will grow as the working-age population declines in Finland.

THE NET migration gain from the rest of Finland has grown very rapidly in the 2010s. In 2016 and 2017 it grew because part of the asylum seekers who came to Finland in 2015 moved from the rest of Finland to the Helsinki Region after receiving a residence permit. Nonetheless, the projection assumes that the net migration gain from the rest of Finland will decrease as the younger adult age groups – more prone to moving – decline in numbers.

FOR MORE detailed information on the underlying assumptions of the City of Helsinki projection, as well as considerations on the alternative demographic trends in the region, please refer to the report by Laakso (2012). This report was prepared as background material for the latest Master Plan of the City of Helsinki.

Projected child population

Ever since 1994, the numbers of children have been falling in Finland. Due to decreasing nativity, the child population is set to decline particularly fast around 2030. Within ten years from now, 0–17-year-olds are estimated to be 100,000 fewer than today in Finland outside the Helsinki Region. The size of the decrease would be equal to the number of all 0–17-year-olds living in Helsinki today.

IN HELSINKI, the situation is different. The number of children has grown rapidly in the 2010s, and that increase is expected to continue into the 2030s. In the Helsinki Region, too, child population increase is set to continue.

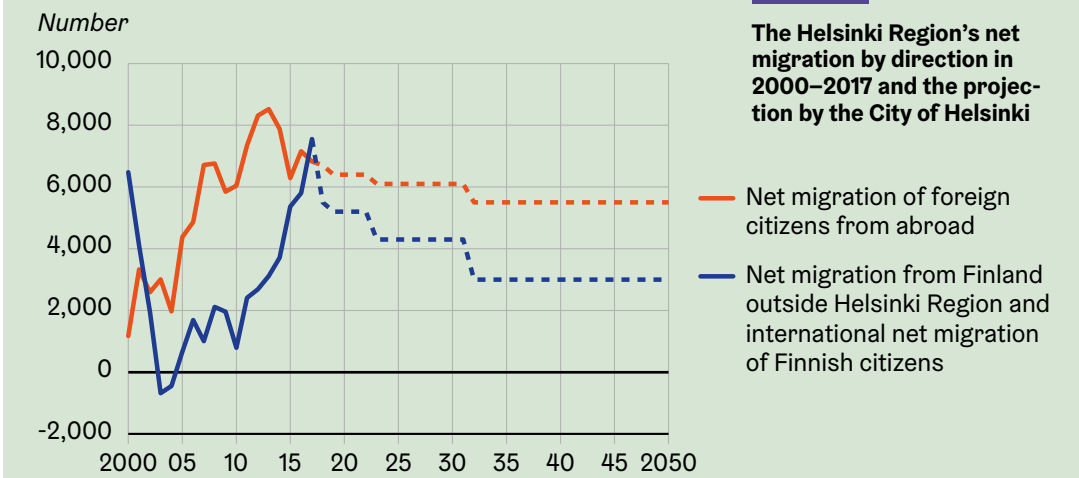


FIGURE 10. The Helsinki Region’s net migration by direction in 2000–2017 and the projection by the City of Helsinki

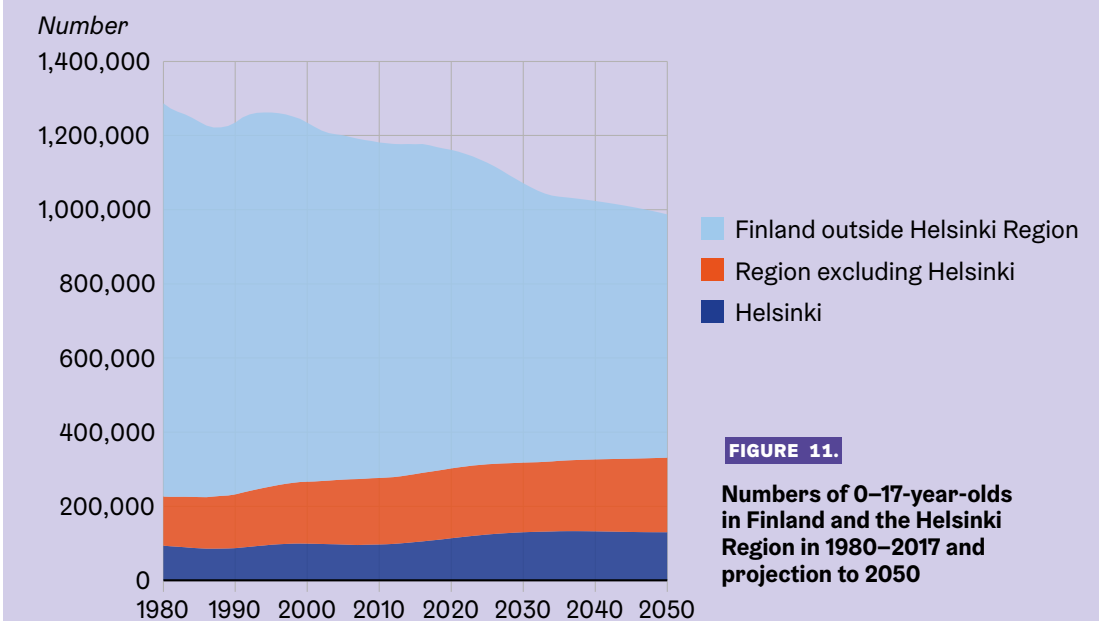


FIGURE 11. Numbers of 0–17-year-olds in Finland and the Helsinki Region in 1980–2017 and projection to 2050

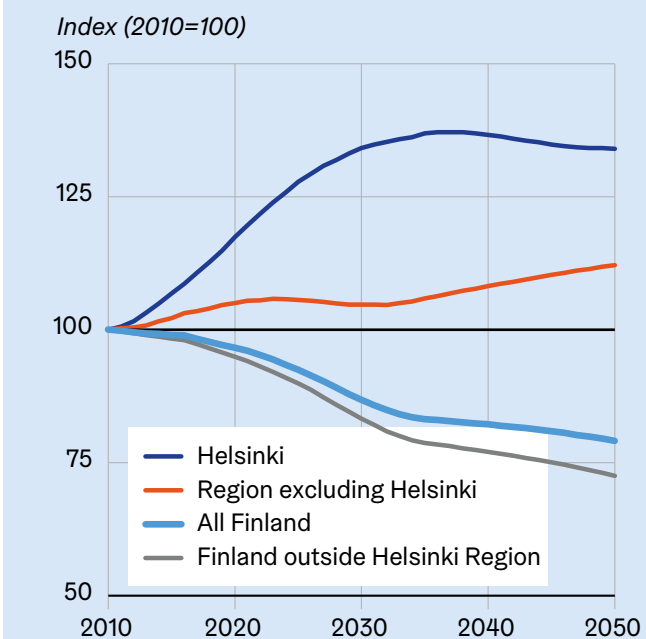


FIGURE 12. Population aged 0–17 in Finland and the Helsinki Region, change 2010–2017 and projection to 2050. Index, 2010 = 100 Figure 11. Numbers of 0–17-year-olds in Finland and the Helsinki Region in 1980–2017 and projection to 2050

FIGURE 13.
Helsinki's and the Helsinki Region's proportion of all 0–17-year-olds in Finland 1980–2017 and projection to 2050

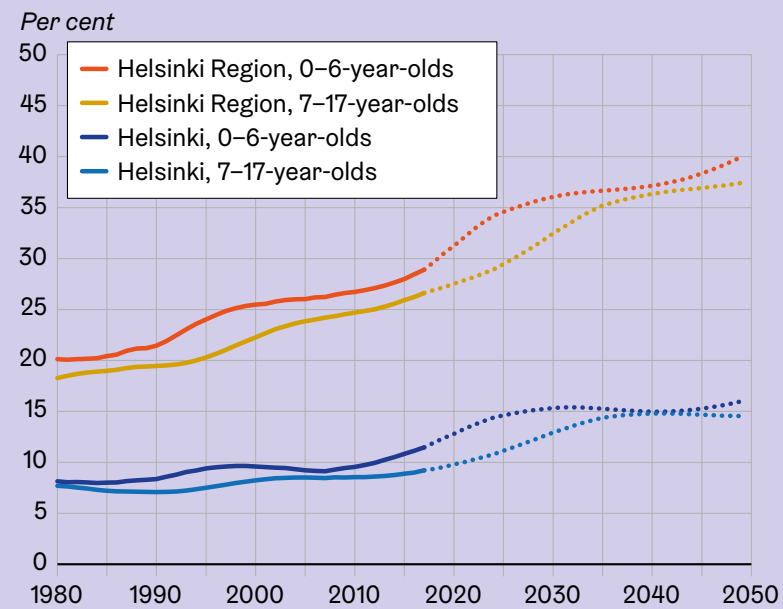


FIGURE 14.
Number of people aged 65 or older in Finland and the Helsinki Region in 1980–2017 and projection to 2050

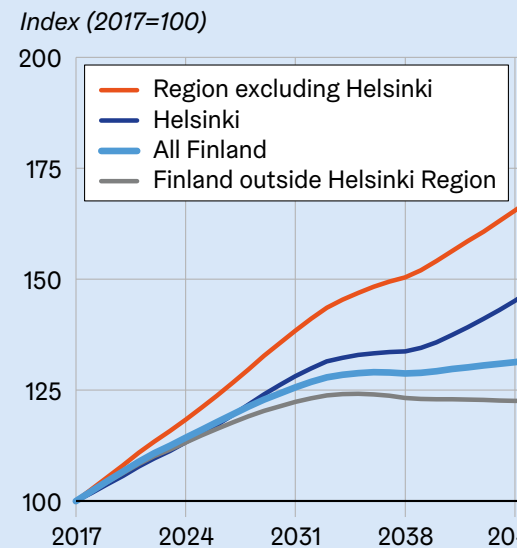
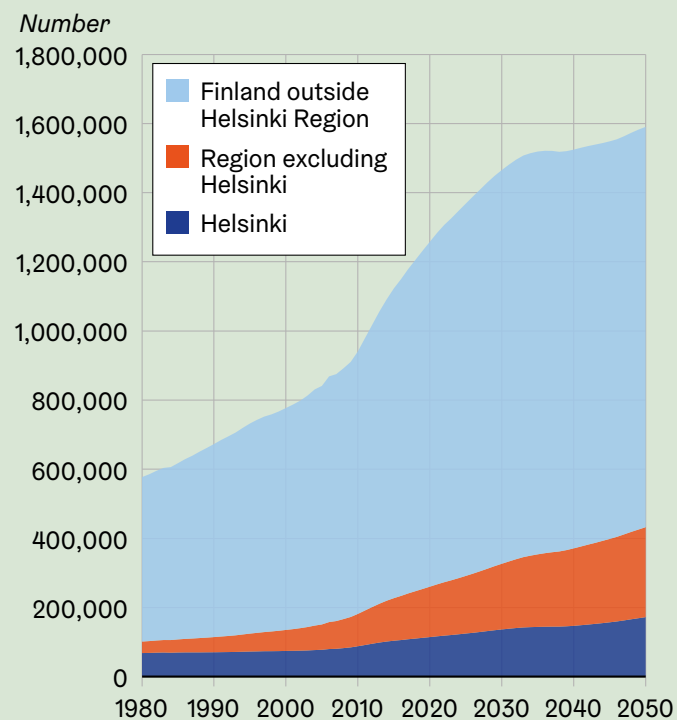


