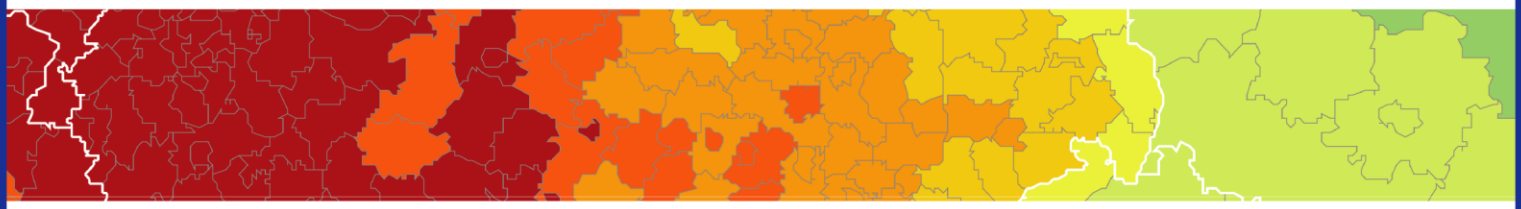

ESPON QoL – Quality of Life Measurements and Methodology

Annex 6 to the Final Report

Case study: Helsinki-Uusimaa

Applied Research

Draft Final Report

30th October 2020

Final Report

This applied research activity is conducted within the framework of the ESPON 2020 Cooperation Programme.

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This delivery does not necessarily reflect the opinion of the members of the ESPON 2020 Monitoring Committee.

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Annex 6 to the Final Report

Case Study 03

Helsinki-Uusimaa

ESPON QoL – Quality of Life Measurements and Methodology

30th October 2020

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Abbreviations

EU	European Union
GDP	Gross Domestic Product
IT	Information Technology
KELA	Social Insurance Institution of Finland
LAU	Local Administrative Unit
LC	Latent Class
NEETs	Young people Not in Employment, Education or Training
NGO	Non-Governmental Organisation
NUTS	Nomenclature of Territorial Units for Statistics
QoL	Quality of Life
SPI	Social Progress Index
StatFin	Statistics Finland
THL	Finnish Institute for Health and Welfare
Traficom	Finnish Transport and Communications Agency
WHOQOL-8	Eight-item questionnaire design by the World Health Organization for measuring QoL

Introduction

This is one of the 10 case studies of the ESPON study “Quality of Life Measurements and Methodology”. The purpose and results of the study, including the definition and application of a territorial quality of life measurement methodology, the synthesis of all case study findings, targeted policy recommendations, ideas for fostering cooperation between ESPON, EUROSTAT, OECD and the UN and recommendations for further research, are illustrated in the Final Report, to which this case study report is annexed.

The purpose of the case studies is twofold:

A) to collect good practices that can be adopted in other European regions, and

B) to make use of the methodology developed and allow for adjustments through testing in case studies.

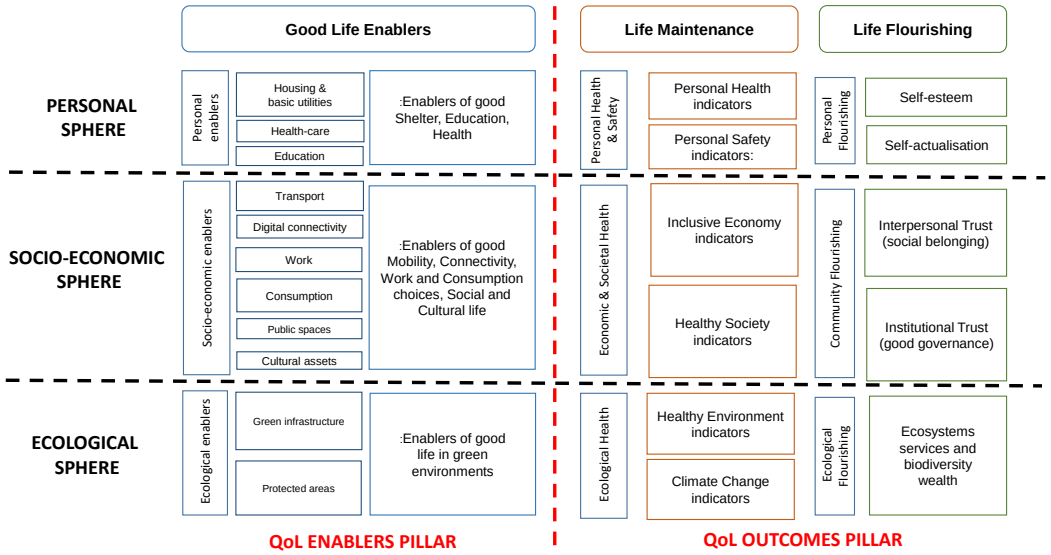
Each case study provides examples of application of the concept of quality of life (QoL) in a specific region. This complements the conceptual model and the research done at European level. The reasons why this region has been chosen forms part of Section 1.

For objective A) the case study report explores the policy context, in which QoL is used and measured in the region (Section 2). It is important to understand for which purpose the concept has been established, in which policy fields it is being used, how different levels of government are involved and which success factors and obstacles can be identified. Section 3 explains the indicators, measurement methods and data that are used for measuring QoL.

Objective B) is covered in Section 4. The study defines and tests a methodology to measure QoL at territorial (sub-national) level and offers guidance to policy makers at different levels – local, regional, national, European – on how to integrate QoL in policy processes and in territorial development strategies. We have applied to the case studies the methodology developed in the main report. This includes the Territorial Quality of Life (TQoL) measurement system and the system for coding indicators.

The TQoL framework defines the system and its main elements (pillars, spheres, sub-domains) to measure QoL facets with reference to territorial entities identified. This is shown in the TQoL framework in figure 1 below.

Figure 1 The TQoL framework



The system for **coding indicators** to represent and monitor adequately the different QoL domains, defined in the TQoL framework, is illustrated in Table 1 below.

Table 1 Coding of the indicator system in the TQoL framework

Dimension	Domain	Sub-domain	Definition
Good Life Enablers	Personal enablers	Housing & basic utilities	
		Health	
		Education	
	Socioeconomic enablers	Transport	
		ICT connectivity	
		Work opportunities	
		Consumption opportunities	
		Public spaces	
		Cultural Assets	
	Ecological enablers	Green infrastructure	
		Protected areas	
Life Maintenance	Personal Health and Safety	Personal health indicators	
		Personal safety indicators	
	Economic and Societal Health	Inclusive economy indicators	
		Healthy Society indicators	
	Ecological Health	Healthy Environment indicators	
		Climate change indicators	
Life Flourishing	Personal Flourishing	Self-esteem	
		Self-actualization	
	Community Flourishing	Interpersonal Trust (Social Belonging)	
		Institutional Trust (good governance)	
	Ecological Flourishing	Ecosystems services and biodiversity wealth	

Both, the TQoL framework and the coding system are applied in all case studies (Sections 4.1 and 4.2).

The methodology developed in this report includes further elements - a dashboard, the latent clustering approach and the citizen-centric approach - that are applied in the case studies, if sufficient data or information have been available. These elements are as follows:

- The indicators coded for local or sub-regional territorial units are presented in a **dashboard** (in an Excel-based tool). In the dashboard different points in time or objective and subjective indicators can be included and compared at territorial unit level. The specific indicators used to monitor the QoL domains are different in each case, as they take into account specific local circumstances that influence the selection of indicators (e.g. availability of data, local priorities and practices).
- In the case studies that cover a large number of territorial units the **Latent Class clustering model** helps to analyse underlying patterns and spatial differences of territorial QoL. However, the number of case studies falling in this category is small.
- A descriptive element of the TQoL approach identified in this applied-research project is the **"citizen-centric" approach**, where citizens are engaged in co-design, implementation and fact-checking activities ("factfulness" tests), to make the measurement of territorial QoL more responsive to the needs and aspirations of citizens to improve their everyday life. This can be promoted, recommended, and applied within the different case study contexts highlighting in particular any existing local practice of citizen engagement that could be adopted as a concrete example of the approach.

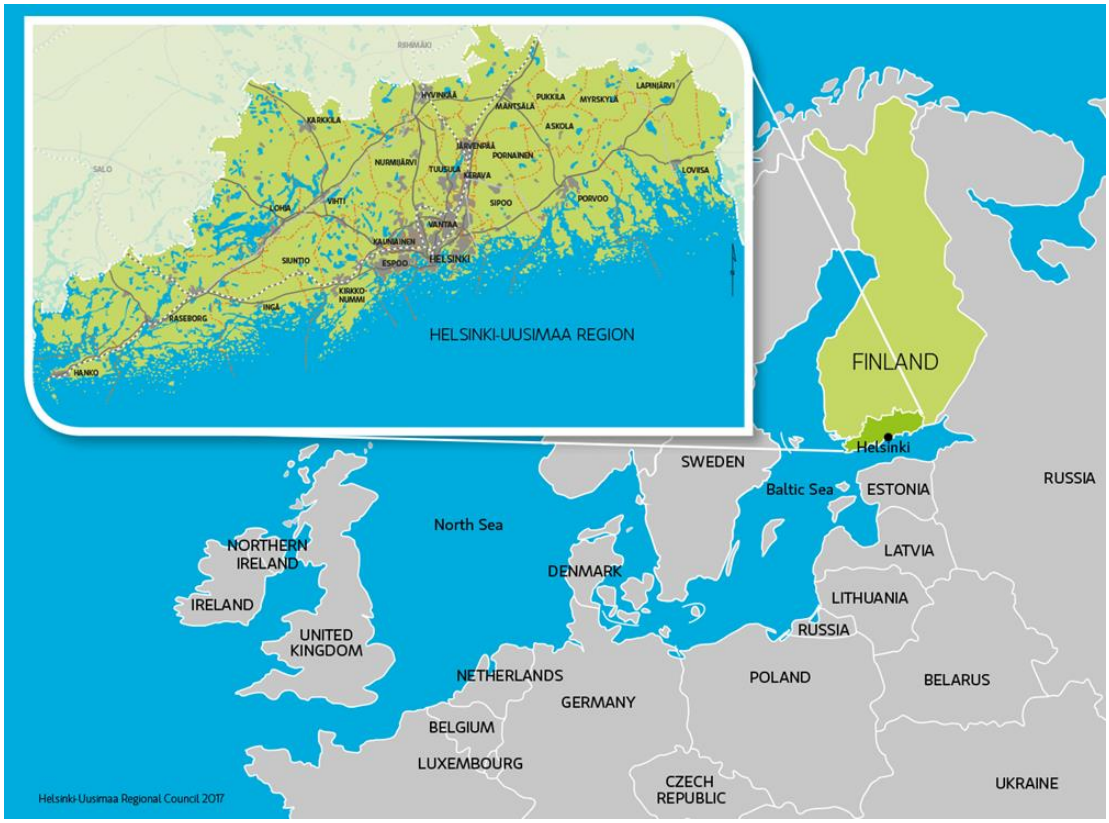
These methodological elements are considered in the case studies which were carried out to investigate and compare noteworthy experiences of territorial QoL measurements against the TQoL framework that has been developed with the aim of drawing lessons for further adjusting and fine tuning the methodology, which will eventually allow for its practical and widespread use for measuring QoL across territories in Europe.

1 Description of the region

1.1 Characteristic of the region

Situated at the Gulf of Finland (Figure 2), Helsinki-Uusimaa is the most populous and most densely populated region in Finland with a steady increase in its population. Helsinki, the capital of Finland founded in 1550 (became the capital in 1812), forms together with its neighbouring cities – Espoo (the second most populous city in the region), Kauniainen and Vantaa (the third most populous city in the region) – the Greater Helsinki metropolitan area. It has a population of nearly 1.5 million constituting the bulk of the population in the whole region (the population of the Helsinki-Uusimaa region is roughly 1 671 000; land area 9 098km2; population density: 183,7 people/km2). It is one of the fastest growing urban areas in Europe, the northernmost metro area with over one million people as well as the northernmost capital of an EU member state renowned for offering an exceptionally high QoL (Yigitcanlar and Lönnqvist, 2013).

Figure 2 Helsinki-Uusimaa region



Source: Helsinki-Uusimaa Regional Council.

The region is the economic hub for the rest of the country. It generates approximately one third of Finland's GDP. It is also the location of the headquarters of more than 80 of the 100 largest Finnish companies. It is a transport hub for the whole country. It is the home for the busiest international passenger port in Finland (one of the busiest in the world) and the only significant international airport in the country accounting for 90% of international air transport in Finland. The region has moved away from heavy industrial work and now profits, for example, on serviced-related IT and shipping companies. The proportion of tertiary educated graduates in the labour force of Helsinki-Uusimaa region is the highest in Finland. It is also the most important centre for politics, education, finance, culture and research in Finland being the location for:

- The Finnish Parliament
- Five universities, including the University of Helsinki (the most highly ranked Finnish university), Aalto University, Hanken School of Economics, the University of the Arts Helsinki and National Defence University
- Helsinki Stock Exchange
- National Museum of Finland, Finnish National Gallery, Finnish National Theatre, Finnish National Opera and a range of other cultural attractions
- A number of State research institutes (such as VTT Technical Research Centre of Finland and VATT Institute for Economic Research) and several other Finnish research institutes

Helsinki-Uusimaa is classified by Eurostat as NUTS-2 and NUTS-3 region (FI1B/FI1B1) and considered as a metropolitan and coastal area in ESPON regional typologies.

