

ESPON QoL – Quality of Life Measurements and Methodology

Annex 7 to the Final Report
Case study: North-East Iceland

Applied Research

Final Report

30th October 2020

Final Report

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Annex 7 to the Final Report Case Study 04:

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The final version of the report will be published as soon as approved.

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Abbreviations

FUA Functional Urban Area
GDP Gross domestic product
LAU Local administrative unit

QoL Quality of Life

SDG Sustainable Development Goals

TQoL Territorial Quality of Life

UN United Nations

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:

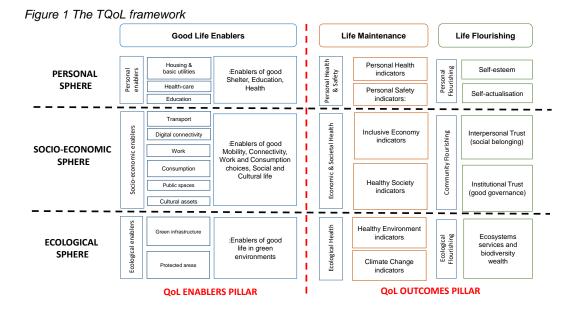
- A) to collect good practices that can be adopted in other European regions, and
- B) to make use of the methodology developed and allow for adjustments through testing in case studies.

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.



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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	
	, and the second	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

One key purpose of the case studies is to understand in which policy contexts and how the concept of QoL is used, and explore the achievements and what are the shortcomings, the acceptance of the concept as a policy instrument and the obstacles in implementing it. For this purpose, several interviews with persons responsible for the QoL measurement and applications have been conducted.¹

1.1 Characteristic of the Region

Iceland and its settlement characteristics have in several ways a rather unique position in the European context. The total population size is about 346,000², of which ca 2/3 live in the metropolitan areas around the capital city Reykjavík.³ About 80 per cent of the Icelandic population lives within one-hour drive from Reykjavík.⁴ Such dominating functional urban area in a country is unique. Most of the remaining population lives in towns along the coast but roughly 6 per cent live in what is defined as rural communities and therefore the country can be considered very urbanised.⁵

The population density for the whole country is merely 3.4 persons per km² making Iceland Europe's most sparsely populated country. While the population density in the capital region is 217.9 persons per km², the population density is only 1.1 persons per km² outside the capital region.⁶

Iceland has two administrative levels of government: The State and the Local Authorities. The local authorities play an important role in the implementation of regional democracy. The right of self-government is also reiterated in Article 2 of the Act on Local Authorities, which states that no matter involving the special interests of a local authority shall be finally determined without the local authority's opinion. The municipalities provide their residents with general basic services. Each local authority can formulate its policy on which services it will provide that are not required by law, and this is founded on its constitutionally provided right of self-government. By far the biggest part of Icelandic local authorities' income (63%) is based on municipal income tax. Various service fees account for 18% of the income, property taxes 11% and income from the Municipality Equalisation Fund accounts for 8% of total revenues.⁷

¹ Pétur Berg Matthíasson (Senior Policy Advisor, the Prime Minister's Office); Anna Lea Gestsdóttir (Advisor, Icelandic Regional Development Institute); Hjalti Jóhannesson (Researcher, Akureyri Research Centre); Eiríkur H. Hauksson (Director, Búfesti housing cooperative); Guðmundur Haukur Sigurðarson (Director, Vistorka); Soffía Gísladóttir (Director, Directorate of Labour Northeast and East Iceland offices); and Vifill Karlsson (Advisor, West Iceland Regional Office).

² Statistics Iceland (2020) Statistical database [accessed on 24 March, 2020], www.hagstofa.is

³ ESPON (2013) Case study report: Iceland. Annex 10d to Scientific Report, Indicators and Perspectives for Services of General Interest in Territorial Cohesion and Development (SeGI). Luxembourg: ESPON.

⁴ Arion Research (2017) The Icelandic Housing Market – Still in search of equilibrium. Reykjavik: Arion Bank.

⁵ ESPON (2013).

⁶ Eurostat (2020) Statistical database. https://ec.europa.eu/eurostat/data/database [accessed on 6.3.2020].

⁷ Sigurdur Sverrisson and Magnús Karel Hannesson (n/a) Local Governments in Iceland. Reykjavik: The Association of Local Authorities in Iceland.

However, some welfare services are run by the central government. Health care is one of them.⁸ Education is run differently: Municipalities are responsible for the operation of pre-primary and compulsory schools, whereas the operation of upper secondary schools and higher education institutions is the responsibility of the State.⁹

1.2 Rationale for Selecting the Case Study

In many ways Iceland, and especially the part of the country outside metropolitan capital area, represents extreme conditions for QoL. **To provide and maintain a good QoL in such ultra-peripheral area is indeed challenging.** Despite the extreme conditions for QoL on Iceland, the Icelanders appears relatively happy with their QoL in different surveys. ¹⁰ This is a good rationale for selecting the LAU1 region North Eastern Iceland as a case study area. In many countries, it is common that remote, peripheral and sparsely populated regions fall behind the metropolitan areas in terms of QoL. Considering the fact that Iceland scores so high on international rankings related to QoL, we expect to identify good practices for other regions, under similar conditions, to achieve a good QoL for its inhabitants.