FIGURE 15.
Number of over-65-year-olds in Finland and the Helsinki Region in 2010–2017 and projection to 2050. Index, 2017 = 100

Dependency ratio and old-age dependency ratio

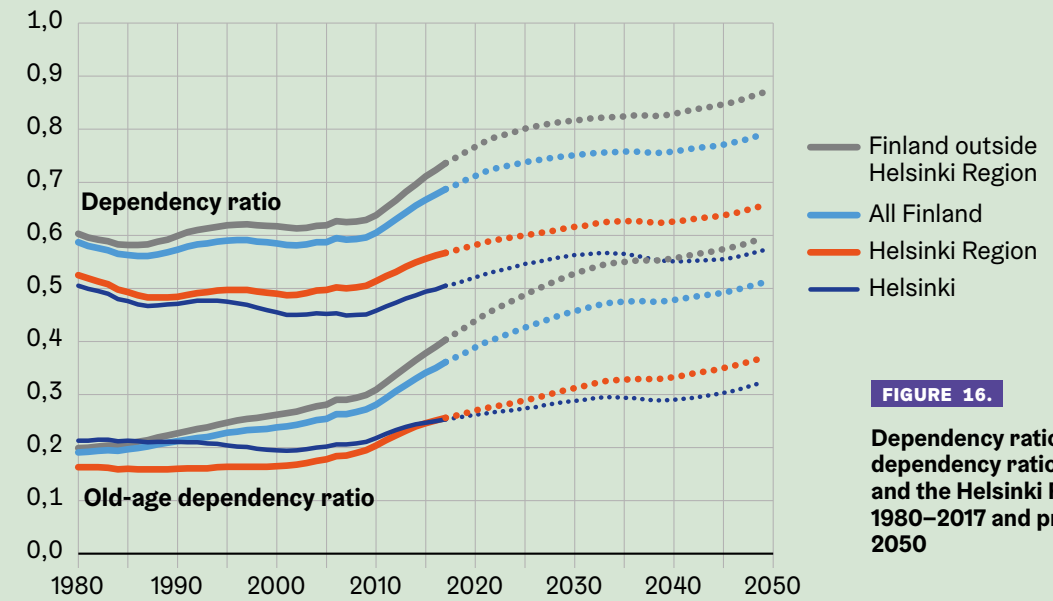


FIGURE 16.
Dependency ratio and old-age dependency ratio in Finland and the Helsinki Region in 1980–2017 and projection to 2050

THE HELSINKI Region's and Helsinki's proportion of all children in Finland is set to grow rapidly, despite the fact that the fertility assumption for the Helsinki Region in Statistics Finland's projection is slightly lower than that given for the whole of Finland. This is due to migration and the fact that the region has a younger age structure with fertile age groups constantly moving into the region.

THE REGION'S proportion of all Finnish children of early childhood education age is predicted to grow from 29 per cent today to 35 per cent within less than ten years. The proportion of the 7–17-year-olds would grow almost as rapidly: in the early 2030s, one-third of Finnish children in this age group would live in the Helsinki Region.

Projections for population aged 65 or older

Since the early 2010s, the number of those aged 65 or older has been increasing more and more rapidly in Finland, as the numerous post-war "baby boomers" have moved into retirement age.

ALTHOUGH THE Helsinki Region has a young age structure, the large population growth in the region also implies that the pensioner age group grows relatively faster than in the rest of Finland. While the number of over-65-year-olds in all Finland increases by more than one-third between 2017 and 2050, this increase is 80 per cent in the Helsinki Region and 60 per cent in Helsinki. In the rest of Finland, it is only 23 per cent.

HOWEVER, THE Helsinki Region is in a better position than the rest of Finland to care for the elderly. The dependency ratio is more favourable owing to in-migration and the continuously younger age structure of the region's population.

THE OLD-AGE dependency ratio, especially, has deteriorated rapidly in Finland over the 2010s. In Finland outside the Helsinki Region it is set to rise from 40 per cent today to 60 per cent by 2050. In Helsinki proper, however, it is expected to rise only modestly, and only slightly more in the entire Helsinki Region.

IN FIGURE 16, dependency ratio refers to the relation between the numbers of those aged 0–17 or 65+ and those in the 18–64-old age group. By old-age dependency ratio we mean the relationship between the 65+ year-olds and the 18–64-year-olds.

SINCE SUCH a large proportion of population growth in the Helsinki Region comes from international migration, an important question is how good are the immigrants' employment opportunities and how the demographic dependency ratio is reflected in the economic dependency ratio.

Summary and conclusions

OF THE total net migration into Finland, 40 per cent is predicted to come directly to the Helsinki Region, and half of these people to the city of Helsinki itself. In addition, half of the region's net migration gain from the rest of Finland in

2010–2017 consisted of people with a foreign background, and this trend seems to be continuing. All in all, up to 85 per cent of the total net migration gain of the Helsinki Region in the 2010s has consisted of people with a foreign background.

HOWEVER, THE projection made by the City of Helsinki assumes that migration from the rest of Finland to the Helsinki Region will gradually decline, since the most migration-prone age groups in the rest of Finland are rapidly decreasing in numbers, particularly so in the 2030s.

IN THE light of the new projections, the working-age population outside the Helsinki Region seems to be declining faster than earlier estimated. In Statistics Finland's new projection for all of Finland, the working-age population in 2040 will be smaller by 85,000 than in the earlier forecast, and this decrease seems to occur exclusively in the rest of Finland, outside the Helsinki Region.

WHILE THE number of children is falling rapidly in the rest of Finland, it is still rising rapidly in the Helsinki Region and especially in Helsinki itself. Although nativity may continue to decrease more than predicted, the number of children will be raised by migration and the young age structure of the adult population.

THE NUMBER of old-age pensioners is growing rapidly in Finland. Since population growth in Helsinki and the Helsinki Region has been – and will remain – rapid, the proportion of pensioners among the population grows faster than in the rest of Finland. However, as migration brings young people to the Helsinki Region, the old-age dependency ratio is expected to deteriorate significantly slower in Helsinki and the Helsinki Region than in the rest of Finland.

THE EXTENT to which those moving to Finland from abroad can compensate for the rapid decrease in the working-age population largely depends on the resources allocated for immigrants' integration and education in the Helsinki Region and especially its core area, the Helsinki Metropolitan Area (Espoo, Helsinki, Kauniainen and Vantaa). ■

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Sources:

City of Helsinki (2018a). Helsingin ja Helsingin seudun väestöennuste 2018–2050 ja ennuste alueittain 2018–2030. Statistics 2018:18, City of Helsinki Executive Office.

City of Helsinki (2018b). Helsingin väestö vuodenvaihteessa 2017/2018 ja väestömuutokset vuonna 2017. Statistics 2018:20, City of Helsinki Executive Office.

Laakso, Seppo (2012): Helsingin seudun ja Helsingin väestökehitys. Toteutunut väestönkasvu ja projektiot vuoteen 2050. Helsingin kaupunkisuunnitteluviraston yleissuunnitteluosaston selvityksiä 2012:3. Helsinki City Planning Department.

Statistics Finland (2018). Väestöennuste 2018–2070.

The article also draws on population statistics procured from Statistics Finland by the City of Helsinki Executive Office. These statistics are published in the Helsinki Region Statistical Database (www.aluesarjat.fi). In addition, population statistics from Statistics Finland's StatFin database have been used.





Helsinki residents feel safer

than at any time in the past 15 years

● VESA KESKINEN

A new security survey shows that the residents of Helsinki consider their own neighbourhood, the city centre and public transport safer than in any previous similar study. This article looks at the respondents' assessments of the current safety situation as well as its development during the past three years.

Perceived security has emerged as an independent field of research during the past few years. Helsinki has monitored the development of its residents' experiences of safety since 2003. The city has conducted regular surveys on the issue together with Helsinki Police Department (see e.g. Tuominen 2010, Laihinen & Tuominen 2013, Keskinen & Laihinen 2017). This article is based on the results of the latest survey from October 2018.

THE PREVIOUS round of surveying in late 2015 was conducted amid unusual circumstances, as the Paris terror attacks and the rapid increase in the number of asylum seekers entering Europe had given rise to widespread concern. Opinion polls and headlines in the tabloid press, the turmoil on social media and the establishment of citizen street patrols reflected people's fears.

IN SPITE of all this, Helsinki residents' perceptions of security were shown to be mainly on the same level as in the previous survey three years earlier. While the respondents assessed the current security situation in a fairly pos-

itive light, they were more pessimistic in viewing how it had developed in the past three years. It is possible that the public debate concerning crime and insecurity has influenced citizens' views on the latter question but not the former. This apparent contradiction is repeated in the 2018 survey and will be discussed later in the present article.

TO BROADEN the respondent base of the City of Helsinki Security Survey, a separate sample of non-native residents was included in 2015. The emphasis of this article is on comparing the results of the 2018 and 2015 surveys, which allows us also to form a picture of how the non-native population's views on security-related issues have developed over the three-year period. Longer time series will also be presented based on the information given by the Finnish- and Swedish-speaking respondents.

Survey data

The sample of the 2018 Helsinki security survey consisted of 7,818 persons aged 15 to 79. In the previous studies, conducted in 2003, 2006, 2009, 2012 and 2015, the sample had been limited to 15–74-year-olds. In

2015, a separate sample of non-native residents (those with a mother tongue other than Finnish or Swedish) was included for the first time. The size of this non-native sample was increased from 1,650 to 2,300 in the 2018 survey.