1.2 Rationale for selecting the case study

The **regional authorities** of the region are working with **Social Progress Index (SPI)** underlining its commitment to improve QoL. The region has the highest score in Finland in the Human Development Index. Furthermore, the city of Helsinki [the Helsinki-Uusimaa region represents reasonably well the functional region of its capital city, Helsinki (Laakso and Kostiainen, 2013)] performs extremely well in various global and European QoL rankings:

- Helsinki is the world's 9th most liveable city (Economist Intelligence Unit EIU 2017)
- Helsinki ranks first in life quality (Creative City Index 2014)
- People living in Helsinki have the highest satisfaction with the place where they live (European Commission, QoL in European Cities 2015)
- Helsinki is the most honest city in the world (Readers Digest, Most Honest Cities 2015)
- People living in Helsinki are the second most satisfied with cultural facilities among inhabitants of EU capital cities (Eurostat, Satisfaction with cultural facilities in EU capital cities 2015)[1]

Recently, Helsinki was also ranked – in the latest World Happiness Report – as the happiest city in the world (Helliwell et al., 2020). Given the apparent high QoL in Helsinki-Uusimaa, the region makes a good case for inspecting examples of applications of the concept of QoL in specific regions across Europe.

For this case study both, the QoL concept in the **Helsinki-Uusimaa Regional Programme** and the **Welfare Plan of the City of Helsinki** are analysed.

1.3 Sources

In addition to the document, sources listed in references or footnotes five persons were interviewed[2] to guide the writing of this case study report:

- Hanna Ahlgren-Leinvuo, Senior Researcher, Urban Research and Statistics Unit at Helsinki City Executive Office (24.3.2020)
- Riikka Henriksson, Special Planner, Helsinki City Executive Office (17.3.2020)
- Johannes Herala, Senior Adviser, Regional Development Unit, Helsinki-Uusimaa Regional Council (17.3.2020)
- Stina Högnabba, Special Planner (Health and Welfare Coordinator), Helsinki City Executive Office (23.3.2020)

[1] https://www.myhelsinki.fi/en/helsinki2018-meeting/livability

[2] The interviews were carried out over the phone according to the guidelines of the Finnish government to restrict mobility during the Covid-19 outbreak.

- Ari Jaakola, Statistics and Information Services Manager, Urban Research and Statistics Unit at Helsinki City Executive Office (18.3.2020)

The selection of the interviewees was based on the advice of Advisory Group member Tomas Hanell (University of Helsinki), the web pages of the Helsinki-Uusimaa Regional Council and the City of Helsinki as well as on “snowballing”.

2 Policy context

2.1 Outline of the QoL concept

This case study report focuses on two different QoL measurement frameworks in use in the Helsinki-Uusimaa region. The first is a territorial one promoting the wellbeing of the whole region, while the second is a sectoral plan for improving welfare in the capital city of the region: Helsinki (Table 2).

Table 2 Overview of policy implementation context

Actor/institution	Policy context	Description of indicators and data used	Activities and processes
Helsinki-Uusimaa Regional Council	Territorial	see Section 3	Regional Programme
City of Helsinki	Sectoral	see Section 3	Welfare Plan

The **Helsinki-Uusimaa Regional Programme** (2018), drawn by the Helsinki-Uusimaa Regional Council, in cooperation with municipalities, business life, universities and other research institutes and organisations (such as NGOs), has set three priorities, further divided into four objectives, to facilitate the development of QoL in the entire region:

1) Human Wellbeing and Competence
   a. Competent Future Inhabitants (aim to ensure that the inhabitants possess the skills – related to technology, social interaction and capability for empathy – needed in the future)
   b. Strength through International Connections (aspire to a mindset, where plurality and internationality are strengths)
   c. Best Wellness Services, Active Inhabitants (stress the inhabitants' capacity for looking after their own health)
   d. Safety and Security through Solidarity (strive to prevent loneliness and being ill through a sense of community)

2) Successful and Responsible Business
   a. Growth and Exports through New Technologies
   b. Business from Circular Economy
   c. International Competence and Investments
   d. Vitality from Start-ups and SMEs

3) Climate-aware and Diverse Region
   a. Carbon-neutral Helsinki-Uusimaa Region by 2035
   b. Safe and Sustainable Helsinki-Uusimaa Region
   c. Positive Experiences and Care from Nature
   d. Easy and Reliable Mobility

The progress in achieving these objectives is monitored with specific indicators such as SPI (the monitoring indicators are presented in detail in Section 3 of this case study report). While all of the above-listed priorities and objectives build towards improved QoL (the consolidated success in meeting these objectives, under the three priority areas, is expected to lead to heightened wellbeing of the citizens of the region), here we focus on the first priority area, which is the clearest example of improving QoL in the region.

As an example of a local authority, the City of Helsinki (2019a) has a **Welfare Plan** (build in cooperation between the city's divisions), promoting QoL, with the following targets:

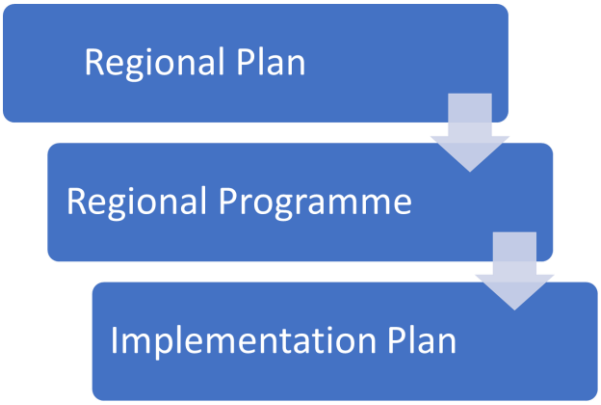
1) Reduce inequality
2) A city for all – healthy and on the move
3) Preventing the marginalisation of children and youth
4) Buttressing (sustaining and reinforcing) elderly people's ability to function and their feeling of partnership
5) Promoting mental wellbeing and the non-use of intoxicants
6) Lively, distinct and safe neighbourhoods

The progress in meeting these targets is monitored using city-level strategic and other sector-specific (Health and Welfare) indicators (the monitoring indicators are presented in detail in Section 3 of this case study report).

2.2 The use of QoL in local and regional strategies

According to Makkonen and Inkinen (2014) in Finland, there are three central strategic regional planning documents (as stated in the Regional Development Act[3]) that Regional Councils use to steer the development work done in their respective regions: 1) the regional plan, 2) the regional programme and 3) the implementation plan (Figure 3). First, the regional plan lays out the long-term vision and developmental objectives for the region and the strategy for achieving these objectives. Second, the regional programme is a "medium-term implement" formulated according to the objectives presented in the regional plan. The regional programme details how the strategy will be implemented in the near future. Third, the implementation plan of the regional programme lists the most essential projects to be executed to fulfil the regional strategy.

Figure 3 Strategic regional planning in Finland



However, for understanding which government levels are ultimately responsible for QoL in Finland (see Makkonen and Rauhut, 2020) a brief overview of the Finnish local government system is needed. As stated by Makkonen and Kahila (2020):

"The Finnish local government is characterised by an organisational structure, in which the national level is responsible for tax revenue transfers to local authorities (to fulfil their functions)…Regional Councils promote the interest of their respective provinces…Municipalities have the right to levy taxes and implement a wide range of functions they have traditionally been responsible for. These functions comprise the provision of healthcare and social services, education and culture as well as environmental and technical infrastructure services, etc." (p. 5)

[3] https://www.finlex.fi/en/laki/kaannokset/2002/en20020602.pdf

According to the Local Government Act[4] municipalities are responsible for advancing the wellbeing of their citizens, while the Health Care Act[5] requires that local authorities identify objectives for welfare promotion based on local conditions and demand and design measures to meet these objectives by using local health and welfare indicators (see also Lotz, 2006; Haveri & Airaksinen, 2007). The City of Helsinki meets these requirements by having a Welfare Plan (combining the welfare plans for the youth, the elderly, etc.) that identifies the above-mentioned aspects and a separate Action Plan for meeting the identified objectives (City of Helsinki, 2019b) (Figure 4). Therefore, in terms of QoL the regional level can actually be considered relatively "unimportant": in Finland, regions do not have similar public obligations to those of the municipal jurisdictions (Makkonen and Inkinen, 2014). As such, Regional Councils are, mainly in charge of regional development and planning, while the actual implementation of QoL services is at the hands of municipalities.

Figure 4 Outline of the Welfare Plan of the City of Helsinki

Source: City of Helsinki.

Helsinki-Uusimaa Regional Programme

The Helsinki-Uusimaa Regional Council uses its QoL (or wellbeing) measurement framework mainly for external communication (to show how the region is doing in terms of development and against other regions). It is also designed for monitoring (at the NUTS-3 level) purposes to check whether the development goals of the Regional Programme are reached or not. Thus, the framework should inform the regional administration whether they are on the "right track" concerning social and human wellbeing. However, the QoL measurement schemes are not as such utilised in the separate Implementation Plan of the Regional Programme (Helsinki-Uusimaa Regional Council, 2019) as a framework for project selection and evaluation. This raises critical voices for improved coordination and fit between the goals set in the Regional Programme and the actual projects and actions implemented under the Implementation Plan.

The Regional Development Unit of the Helsinki-Uusimaa Regional Council is responsible for the QoL measurement (SPI) of the region in collaboration with the other units of the Regional Council.

[4] https://www.finlex.fi/en/laki/kaannokset/2015/en20150410.pdf
[5] https://www.finlex.fi/fi/laki/kaannokset/2010/en20101326_20131293.pdf

Welfare Plan of the City of Helsinki

The City of Helsinki uses its QoL (or welfare) measurement framework mainly to monitor (at the LAU-2 level) whether they reach the development goals of the Welfare Plan. Thus, the framework informs the local administrations on whether they are on the "right track" concerning health and welfare. If something alarming happens (a significant decrease) in one of the indicators, the city can devise actions and projects to combat the negative development. That is, the indicators are part of the strategic development work done by the city organisation.

Within the City of Helsinki, the Urban Research and Statistics Unit at City Executive Office is responsible for the overall monitoring and collection of the data needed for the strategic indicators (they also conduct more detailed analysis on urban development in Helsinki when needed) but each indicator has its own responsible party (person). This is considered as the best way to get the most out of the expertise inherent in the city organisation as responsibility for the indicators is divided among the city's divisions. Sector-specific (Health and Welfare) indicators are under the responsibility of the Health and Welfare Coordinator of the City Executive office who collects the data from city's divisions. A **Monitoring Report** (Högnabba et al., 2019; 2020) of the Welfare Plan is produced yearly in cooperation with the Urban Research and Statistics Unit at City Executive Office, who handle and provide, from various sources, the bulk of the quantitative data. The division between strategic and sector-specific (Health and Welfare) indicators are discussed in Section 3.

2.3 Evolution of the QoL approach

Helsinki-Uusimaa Regional Programme

The idea behind the need for a (revised) framework for measuring QoL in the Helsinki-Uusimaa region is related to the specificities of the region. As a leading Finnish region, Helsinki-Uusimaa does not have benchmarks within Finland. Thus, European or international reference points were deemed necessary to evaluate the situation in Helsinki-Uusimaa against other regions of similar size and economic development. The adoption of SPI into the QoL framework of the Helsinki-Uusimaa Regional Council was discussed in a workshop organised in 2016 together with the developers of the SPI approach (i.e. Social Progress Imperative)[6]. As an alternative to hard economic indicators, the SPI approach was welcomed as a promising new tool to measure QoL in the region as it fitted very well with one of the priority areas (Social and Human Wellbeing and Competence) of regional development in the Regional Programme. Data availability and collection issues raised some concerns on the feasibility of the approach, but generally SPI was welcomed as a valuable indicator for measuring regional QoL and for benchmarking the development in Helsinki-Uusimaa to other European regions. Therefore, SPI was eventually adopted into the Finnish version of the Regional Programme in 2017 (Figure 5), translated into English in 2018, and now constitutes the QoL framework of the region.