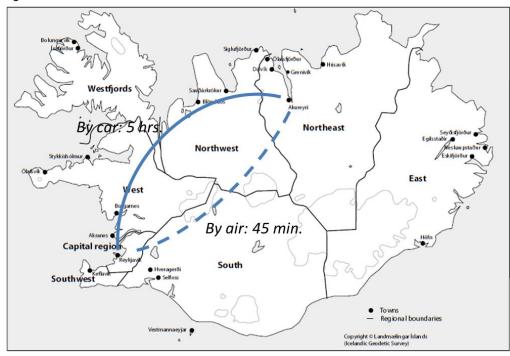


Figure 2 Northeast Iceland

Source: ESPON (2013).

⁸ Ministry of Health (2020) About the Ministry of Health, https://www.government.is/default.aspx?pageid=45fb6727-316e-494a-a0fe-3924ce81846f [Accessed on 6.3.2010].

⁹ EURYICE (2020) Organisation and Governance: Iceland, https://eacea.ec.europa.eu/national-policies/eurydice/iceland/organisation-and-governance_es [accessed on 6.3.2020].

¹⁰ In the OECD Better Life Index, Iceland is ranked as #2 in the world, see https://icelandmonitor.mbl.is/news/news/2015/11/06/iceland_2nd_best_for_quality_of_life/ [accessed 6.3.2020], and Iceland ranks fourth on the Social Progress Index, see https://icelandmag.is/article/foundations-well-being-iceland-ranks-fourth-social-progress-index [accessed on 6.3.2020]. In the World Happiness Index Iceland is also ranked as #4, see https://icelandmag.is/article/icelanders-fourth-happiest-people-world-drop-one-spot-finland-takes-lead [accessed on 6.3.2020].

In the North Eastern region, the population density is 1.39 persons per km²¹¹, and the size of the region is about the same as Wales or Slovenia. It has 29,000 inhabitants, thereof 18,000 live in the regional centre Akureyri which is the largest town in Iceland outside the capital region. The region is divided into 13 municipalities. The total area of Northeast Iceland is close to one fifth of Iceland's size, but the population is merely 9%. The population in the northeast region has increasingly concentrated on Akureyri and neighbouring municipalities. Rural areas and smaller towns, especially in the far northeast part of the region, have been losing population. Young adults are underrepresented in the region due to out-migration especially to the capital region, but the gender ratio is very even. Having Akureyri, a relatively large town in the region, makes the service base relatively strong and thus most common service functions are available in the region.¹² While the branch structure is modern in the capital region, Iceland outside Reykjavik suffers from an obsolete branch structure.¹³

In order to obtain information beyond statistical data and printed material, seven stakeholder interviews were made: Pétur Berg Matthíasson (Senior Policy Advisor, the Prime Minister's Office); Anna Lea Gestsdóttir (Advisor, Icelandic Regional Development Institute); Hjalti Jóhannesson (Researcher, Akureyri Research Centre); Eiríkur H. Hauksson (Director, Búfesti housing cooperative); Guðmundur Haukur Sigurðarson (Director, Vistorka, an environmental NGO); Soffía Gísladóttir (Director, Directorate of Labour Northeast and East Iceland offices); and Vifill Karlsson (Advisor, West Iceland Regional Office). The interviews, following a semi-structured interview guide, were conducted via Skype and lasted between 45 to 75 minutes.

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¹¹ Statistics Iceland (2019) Statistical database, www.statice.is [accessed on 8.11.2019].

¹² ESPON (2013).

¹³ Ingi-Rúnar Eðvarðsson, Elli Heikkilä, Mats Johansson, Hjalti Johannesson, Daniel Rauhut, Torben Dall Schmidt, and Lasse S. Stambøl (2007) Demographic Change, Labour Migration and EU-Enlargement – Relevance for the Nordic Regions. Stockholm: Nordregio.

2 Policy context

2.1 Overall approach towards QoL

The settlement pattern on Iceland, with such dominating functional urban area, provides indeed a specific policy context. As the more remote regions lose more and more of their population due to out-migration, service provision becomes relatively more expensive and issues such as recruitment of specialists to those areas becomes more difficult. At the same time, **Reykjavík is by far the largest city. It has been the place where services have tended to concentrate**. This service role for the whole country seems to have become gradually stronger as in recent years there has been tendency to rationalise public services and create larger units or make fewer institutional units serve larger areas. Privatisation and liberalisation of the economy has also influenced and sped up this process and an example of this is the state telephone company which has closed many of its offices and service centres. Finally, the credit crisis has to some degree limited the ability of the state to maintain services. A Recent studies find significant differences in perceived QoL in rural communities and in the capital area; in some areas the rural population is more content with their perceived QoL than the population in the capital area, and vice versa.