THE RESPONDENTS were given the choice between a paper survey and an online survey. Both surveys could be answered in Finnish, Swedish, Russian, Estonian or English. 74 percent of the respondents chose the paper survey and 26 percent the online survey (compared to 77% and 23 % in 2015). The data was collected during a two-month period in October–November 2018.

THE RESPONSE rate was 54 percent, or a total of 4,155 respondents. The response rate was three points lower than in 2015 (57%). Finnish- and Swedish-speakers responded more actively (58% in 2018, down from 59% in 2015) than the average response rate. Of the non-native sample, 45 percent completed the survey (up from 44% in 2015). The general response rate of the Helsinki security survey has remained surprisingly high, considering the general downward trend of survey response rates.



TABLE 1. Perceived security in the respondent's own neighbourhood late on weekend nights in 2018 and 2015, all 15–74-year-olds

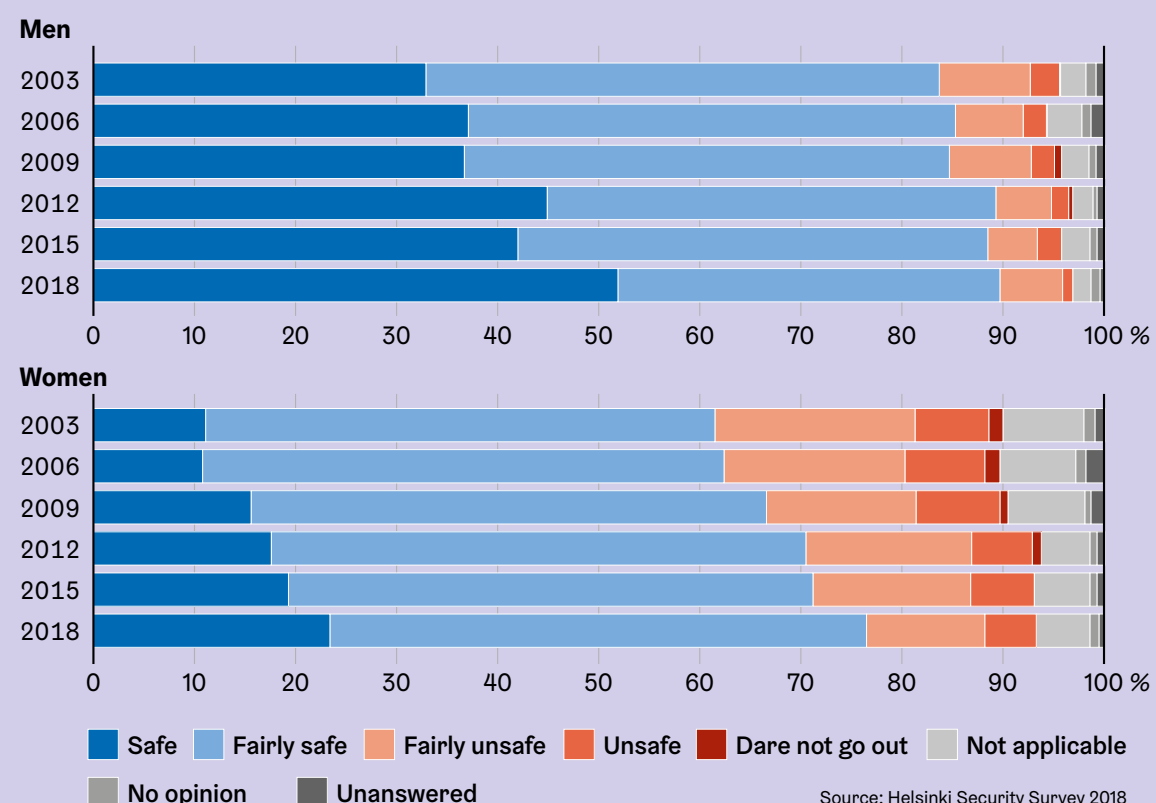
Year	Safe	Unsafe	Not applicable	No opinion / unanswered	%	N
ALL						
2018	80.9	13.0	4.2	1.84	100	3,916
2015	77.4	16.2	4.3	2.01	100	3,970
Finnish- and Swedish-speakers						
2018	82.7	12.3	3.7	1.19	100	2,943
2015	79.2	15.1	4.3	1.34	100	3,255
Non-native respondents						
2018	75.4	15.1	5.6	3.8	100	973
2015	69.2	21.3	4.6	4.9	100	715



Perceived neighbourhood safety on weekend nights

One of the most commonly used security indicators is how respondents perceive the state of security in their own neighbourhood late on weekend nights, as well as the corresponding question about security in the city centre. The neighbourhood is understood as referring to the immediate surroundings of the respondent's home – the area where they move about on a daily basis.

FIGURE 1. Perceived security in the respondent's own neighbourhood late on weekend nights, % agree, by gender, 2003, 2006, 2009, 2012, 2015 and 2018, native population aged 15 to 74.



Source: Helsinki Security Survey 2018

TABLE 2.

Perceived security in the centre of Helsinki late on weekend nights, 2018 and 2015, all 15–74-year-old respondents

Year	Safe	Unsafe	Not applicable	No opinion / unanswered	%	N
ALL						
2018	65,0	23,0	8,0	3,9	100	3,916
2015	58,5	26,6	11,1	3,6	100	3,970
Finnish- and Swedish-speakers						
2018	66,6	23,7	6,8	2,8	100	2,943
2015	60,0	26,2	11,0	2,6	100	3,255
Non-native respondents						
2018	60,2	20,9	11,7	7,2	100	973
2015	51,6	28,2	11,6	7,9	100	715

THE PERCEIVED security of one's own neighbourhood is a key factor of liveability in the everyday life. Helsinki uses its residents' perceptions of safety in their own neighbourhood late on weekend nights as one of the monitoring indicators of the City Strategy.

COMPARISONS BETWEEN the security surveys of 2015 and 2018 are possible for respondents aged 15 to 74, since people aged over 74 were not included in the sample of the previous surveys (2015 or earlier). In the 2018 survey, a greater share of the respondents feel that their own neighbourhood is safe than in the last study three years ago (see table 1). The answer option not applicable typically refers to those respondents who, for one reason or another, do not go outdoors at night.

THE TIME series from 2003 to 2018 reveals that the share of those who feel safe in their neighbourhood has increased over the fifteen-year period (Figure 1). However, male and female respondents' experiences of neighbourhood safety remain persistently different. Men are about twice as likely as women to perceive their neighbourhood as completely safe. Nonetheless, women's perceptions of neighbourhood safety have improved consistently since 2012. In the 2015 survey, men's perceptions had been less positive than three years earlier, but they are now at a record-high level in the latest data from 2018.

Perceptions of security in the centre of Helsinki

From the perspective of the vitality and attraction of a city, the ability of people to move without fear in the city centre is of utmost importance. The centre of Helsinki is now perceived to be slightly safer on weekend nights than in the previous study three years ago (65% of respondents, up from 58.5%). The feeling of unsafety has decreased most significantly among the non-native respondents. However, they also had a somewhat higher percentage of 'not applicable' or 'no opinion' replies, which may indicate that they are generally less accustomed to being in the city centre at night-time. The data does not tell us whether this has to do with intentional (safety-related) avoidance of the city centre after dark.

THE GENDER differences in perceived insecurity also extend to how safe the city centre is considered to be on a weekend night. In the 2018 survey, 16 percent of men and 31 percent of women said they felt insecure in the centre of Helsinki on a Friday or Saturday night. Meanwhile, the share of those who avoid going to the city centre on weekend nights has decreased considerably: from 9 percent of men and 13 percent of women in 2015 down to 4 and 8 percent in 2018.

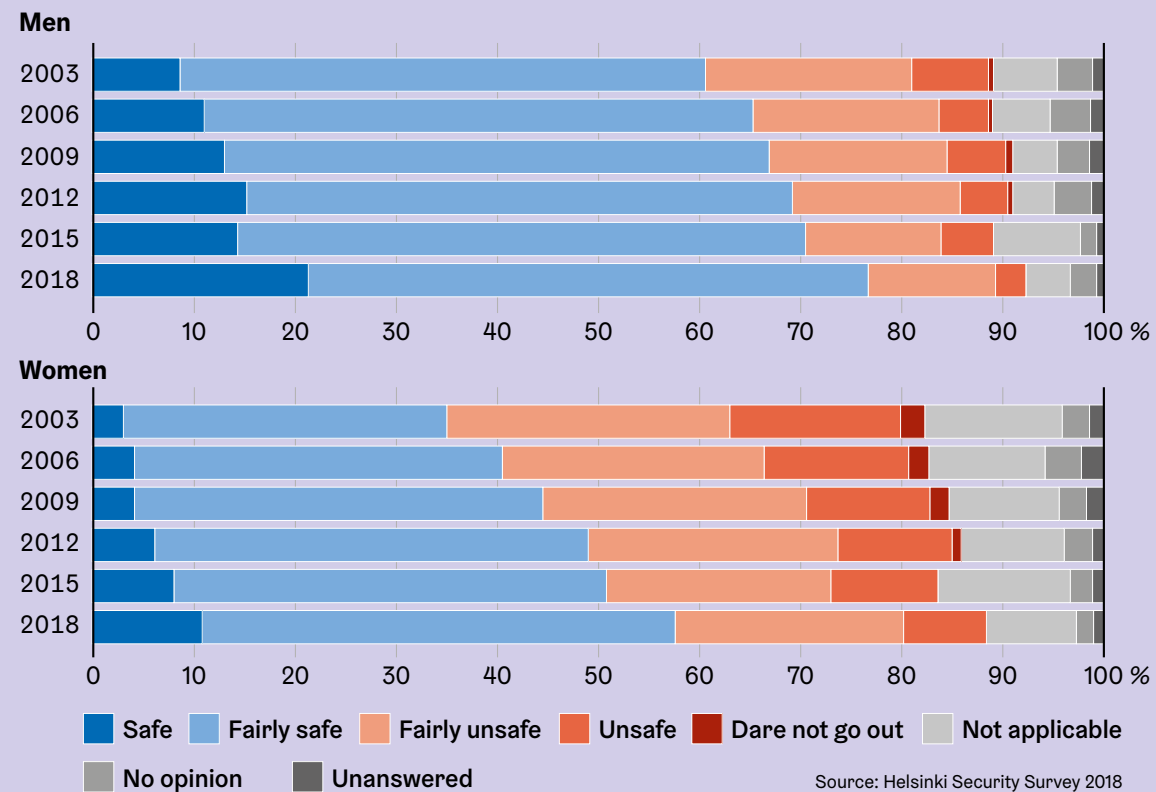


FIGURE 2. Perceived security in the centre of Helsinki late on weekend nights, % agree, by gender, 2003, 2006, 2009, 2012, 2015 and 2018, native population aged 15 to 74.