Welfare Plan of the City of Helsinki

The development of the strategic indicators for monitoring the progress of the Welfare Plan can be traced back to the development work done by the City Board. The Board established a working group (including a large number of participants from all the city's divisions) to develop new strategic indicators in 2017 for monitoring the overall progress and the progress of the city's divisions to meet the goals set in the **Strategy of the City of Helsinki** (2017). The mission of the working group was to:

[6] https://www.uudenmaanliitto.fi/uudenmaan_liitto/uutishuone/artikkelit/uusimaa_mukana_kehittamassa_hyvinvointia _mittaavaa_spi-indeksia.24732.blog

- Benchmark the practices of other cities in monitoring their development
- Provide a typology/categorisation of possible indicators
- Compile a list of available indicators
- Develop new indicators
- Establish practices for monitoring and visualising city-level development in Helsinki

The idea was to find suitable indicators to match the goals set in the Strategy. The working group sought examples from other cities in Finland (Turku and Tampere) and abroad (Amsterdam, Barcelona, Budapest, Copenhagen, New York, Oslo, Rotterdam, Soul, Stockholm and Tokyo) to establish good practices on measuring city-level development with relevant indicators and ways to visualise them. They also asked advise from two external consultants (BroadScope and Deloitte). The propositions of relevant indicators made by the consultants were very much in line with the views of the working group and, thus, strengthened the vision that they were on the "right track" concerning indicator selection. This guided the selection of the indicators: based on the benchmarking exercise and the advice from the consultants the working group established a list of available indicators (data availability did partly guide the selection of the indicators) and proposed a set of indicators that needed to be developed for the purposes of monitoring and visualising city-level development. The working group presented its work regularly in Board meetings and received feedback.[7] As a result of this work and dialogue between the working group and the Board, the contemporary strategic indicators (City of Helsinki, 2019c) were finally adopted as the framework in use for monitoring the progress of the Strategy in 2019 (Figure 5).[8]

The Welfare Plan includes a selection of these strategic indicators that are used to monitor its progress. However, additional sector-specific indicators, presented in the Monitoring Report were devised to monitor the aspects not covered by the strategic indicators. During this work, four workshops were arranged to discuss the available data and to decide which indicators would be reported. The first edition of the Monitoring Report (Högnabba et al., 2019) was based strictly on quantitative data. However, this did not allow for assessing the impact of the actions taken. Therefore, in the second edition of the Monitoring Report (Högnabba et al., 2020) additional qualitative descriptions were added to showcase what has been done to meet the targets and to pinpoint the most impressive successes and the most worrying developments to help decision-makers to plan future actions.

Figure 5 Outline of the evolution of the QoL approach in Helsinki-Uusimaa

Note: Helsinki-Uusimaa Regional Council = Red; City of Helsinki = Black

Source:

2.4 Governance levels

In principle, both QoL frameworks discussed in this case study report are utilised to monitor the development towards meeting the objectives/goals set in the respective Regional Programme and the Welfare Plan. Thus, they are not, as such, linked to other governance levels, other than the fact that both documents are mandated necessary by the Finnish law (national level).

[7] https://dev.hel.fi/paatokset/asia/hel-2018-001538/khs-2018-7/
[8] https://hel.fi/helsinki/fi/kaupunki-ja-hallinto/paatoksenteko/kaupunginhallitus/esityslistat/asiakirja?year=2019&ls=11&doc=Keha_2019-03-18_Khs_12_Pk

However, since the City of Helsinki is one of the stakeholders of the Helsinki-Uusimaa Regional Council there is avid communication between these two organisations (governance levels). Links to other territorial levels, thus, mostly relate to information sharing and benchmarking.

Helsinki-Uusimaa Regional Council

Helsinki-Uusimaa Regional Council adopted the SPI approach in close collaboration with the Social Progress Imperative. Additionally, information sharing occurred between Helsinki-Uusimaa and other European regions (particularly with Catalonia, which shares similar interest in terms of QoL measurement). Similarly, SPI allows benchmarking Helsinki-Uusimaa against other Finnish and particularly international regions.

Welfare Plan of the City of Helsinki

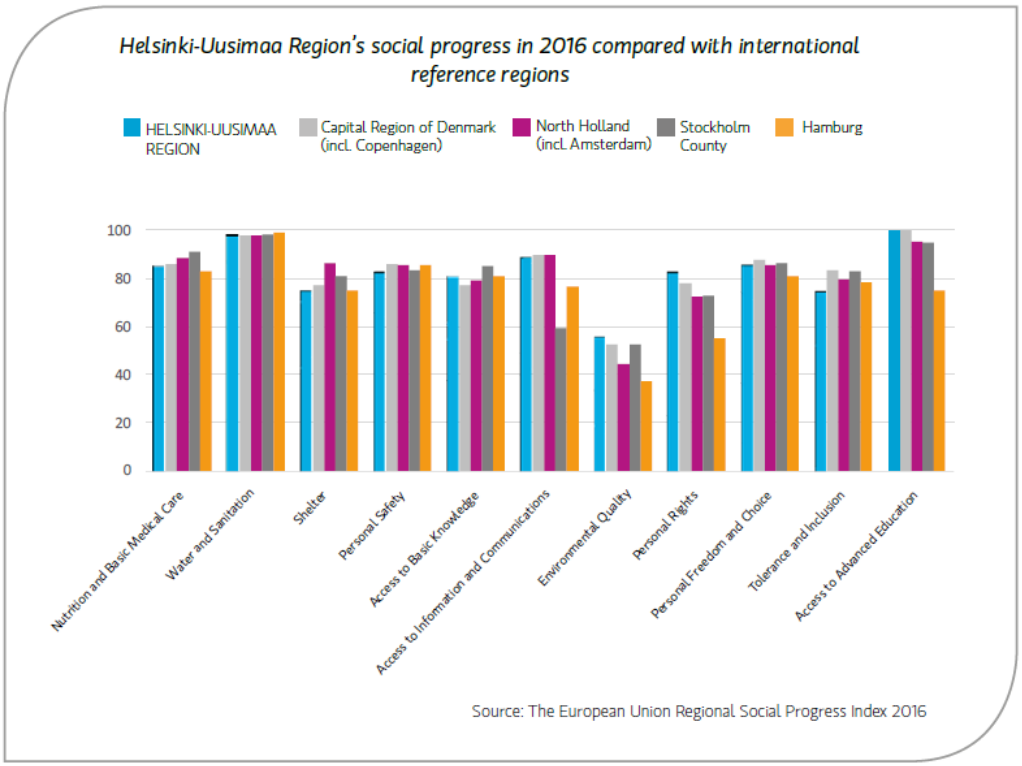
One goal in the development of the indicators used by the City of Helsinki was to allow benchmarking between Helsinki and other cities. Therefore, during the development face of these indicators, there was some information sharing between Helsinki and other cities used as benchmarks for the indicator development in Helsinki. Additionally, some of the indicators are part of national surveys or statistics in Finland, which allows benchmarking to other Finnish cities.

2.5 Success factors and obstacles

Helsinki-Uusimaa Regional Programme

Utilising indexes, such as the SPI, is considered as very useful for external communication: with indices the Helsinki-Uusimaa region can pose its success against other European regions (Figure 6) or showcase the critical sore points, for example, for the purposes of development funding applications.

Figure 6 SPI as a benchmarking tool



Sources: Helsinki-Uusimaa Regional Council; SPI.

However, the downside is that the data comes “as given”: the fit to the needs of the region is far from perfect. As such, serious concerns about the feasibility of the SPI approach in monitoring the progress of achieving the targets set in the Regional Programme can be raised. Moreover, the problem with “ready-made” indexes is that their measurement and the data sources can (and usually do) change between years. This hampers the comparisons made between old and new data. Therefore, the data are commonly suited only for benchmarking exercises for individual years.

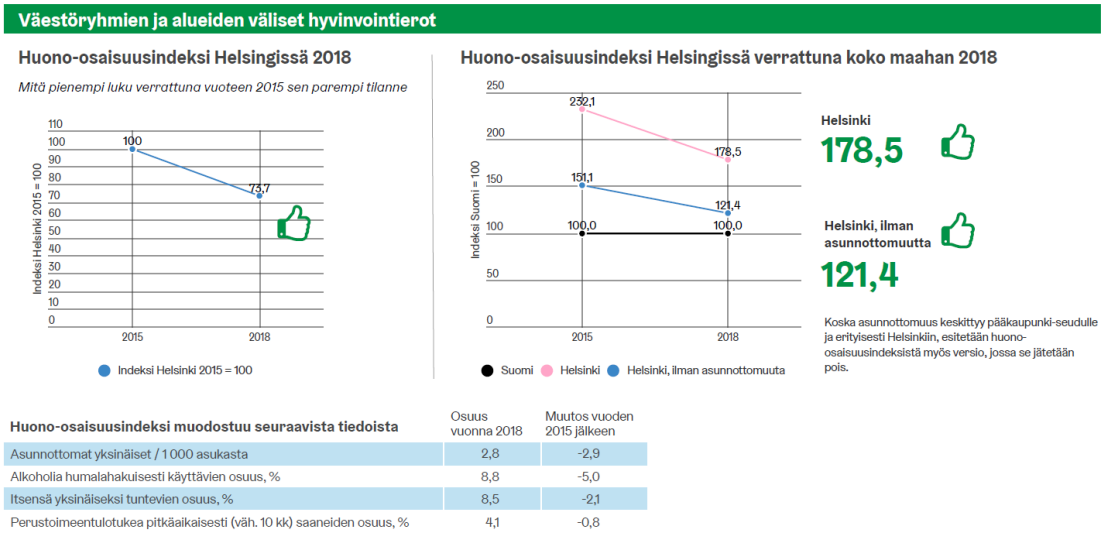
The latest available SPI data is from 2016 (some of the individual indicators used date even longer back in time). Thus, the data is outdated and non-relevant for the purposes of monitoring. The Regional Council is actually unsure when the next revised version of the regional SPI will be published. Before that, there is zero possibilities to build indicators that would show the development trends of the region and to establish causalities between the actions taken and their impact with the SPI. As such, the suitability of the SPI approach for monitoring purposes is debatable: how will the feasibility of the framework be evaluated, if the data is not updated? Moreover, some of the data in the SPI is available only as a national average. The usefulness of such measures for depicting the situation in Helsinki-Uusimaa region can be seriously questioned.

A further reason for concern is the composition of the sub-indexes of the SPI: are they really relevant for monitoring purposes? Carefully selected individual indicators might actually work better in pinpointing were the region has succeeded and were further developments are needed. As such, SPI works well for communication purposes but less so in the case of monitoring.

Welfare Plan of the City of Helsinki

The success factors of the selected strategic indicators and sector-specific indicators (Health and Welfare) are related to their reliability (well-accepted indicators), comparability (most of them are also in use in other Finnish cities or data is at least available from there, allowing for benchmarking), data availability and stability (data sources and ways to collect the data have remained the same during the implementation of the Strategy and are not expected to change in the near future). Factors contributing to this are the suitable number of indicators (not too many), their clarity and systematic nature (easy to understand and visualise) and their updatability (most of them yearly). The last point, however, is also related to the one of the obstacles of the approach: limited updating of some of the indicators (not all the indicators are updated yearly). The visualisability and comprehensibility is a major advantage of the selected indicators (Figure 7). While the indicators are mainly built for the purposes of monitoring, they have also increased the visibility of the city in the media and raised awareness concerning the development of Helsinki amongst city organisation and general public.

Figure 7 Example of the visualisation of the strategic indicators (Deprivation Index)



Huono-osaisuusindeksi muodostuu seuraavista tiedoista	Osuus vuonna 2018	Muutos vuoden 2015 jälkeen
Asunnottomat yksinäiset / 1 000 asukasta	2,8	-2,9
Alkoholia humalahakuisesti käyttävien osuus, %	8,8	-5,0
Itsensä yksinäiseksi tuntevien osuus, %	8,5	-2,1
Perustoimeentulotukea pitkäaikaisesti (väh. 10 kk) saaneiden osuus, %	4,1	-0,8

Source: City of Helsinki. Note: The Monitoring Report is published in Finnish only.

Another bottleneck relates to the "ambiguity" of the targets set in the Strategy: some of targets are very abstract and inexplicit. There are only a few numerical targets. The rest are more vaguely expressed: "The aim is to reduce differentiation and welfare differences between neighbourhoods in Helsinki" (p.12), etc. As a result, it is not easy to find indicators for all the targets set in the Strategy. This bottleneck relates to the fact that the way the targets would be monitored was not considered during the drafting of the Strategy. The development of the indicators was done ex-post. A closer integration of the indicator development into the planning phases of the Strategy would improve the coherence between the indicators and the Strategy. This would require more elaborated and concrete targets. However, just a list of numerical targets is, naturally, unproductive. Rather, a compromise between (hard) concrete targets and thought-provoking (softer) aims needs to be reached. The same applies in the case of the Monitoring Report: it was not all that straightforward to design the needed indicators. This can, however, be considered as natural, since the aim of the Welfare Plan was to, first, identify the most critical targets to promote the QoL (or welfare) of its citizens and only in the second stage to consider how to measure the progress in meeting the targets. This affected in part to the adoption of qualitative descriptions to into the Monitoring Report to enrich the quantitative indicators data.

Consequently, since not all necessary indicators (relating to e.g. citizen and service satisfaction) were readily available, the working group had to come up with new indicators. This constituted a lot of work and posed some problems in the selection and data collection. In some cases, there were no data available, whereas in other cases, city's divisions had plenty of data. However, the problem was more related to how to present these data in an easily comprehensible and visualisable way. That is, the divisions have much more indicators they are monitoring – but not all are necessary or sensible to present as the indicators for monitoring the overall development of the city. Thus, data availability was not, as such, an issue. Rather, the issue was which data to report for a concise presentation including only the most vital indicators ("less is more"). The data needed are "splintered" across various data sources. Therefore, there are always difficulties when combining data from these different data sources (including laborious matching procedures), which complicates comparisons between the different indicators (the data coverage – temporal, regional and socio-economic – can vary between data sources). Additionally, there is a trade-off between the level of detail and the

coverage of the data: the more specific the selected indicator, the less likely it is that time-series data are available.