An overview of the policy documents available in English for well-being related policies indicate that most of the work done on Iceland is much related to sectoral policies, i.e. a side effect of a good health care system generates well-being, and a side effect of a good educational system generates well-being etc. The only available document in English states that well-being is a policy area with own policy objectives and with 39 different indicators for measuring and monitoring its development. ¹⁶ However, well-being is not synonymous with QoL. ¹⁷

The Quality of Life, which a person enjoys, cannot be identified by one single indicator alone, nor through a composite index. **QoL** is a multifaceted concept and should be analysed as **such**. Hence, the Government of Iceland has proposed 39 different indicators, related to the UN Sustainable Development goals, to monitor well-being on Iceland. At a local level, a similar view on **defining** well-being is displayed, but the 39 indicators based on the UN Sustainable

¹⁴ Hjalti Johannesson (2015) Provision and Development of SGI at the Edge: The Case of Iceland. In: Fassmann, H., Rauhut, D., Marques da Costa, E. & Humer, A. (eds.) Services of General Interest – European Perspectives and National Insights. Göttingen: Vienna University Press

¹⁵ Vifill Karlsson (2020) Öll él birtir um siðir. Hverjar eru óskir sem býr í sveitum landsins um búseruskiyrði og hvernig skera þær sig frá þeim sem búa í þéttbýlum? Skýrsla SSV nr. 1 2020.

¹⁶ Government of Iceland (2019) Indicators for Measuring Well-being. Reykjavik: Prime Minister's Office.

¹⁷ Well-being or wellness is the condition of an individual or group. A high level of well-being means that in some sense the individual's or group's condition is positive. It is defining as "diverse and interconnected dimensions of physical, mental, and social well-being that extend beyond the traditional definition of health. It includes choices and activities aimed at achieving physical vitality, mental alacrity, social satisfaction, a sense of accomplishment, and personal fulfilment", see Huseyin Naci and John P. A. Ioannidis (2015) Evaluation of Wellness Determinants and Interventions by Citizen Scientists. JAMA. 314 (2): 121–2. Quality of life is an overarching term for the quality of the various domains in human life. It is an expected standard level that consists of the expectations of an individual or society for a good life. These expectations are guided by the values, goals and socio-cultural context in which an individual lives his/her life. See Barbara Barcaccia et al. (2013) Quality of Life: Everyone Wants It, But What Is It? Forbes, 4 September 2013 [Accessed on 8 May 2020].

¹⁸ Government of Iceland (2019).

Development goals appear not (yet) implemented in the work with well-being by practitioners.¹⁹ A national survey concludes the following:

"...the general public in Iceland views health (i.e. good health and access to healthcare) to be the most significant factor in quality of life. This was followed by relationships (i.e. with friends, family, neighbours and colleagues), housing (secure housing, cost of housing, supply of housing) and making a living (income and assets)".20

Two of the three most important aspects of QoL on Iceland will be discussed in more detail: the most important aspect was **good health and access to health care**, and, on the third place, **aspects related to housing** (cost of housing, supply of housing and secure housing).²¹ The second-ranked relationships with friends, family, neighbours and colleagues are extremely difficult to impact by public policies.

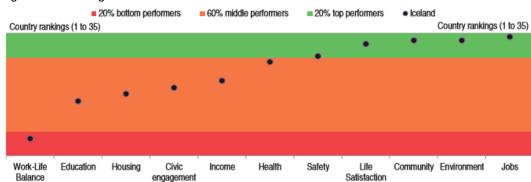


Figure 3 Well-being indicators on Iceland

Source: OECD (2017), p. 12.

In many international comparisons on Quality of Life and well-being, Iceland scores high. In an OECD ranking over **well-being**, Iceland scores moderately well.²² However, Iceland is ranked as 60% middle performing country regarding the two selected QoL aspects (health and housing) in this study (see Figure 3).²³

Table 2	Ονρινίρω	of policy	implementation context
i abie z	Overview	OI DOILCY	IIIIpieiiieiilalioii context

Actor/institution	Policy context	Description of indicators and data used	Activities and processes
Directorate of Health	Health Service Act, from 2007 with amendments.	Mostly register data, but also occasional surveys.	Providing health care.
Ministry of Social Affairs and Children, but also	Providing a legal framework for the market. However.	No indicators are used, details are in sectoral concepts	Main activities and processes

¹⁹ This statement is based upon the interviews with practitioners and non-national stakeholders on Iceland.

²⁰ Government of Iceland (2019), p. 5.

²¹ Stjórnarráð Íslands (2019).

²² OECD (2017) OECD Economic Surveys: Iceland 2017. OECD Publishing, Paris. http://dx.doi.org/10.1787/eco_surveys-isl-2017-en

²³ It is important to keep in mind that well-being and quality of life are not two synonymous concepts, see footnote 17 on page 6.

Actor/institution	Policy context	Description of indicators and data used	
Ministry of Finance and Economic Affairs	social housing is in the discretion of municipalities.		are made by market dynamics.