FIGURE 2 presents a time series (2003 to 2018) on how the Finnish- and Swedish-speaking respondents perceive the state of security in the city centre. This shows that the share of those who feel safe or fairly safe in the city centre has increased over time, with both men and women.

ONE OF the strategic aims of Helsinki is to be a diverse and internationally attractive city for culture, sports and events. The latest survey inquired, for the first time, whether the residents of Helsinki felt safe in the various public events organised in the city. The safety of public events is related to the previous discussion since many events – especially larger ones – are organised in

the city centre or inner city. 77 percent of the respondents reported that they felt safe in public events, against only 6 percent who felt unsafe. The other 17 percent had not attended public events recently or had no opinion.

Safety of public transport

A question on the perceived safety of public transport vehicles in Helsinki has been included in each survey since 2003. Part of the respondents do not use public transport late at night. In the 2018 survey, 10 to 24 percent (depending on the means of transport asked) reported that the question was not applicable.

THE NON-USE of public transport at night has decreased slightly from 2015. Of the means of public transport listed in the questionnaire, bus was the most commonly used also at night-time, while local train was the least used. Women use public transport on weekend nights slightly less than men do (for bus, the difference is not statistically significant). Men consider all public transport vehicles safer than women do.

ELDERLY RESPONDENTS are less likely to use public transport in the late hours, and this applies to both male and female respondents. They also feel less safe in public transport vehicles on Friday and Saturday nights than younger respondents.



77 percent of the respondents reported that they felt safe in public events, against only **6** percent who felt unsafe.

	Safety in public transport on weekend nights, %					
	Safe		Unsafe		Does not use public transport at night	
	Native	Non-native	Native	Non-native	Native	Non-native
Bus	81	81	6	6	10	9
Tram	73	67	8	9	16	17
Metro	58	65	21	18	17	11
Local train	50	56	18	13	26	21

TABLE 3. Perceived security on public transport late at night, 2018, native and non-native respondents.

NON-NATIVE RESPONDENTS are more likely to use the metro and local trains at night-time than Finnish- or Swedish-speaking respondents (Table 3). They also considered these two means of public transport safer than native respondents did. With tram, the situation was reversed: the native respondents regarded it as safer than the non-native respondents did.

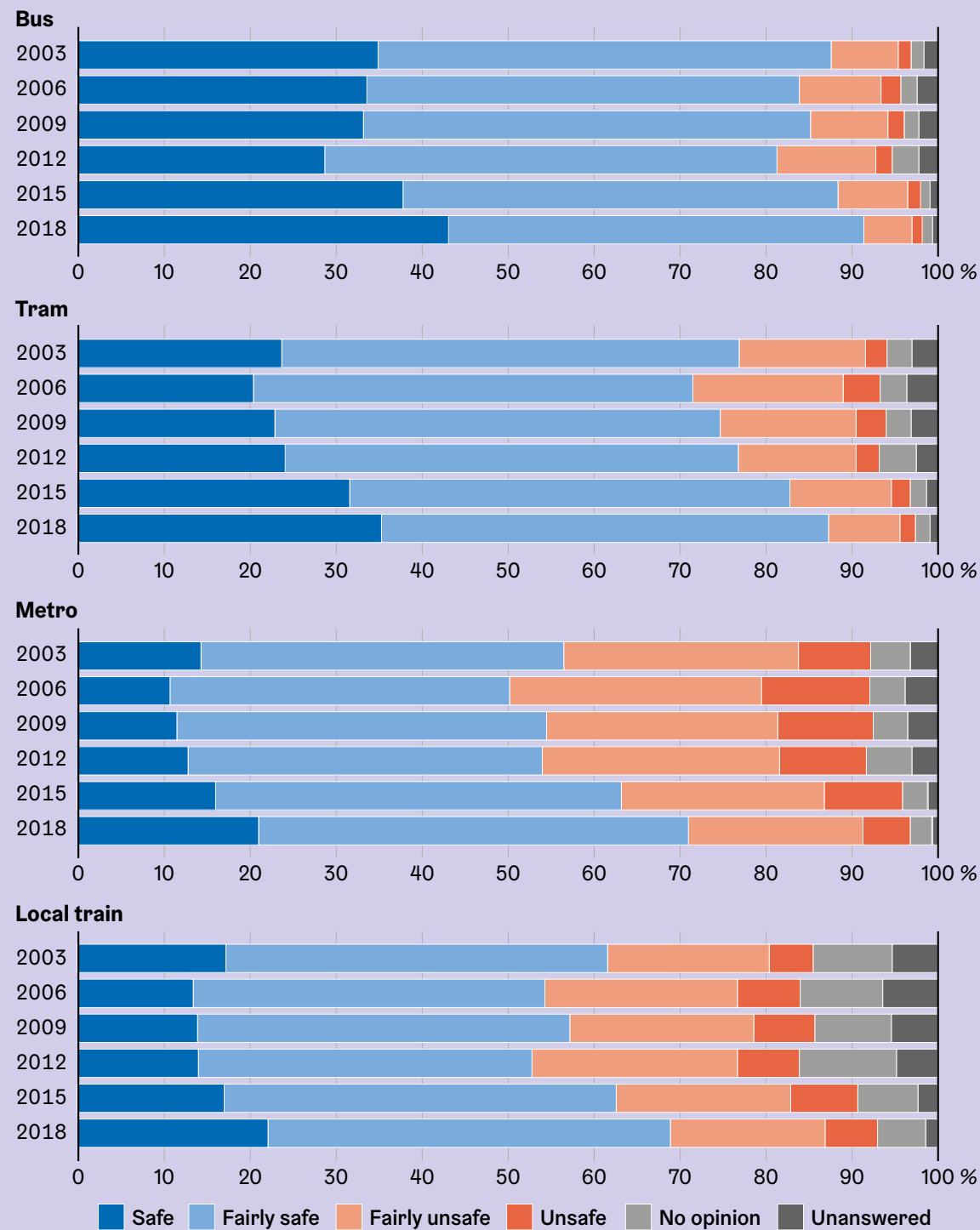


FIGURE 3. Perceived security on public transport late at night, 2003, 2006, 2009, 2012, 2015 and 2018, native population aged 15 to 74 (excluding N/A answers)

Source: Helsinki Security Survey 2018

Figure 3 demonstrates that the perceived safety of all the four means of public transport has improved since the previous studies in 2003–2015. For the sake of comparability, the figure only includes those Finnish- and Swedish-speaking respondents, aged 15 to 74, who reported using the means of transport in question also late on weekend nights. The results improved most noticeably during the two most recent survey rounds. However, one in four respondents still regard the metro and the local train as unsafe environments at night-time.

A contradiction between general perceptions and the views on recent security developments?

Another question in the Helsinki Security Survey asks the respondents to assess the development of the security situation in the city in the past three years. The answer options are that the situation is unchanged or that the city has become safer or less safe (either considerably so, or to some extent). In the 2018 survey, the most supported view was that the situation had remained unchanged. Nonetheless, according to one in four, the city had become less safe, while one in five said they were unable to assess the development.

It is interesting that the non-native respondents evaluate the development of the security situation more positively than Finnish- and Swedish-speakers. However, the non-native respondents were more likely to say they could not

assess the developments. This result may be due to the fact that many of them have only recently moved to Helsinki. 75 percent of the Finnish- or Swedish-speaking respondents said they had lived in Helsinki for 10 years or longer, compared to 41 percent for the non-native respondents.

In the 2018 survey, the respondents were asked to give reasons for their answer if they felt that the security situation in Helsinki had improved or deteriorated considerably in the past three years. 324 respondents were of the opinion that the city had become considerably less safe. 268 out of the 324 used the open-ended comment box to give reasons for this answer. Meanwhile, a total of 163 respondents were of the opposite view (i.e. that the city is now safer than before), and nearly half gave reasons for why they felt this way. Table 5 summarises the contents of the aforementioned open-ended comments.

TABLE 4. Development of the security situation in Helsinki in the 2018 and 2015 surveys, 15–74-year-old respondents.

Year	Situation unchanged	Safer		Less safe		No opinion / unanswered	%	Safer, total %	Less safe, total %
		Considerably	To some extent	To some extent	Considerably				
ALL									
2018	38.7	3.7	11.4	17.8	7.5	20.1	100	15.1	25.3
2015	40.4	2.2	7.9	21.7	9.4	18	100	10.1	31.1
Finnish- and Swedish-speakers									
2018	43.0	1.9	10.1	19.1	8.0	17.8	100	11.9	27.0
2015	43.2	1.2	7.3	23.2	9.7	15.2	100	8.5	32.9
Non-native respondents									
2018	25.9	9.1	15.5	14.0	6.2	27.1	100	24.6	20.2
2015	27.7	7.1	10.2	14.7	8.0	30.7	100	17.3	22.7

TABLE 5. Reasons given for ‘considerably safer’ and ‘considerably less safe’, categorised open-ended responses.

Feel considerably safer (N=82)	Feel considerably less safe (N=268)
<ul style="list-style-type: none"> ● Police or security guards are more visible than before (37 mentions) ● Less social disorder or substance abuse (16) ● Feel completely safe (6) ● Traffic culture has improved (5) ● Reasons related to time and place (4) ● Immigrant integration (3) ● Higher standard of living (2) ● Other reasons (9) 	<ul style="list-style-type: none"> ● Responses related to immigrants, immigrant gangs, asylum seekers, illegal immigrants (103 mentions) ● Responses related to drug abuse, (visible) sale of illegal drugs, or narcotics users in general (80) ● Too little police presence; concern that help will not be available; other dissatisfaction with police activities (39) ● Sexual harassment in public; (assumed) increase of rapes; women’s fear of public places at night (35) ● Other reasons (11)

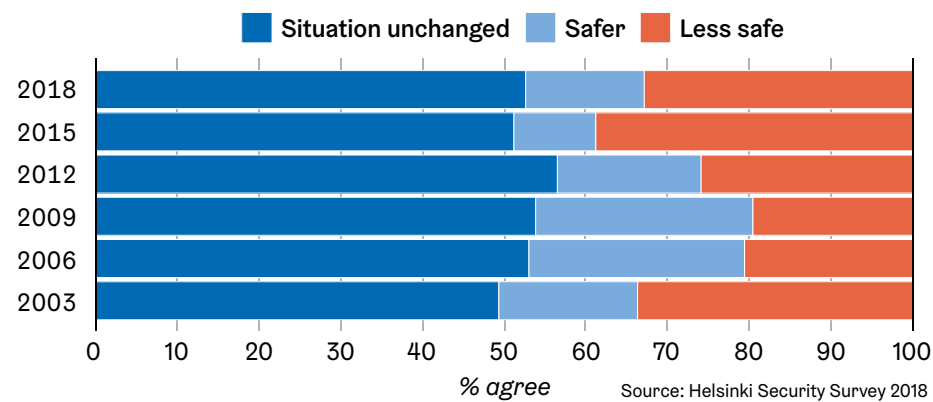


FIGURE 4.