In retrospect, not all of the indicators chosen work all that well. There are, for example, problems in updating the data (the City Board is eager to receive timely data and some of the data could be updated more frequently but this would add costs) and problems in interpreting the data. Questions relating to causality and impact – such as "what do the numbers actually mean in terms of development?" and "does an increase in the numbers actually lead to an increase in QoL?" etc. – still remain an issue. Concisely, it is extremely challenging to find good indicators to pinpoint definitely the impacts of the actions taken to promote welfare. For this end, expertise from city's divisions is called for in further developments and interpretation of the selected indicators in the next update of the Monitoring Report.

Finally, there are no apparent plans for reacting to unwanted changes in the selected indicators. Decisions on how to proceed and what actions to promote are taken on a case-by-case basis. Having some preliminary procedures for tackling negative development in the indicators would facilitate fast reaction to unwanted progress.

2.6 Achievements and further plans

Helsinki-Uusimaa Regional Programme

The main utility of the SPI approach comes from its suitability for external communication: the Helsinki-Uusimaa region can market itself based on its good performance in SPI. Moreover, while the success of the SPI for the purposes of monitoring the progress in meeting the goals set in the Regional Programme can be considered meagre, the approach does provide a basis for further development work of QoL measurement.

Since the strategy work for the next Regional Programme is set to begin during the autumn of 2020, it is still too early to derive definite future actions. It is likely that the SPI will be included in some way – for example, as a means to benchmark the region against other European regions – in future Regional Programmes but it is unlikely that its use as a tool for monitoring will be continued. This basically is entirely up to the fact whether an updated version of the regional SPI is produced before the next Regional Programme is outlined. If new data is published, some individual indicators within the SPI could be chosen as the monitoring indicators in the next Regional Programme. Notwithstanding, alternative measures are needed. This is naturally not ideal, since for monitoring purposes continuity would be a definite plus (to show long-term development trends).

Welfare Plan of the City of Helsinki

The indicators used by the City of Helsinki were built for purpose: to monitor the progress in meeting the targets set in the Strategy and the Welfare Plan. It is important that one can measure the progress, otherwise there is no indication whether the actions made really have had an impact. Developing indicators is a necessary step in this process. The Monitoring Report has received good feedback: data sources are abundant and, thus, the type of "cleaning" done in the Monitoring Report to focus on the most vital indicators has been highly welcomed.

Another achievement of the selected indicator is the increased internal cooperation between the divisions of the City of Helsinki. This was the first time that these kinds of indicators were collected into one coherent list. Previously the different departments (the City of Helsinki underwent an organisational renewal in 2017 combining the former departments under four divisions) of the city organisation had their own reporting procedures. The development and monitoring work related to the indicators necessitates close collaboration and information sharing within the organisation. This can be considered as a definite plus. Finally, developments

in some of the indicators have led to concerns about the direction of the development and the City Board has “ordered” analyses that are more detailed from the Urban Research and Statistics Unit at City Executive Office. Thus, there is potential that the monitoring of the strategic indicators will, in practice not just on paper, affect policy making at the city level. The indicators present in the Monitoring Report have also risen awareness concerning the state of Health and Welfare in the city of Helsinki and led, in part due to the report, to definite actions for combatting e.g. mental ill-being of the youth in Helsinki and for focusing on preventive actions. As such, the indicators help decision makers to concentrate on the most pressing issues.

Since the indicators used by the City of Helsinki have been in use only for a relatively short period, there has not really been discussions on further plans. The Monitoring Report has already been improved between 2019 and 2020 and further improvements, based on expert advice from various city divisions, are planned for in the immediate future (i.e. next update of the Monitoring Report). Naturally, at the end of the strategy period an evaluation on the achievements of the indicators will be made. The new City Council[9] will be selected in the next municipal elections in Finland in 2021. This will affect the next Strategy, meaning that changes to the targets are expected. This will lead to a need to develop new strategic and sector-specific indicators. Some continuity is, however, still likely to occur and at least some of the indicators are expected to remain the same also in the future.

In the future, the sector-specific (Health and Welfare) indicators are planned to be revised by engaging the citizens to discuss what is meant by the promotion of health and welfare (this work includes a deeper theoretical grounding of the concept). That is, the plan is to engage the citizens when drafting the next Welfare Plan.

Finally, the utilisation of big data is in the agenda of the City of Helsinki in the future. There are already “think tanks” within the city organisation considering how to utilise big data. This could be done in the form of, for example, experience-based data from citizens in order to illustrate sub-regional differences or how to “mine” (data-analytics) useful indicators from already available data within the city organisation.

[9] The City Board controls the municipal governance and implements the decisions of the City Council.

3 Measuring QoL

3.1 Indicators and measurement

Helsinki-Uusimaa Regional Council

The Helsinki-Uusimaa Regional Council has decided to use a list of six indicators (Table 3) to monitor their performance in achieving the targets of the Regional Programme. The region has worked closely with SPI and, thus, has chosen to utilise largely the indicators provided by SPI in their QoL (or wellbeing) measurement. SPI indicators are outcome, rather than input, indicators that are based on statistical data or on expert opinions (SPI, 2019). As such, the approach is still leaning on objective indicators. Moreover, the data is on aggregate NUTS-3 level and, thus, cannot inform about differences within the region or between groups of people or individuals. In terms of SPI, the Helsinki-Uusimaa region offers some of the world's best opportunities for a good life (the inhabitants have confidence in their personal rights and that they can make personal choices and access knowledge and advanced education). However, the number of young people not in employment, education or training (NEETs) is relatively high in the region of Helsinki-Uusimaa compared to a set of international comparison regions (Capital Region of Denmark, North Holland and Stockholm County). Therefore, the Helsinki-Uusimaa Regional Council has decided to add the NEETs indicator among the indicators from SPI to monitor the status and progress of human and social wellbeing in the region.

Table 3 List for indicators used by the Helsinki-Uusimaa Regional Council

Indicator	Data used	Type of indicator	Time scale	Territorial level
Access to Advanced Education	Years of tertiary schooling; Women's average years in school; Globally ranked universities; Percent of tertiary students enrolled in globally ranked universities	Composite	2016	NUTS-3
Access to Basic Knowledge	Adult literacy rate; Primary school enrolment; Secondary school enrolment; Gender parity in secondary enrolment	Composite	2016	NUTS-3
Personal Freedom and Choice	Vulnerable employment; Satisfied demand for contraception; Corruption	Composite	2016	NUTS-3
Tolerance and Inclusion	Acceptance of gays and lesbians; Equality of political power by gender; Equality of political power by socioeconomic position; Equality of political power by social group	Composite	2016	NUTS-3
Health and Wellness	Life expectancy at 60; Premature deaths from non-communicable diseases; Access to essential services; Access to quality healthcare	Composite	2016	NUTS-3
NEETs	Share of NEETs in the relevant age group	Disaggregated	2016	NUTS-3

Welfare Plan of the City of Helsinki

The progress of the Welfare Plan is mainly monitored using city-level strategic indicators decided by the City Board (Decision: HEL 2018-001538)[10]:

- Reducing inequality: Regional Segregation Index; effectiveness of preventive action; Deprivation Index; unemployment and long-term unemployment; family poverty; early childhood education attendance rate and its quality; youth left without a study place after finishing comprehensive school
- A city for all – healthy and on the move: the share of movement and sitting during waking hours; share of citizen's who exercise in their free time; children's and young people's physical ability to function; experience of health; experienced QoL
- Preventing marginalisation of children and youth: youth who are not employed or studying; youth left without a study place after finishing comprehensive school; share of children and young people with a hobby; mental and social wellbeing of children and young people
- Buttressing elderly people's ability to function and their feeling of partnership: experience of health; experienced QoL; experience of loneliness; user satisfaction with the city's digital services; realisation of resident engagement
- Promoting mental wellbeing and the non-use of intoxicants: experienced QoL; substance abuse among different population groups; moderate or severe depression experienced by children and young people; share of people drinking for the sake of intoxication; experience of loneliness
- Lively, distinct and safe neighbourhoods: experience of safety; resident satisfaction; accessibility from resident perspective; customer satisfaction with services

Some of the above indicators are not included in the strategic indicators of the City of Helsinki. These sector-specific (Health and Welfare) indicators are presented, along with a number of additional sector-specific indicators not mentioned in the Welfare Plan (such as bullying in schools, use of e-services by the elderly, number of alcohol-related deaths and casualties of traffic accidents, life satisfaction, etc.), in the Monitoring Report.

The indicators are mostly disaggregated individual input and output indicators but the QoL (or welfare) measurement framework does also include composite indicators (Table 4). Fist, for the indicator "Experienced QoL" the City of Helsinki utilises the (shortened) eight-item questionnaire design by the World Health Organization for measuring QoL (WHOQOL-8) (Schmidt et al., 2006):

1. How would you rate your QoL?
2. How satisfied are you with your health?
3. Do you have enough energy for everyday life?
4. How satisfied are you with your ability to perform your daily activities?
5. How satisfied are you with yourself?
6. How satisfied are you with your personal relationships?
7. Have you enough money to meet your needs?
8. How satisfied are you with the conditions of your living place?

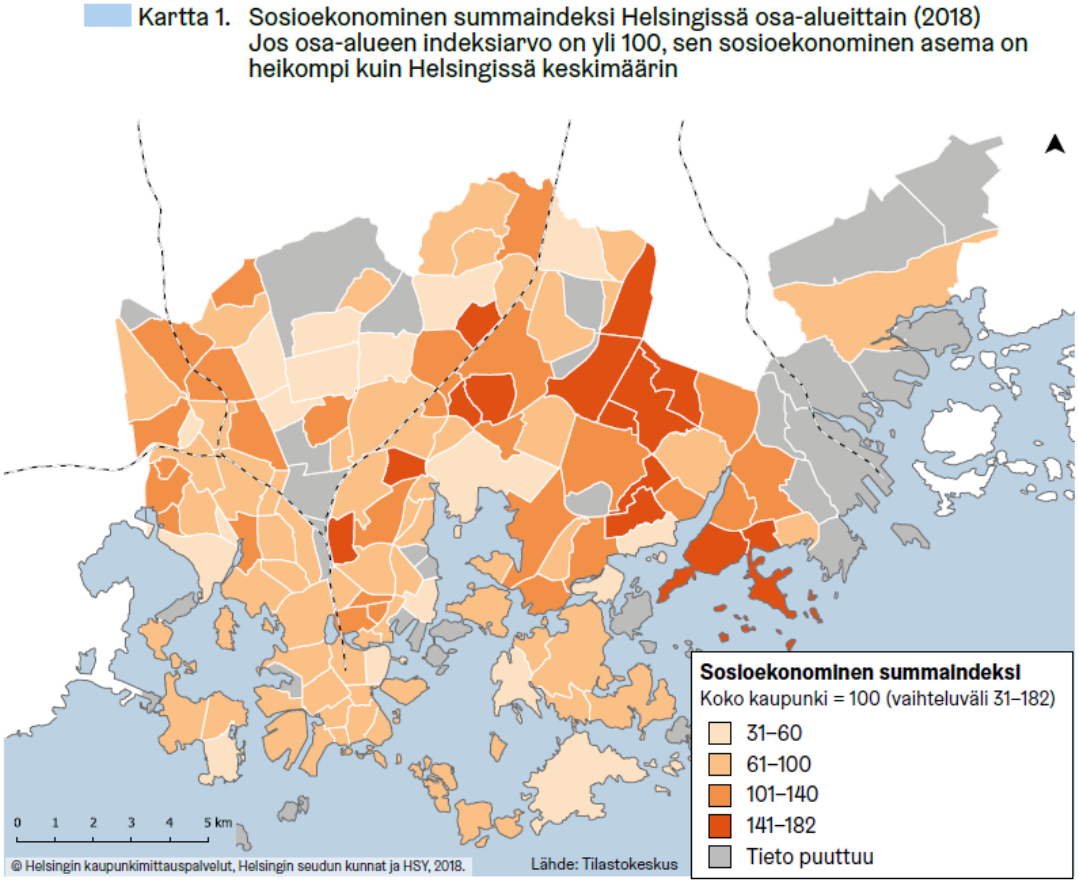
Similarly, the Deprivation Index is a summary variable constructed based on data on homelessness, alcohol abuse, loneliness and poverty, while the Regional Segregation Index (or Dissimilarity Index) is used as a demographic measure of the evenness with which two groups are distributed across component geographic areas that make up a larger area (for

[10] https://dev.hel.fi/paatokset/asia/hel-2018-001538/khs-2019-12/

details see e.g. Sakoda, 1981; White, 1983). Additionally, there are also qualitative descriptions on the progress for meeting the goals described in the Welfare Plan.