The responsibility for the health care is well-defined by the Ministry of Health, while housing issues are divided between the Ministry of Social Affairs and Children and the Ministry of Finance and Economic Affairs.²⁴ While the health care provision is regulated in detail by the special Health Service Act, the housing market has a policy context in the form of a legal framework. Contrary to the health care provision, which is in the discretion of the public sector, the housing market is determined by the market.

2.2 Specific approach for health care and housing

Health care

There are two major hospitals on Iceland: one in Reykjavik and one in Akureyri. Health care stations and smaller clinics are located in most smaller towns and villages throughout the country. Health care is in the discretion of the government²⁵, and hence the provision is made at one governance level only. There are private clinics, but only in the Reykjavik areas.²⁶ In remote areas, some health stations are run by the third sector.²⁷

To large extent, the territorial dimension appears missing in most aspects related to health care. For a very limited number of indicators, a very blunt territorial presentation of data is performed. The indicators are then presented by population density (high, intermediate and low) or by Reykjavik, surrounding municipalities and 'other Iceland'.28 In reality, almost half of the functional urban area of the capital is located in 'other Iceland', which boosts the values for Iceland outside the capital region. Such technical construction of the territorial dimension will lead to biased results when monitoring or evaluating the Icelandic health care system in the sense that the results will point at better outcomes and provision for 'other Iceland' than is the case. In turn, such bias results will impact policy making.

During the interviews, the importance of the (missing) territorial dimension to health care provision was obvious. There are only four places in Iceland with maternity clinics. It means that women about to deliver must get themselves in the vicinity of these clinics the delivery date is approaching. The cost for staying at a hotel while waiting for the delivery is covered by the woman. During the winter, several parts of Iceland are often at risk of being isolated, which means that the delivery has to be planned long in advance by the parents which will increase the costs even more.29

²⁴ For housing, see https://www.government.is/topics/housing/, and for healthcare, see https://www.government.is/default.aspx?pageid=45fb6727-316e-494a-a0fe-3924ce81846f

²⁵ Johannesson (2015), pp. 174-175.

²⁶ These clinics are semi-private in the sense that they have a contract with the Icelandic government to provide services for a certain cost. The cost is paid by the government. This information is based upon the interviews.

²⁷ These health stations have, however, a contract with the Icelandic government, which will cover some of the costs for running them. This information is based upon the interviews.

²⁸ See e.g. Stjórnarráð Íslands (2019) or Statistics Iceland's statistical database, www.statice.is.

²⁹ Several examples were mentioned during the interviews. Another 'good' example is when elderly persons are no longer able to take care of themselves but must have a combined elderly and medical ESPON / QoL - Quality of Life Measurements and Methodology / Draft Final Report

The Directorate of Health has the main responsibility for collecting data for health care indicators, but some information is collected by Statistics Iceland. Some statistics is published in English by Statistics Iceland, some in Icelandic; the statistics available by the Directorate of Health is only available in Icelandic.

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care. These elderly persons are moved to a few places, often far away from where they lived, from their family and friends.

Housing

To consolidate its position at the domestic credit market, the government-backed **Housing Financing Fund** eased its loan regulations in June 2004. The domestic commercial banks responded by increasing the access to credit and allowed homeowners for the first time to withdraw equity from their homes without actual transactions³⁰; the housing bubble this generated cracked in 2009. In the wake of the financial crisis in 2008, the construction industry collapsed. Since 2009 Iceland has suffered a fundamental imbalance in the housing market, giving rise to a significant housing crisis after 2013 due to insufficient supply and greatly increased price levels.³¹ Still, private house ownership counts for almost 80 per cent of the housing, while the rental market only counts for 12 per cent.³² In June 2017, the Icelandic Government announced new measures to restore a balance between supply and demand for family housing in Iceland. The measures involve a continued de-regulation and increased support for first time buyers.³³

The demand for housing has changed since the pre-crisis housing boom. Before the financial crises, Icelanders wanted to buy housing with a high standard and plenty of square metres; today, the demand is generally for basic housing, without any luxury comfort. Every square metre counts and people do not want to pay for more square metres than they really need.³⁴

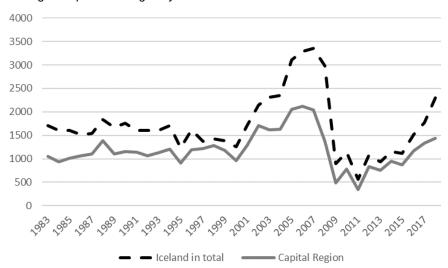


Figure 4 Newly built residential buildings in Iceland and in Capital Region 1983-2018. Number of dwellings completed during the year.

Source: Statistics Iceland

Considered the fact that two-thirds of the Icelandic population lives in the capital region, it is no surprise that most residential dwellings are produced there (see figure 4). During the pre-crisis years in the early 2000s up to 2008 most of the residential dwellings in Iceland were outside

³⁰ Lúdvík Elíasson & Thórarinn G. Pétursson (2009) The Residential Housing Market in Iceland: Analysing the Effects of Mortgage Market Restructuring. Housing Studies 24(1): 25-45.