Development of the security situation in Helsinki in the past 3 years, % agree, 2003, 2006, 2009, 2012, 2015 and 2018, native population aged 15 to 74.

THE LONG time series (Figure 4) reveals that a certain degree of pessimism about the development of urban security has been expressed by the respondents in the consecutive Helsinki Security Surveys. In each study between 2003 and 2015 the respondents who feel that the city has become less safe have been more numerous than those with the opposite view. Each time, the most supported view has been that the situation has neither improved nor deteriorated. In the 2015 survey, the respondents were more pessimistic about the development than in the other survey years. At the time, the rapid rise in the number of asylum seekers had caused a fairly exceptional political situation in Europe, and it is possible that such concerns were also reflected in the opinions of the Helsinki survey respondents.

AS FIGURE 4 shows, the majority of the respondents in the 2018 survey are of the opinion that the security situation has remained the same or improved in the past three years (total 55%). However, the share of those who feel that the city has become safer (12%) is noticeably smaller than the share of those who feel that it has become less safe (27%).

THIS OBSERVATION seems to contradict the point made earlier in this article that Helsinki now performs better on some key indicators (perceived nighttime safety in the city centre, neighbourhoods and public transport) than it has done in any of the previous surveys.

THE AUTHORS of the 2015 survey report sought to explain the apparent contradiction by pointing out the different focus and phrasing of the questions on which these results are based. The way the respondents perceive their everyday security – particularly in their own neighbourhood – is largely rooted in personal observations. The views on the recent development of the city’s security situation, on the other hand, may be at least partly based on media reports or expert opinions heard by the respondents. International crises and threats such as terrorism may serve to increase people’s sense of uncertainty and insecurity and this is possibly reflected in the assessments (Keskinen & Laihin 2017).



92 percent of the respondents were of the opinion that Helsinki is a safe or fairly safe city. The corresponding result in the latest Stockholm security survey was **93** percent.



Concluding remarks

The general feeling of safety has improved in Helsinki. Residents now perceive their own neighbourhood, the city centre and the means of public transport to be safer than before. According to the survey question that asked the respondents to assess the general security situation at the moment of completing the survey, 92 percent were of the opinion that Helsinki is a safe or fairly safe city. The corresponding result in the latest Stockholm security survey was 93 percent (Trygghet i... 2017).

THERE ARE noticeable area-based differences in perceived security within Helsinki. In other words, people living in different neighbourhoods do not experience the safety of their daily surroundings in a similar fashion. In this regard, there have been positive developments compared to the previous surveys – the area differences appear to have narrowed down somewhat. These questions will be discussed in a forthcoming article, to be published on the Kvartti.fi website (see Keskinen & Pyyhtiä, 2019, in Finnish). Other results of the security survey not covered in the present article will also be dealt with in a series of online articles in 2019. ■

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Literature:

- Keskinen, Vesa & Laihin, Eija (2017). Kaikesta huolimatta turvallista. Helsingin turvallisuustutkimus 2015. Research Series 2017:2. Helsinki: City of Helsinki Urban Facts. https://www.hel.fi/hel2/tietokeskus/julkaisut/pdf/17_04_05_Tutkimuksia_2_Keskinen_Laihin.pdf
- Keskinen, Vesa & Pyyhtiä, Eija (2019). Oman asuinalueen turvallisuus parantunut, alue-erot kaventuneet. Kvartti.fi, accessed 14.6.2019. <https://www.kvartti.fi/fi/artikkelit/turvallisuustutkimus-oman-asuinalueen-turvallisuus-parantunut-alue-erot-kaventuneet>
- Laihin, Eija & Tuominen, Martti (2013). Stadiin kuuluu pieni rosoisuus. Helsingin turvallisuustutkimus 2012. Research Series 2013:4. Helsinki: City of Helsinki Urban Facts. https://www.hel.fi/hel2/tietokeskus/julkaisut/pdf/14_01_07_Tutkimuksia_4_13_Tuominen.pdf
- Trygghet i Stockholm 2017 (2017). Stockholms stad. Socialförvaltningen. Avdelningen för stadsövergripande frågor. <http://www.stockholm.se/Fristaende-webbplatser/Fackforvaltningssajter/Socialtjanstforvaltningen/Trygghesmatningen/Resultat/>
- Tuominen, Martti (2010). ...öiseen aikaan ja joskus päivälläkin. Helsingin turvallisuuskysely 2009. Study Reports 2010:5. Helsinki: City of Helsinki Urban Facts.



From agenda to action

– local implementation of the UN Sustainable Development Goals in Helsinki

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The City of Helsinki wants to be among the leading cities in the local implementation of global responsibility. In this work, the United Nations Sustainable Development Goals offer a globally relevant framework whose realisation can be monitored to gain not only proof of Helsinki’s success but also insights into the areas to be developed. This article describes how the Helsinki City Strategy is linked with the UN Sustainable Development Goals and how the city promotes and monitors the realisation of the goals. The article is based on the contents of Helsinki’s voluntary local review of sustainable development goals, which was published in June 2019.

In 2015, the UN member states agreed on the Sustainable Development Goals and Agenda (UN 2015). The 2030 Agenda aims to eradicate extreme poverty and achieve sustainable development that pays equal attention to the environment, economy and people.

A significant proportion of the actual implementation of the goals takes place at the local level. With the increasing urbanisation, the significance of cities as solvers of global challenges will inevitably increase.

In 2018, New York became the first city in the world to report to the UN on the implementation of measures aimed at sustainable development on the city level (NYC 2018a). In September 2018,

Helsinki decided to follow New York’s example and became the first city in Europe to commit to voluntary local reviews of the goals. The purpose of the reporting is to highlight the connections of the Helsinki City Strategy (City of Helsinki 2017) to the UN Sustainable Development Goals, produce understandable and open information about the city’s sustainable development implementation and its results, promote cooperation with the international community and contribute to globally increasing the input of cities in the implementation of the sustainable development goals. In the longer term, the goal is to produce solutions and information that will help Helsinki and other cities around the world to implement the UN Sustainable Development Goals successfully and in a target-oriented manner. According-

ly, the goal is to achieve concrete measures and results – not just to produce reports.

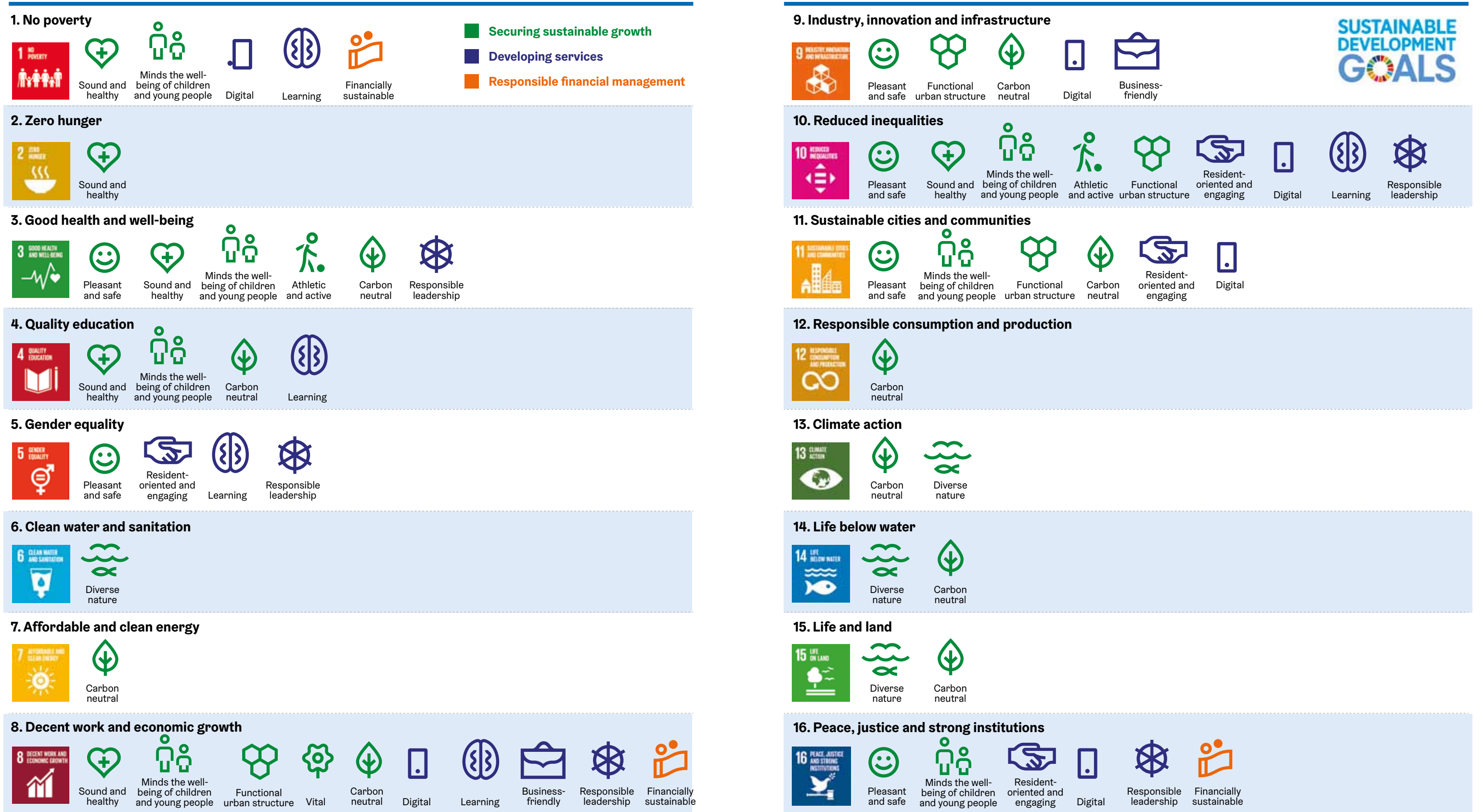
FINLAND HAS been one of the first countries to set national focuses, measures and a monitoring and assessment system for achieving the UN goals¹. Helsinki’s local reporting supplements national reporting and aims to encourage other Finnish cities and actors to take part in the local deployment of the sustainable development goals.