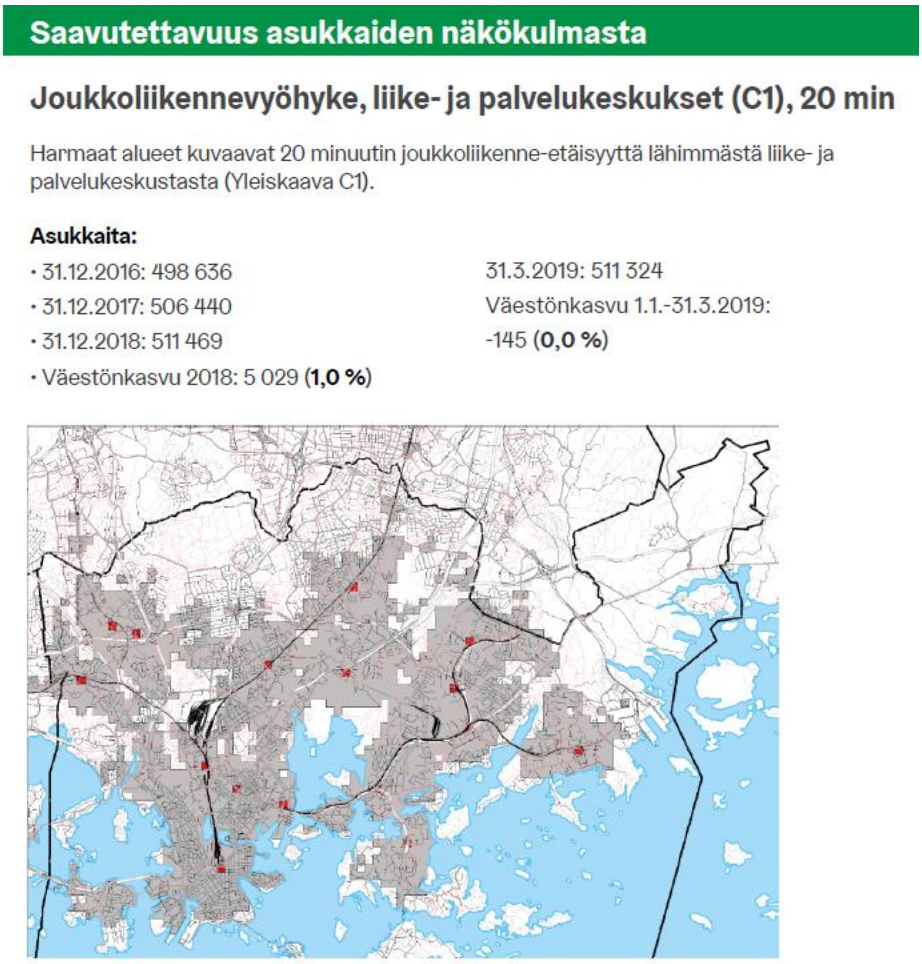
Most of the data presents only individual years at the municipality (LAU-2) level as averages hampering the use of the QoL measurement framework for time-series analysis and sub-regional comparisons. However, there are exceptions and examples of data on the neighbourhood and grid levels, which are presented in Maps 2–3. The upside of the framework is that differences between varying age groups are taken into consideration in the data collection.

Figure 8 Example of neighbourhood level data (Regional Segregation Index)



Source: City of Helsinki. Note: The Monitoring Report is published in Finnish only

Figure 9 Example of grid level data (Accessibility)



Source: City of Helsinki. Note: The Monitoring Report is published in Finnish only.

Further, the Welfare Plan has a separate Action Plan with a detailed list of 29 sub-goals and 110 actions. Each of these actions have their own monitoring indicators. That is, the different city's divisions have more detailed data on the development of their respective sectors than are reported in the Monitoring Report. The data sources are comprised from a mixture of official statistical indicators, surveys, impact assessments, project data, evaluations, etc. As these data as such are not meant to asses QoL, but rather to monitor the progress of the individual actions, the focus will be laid on the main strategic and sector-specific (Health and Welfare) indicators presented in Table 4.

Table 4 List for indicators used by the City of Helsinki

Indicator	Data used	Type of indicator	Time scale	Territorial level
Regional Segregation Index or Dissimilarity Index	Primary vs tertiary educated people; Lowest vs highest income quintiles; Immigrants vs native population	Composite	2000–2017/2019	Neighbour-hood
Effectiveness of preventive action	Body-Mass index; Blood pressure; Smoking	Disaggregated	2019	LAU-2
Deprivation Index	Number of homeless; Share	Composite	2015; 2018	LAU-2

Indicator	Data used	Type of indicator	Time scale	Territorial level
	of people drinking for the sake of intoxication; Share of people who feel lonely; Share of people receiving income support			
Unemployment	Unemployment rate	Disaggregated	2018–2019	LAU-2
Long-term unemployment	Long-term unemployment rate	Disaggregated	2018–2019	LAU-2
Family poverty	The number of children living in small-income households	Disaggregated	2017	LAU-2
Early childhood educations attendance rate and its quality	Share of children in early childhood education; Share of kindergarten teachers without suitable qualifications	Disaggregated	2018–2019	LAU-2
Youth left without a study place after finishing comprehensive school	Youth left without a study place after finishing comprehensive school	Disaggregated	2017–2019	LAU-2
The share of movement and sitting during waking hours	The share of movement and sitting during waking hours	Disaggregated	2018; 2019	2018
Share of citizen's who exercise in their free time	Share of people who exercise several hours per week	Disaggregated	2015; 2018	LAU-2
Children's and young people's physical ability to function	Physical tests to fifth and eighth graders: Running; Push ups; Posture	Disaggregated	2018–2019	LAU-2
Experience of health	Share of people who experience their health as mediocre or lower	Disaggregated	2015; 2018	LAU-2
Experienced QoL	WHOQOL-8	Composite	2015; 2017	LAU-2
Youth who are not employed or studying	NEETs	Disaggregated	2016–2017	LAU-2
Share of children and young people with a hobby	Share of children and young people with a hobby	Disaggregated	2017–2019	LAU-2
Mental and social wellbeing of children and young people	Share of children and young people with mental problems; Share of children and	Disaggregated	2017; 2019	LAU-2

Indicator	Data used	Type of indicator	Time scale	Territorial level
	young people who feel lonely			
Experience of loneliness	Share of people who feel lonely	Disaggregated	2015; 2018	LAU-2
User satisfaction with the city's digital services	User satisfaction with the city's digital services (Customer Effort Score)	N/A	N/A	N/A
Realisation of resident engagement	Service processes that utilise engagement methods	Disaggregated	2019	LAU-2
Substance abuse among different population groups	Share of young people who use cannabis	Disaggregated	2019	LAU-2
Moderate or severe depression experienced by children and young people	Moderate or severe depression anxiety felt by children and young people	Disaggregated	2017; 2019	LAU-2
Share of people drinking for the sake of intoxication	Share of people drinking for the sake of intoxication	Disaggregated	2015; 2018	LAU-2
Experience of safety	Feeling safe when walking in one's own area in weekend evenings	Disaggregated	2015; 2018	LAU-2
Resident satisfaction	The willingness of the residents to recommend Helsinki as a place to live (Net Promoter Score)	Disaggregated	2019	LAU-2
Accessibility from resident perspective	Accessibility to the closest service centre by foot, bike, public transport and car	Disaggregated	2016–2019	Grid level
Customer satisfaction with services	Customer satisfaction with the services	N/A	N/A	N/A

3.2 Data sources for QoL

Helsinki-Uusimaa Regional Programme

The data utilised for monitoring the progress of the Regional Programme is gathered from existing statistical databases (SPI and Eurostat) (Table 5). The benchmark year for the Regional Programme is 2016 against which progress can be later compared (to see whether the development goals set have been met). As presented in Table 3 the data is on NUTS-3 level.

Table 5 Overview of data sources used for measuring QoL by the Helsinki-Uusimaa Regional Council (all data on NUTS-3 level)

Description of the use	Indicator	Data source
	Access to Advanced Education	SPI
	Access to Basic Knowledge	SPI
	Personal Freedom and Choice	SPI
	Tolerance and Inclusion	SPI
	Health and Wellness	SPI
	NEETs	Eurostat

Welfare Plan of the City of Helsinki

The data sources for monitoring the progress of the Welfare Plan are very varied. The data are based on statistical indicators compiled from the databases of Statistics Finland (StatFin), the Social Insurance Institution of Finland (KELA) and the Finnish Institute for Health and Welfare (THL), on data collected by the city's divisions or on surveys (some of these data are freely available from the databases indicated in Table 6). Additionally:

- The measure for children's physical ability to function is based on a national physical functional capacity monitoring and feedback system for Finnish 5th and 8th grade pupils, called Move! (Finnish National Agency for Education, 2020)
- The share of movement and sitting during waking hours is based on the results of the "Kunnon kartta" -project, for adults, by the UKK Institute (Husu et al., 2018) and the "LIITU" -project, for children, by the National Sports Council (Kokko and Martin, 2019)
- Accessibility data is based on the Helsinki Region Travel Time Matrix (Toivonen et al., 2014)

Table 6 Overview of data sources used for measuring QoL by the City of Helsinki (data mostly on LAU-2 level)

Description of the use	Indicator	Data source[11]
Reducing inequality	Regional Segregation Index	StatFin
	Effectiveness of preventive action	Social Services and Health Care Division
	Deprivation Index	THL; KELA
	Unemployment	StatFin
	Long-term unemployment	StatFin
	Family poverty	StatFin
	Early childhood education attendance rate and its quality	Education Division
	Youth left without a study place after finishing comprehensive school	StatFin
A city for all – healthy and on the move	The share of movement and sitting during waking hours	UKK Institute; National Sports Council
	Share of citizen's who exercise in their free time	THL

[11] Some of the data available at: a) http://www.aluesarjat.fi/, b) http://www.hyvinvointitilastot.fi/ and c) https://www.nuortenhyvinvointikertomus.fi/

Description of the use	Indicator	Data source[11]
	Children's and young people's physical ability to function	Move!
	Experience of health	THL
	Experienced QoL	THL
Preventing marginalisation of children and youth	Youth who are not employed or studying	StatFin
	Youth left without a study place after finishing comprehensive school	StatFin
	Share of children and young people with a hobby	Survey
	Mental and social wellbeing of children and young people	Survey
Buttressing elderly people's ability to function and their feeling of partnership	Experience of health	THL
	Experienced QoL	THL
	Experience of loneliness	THL
	User satisfaction with the city's digital services	Survey
	Realisation of resident engagement	City's divisions
Promoting mental wellbeing and the non-use of intoxicants	Experienced QoL	THL
	Substance abuse among different population groups	THL
	Moderate or severe depression experienced by children and young people	THL
	Share of people drinking for the sake of intoxication	THL
	Experience of loneliness	THL
Lively, distinct and safe neighbourhoods	Experience of safety	Survey
	Resident satisfaction	Survey
	Accessibility from resident perspective	University of Helsinki[12]
	Customer satisfaction with services	Survey

The time coverage of the data is also very varied: some indicators are presented as relatively long time series, whereas most others provide snapshots of an individual year benchmarked against another individual year in the past (to show a development "trend"). Some of the data were still unavailable (N/A) at the time of the latest update on the strategic indicators (City of Helsinki, 2019d). However, most of the indicators[13] are now available as reported, for example, in Keskinen et al. (2020). The data is mostly on LAU-2 level but some of it is available on the sub-regional (neighbourhood) or grid level as shown in Table 4.

[12] Data available at: https://blogs.helsinki.fi/saavutettavuus/paakaupunkiseudun-matka-aikamatriisi/

[13] For example, in the case of the "customer satisfaction with services" -indicator the data do exist, but the problem is how to combine these data into a single indicator. Since the data exist per the city's divisions, the question is whether a composite indicator is actually needed or the data should be presented as sector-specific indicators.

4 Analysing and testing the methodology used in the case study as compared to the TQoL approach

4.1 Comparing the QoL approach in the case study with the TQoL conceptual model

The QoL measurement schemes under investigation in this case study report do not focus strictly on QoL but rather discuss related concepts such as wellbeing and health and welfare (Lambiri et al., 2007).

Helsinki-Uusimaa Regional Programme

The Regional Programme "describes" their priority area of Human Wellbeing and Competence as:

"Human wellbeing is built on the knowledge and skills that competent, open-minded and well-educated inhabitants of the Helsinki-Uusimaa region will require in the future. It is also important to understand global diversity as a strength by increasing diverse services, such as English-language day-care centres and schools and employment services for immigrants. The largest region in Finland must have the best standard of wellness services, while inhabitants need to play an active role in promoting their own wellbeing. For the perspective of regional inhabitants, it is very important to reinforce and maintain their sense of security by means such as community spirit." (p. 20)

Welfare Plan of the City of Helsinki

The Welfare Plan states that:

"Every Helsinkian should have the opportunity to live a good and fulfilling life and receive the necessary support and services at all stages of their life. Health and welfare promotion influences the comfort of life of the citizens, improves their experienced wellbeing, QoL and health and ensures that their everyday environments support a good and physically active life." (p. 3)

"Equal and high-quality basic services are the key to preventing inequality and marginalisation." (p. 8)

"Mutual trust and sense of solidarity between the citizens are factors that especially increase the city's comfort and safety…Sense of security is an important urban-development indicator because of the experience of personal safety in one's everyday environment affects wellbeing." (p. 23)

When considering the "territorial quality of life measurement system" utilised in this project, the indicators used by the Helsinki-Uusimaa Regional Council and City of Helsinki are mapped in Figures 10–11 in accordance with our conceptual model. The indicator allocation (indicated in red in the figures) to different domains and sub-domains is explained in further detail below.