³¹ European Commission (2017) Iceland: Efforts to increase supply of family housing. ESPN Flash Report 2017/5.

³² Arion Research (2017).

³³ European Commission (2017).

³⁴ This is based upon the interviews with practitioners and non-national stakeholders on Iceland.

the capital region (see figure 5). During this period several big constructions works took place in rural and peripheral regions, which demanded housing for the (foreign) workers building them.



Figure 5 The share of newly built residential buildings in Capital Region relative Iceland in total 1983-2018. Number of dwellings completed during the year.

Source: Own calculations.

Today, the banks apply very hard credit rules. In Reykjavik, a house buyer can pick up 90 per cent of the purchase in credit, and pay 10 per cent by own money; in Akureyri, a house buyer will only be allowed a credit to cover approximately 70 per cent of the purchase and in smaller towns, e.g. Husavik, only a credit on 50 per cent of the purchase will be allowed. Moreover, it is also relatively expensive to borrow money in Iceland as interest rates are high. Together with the hard credit rules this has had an impact on the demand on rental flats. Many municipalities have housing companies with rental flats, but they cannot meet the demand. Housing cooperatives have increased their share of the housing market as they provide rental flats.³⁵

Social housing is however very limited in Iceland as private ownership has for long been important among Icelanders. Social housing is provided primarily by the municipalities and those who need such solutions can apply for assistance at the social care offices and are provided with housing according to certain rules. Rent became very expensive after the credit crisis and at the same situation worsened for young people and first-time buyers. As a result, pressure has increased on social housing and house rental market in general.³⁶

The left-wing government of 2009–2013 greatly increased housing support, but since then it has been reduced, and by 2015 housing support to families was lower than ever before since 1998. It has remained at this low level in 2016 and 2017. At the same time housing prices have become higher than ever before.³⁷

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³⁵ This is based upon the interviews with practitioners and stakeholders in Iceland.

³⁶ Jóhannesson (2015), p. 176.

³⁷ European Commission (2017).

The statistics on housing and related areas are everything but good. To say the least, the data is fragmented and insufficient.³⁸ The opinion among the interviewees was, more or less unanimously, that the housing data and indicators on housing need improvement.

2.3 Evolution and drivers

Concepts such as 'Quality of Life', 'well-being' and 'happiness' are relatively new in Iceland, which means that they are not fully defined yet and sometimes used synonymously. The common opinion among the respondents was that these concepts matter and that they are important, but how to use them in practical terms is still to be identified. Hence, it is difficult to state what results QoL has achieved in Iceland so far. One of the few concreate results from the emerging concepts of 'Quality of Life', 'well-being' and 'happiness' are the government reports defining indicators to measure and survey well-being and quality of life.³⁹

The austerity policies implemented after the financial crisis were tough. Seen from an economic perspective, the austerity policies may have been successful, but there was also a social cost for this 'success'. Aspects such as welfare, QoL, well-being or happiness are not displayed in the blunt indicator GDP or GDP per capita. Several of the respondents indicated that the emergence of concepts such as 'Quality of Life', 'well-being' and 'happiness' is a kind of response to the tough austerity policies imposed in Iceland after the financial crisis.

2.4 Governance levels

Much of what constitutes QoL is actually outside the sphere of public governance. This is evident from the evidence provided in the ESPON QoL working paper by Makkonen and Rauhut pointing towards varying public-private arrangements and third sector involvement in service provision related to the different QoL domains.⁴⁰ The same can be expected to apply to subjective well-being. Since policies can directly influence only the circumstances of how to meet objective human needs but not how need fulfilment is perceived⁴¹, the question how to influence QoL, particularly outside the realm of (objective) opportunities, is an important caveat in terms of policy efficiency.⁴²

Multi-level governance challenges to influence policies relating to QoL

In the wake of New Public Management (NPM) inspired politics, responsibility for welfare and related issues has shifted from the national level to local levels. The marketisation⁴³, privatisation and 'NGO-isation' of services related to QoL policies have made governance more complex. NPM governance has also increased the complexity and fragmentation of a multistakeholder (actors from the private, public and third sector) policy environment and made the

³⁸ The interviewees provided many illustrative examples on the low quality of the housing data. A 'good' example is that in Reykjavik, there are persons literally walking around the places where residential dwellings are produced trying to estimate how many apartments it might be.

³⁹ Government of Iceland (2019) and Stjórnarráð Íslands (2019).

⁴⁰ Teemu Makkonen and Daniel Rauhut (2019) Territorial levels and the role of the public and private sector in Quality of Life service provision. ESPON QoL Working Paper #2.

⁴¹ Costanza, R., Fisher, B., Ali, S., Beer, C., Bond, L., Boumans, R., Danigelis, N. L., et al. (2007). Quality of life: An approach integrating opportunities, human needs, and subjective well-being. Ecological Economics, 61(2-3): 267–276.

⁴² Mark Fabian (2019) Racing from subjective well-being to public policy: A review of "The Origins of Happiness". Journal of Happiness Studies, 20(6): 2011–2026.