¹ See <https://kestavakehitys.fi/en/agenda2030>.



FIGURE 1.

Thematic links between Helsinki City Strategy objectives and the UN Sustainable Development Goals



Helsinki's voluntary local review applies the model developed by New York City

The UN Agenda for Sustainable Development, 2030 Agenda, consists of a total of 17 Sustainable Development Goals (SDG) and 169 targets. The UN High-Level Political Forum (HLPF) annually specifies the focus goals whose progress is to be reported to the UN. The goals to be reported in 2019 are Quality Education (SDG 4), Decent Work and Economic Growth (SDG 8), Reduced Inequalities (SDG 10), Climate Action (SDG 13), Peace, Justice and Strong Institutions (SDG 16) and Partnership for the Goals (SDG 17). Helsinki's voluntary local review concentrated on the first five of these. Helsinki's voluntary local review (VLR) was implemented by applying the operating model developed by New York City (see NYC 2018b). The first phase involved mapping the connections between the Helsinki City Strategy and the UN Sustainable Development Goals (mapping 1 and mapping 2 phases). At the same time, Helsinki recognised concrete measures realising the UN goals and indicators used to monitor the achievement of these goals. In the second phase, closer attention was paid to the aforementioned focus goals for 2019 and their reporting.

IN THE mapping phase that preceded the actual reporting, Helsinki identified a total of 14 sets of goals (see Figure 1) that implement at least one of the UN Sustainable Development Goals. The sets of goals, the measures implementing them and the indicators for monitoring them were collected under three main themes: securing sustainable growth,

developing services and responsible financial management. The results of the first mapping phase were published in April 2019 at the Helsinki Symposium (see City of Helsinki 2019).

THE DEVELOPMENT and coordination of the voluntary local review was the responsibility of a working group that included experts from Helsinki's City Executive Office and Urban Environment Division. The production of the texts describing the progress made also involved a number of specialists from the City Executive Office as well as the Urban Environment Division, Education Division, Culture and Leisure Division and the Social and Health Services. The work was guided by a steering group led by the Strategy Unit. Helsinki's report was carried out between November 2018 and May 2019.

Helsinki's goals and actions are strongly linked to UN SDGs

A key result of the mapping phase that preceded the 2019 voluntary local review is that Helsinki's goals are a good match with the UN Sustainable Development Goals. The most extensive connections can be seen in the measures aiming at securing sustainable growth, but connections were also recognised in developing services and responsible management of finances (Figure 2 and Figure 3). Three of the goals set by the UN – No Poverty (SDG 1), Decent Work and Economic Growth (SDG 8) and Peace, Justice and Strong Institutions (SDG 16) – have been taken into account in one way or another in all the main themes of the Helsinki City Strategy. The Helsinki City Strategy's measures

aiming at securing sustainable growth constitute an entity that realises all the goals set by the UN in one form or another.

PUBLISHED IN April 2019, the report presenting the results of the mapping phase (City of Helsinki 2019) highlighted more than 100 measures that implement not only the goals of the Helsinki City Strategy but also the UN goals. However, it must be noted that the review did not cover all the measures promoting sustainable development in Helsinki. From the Carbon-neutral Helsinki 2035 programme, for example, the report only included six measures mentioned as examples, even though the programme consists of a total of 147 measures.

THE SETS of goals in which Helsinki implements the UN goals the most extensively are ecological sustainability, promoting the well-being of children and young people, promoting general well-being and health and making use of digital development. However, connections were also found for all other sets of goals. Nearly all sets of goals involve measures that promote several of the goals set by the UN.

Helsinki promotes SDGs in many areas of action

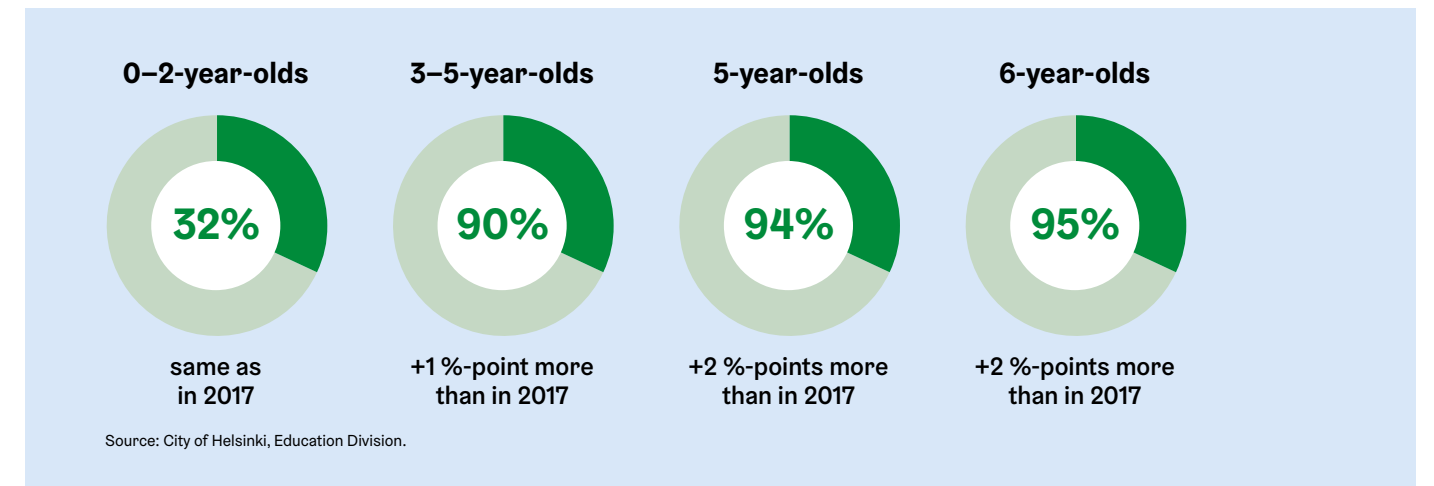
The actual voluntary local review delved more deeply into five goals of the 2030 Agenda: Quality Education (SDG 4), Decent Work and Economic Growth (SDG 8), Reduced Inequalities (SDG 10), Climate Action (SDG 13) and Peace, Justice and Strong Institutions (SDG 16). The sections below provide a more detailed description of how Helsinki works to achieve these goals.

QUALITY EDUCATION (SDG 4). The UN's goals of providing equal, high-quality education open to everyone and ensuring opportunities for life-long learning are also strongly present in the Helsinki City Strategy. Helsinki wants to provide all city residents with equal educational opportunities and be an excellent city for studying, giving all residents the chance to fulfil their learning potential.

Helsinki decided to follow New York City's example and became the first city in Europe to commit to voluntary local reviews of the goals.

FIGURE 2.

Day care participation rate 2018



THE CITY OF HELSINKI is already offering high-quality, attractive local services in early childhood education and comprehensive education for all city residents. In the current strategy period, the city is in many ways investing in, for example, the development of learning environments and communal working methods. In accordance with the digitalisation programme, new computers have been purchased for pupils, and presentation technology at schools has

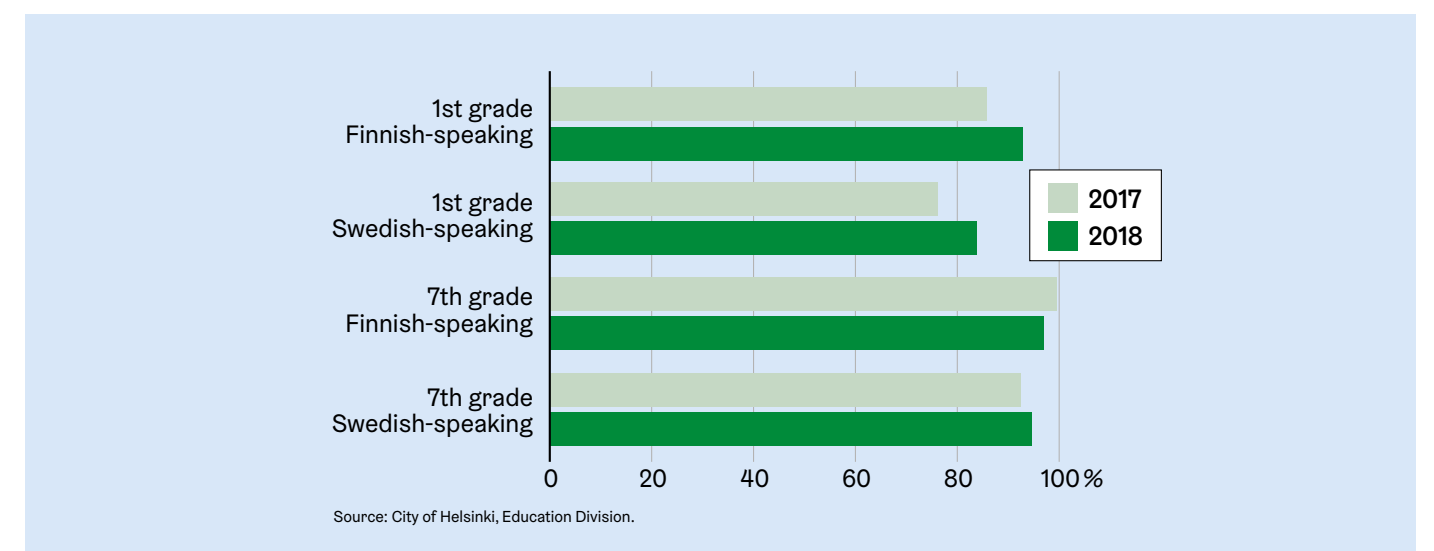
been modernised. The city is continuing and expanding its operating model of positive discrimination, in which supplementary appropriations are directed at educational institutes requiring special support. Early childhood education is offered to five-year-olds free of charge, and the degree of participation in early childhood education has increased in line with the goal. In addition, Helsinki is implementing the education guarantee, in which all young Helsinki residents

completing comprehensive school are offered a place in further education at an upper secondary school or vocational school.