Figure 10 TQoL framework used in the Helsinki-Uusimaa Regional Programme

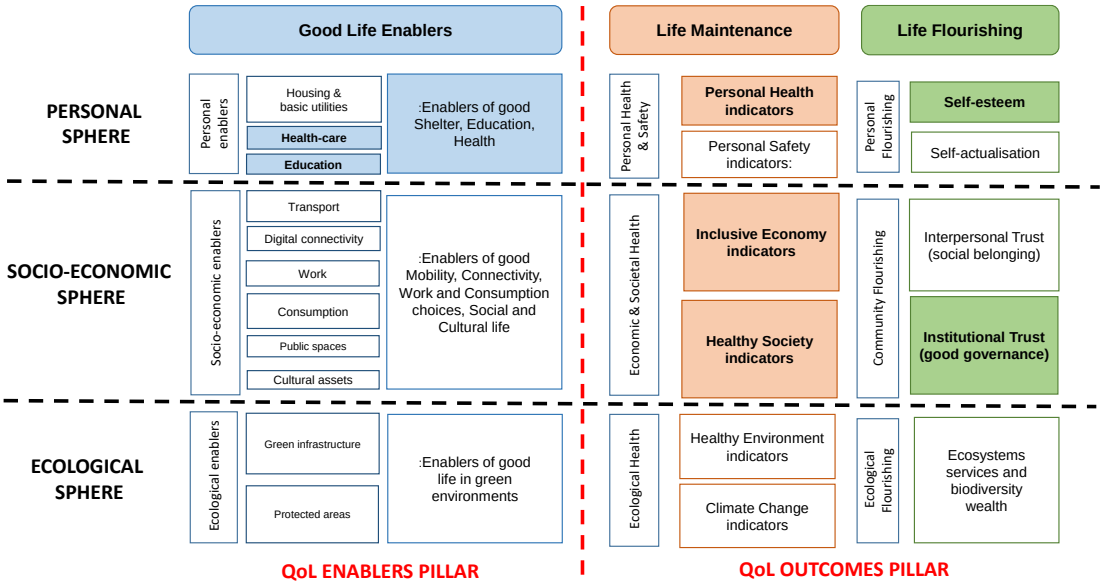
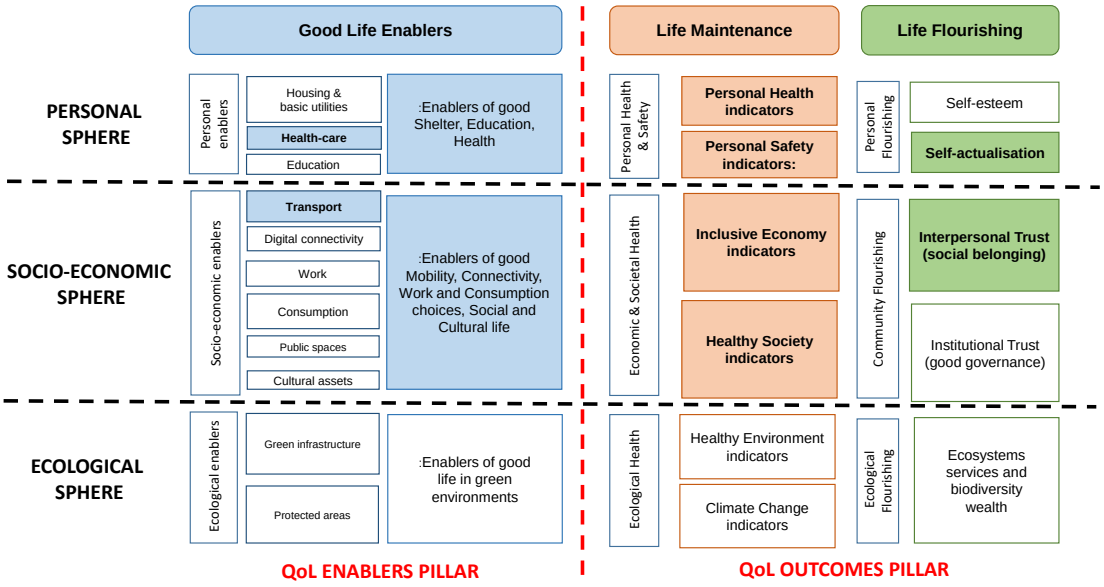


Figure 11 TQoL framework used in the Welfare Plan of the City of Helsinki



4.2 Coding the indicators

In the following, the indicators used for both QoL approaches under study in this case study report are allocated to the nesting system developed as the conceptual model of the project.

Table 7 shows our attempt to match the indicators used by the Helsinki-Uusimaa Regional Council with the nesting system. When matching the composite indicators to the different domains and subdomains, we find some interesting results. First, good-life enablers are barely considered: neither housing, socio-economic, nor ecological enablers are included in the QoL approach used by the Helsinki-Uusimaa Regional Council. Second, for the life maintenance and flourishing dimensions, the ecological health is completely excluded. Third, some composite indicators mix the dimensions (e.g. in “Health and Wellness” composite indicator we find both enablers and outcome indicators). Finally, life flourishing is covered only by one

composite indicator ("Tolerance and Inclusion"), which is a mixture of indicators measuring self-esteem and institutional trust.

Table 7 Coding of the Helsinki-Uusimaa QoL indicator system

Dimension	Domain	Sub-domain	Definition	*Comment*
Good Life Enablers	Personal enablers	Housing & basic utilities		
		Health	Health and Wellness	*E.g. Access to quality healthcare*
		Education	Access to Basic Knowledge and Advanced Education	*E.g. Years of tertiary schooling*
	Socioeconomic enablers	Transport		
		ICT connectivity		
		Work opportunities		
		Consumption opportunities		
		Public spaces		
		Cultural Assets		
	Ecological enablers	Green infraestructure		
		Protected areas		
Life Maintenance	Personal Health and Safety	Personal health indicators	Health and Wellness	*E.g. Life expectancy at 60*
		Personal safety indicators		
	Economic and Societal Health	Inclusive economy indicators	NEETs	
		Healthy Society indicators	Personal Freedom and Choice	*E.g. Vulnerable employment*
	Ecological Health	Healthy Environment indicators		
		Climate change indicators		
Life Flourishing	Personal Flourishing	Self-esteem	Tolerance and Inclusion	*E.g Acceptance of gays and lesbians*
		Self-actualization		
	Community Flourishing	Interpersonal Trust (Social Belonging)		
		Institutional Trust (good governance)	Tolerance and Inclusion	*E.g. Equality of political power*
	Ecological Flourishing	Ecosystems services and biodiversity wealth		

The same can be said in the case of the QoL approach utilised by the City of Helsinki (Table 8). First, the used indicators do not take into account the ecological sphere and give limited attention to the enablers of good life. However, the dimension of life maintenance is covered (apart from the ecological sphere) relatively well with several indicators, while also including some aspects of life flourishing.

Table 8 Coding of the City of Helsinki QoL indicator system

Dimension	Domain	Sub-domain	Definition	*Comment*
Good Life Enablers	Personal enablers	Housing & basic utilities		
		Health		
		Education	Reducing inequality	*E.g. Early childhood education attendance rate and its quality*
	Socioeconomic enablers	Transport	Lively, distinct and safe neighbourhoods	*E.g. Accessibility from resident perspective*
		ICT connectivity		
		Work opportunities		
		Consumption opportunities		
		Public spaces		
		Cultural Assets		
	Ecological enablers	Green infraestructure		
		Protected areas		
Life Maintenance	Personal Health and Safety	Personal health indicators	A city for all – healthy and on the move; Buttressing elderly people's ability to function and their feeling of partnership	*E.g. Experience of health*
		Personal safety indicators	Lively, distinct and safe neighbourhoods	*E.g. Experience of safety*
	Economic and Societal Health	Inclusive economy indicators	Preventing marginalisation of children and youth	*E.g. NEETs*
		Healthy Society indicators	Reducing inequality	*E.g. Family poverty*
	Ecological Health	Healthy Environment indicators		
		Climate change indicators		
Life Flourishing	Personal Flourishing	Self-esteem		
		Self-actualization	Promoting mental wellbeing and the non-use of intoxicants	*E.g. Experienced QoL*
	Community Flourishing	Interpersonal Trust (Social Belonging)	Promoting mental wellbeing and the non-use of intoxicants; Buttressing elderly people's ability to function and their feeling of partnership	*E.g. Experience of loneliness*
		Institutional Trust (good governance)		
	Ecological Flourishing	Ecosystems services and biodiversity wealth		

4.3 Other relevant features

In the following, we check for other features defined in our approach in order to asses to what extent they are used or considered in the QoL approaches of the Helsinki-Uusimaa Regional Council and the City of Helsinki.

4.3.1 QoL in a territorial context

Helsinki-Uusimaa Regional Programme

The Regional Programme discusses QoL both, as a feature attached to the geographical position ("quality of place" in terms of accessibility, transport, universities, etc.) of the region but also acknowledges "territorial QoL". This is visible particularly in relation to life resilience in terms of the emphasis on the ability of different social groups to possess the skills needed to face future changes/challenges.

Welfare Plan of the City of Helsinki

Although not explicitly stated so, the same as above applies to the Welfare Plan: while some of the monitoring indicators (e.g. accessibility) refer to "quality of place", several of them are related to "territorial QoL". That is, they are related to life resilience and life flourishing.

4.3.2 Involvement of citizens: Towards a citizen-centric approach to QoL assessment

Helsinki-Uusimaa Regional Programme

The Regional Programme sets the inclusion of citizens at the core of its development objectives. Further, the Regional Programme underlines the importance of considering targeted actions towards different genders and population groups. The implementation of the Regional Programme is said to be designed in a way that allows assessment from the perspectives of achieving equality and equitability. However, this does not come across very clearly in the way that QoL is measured in the Regional Programme. Rather, when it comes to the monitoring of the Regional Programme the focus is on "clear, "easy-to-understand" and "internationally comparable" indicators (p. 50), which in practice means that existing (objective) indicators are used for monitoring. Citizens were able to comment the Regional Programme as a whole, but the adoption of the SPI approach was more or less fixed. That is: There is no citizens centric QoL mapping scheme in use; The data collection is mainly based on aggregate level indicators, which do not describe the local context nuances and dynamics between the core and peripheries of the region or between different socio-economic groups in the region; Citizens are not involved in the definition of the QoL; Big data is not utilised.

Thus, while it is acknowledged that the citizens-centric approach is an important development point in the future, it is also considered that since measuring QoL is extremely complicated the idea of activating citizens to discuss what indicators to use can be questioned. The Regional Council deems that their contacts to regional stakeholders (universities, municipalities, etc.) are a more fruitful form of collaboration when it comes to complex issues like QoL measurement.

Welfare Plan of the City of Helsinki

The Welfare Plan takes a more active role in developing a citizens-centric approach on QoL assessment. The Welfare Plan (implemented in all of the city's service activities and divisions) stresses how it is an outcome of extensive considerations on equality, human rights, equal opportunities and participation. However, in relation to the strategic indicators used to monitor the Welfare Plan; citywide targets were set in the Strategy and the aim for the measurement scheme in use was to find suitable indicators to describe the development toward meeting these

targets. Thus, citizen involvement was not considered as necessary in the development stage of the indicators.

Notwithstanding, while the opinions of the citizens were not collected by large in the development work of the indicators, the Welfare Plan does include some elements of citizen involvement. There are examples of co-creation projects (e.g. the area of Baana and Töölönlahti) and the opinions of and feedback from the elderly – recorder in residents' events and through surveys – are taken into account when choosing which actions to promote in the Welfare Plan. Moreover, the "realisation of resident engagement" is actually one of the indicators included in the QoL measurement scheme. As such, data collection (for measuring QoL) is not solely based on aggregate level data but also collected per different population (age) groups (children and young people and the elderly) – to combat increasing inequality of vulnerable groups and between neighbourhoods – and based on the opinions of individual citizens. Some of the data on different socio-economic groups are not reported to the general public but are available to the City Board and City Executive Office.

The idea of the indicators is to give a general picture of the overall development of the city and the development of city's divisions. Thus, fine-grained breakdown to sub-regional units is not, as such, among the aims of all the indicators. Additionally, in some indicators the data does not allow sensible divisions into sub-regional units due to small sample sizes. However, some of the data is broken down to sub-regional units to map the indicators at the neighbourhood or grid, and not just at the aggregate LAU-2, level. As such, the City of Helsinki is taking the segregation of neighbourhoods (in terms of income level and wellbeing) very seriously. Finally, while big data is not really utilised (yet), it is considered a definite direction for further developments in the measurement of QoL in Helsinki.

Summary: Towards a citizen-centric approach to QoL assessment

To conclude, while aspects like Tolerance and Inclusion are taken into account, the QoL framework of the Regional Programme still utilises existing datasets, from SPI and Eurostat, and is thus (mostly) based on objective indicators. Contrarily, the monitoring of the Welfare Plan is more in tune with the idea of a citizens-centric approach. While SPI is an alternative for economic indicators, such as GDP, Helsinki-Uusimaa Regional Council would benefit from adding more subjective measures into its QoL measurement scheme. As such, it could adopt some of the measures used by the City of Helsinki to monitor its progress in facilitating QoL. This is relevant particularly in the case of the indicators adopted from THL – relating to experienced health, loneliness, QoL, etc. – with good data availability. Both the Helsinki-Uusimaa Regional Council and the City of Helsinki would benefit from involving their citizens in the development work of future indicators. Citizens could indicate the indicators most relevant to their QoL and propose new means to measure them. Relatedly, citizens should be engaged more in the co-production of data. Since the City of Helsinki already utilises surveys to measure their QoL, this particularly applies to the Regional Council, which is relying on existing data sources (based on statistical data and expert opinions). Additionally, big data sources constitute unexploited potential for the measurement of QoL for both governance levels: the regional and the local.