⁴³ This refers to a liberalisation of markets and to allow competition in areas where the public sector has had a monopoly situation. In the rest of the text, marketisation will have this meaning.

coordination of related policy areas (i.e. multi-dimensional governance) much more challenging.⁴⁴ When discussing QoL in relation to health care and housing in Iceland this becomes a relevant aspect.

Health care

On the one hand side, as health care is in the discretion of the national level, the governance of this service should be relatively simple However, on the other hand side, in the Capital Region, small specialised clinics exist and in the remote areas the third sector provide basic health care to the residents. In both cases, the government finances – partly or completely – the provision of these services. By contributing financially to the third sector in remote places, the government ensure that at least a basic health care is provided nation-wide. The private clinics in the Capital Region is staffed by persons who work 2-3 days per week in the public hospital and 2-3 days weekly in the private clinic. The private clinics charge as much as five times more for the same service as the public sector, so it is profitable job for the staff and for the owners.⁴⁵

However, the presence of private and third sector actors in the provision of health care services indicates a multi-dimensional governance structure. Medical services are sub-contracted away from the government sector to the private and third sectors. It is only possible to do so if the provision of a service is considered a market good (i.e. the production of the service takes place on a market where competition over clients or costumers); if it is considered a public good, the public sector would remain its discretion over this good.⁴⁶ Such 'quasi-markets'⁴⁷ are troublesome from a management perspective.⁴⁸ Seen from a governance perspective, they are most likely not less problematic.

Housing

Most things regarding housing in Iceland is dealt with by the market. The government provides the market with a legal framework, but not with housing per-se. As noted earlier in this report, private ownership in housing accounts for approximately 80 per cent of all housing while rental flats only accounts for 12 per cent. It leaves most of the housing market beyond the direct influence of the conventional governance structures. To produce affordable housing is not the aim of the private market, but to produce profits for the owners.

⁴⁴ Makkonen and Rauhut (2019).

⁴⁵ This is based upon the interviews with practitioners and stakeholders.

⁴⁶ See e.g. Nicholas Barr (1998) The Economics of the Welfare State. Oxford: Oxford University Press.

⁴⁷ A 'quasi-market' refers to a situation where a service (or goods) is produced under conditions that can be regarded as imperfect competition. See Julian Le Grand (2011) Quasi-Market versus State Provision of Public Services: Some Ethical Considerations. Public Reason 3(2): 80-89 and Anne West and Annamari Ylonen (2010) Market-Oriented School Reform in England and Finland: School Choice Finance and Government. Educational Studies 36(1): 1-12. Although private actors are allowed to participate in the provision of welfare services such as education and health care, these sectors remain highly regulated and hence continue to operate under imperfect or even monopolistic competition. See Pierre-Philippe Combes, Thierry Mayer and Jacques-François Thisse (2008) Economic Geography. Princeton: Princeton University Press.

⁴⁸ In the health management literature, there are numerous examples of this, see e.g. Linn Kullberg, Paula Blomqvist and Ulrika Winblad (2018) Market-orienting reforms in rural health care in Sweden: how can equity in access be preserved? International Journal for Equity in Health 17:123 DOI: 10.1186/s12939-018-0819-8 and Anders Anell (2011) Hälso- och sjukvårdstjänster i privat regi. In: Laura Hartman (ed) Konkurrensens konsekvenser. Vad händer med svensk välfärd? Stockholm: SNS.

When an equilibrium cannot be reached at the housing market, leading to an **excess demand for affordable housing**, the responsibility goes back to the municipalities. In Iceland, the municipalities are in charge of social housing.⁴⁹ In this context, it is worth mentioning that the municipalities in Iceland are financially weak⁵⁰, which means – taken the high costs for producing residential dwellings in Iceland – meeting an increased demand for social housing will constitute a significant cost for the municipalities. In Akureyri, a housing cooperative, i.e. a third sector actor, provides rental flats that are affordable for most people. The housing stock of this cooperative increases by every year. In effect, this third sector housing cooperative try to meet the demand for affordable flats that neither the market nor the public sector can meet.⁵¹

In 2017, the Icelandic government introduced support schemes for first time buyers at the housing market, but other have to finance their house buy themselves.⁵² To what extent this has been a successful intervention is unclear. Nevertheless, this policy intervention gives an impression of ad hoc character.

To produce affordable housing, which is a public good, is not in the realm of the public sector anymore. Hence, such construction limits the reach of social policy. It also displays the presence of a multi-dimensional governance structure, involving not only a multi-layered government, but also private and third sector actors. To large extent, the governance structure when it comes to housing appears to suffer from what is called 'decoupling'. This occurs when vertical relations are absent or in a single policy domain, there may be policies at different levels that are dissociated and may in fact even been contradictory. Evidently, this type can lead not only to policy conflicts between government levels but also to conflicting policy messages to the policy target groups and diminish policy effectiveness.⁵³

The conclusion that might be drawn is, that aspects related to housing are somewhat out of governance in Iceland.