THE DEVELOPMENT Plan for Immigrant Education 2018–2021, which promotes equality, is implemented by means of a total of 28 measures. In addition, Helsinki has allocated €2 million to the travel costs, learning materials and cultural visits of upper-secondary level students.

FIGURE 3.

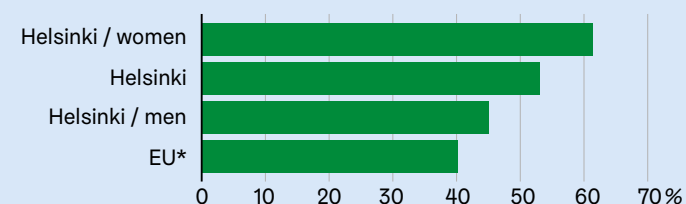
Percentage of families who chose the local school in comprehensive education



SINCE AUTUMN 2018, studies in the first foreign language have started in first grade. In addition, the city is investing in the teaching of languages by, among other things, increasing the number of places in English-language education and early childhood education. By including environmental education in the Education Division's environmental management duties and curricula, we make sure that children learn about sustainable ways of life starting from early childhood education.

FIGURE 4.

Higher education graduates (percentage of population aged 30–34 in 2017)



Source: Statistics Finland, *Eurostat.

DECENT WORK AND ECONOMIC GROWTH (SDG 8). As regards economic growth and employment, the UN has set the goal of achieving inclusive and sustainable economic growth, full and productive employment and proper work for all. Helsinki aims to promote these goals by, for example, providing companies and their employees with functional operating environments that support sustainable development, investing in technology development and supporting entrepreneurship and growth companies. Helsinki wants to create a functional and comfortable urban environment that offers a good platform for corporate innovation activities.

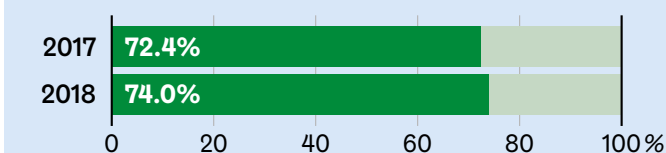
HELSINKI HAS started a number of projects aiming to attract foreign companies, investments, work-related immigration and tourists to the city. While the entire city is being developed as a platform for creative innovation activities, particular investments are being made in the attractiveness of the Helsinki city centre area. At the same time, the city is promoting high-growth entrepreneurship and the innovation ecosystem and developing its university campuses. The Carbon-neutral Helsinki 2035 action plan includes a number of measures to advance goals relating to sustainable development and production. The international attractiveness and visibility of the city is also promoted by adopting new urban solutions that improve the city residents' quality of life and reduce emissions. An example of this is the development of the Kalasatama area. Tourism is being developed in accordance with the sustainable tourism programme.

In 2018, a total of 6,701 new companies started in Helsinki, or 19% more than in 2017.

EMPLOYMENT AND job opportunities are being improved by measures such as adjusting the provision of vocational education to meet future labour needs in terms of quality and quantity. The extensive Mukana (Involved) programme has been launched to prevent the social exclusion of young people. In addition, the City of Helsinki Employment Services are actively developing activities for fields with labour shortage and are also involved in developing the employment ecosystem. Particular attention is being paid to those residents whose participation in the labour market is the lowest.

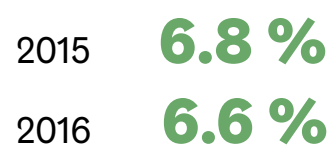
FIGURE 5.

Employment rate (ages 15–64)



Source: Statistics Finland, Labour Force Survey.

Young people outside work and education (ages 16–29)



Source: Statistics Finland

THE CITY of Helsinki currently employs almost 38,000 people. Accordingly, the city has significant responsibility for creating ethically sustainable jobs. In order to ensure this, the city's activities rely on defined values and ethical principles. At the same time, the city requires its employees to follow its ethical principles in their work – in purchase activities, for example, employees must follow the basic norms and ethical principles of international working life. The same is required of the city's interest groups.

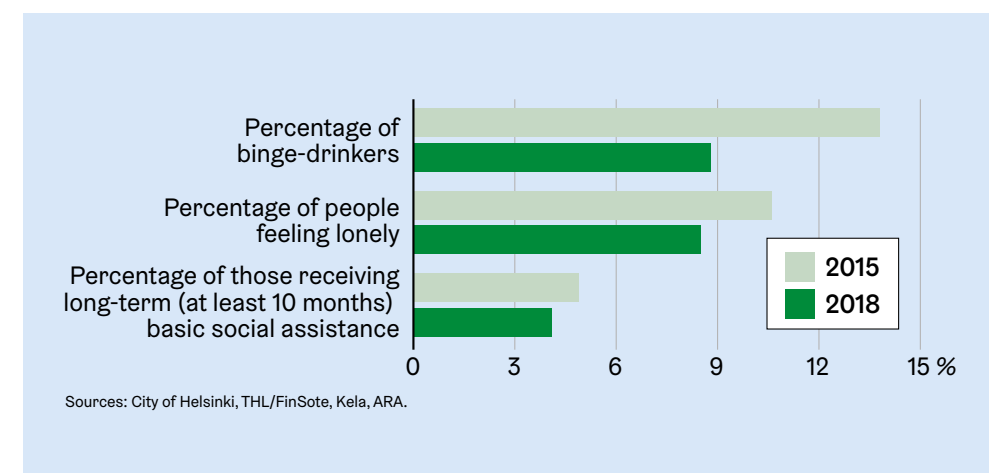
REDUCED INEQUALITIES (SDG 10). Reducing inequalities is one of the key goals of the Helsinki City Strategy. The city's measures to reduce inequalities strive for humaneness, correctly timed support measures and a persistent approach. The goal is to support well-being before any problems occur. The city is aiming at extensive, systemic change that would reduce social exclusion and its cross-generational inheritance as well as regional segregation in Helsinki.

THE CITY of Helsinki has started several programmes of action to reduce inequalities, including a large number of support and service measures intended for various population groups. The city assumes responsibility for those in the weakest position by, among other things, granting them means-tested income support to supplement basic income support as well as preventive income support, with the intention of promoting the social security and independent coping skills of the persons and families receiving the support and preventing social exclusion and long-term dependence on income support. In addition, the goal is to provide residents with equal opportunities for participation and agency by investing in the accessibility of culture and leisure services, for instance. Measures supporting lifestyles that promote health and well-being are part of this approach. The social dimension is also strongly behind the measures. What is more, the balanced development of residential areas is supported by means of urban planning and housing policy. Support measures are particularly targeted at areas with an accumulation of various factors predicting deprivation.

THE CITY of Helsinki also actively promotes development towards equality in other ways. As an employer, the city strives for equal treatment and equal pay for its employees. Gender equality is a guiding principle in all the city's activities. In addition, it takes part in preventing unreported employment and takes various measures to contribute to the socially sustainable development of leg-

FIGURE 6.

Indicators comprising the Deprivation Index



Sources: City of Helsinki, THL/FinSote, Kela, ARA.

islation and societal practices. The approach also includes the monitoring of developments relating to inequalities and strengthening the knowledge base.

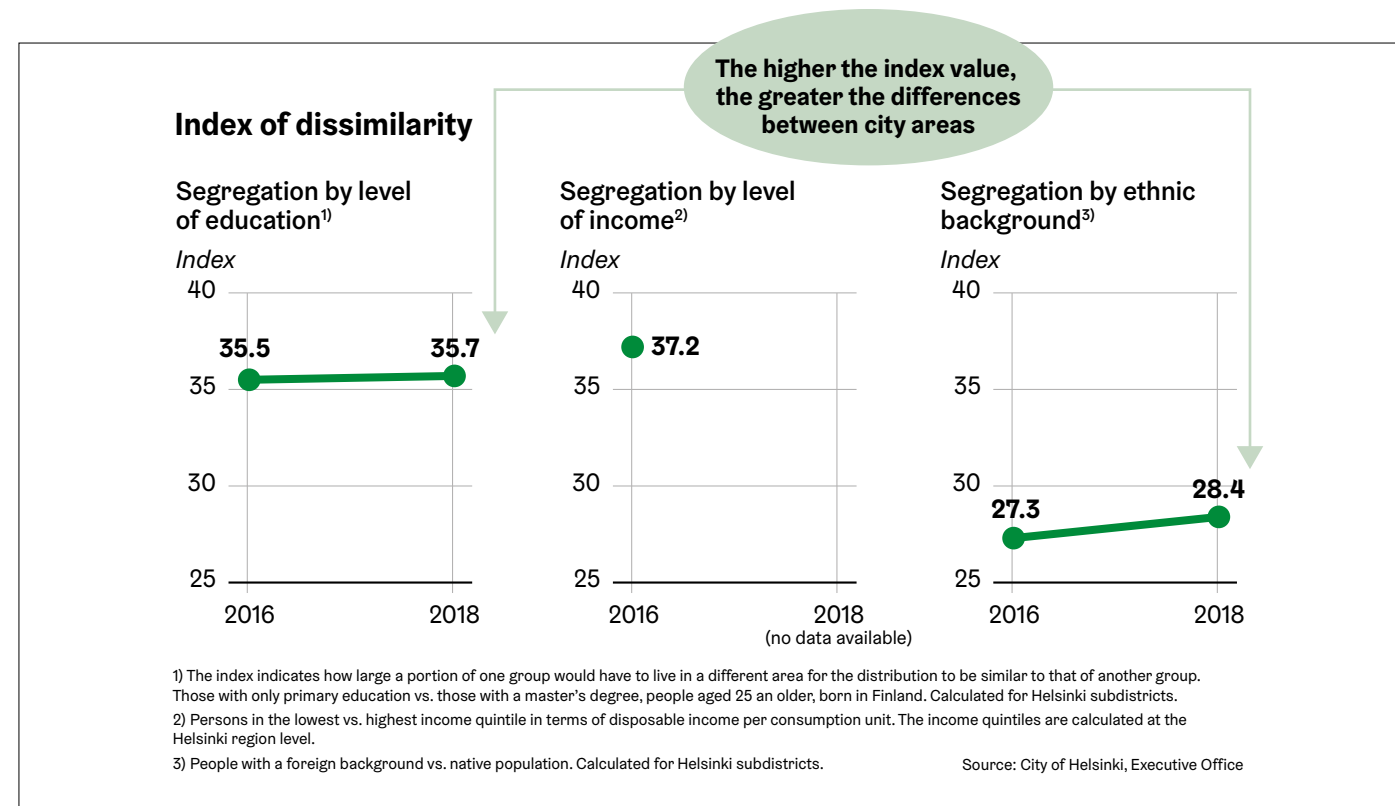
HELSINKI'S MEASURES to reduce inequalities are, above all, targeted at the city residents and areas and at the city's own employees and activities. In contrast, the city pays less attention in its activities to the goals set by the UN, which aim at improving the situation of developing countries and their residents in particular. However, as regards people's mobility and migration, for example, it must be noted that Helsinki is significantly investing in the integration of its residents with a foreign background and providing them with opportunities equal to those of the native population.