Misperceptions vs. fact-based evidence

When it comes to "factfulness", the **Regional Programme** does discuss the role of ignorance, misperceptions and fact-based evidence by stating:

"An adequate level of general knowledge prevents negative attitudes stemming from ignorance and will help inhabitant of the Helsinki-Uusimaa region to assess the reliability of the information that they acquire." (p. 23)

Moreover, the Regional Programme acknowledges that the use of composite indicators does not always provide a sufficiently detailed picture (one also needs to look beyond the composite indicators):

"Without more in-depth analysis, however, composite indices do not provide a sufficient picture of the reference regions. It is also important to look behind the indices and see our own strengths, which we need to maintain and consolidate, while identifying areas where we still have to improve." (p. 13)

Similar as above, the **Welfare Plan** does stress the importance of new knowledge and acknowledges the limitations of existing indicators:

"The Welfare Plan is a compilation of city-wide actions compliant with the focuses and knowledge-based effective actions for supporting the citizens' health and wellbeing." (p. 4)

"We need to achieve better understanding of marginalisation, inequality and wellbeing by using new research methods, creating new information sources and making research information better available to decision-makers. To combat increasing inequality, new information is needed on not only the state and development trends of the entire population's wellbeing but also on the situation of new and vulnerable groups, in particular." (p. 8)

The whole idea behind the monitoring of the progress of the Welfare Plan is based on the idea of "knowledge-based management". That is, the indicators are needed to show evidence which actions actually make a difference.

4.4 Mapping the indicators: Testing and feed-back on the methodology

This case study was one of the first where the team tried to test the methodologies proposed in the Main Report. Starting point was the attempt to apply the LC-clustering. A number of indicators reflecting QoL dimensions were assembled. As it turned out that the LC-clustering did not deliver stable results for territories with a small numbers of territorial units, the team moved to developing a dashboard, for easy application of data sets. This dashboard reflects the spheres and sub-domains and can be filled to the extent of data availability. Therefore, the Helsinki case was the first where we used the dashboard and adapted it. The following section describes these two steps.

4.4.1 Application of LC-clustering to test the indicator framework

First, a data set for the "k-clustering QoL indicators" methodology was compiled and is presented in Table 9. The indicators were selected to correspond, as closely as possible, to the 13-dimension territorial QoL framework and the 8+1 dimension of the EUROSTAT QoL project (for details see the project's main reports) by selecting proxies to measure each dimension. Naturally, data availability issues played a role: proxies for all dimensions were not readily available from official data sources (i.e. databases collected by European and Finnish statistical authorities)[14].

[14] Data and descriptions are available upon request from the author of this report.

Table 9 Checklist for indicators originally prepared to test the "k-clustering QoL indicators" methodology

QoL dimension	Variables	Level	Source
Material and living conditions	Disposable income of households	LAU-2	StatFin
	People at risk of poverty or social exclusion	NUTS-3	Eurostat
	People living in households with very low work intensity	NUTS-3	Eurostat
	Severe material deprivation rate	NUTS-3	Eurostat
The productive or main activity	Employment by sex, age group	LAU-2	StatFin
	Employment by full-time/part-time, sex	NUTS-0	StatFin
	Unemployment by sex, age group	LAU-2	StatFin
	Long-term unemployment (over 12 months)	LAU-2	StatFin
	The average number of usual weekly hours of work in main job by sex, age	NUTS-0	StatFin
Demography and health	Population by sex and age groups	LAU-2	StatFin
	Population density	LAU-2	StatFin
	Old-age dependency ratio	LAU-2	StatFin
	Ageing index (>65/<14)	LAU-2	StatFin
	Life expectancy by age, sex	NUTS-3	StatFin
	Infant mortality rates	LAU-2	StatFin
	Fertility rates by age	LAU-2	StatFin
	Natural change of population	LAU-2	StatFin
	Net migration, total, by age groups	LAU-2	StatFin
Education	Participation rates of selected age groups in education	LAU-2	StatFin
	Population aged 30-34 by educational attainment level, sex	LAU-2	StatFin
	Population aged 25-64 by educational attainment level, sex	LAU-2	StatFin
	Early leavers aged 18-24 from education and training by sex	LAU-2[15]	StatFin
	Young people neither in employment nor in education and training (NEETs)	LAU-2	StatFin
Leisure and social interaction (only digital access and use indicators)	Individuals who have never used a computer	NUTS-3	Eurostat
	Households with broadband access	LAU-2	Traficom[16]
	Individuals who used the Internet, frequency of use and activities	NUTS-3	Eurostat
	Individual who used the Internet for interaction with public authorities	NUTS-3	Eurostat
	Individual who ordered goods or services over the Internet for private use	NUTS-3	Eurostat
Economic and physical safety	Victim in road accidents	NUTS-3	StatFin
	Crimes reported by the police	LAU-2	StatFin
Nature and living environment	Share of energy from renewable resources	NUTS-0	Eurostat
	Greenhouse gas emissions by source sector	LAU-2	Hinku[17]
	Degree of urbanisation	LAU-2	StatFin

In Finland, the "lowest" regional level for statistical purposes is the municipal level (LAU-2). Only some very basic information (population, etc.) is available on smaller geographical scales (neighbourhoods, postal code areas, grid level). However, some of the data needed for the

[15] Cannot distinguish between age groups nor sex, missing data for some municipalities
[16] Data available at: https://www.traficom.fi/fi/tilastot/kiintean-verkon-laajakaistasaatavuus
[17] Data available at: https://www.hiilineutraalisuomi.fi/en-US

purposes of “k-clustering QoL indicators” methodology is not accessible at the LAU-2 level but only on either NUTS-0 (national average) or NUTS-2 level (in the case of Helsinki-Uusimaa region the NUTS-2 represents the same territorial delineation than the NUTS-3 level) (Table 9). Since the Helsinki-Uusimaa region has only 26 municipalities (i.e. too few for statistical purposes – the number of administrative units considered should be more than 50 at minimum and ideally more than 100) the “k-clustering QoL indicators” methodology could not be tested in the region.

However, since the SPI indicators utilised by the Helsinki-Uusimaa regional council do not provide information on intra-regional variations, the data collected in the project proved useful for the purposes of advancing with a concept (“dashboard”) for measuring territorial QoL. The team therefore has developed a tool that is more flexible in including regions with smaller numbers of territorial units. The tool also enables to identify regional data gaps in measuring QoL.

4.4.2 Testing the dashboard

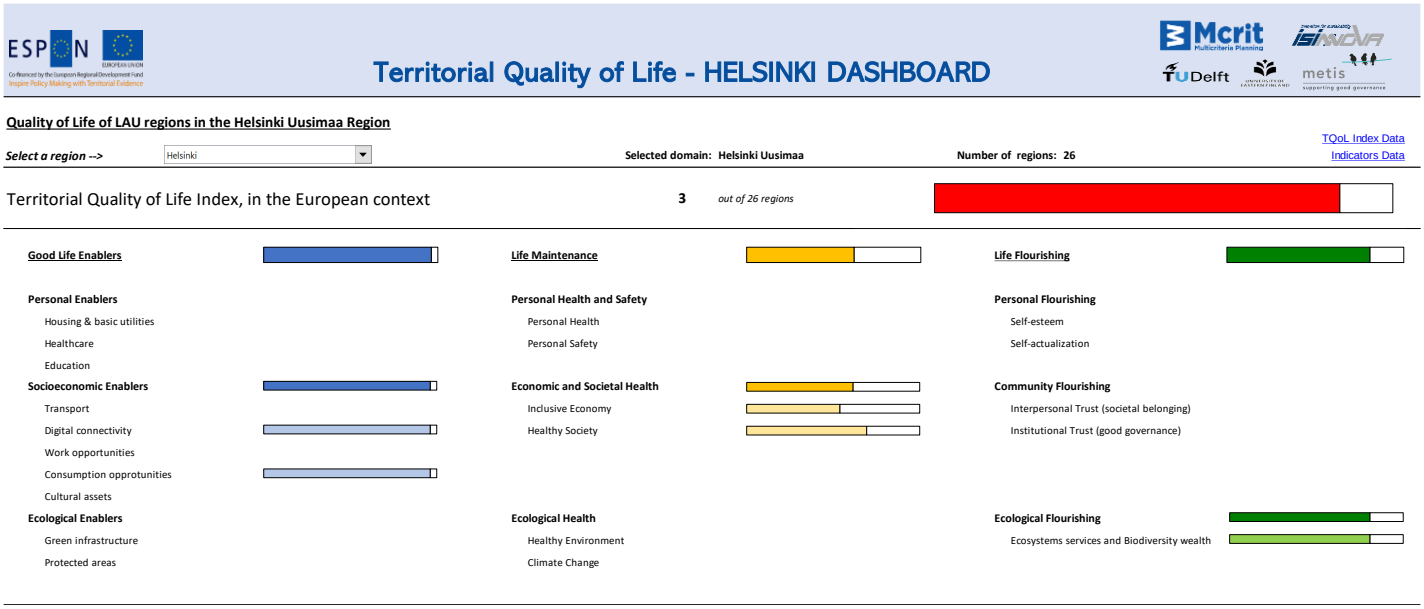
The data presented in Table 9 was used as the starting point to test the dashboard developed in the project to provide the region a way to benchmark the performance of its municipalities on the indicators that provide data coverage on LAU-2 level. This data also surpasses some of the “limitation” of the existing QoL approach by introducing indicators that take into account the ecological sphere of QoL (greenhouse gas emissions; see Figure 12) and adds indicators concerning the enablers of good life (such as ICT connectivity – households with broadband access). However, data availability does set limitations to the use of the dashboard in the Helsinki-Uusimaa case: several of the dimensions and sub-domains mentioned in our conceptual framework do not have readily available data to allow mapping them with the help of the dashboard.

For the dashboard we allocated the indicators to the subdomains in the nesting system (this table is presented in the annex). We only used data at LAU level and tried to include the indicators that best represent the sub-domains. The indicators cover some, but not all of the sub-domains.

The dashboard then shows the sub-domains reflecting the QoL in a region as compared to other regions, including the rank.

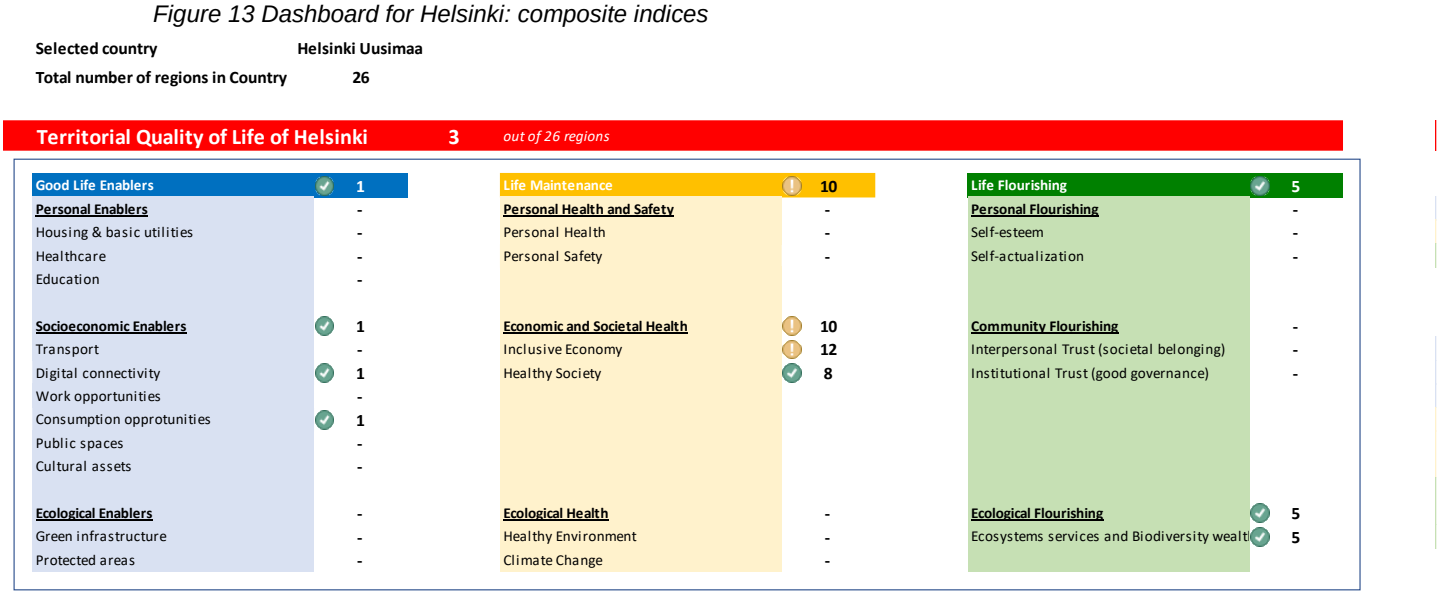
The following figures represent an example of the application of the dashboard. With data for the LAU Helsinki the dashboard shows its relative position in the QoL domains and sub-domains in relation to the other territorial units in Helsinki-Uusimaa region. The dashboard is available for all 26 regions. Each sub-domain is shown as a bar chart for the normalized average of the chosen indictors.