2.5 Specific challenges for measuring QoL in sparsely populated regions

When discussing specific features related to the implementation of QoL, it is important to remember that **QoL** is a relatively new concept and as such it is still an evolving concept. Most likely, it will take some time before defining it in an appropriate way in relation to the Icelandic policy context. When this has been achieved, the issues regarding how to measure and monitor the QoL development will follow subsequently. However, there are specific challenges for a country with a very specific territorial structure, when applying the concept of QoL. Changes in service provision and in the size of administrative units substantially change the QoL for people living in sparsely populated territories. Thus, QoL has to deal with "moving targets" in terms of administrative units and indicators.

⁴⁹ This is based upon the interviews with practitioners and non-national stakeholders.

⁵⁰ Grétar Thór Eythórsson, Erik Gløersen and Vífill Karlsson (2014) West Nordic municipal structure. Challenges to local democracy, efficient service provision and adaptive capacity. Report from a project supported by the Arctic Co-operation Programme 2012-2014. University of Akureyri, Spatial Foresight GmbH, University of Akureyri Research Centre & West Iceland Regional Office.

⁵¹ This is based upon the interviews with practitioners and non-national stakeholders.

⁵² European Commission (2017).

⁵³ Peter Scholten (2015) Between National Models and Multi-Level Decoupling: The Pursuit of Multi-Level Governance in Dutch and UK Policies Towards Migrant Incorporation. Journal of International Migration and Integration, DOI: 10.1007/s12134-015-0438-9, p. 4.

This shall be explained for the policy fields of health care and housing.

Health care

Although Iceland is sparsely populated outside the Capital Region, basic medical services have been provided on a nation-wide level. The austerity policies in the wake of the financial crisis 2008 pressed for budget cuts in all parts of the government budget for many years. This also led to a reduction of public health services outside the capital region, which were partly substituted by private and third-sector services.

However, it is difficult to measure the impact of these changes on the QoL of people living outside the capital region, where the access to health services (most probably) has deteriorated and has become more expensive. The reasons lie in the lack of data that are differentiated for territorial units. Without such data, it is difficult to monitor the development of QoL indicators outside the Capital Region.

The centralisation of services has also resulted in a reduced accessibility to welfare services. The credit crises made it difficult for the government to maintain the services provision, leading to a marketisation and privatisation of many services. The emergence of private and third sector actors in health care provision is only one example, but there are more across different parts of the service sectors. Economies of scale lead to fewer but larger units covering huger areas. Most health care services concentrate to Reykjavík.⁵⁴ Some municipalities have merged as a response to create economically stronger administrative units. The effect on service provision is as one could expect:

"that the service level in larger municipalities is elevated following an amalgamation, while remaining the same and even becoming relatively worse in smaller communities, compared to others".55

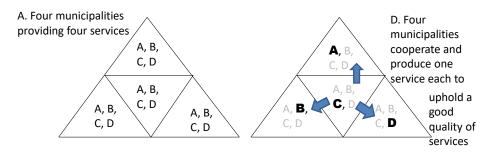
This constitutes an obstacle when it comes to a QoL aspect, good health and accessibility to health care, considered the most important by Icelanders. The effect of mergers in peripheral areas is illustrated in figure 6. The distances for the population to access the provided services will be longer. As all services are concentrated to the most central town in example B, the economies of scale can be assumed to be the highest. This concentration will lead to a de facto settlement withdrawal from the three other (former) municipalities. Alternative D is that the four municipalities do not merge but cooperate and concentrate on providing one service each. This would also generate economies of scale as well as longer distances to access the services.⁵⁶

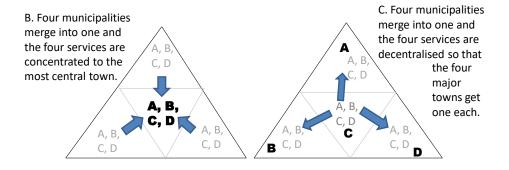
⁵⁴ Hjalti Jóhannesson (2015).

⁵⁵ Grétar Thór Eythórsson, Erik Gløersen and Vífill Karlsson (2015) Municipalities in the Arctic in challenging times. West Nordic local politicians and administrators on municipal structure, local democracy, service provision and adaptive capacity in their municipalities. A project supported by the Arctic Co-operation Programme 2012-2014. University of Akureyri, Spatial Foresight GmbH, University of Akureyri Research Centre & West Iceland Regional Office, p. 90.

⁵⁶ Daniel Rauhut and Tomasz Komornicki (2015) The Challenge of SGI Provision in Rural Areas. A paper prepared for the 55th European Congress of Regional Science International, 25-29 August 2015 in Lisbon, Portugal.

Figure 6 A theoretical illustration of merging effects on welfare services in peripheries.





Source: Rauhut & Komornicki (2015).

Housing

As the Icelandic housing market still is in search of an equilibrium⁵⁷, there are significant challenges. Since the financial crisis housing prices have increased strongly (both for rent and purchase). Market solutions have ruled the housing market.⁵⁸ The interviewees did not identify any change towards policy actions to counterbalance this in the next future.