CLIMATE ACTION (SDG 13). Helsinki emphasises ecological values in its activities. Helsinki's goal is to stand out as an internationally networked pioneer in the local implementation of global responsibility. This goal is sought by integrating climate change actions into national policies, strategies and planning, by strengthening the ability to adapt to climate change and by increasing education and knowledge regarding climate change. Helsinki was accepted as a member of the Carbon Neutral Cities Alliance (CNCA) in March 2019 and has confirmed that it will join the Sustainable Consumption programme of the C40 climate network.

Helsinki's local reporting supplements national reporting and aims to encourage other Finnish cities to take part.

FIGURE 7.

Geographical segregation index



HELSINKI HAS been taking determined climate action for years now and has managed to reduce its emissions by 27 per cent from the 1990 level. While the earlier goal was carbon neutrality by 2050, the current strategy strives to achieve the goal by 2035. With this in mind, the city prepared the comprehensive, ambitious Carbon-neutral Helsinki 2035 action plan, which includes a total of 147 measures and strives to act extensively against climate change and its effects. The action plan is being implemented in the areas of traffic, circular economy and training, smart & clean business, energy production, communications and interaction, climate work coordination as well as monitoring and assessment.

THE CITY of Helsinki's goal is to take quick action to mitigate and adapt to climate change. In order to adapt to the risks of climate change, the city has pre-

pared climate change adaptation guidelines for 2019–2025, so adaptation has been taken into account at the practical level, even though it is not separately mentioned in the city strategy.

PEACE, JUSTICE AND STRONG INSTITUTIONS (SDG 16). Helsinki wants to be a stable, responsible, safe and reliable city that is also dynamic and evolves with the times. While the city's activities emphasise the provision of various services, it also understands its increasing role as an enabler and provider of opportunities. The city supports and strengthens the involvement, participation and influence of its residents and interest groups in many different ways while also striving to enhance its own decision-making models and service processes.

THE CITY strives to strengthen the sense of security of its residents by means of extensive safety cooperation with various authorities and interest groups, for

instance. These measures are aimed at preventing crime, disturbances, accidents, substance abuse, gambling and domestic violence, among other things. The sense of security is also strengthened by providing residents with help and support in various everyday problem situations. In addition, the city is investing in the safety and healthiness of premises intended for city residents and creates prerequisites for a safe urban environment by means of urban planning.

HELSINKI ALSO strives to strengthen the trust of residents, companies and other actors in the city organisation and its activities and by the fact that the city is run and its personnel policy implemented in an ethical, responsible and sustainable manner. Above all, trust is being built through openness and transparency. For this purpose, Helsinki is developing digital solutions that make it easy for people to follow and take part in activi-





Greenhouse gas emissions per capita

2017 **4.1 t^{CO2} equivalent**
2018 **3.9 t^{CO2} equivalent**

Source: City of Helsinki Urban Environment Division

22% of all energy consumption in the Helsinki urban area is based on renewable energy.

ties that interest and concern them, and is also making public information available for the benefit of everyone.

THE CITY'S stability, responsibility and long-term service capability are also maintained by means of financial planning and ownership policy. As Finland's largest city, Helsinki also bears significant responsibility for balancing the public economy at the national level. The city's own investment capability is taken care of by, for example, adjusting investments to a level that can be financed during the strategy period without increasing the loan portfolio per capita. The starting point of the City Group's ownership policy is that, in the long term, the city's ownership and control support the provision of services, the city's finances and its other societal goals.

HELSINKI'S PREDICTED strong growth will increase the city's role in securing the well-being of the entire country. Helsinki is seeking functional and persistent cooperation with the state. In addition, Helsinki will strengthen its international activities, particularly concentrating on digitalisation and climate change mitigation, which are the strongest global change factors and thus natural areas of profiling in international activities. City diplomacy is utilised to promote busi-

ness policy interests in Asia, and China in particular. The city is also developing the twin city concept with Tallinn, promoting Nordic cooperation and strengthening its relationship with Russian cities.

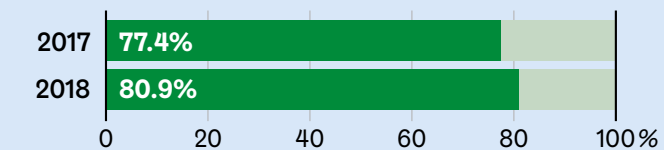
Cooperation to ensure the success of the local implementation of UN SDGs

Helsinki's report is the first phase in a longer process whose eventual goal is the successful and profitable implementation of the UN Sustainable Development Goals. In the future, successful achievement of the goals requires cooperation not only between states and cities but also at the local level.

THE CITY of Helsinki produced its own voluntary local review in a working group with representatives from several different departments and units of the city. Due to the extent of the goals, it is essential to harness the entire city organisation's know-how and competence in the process. At the same time, it is necessary to ensure strong commitment to the process at management level.

FIGURE 8.

Perceived security (I feel safe in my neighbourhood)



Source: City of Helsinki Security Survey.

Loan stock per resident

2017 € 1,871
2018 € 1,693

Source: City of Helsinki, Executive Office

city's activities from the viewpoint of the UN goals, the voluntary local review shows that Helsinki has initiated or already completed a large number of measures that promote the UN goals at the city level. On the other hand, it was observed that the targets under the UN goals have several references to international development cooperation, which primarily happens at the state level in Finland.

IN HELSINKI'S first voluntary local review of sustainable development, the city's activities were mainly reviewed on the basis of the Helsinki City Strategy, the leading projects implementing the strategy and the Carbon-neutral Helsinki 2035 action plan. Even though the perspective is strategically comprehensive, it does not cover all the city's basic service provision or activities. Expanding the reporting would enable better coverage and deeper understanding of the connections between the city's activities and the sustainable development goals.

AFTER THE first voluntary local review, it will be possible to assess the future level of reporting. Indicators suitable for monitoring the UN goals should be further developed and supplemented. In terms of the monitoring indicators, a particular challenge is the development of a city-level and internationally comparable set of indicators. The indicators for Helsinki's voluntary local review have mainly been selected from the Helsinki City Strategy's monitoring indicators.

THE UN Sustainable Development Goals and their targets are an extensive package. It would be good to analyse the connections between the targets and local-level activities in more detail in order to genuinely recognise goals whose promotion still requires development efforts from Helsinki. A more extensive review of the entire urban ecosystem would also highlight connections to activities that are not in the city's hands alone. ■

how its strategy deployment should be developed in order to achieve the sustainable development goals in the best possible way. The efficient deployment of the results requires sufficient coordination as well as the extensive commitment of all of the city's actors.

THE CITY is also enhancing its communications regarding the voluntary local reviews in order to increase awareness of the significance of the sustainable development goals in the city's daily activities. This increases the opportunities to find new ways to successfully deploy the goals.

THE CITY will also continue its active international advocacy work. The goal is to get more cities to take part in voluntary local reviews. In cooperation with other cities, Helsinki strives to contribute to ensuring that the importance of cities is recognised in international forums and networks – in the UN in particular – and that cities will, in the future, have the opportunity to participate in not only the implementation of the agenda and goals but also their creation.

Summary and conclusions

The Helsinki City Strategy is an ambitious and extensive document whose goals are in many respects consistent with the UN Sustainable Development Goals. Assessing the

HELSINKI HAS been involved in close cooperation with the City of New York throughout the process. However, it is also essential to ensure that an increasing number of cities choose the voluntary local review model. This will enable the creation of a network whose goal is not only city-level success but global influence. A key part of this is dialogue with the United Nations.

A FUNCTIONAL relationship between the state and the city is an essential part of the success of the sustainable development goals. In countries where cooperation is possible thanks to a shared value base and goals, attempts should be made to achieve a close relationship in terms of both reporting and implementation. In Finland, the six largest cities have started cooperation with the Government.

THE UN SUSTAINABLE DEVELOPMENT GOALS are universal and, as such, apply to everyone. In order to achieve the desired results, the entire ecosystem must work together. This means cooperation not only between cities and states but also between companies, associations and research organisations.

Next steps

Next, the city will engage in conversation based on the results of the voluntary local review about



HELSINKIN KAUPUNKI / ALEKSI POUTAINEN

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Sources:

City of Helsinki 2017. The Most Functional City in the World – Helsinki City Strategy 2017–2021. Accessed 31 May 2019. <https://www.hel.fi/static/helsinki/kaupunkistrategia/strategia-en-2017-2021.pdf>

City of Helsinki (2019). The Most Functional City in the World. Sustainable Development Goals. First Part of the City-level Implementation Reporting. Accessed 31 May 2019. <https://www.hel.fi/static/helsinki/julkaisut/helsinki-sdg-reporting-part-1.pdf>

New York City (NYC), Mayor's Office for International Affairs (2018a). Global Vision – Urban Action. Voluntary Local Review. New York City's Implementation of the 2030 Agenda for Sustainable Development. Accessed 31 May 2019. https://www1.nyc.gov/assets/international/downloads/pdf/NYC_VLR_2018_FINAL.pdf

New York City (NYC), Mayor's Office for International Affairs (2018b). Global Vision – Urban Action. A City with Global Goals Part I and Part II. Accessed 31 May 2019. <https://view.publitas.com/nyc-mayors-office/a-city-with-global-goals-parts-i-and-ii-for-download/page/1>.

UN (2015). Transforming Our World: The 2030 Agenda for Sustainable Development (A/RES/70/1). <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>



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From agenda to action – local implementation of the UN Sustainable
Development Goals in Helsinki