Figure 12 Dashboard for Helsinki: scales for domains and sub-domains



The second outcome of the dashboard is to get a quick overview on the ranking of all sub-domains: green is for a high ranking, while the exclamation marks in yellow show lower rankings.

Figure 13 Dashboard for Helsinki: composite indices



Finally, the dashboard also includes a possibility to weigh the dimensions and domains in the dashboard. This feature has not been used in the case study. The following figure shows the weighting system and provides an overview, for which domains no data are available.

Figure 14 Dashboard for Helsinki: ranking

Weighting System

Dimension Weights

Quality of Life Enablers	5
Life Maintenance	5
Life Flourishing	5

Domain Weights

Personal Sphere	*No data available*	5
Socioeconomic Sphere		5
Ecological Sphere	*No data available*	5
Personal Health and Safety		5
Economic and Societal Health		5
Ecological Health	*No data available*	5
Personal Flourishing	*No data available*	5
Community Flourishing	*No data available*	5
Ecological Flourishing		5

5 Synthesis and conclusions

The Finnish capital region (Helsinki-Uusimaa region) can be considered as an interesting case study location due to its good performance in various global and European QoL rankings. Here the QoL measurement schemes of the regional (Helsinki-Uusimaa Regional Council) and one local authority (City of Helsinki) were selected under closer scrutiny. That is, the measurement frameworks for monitoring the progress towards meeting the stated development objectives of the Helsinki-Uusimaa Regional Programme and the Welfare Plan of the City of Helsinki were analysed and compared in this case study report.

The results revealed that a citizens-based approach QoL assessment is not yet in use by either of the authorities. The City of Helsinki is doing a better job in engaging the citizens in its QoL measurement, for example, by utilising surveys for data collection but there too, the citizens were not involved in the planning stages of the indicator selection and development. In similar vein, most of the indicators in use by the Helsinki-Uusimaa Regional Council and the City of Helsinki relate to life maintenance but less so to good life enablers and life flourishing. However, as a positive note the importance of fact-based evidence is underlined by both authorities.

The QoL (or wellbeing) measurement scheme of Helsinki-Uusimaa Regional Council is mainly utilised for external communications (to market the region) and monitoring purposes (to verify whether the goals set in the Regional Programme, are reached or not). The Helsinki-Uusimaa Regional Council utilises SPI data for its QoL measurement, which has its pros and cons (Table 10). It allows benchmarking to other European regions but on the downside, it poorly fits to the region's monitoring needs. With SPI indicators, one cannot establish causal relations between the actions taken and the actual progress. Similarly, SPI indicators cannot easily be divided to the sub-regional level to units such as municipalities. Therefore, differences between the core and peripheries of the region cannot be distinguished. Outdated data sources, the poor relevance of some of the variables constituting the indicators, the updating interval of SPI data, the stability of the data sources and indicators (will they vary from year to year) and the availability of some of the data only as national averages are further concerns when considering the feasibility of SPI as a measurement framework for monitoring QoL development. To be blunt: clearly, SPI is not suitable for monitoring the progress in meeting the goals set in the Regional Programme and, thus, alternative measures are needed. The dashboard approach developed in the project alleviates some of these shortcomings (particularly the inability of SPI indicators to detect sub-regional variation). It can provide a summary of the QoL domains and sub-domains for the data used and highlight the gaps that exist in the available data.

In the City of Helsinki, the selected QoL (or welfare) measurement framework has partly been influenced by data availability but several of the included indicators have been designed for the purposes of monitoring the development of the Welfare Plan. Data sources are, thus, varied (data from statistical authorities, surveys, etc.). Here also there are pros and cons to the selected approach (Table 10). The pros include, for example, relatively good data availability, stability of the data sources (at least in the short term), the visualisability of the data, etc. However, there are also problems, for example, in updating the data (not all data are from the same year), concerning the interpretability of the indicators (what does an increase of, for example, 2% in something actually mean) and in relation to combining data from various sources (mismatches in temporal, regional and socio-economic coverage of the data). Notwithstanding these difficulties, the Monitoring Report, where the indicators are presented, has received good feedback for its feasibility to guide the local decision makers to improve the QoL of the citizens of Helsinki.

Table 10 Summary of the pros and cons of the QoL measurement approaches in use in the Helsinki-Uusimaa region

Measurement scheme	Pros	Cons
Helsinki-Uusimaa Regional Programme	External marketing; Benchmarking	Monitoring; Sub-regional coverage; Data stability; Updating interval
Welfare Plan of the City of Helsinki	Data availability; Data stability; Visualisability; Monitoring; Guides decision making	Mismatches in data coverage (temporal; geographical; socio-economic); Interpretation

COVID-19 and impact on QoL

Finally, while the contemporary Covid-19 outbreak severely affected the Helsinki-Uusimaa region – the region has had the highest amount of Covid-19 cases in Finland and was quarantined from the rest of the country for a couple of weeks in order to reduce movement and contact to curb the spread of the virus – the QoL indicators utilised by the Helsinki-Uusimaa Regional Council and the City of the Helsinki do not take the impacts that Covid-19 has had (or will have) into account. Having said this it is fair to acknowledge that the outbreak of Covid-19 was such an unprecedented event that it is only natural that regional authorities have not recognised a need to tailor indicators for measuring such impacts. Some of the indicators used for the monitoring of the Welfare Plan, like the experience of loneliness and user satisfaction with the city's digital services, will undoubtedly reflect the impacts of the Covid-19 pandemic. However, building a causal link between changes in the figures of these indicators and Covid-19 remains a task for future developments in the measurement of QoL in the region.

6 Recommendations

6.1 How the QoL concept and indicators could be further developed in the region

Particularly, the Helsinki-Uusimaa Regional Council would benefit from adding more subjective measures into its' QoL measurement scheme to go beyond its contemporary focus on attributes mainly related to quality of place. In general, the citizens-centric approach is an important development point in the future: involving the citizens to define what QoL means for them and in the development work of the QoL measurement schemes (not just in the data collection phase) would improve the relevance of the indicators for both the authorities and the citizens. At least the City of Helsinki already has definite plans for engaging the citizens more closely to the development work of the next Welfare Plan. Similarly, big data is not yet utilised in the measurement of QoL in the region. However, this was considered a definite direction for further developments by both authorities. Tackling the issue of monitoring the progress with indicators already in the planning phase of the future Regional Programmes and Welfare Plans would improve the fit between them. As of now, indicator selection is done ex-post, which has proven problematic in terms of measurement: not all targets are expressed in a way that allows their monitoring. Thus, there are mismatches between the targets and what actually is measured. Applying the factualness approach would allow the authorities to make a distinction between misconceptions and fact-based evidence. Finally, the indicator selection does not take into account the issue of measuring the potentially deteriorating effects of crises (such as the Covid-19 outbreak) with severe negative impacts on QoL.

To sum up, definite directions for further development in the region, thus, include:

- Subjective measures would provide more insights into territorial QoL aspects of life flourishing
- Citizen-centric approach would increase the relevance of the indicators in terms of their coverage on QoL issues deemed important by the citizens themselves
- Big data sources constitute unexploited potential for the measurement of QoL
- Indicator selection should be considered when drafting targets for better QoL to improve the fit between facilitating (targets) and measuring (indicators) QoL
- Factualness approach would allow a systematic way of distinguishing misconceptions and fact-based evidence when measuring QoL.
- Device indicators that would take into account the potential impacts of severe crises such as the Covid-19 pandemic

Finally, the impact of the QoL measurement exercises could be improved by integrating them more closely to the action/implementation plans as the frameworks of project selection and evaluation to improve the coherence between the overall goals of the authorities and the goals of individual projects. Moreover, as there seems to be no apparent plans for reacting to negative developments in the selected indicators, having some preliminary procedures for tackling the potential deterioration in QoL would facilitate fast reaction to unwanted progress.

6.2 How the QoL concept of this ESPON project can be improved and enriched

A definite recommendation on what ESPON should do to improve, support and develop a European approach towards a territorialised QoL measurement is that ready-made available indicators do not necessarily help the regions in tackling their most severe issues in relation to QoL. Therefore, caution is needed when adopting indicators build for other purposes than for the specific monitoring needs of the regions. A more useful approach would be to apply ready-

made indicators only in the (rare) event that they suit the regions' needs and invest more effort in building their own fit-for-purpose indicators. ESPON should support this development rather than to fixate on some specific individual indicators by ensuring good data availability (temporal, regional and socio-economic coverage) on a large number of QoL related indicators not just the ones deemed as most suitable for benchmarking purposes. This applies to "traditional" but also to potential new indicators build, for example, on big data.

6.3 How Cohesion Policy could contribute to enhance QoL in the region?

The central aim of the EU's Cohesion Policy is to strengthen economic and social cohesion by reducing disparities in the level of development between its Member States and regions. For example, the Cohesion Fund is aimed at Member States whose Gross National Income per inhabitant is less than 90 % of the EU average.[18] Therefore, the Helsinki-Uusimaa region is not at the "receiving end" of Cohesion Policy.

However, the key aspects of the Cohesion Policy can be further dismantled to the sub-regional level: regions have cores and peripheries. Further, the most vulnerable individuals (low income, low education, etc.) in any region are commonly the most affected by, for example, austerity crises (Weckroth et al., 2017), deteriorating public (health) services (Rauhut, 2020), etc. Therefore, to support intra-regional cohesion, regional policies need to be people-based for ensuring QoL inclusively for all citizens across different socio-economic groups and to be designed in a way that takes into account geographical differences (not just the averages) in QoL within the region (Makkonen and Rauhut, 2020).

[18] https://ec.europa.eu/regional_policy/en/funding/cohesion-fund/

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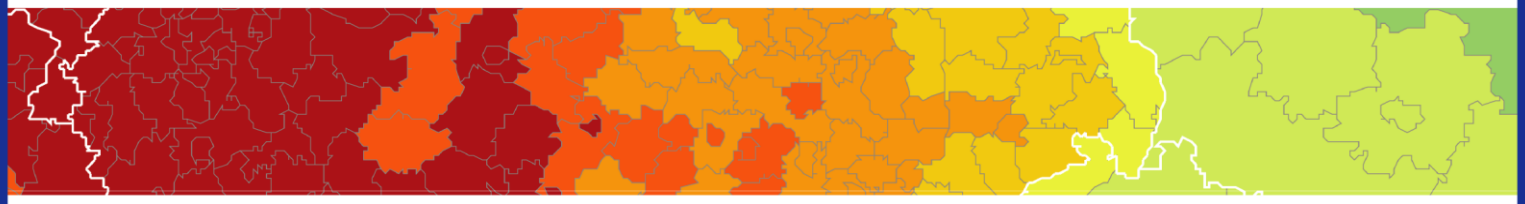
8 Annex

Table 11 Nesting system used for the dashboard

Dimension	Domain	Name	Sub-domain	Helsinki region	Indicators for Helsinki	
Quality of Life Enablers	Personal Sphere	b11	Housing & basic ut			
		b12	Health			
		b13	Education			
	Socioeconomic Sphere	b21	Transport			
		b22	Digital connectivity	**broad** **net** **net_pub**	*Broadband coverage (Download speed ≥ 2 Mbit/s)* *Individuals who used the Internet* *Individual who used the Internet for interaction with public authorities*	
		b23	Work	**full_men**	*Employment full-time men (%)*	*Employment full-time women (%)*
		b24	Consumption			
		b25	Public spaces	urb	*Rate of ubranization*	
		b26	Cultural Assets			
	Ecological Sphere	b31	Green infraestructure			
		b32	Protected areas			
Life Maintenance	Personal Health and Sa	m11	Health	**life_men**	*Life expectancy men*	*Life expectancy women*
		m12	Safety	**road** **crime**	*Number of victims of road accidents (dead and injured)* *Crimes reported by the police*	
	Economic and Societal	m21	Healthy Economy	**d_income** **wh_men** **empl_men**	*Disposable household income, average, €* *The average number of usual daily hours of work (hours) men* *Employment men (%)*	*People at risk of poverty or social exclusion by NUTS regions* *The average number of usual daily hours of work (hours) women* *Employment women (%)*
		m22	Healthy Society	**risk_ps** **early** **edu_25_s** **edu_25_h**	*People at risk of poverty or social exclusion by NUTS regions* *Discontinued education %* *Education_25-64_ with secondary education, total* *Education_25-64_with higher education, total*	
	Ecological Health	m31	Healthy Environme	**energy**	*Share of energy from renewable resources*	
		m32	Climate Change	**co2**	*Tonnes of carbon dioxide equivalent/population*	
Life Flourishing	Personal Flourishing	f11	Self-esteem			
		f12	Self-actualization	**neet**	*Share of yong peopple (15-29) not in employement, education or in military/civil service)*	
	Community Flourishing	f22	Interpersonal trust/Social belonging			
		f22	Interpersonal trust/Social belonging			
	Ecological Flourishing	f31	Biodiversity Wealth			



ESPON 2020 – More information

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