Affordable housing constitutes a key part in the social policy of welfare states.⁵⁹ That housing is in the realm of the market is troublesome from a QoL perspective as well as from a wider social policy perspective.

Future development

The intensions point towards and innovative approach. In September 2019, the Icelandic Government launched a first step for an assessment of the real prosperity and quality of life in Iceland by formulating 39 indicators to monitor and measure **well-being**. These indicators look beyond GDP as an indicator for QoL and well-being, but the truly innovative aspect is that these 39 indicators are linked to the UN Sustainable Development Goals.⁶⁰ It will be interesting to follow the development of this policy initiative.

⁵⁷ Arion Research (2017).

⁵⁸ European Commission (2017).

⁵⁹ Nicholas Barr (1998). These is a vast scientific literature pointing at the importance of housing in social policy. See e.g. Linda Hantrais (2007) Social Policy in the European Union. London: Palgrave. The following edited volumes also highlights this: Stellan Svallfors and Peter Taylor-Gooby – eds-(2005) The End of the Welfare State? London: Routledge, and Olli Kangas and Joakim Palme – eds. – (2005) Social Policy and Economic Development in the Nordic Countries. London: Palgrave.

⁶⁰ Stjórnarráð Íslands (2019).

3 Measuring QoL

The purpose of this section is to present an overview of how the QoL is measured in the case study region and compare the elements of the approach with the one proposed by our study. The problem is the lack of data below the national level. As approximately 80 per cent of the population lives in the functional urban area of the capital city, gaps in QoL in the areas outside this functional area are not invisible. The population concentration in the functional urban area will dominate the results and generate a bias in the result.

In 2019, the Icelandic Government proposed a set of 39 indicators to look at the prosperity of a country **beyond GDP** as they considered economic growth to be an insufficient measurement method. The proposal of the committee includes three categories of indicators to measure the prosperity and well-being (not quality of life) of Icelanders: social, economic and environmental. **For several of the proposed indicators**, especially related to social and environmental aspects, **there is no data**. Hence, the proposal concludes that it is important to support systematic data collection and dissemination of information in these areas. Statistics Iceland is to be given the responsibility to bridge this data gap.⁶¹ However, the proposal does not include any suggestions to study the proposed 39 indicators at a regional or sub-national level; only two of the 39 indicators focus on the local level.

The weight between the main dimensions of the proposed dimensions – social, economic and environmental ones – is strongly emphasizing the economic aspects: 15 of the 39 indicators are economic indicators, while only seven indicators cover environmental aspects. Moreover, when analysing what kind of indicators that will be used, a clear majority of the relate to register data and only a few to surveys (see table 3). The dependence on register data indicate the use of objective measures to Quality of Life, and not subjective. An objective approach measures and compares economic growth and other societal processes to reflect the individuals' situation for achieving high QoL. This relates to the extent to which objective human needs are met based on objective, quantitative statistics. Such approach generally centres on social, economic and health indicators based on registers. A subjective approach to QoL focus on individuals' subjective experiences, i.e. the self-reported subjective well-being or happiness of individuals. The most common way to do this is via questionnaire data.⁶²

Furthermore, some indicators – e.g. long working hours and working under unsocial hours – are collected via surveys but evaluated by objective criteria: working more than the stipulated 'normal working week' has a negative connotation, which is determined by an 'objective' criterion. The same can be said for several other indicators in the proposal from the Icelandic Government.

	Domain	Indicator	UN SDG	Geographical unit	Data source	Criteria
		Life expectancy	#3	National	Register	Objective
	£	Healthy life years	#3	National	Register	Objective
	Health	Unmet need for health	#3	National	?	Subjective?
SOCIAL	エ	care				-
l g		Mental health	#3	National	Register	Objective
0)	ی ر	Level of education	#4	National	Register	Objective
	Educ	Dropouts from	#4	National	Register	Objective
	ш «	Secondary School				-

⁶¹ Government of Iceland (2019).

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⁶² For a discussion objective and subjective approaches, see sections 4.1 and 4.2 in the ESPON QoL Intermediate Report.

	Domain	Indicator	UN SDG	Geographical unit	Data source	Criteria
		Lifelong learning	#4	National	Register	Objective
	_	Voter turnout	#16	National	Register	Objective
	Social capital	Social support	#3	National	Register	Objective
	cal	Formal volunteer	#10	National	?	Objective
	cia	activities				
	S	Trust in others	#16	National	?	Subjective
		Trust in political system	#16	National	?	Subjective
	به فِ	Long working hours	#5	National	?	Objective
	Work-life balance	Working during unsocial hours	#5	National	?	Objective
	≫ eq	Multiple jobs	#5	National	?	Objective
	>	Feeling safe after	#16	National	?	Subjective
	uriti	dark				
	Security	Crime victimization	#16	National	?	Objective
	SI	GDP and economic growth	#8	National	Register	Objective
	ditio	Inflation	#8	National	Register	Objective
	Sono	Purchasing power	#8	National	Register	Objective
	.je	Household debt	#8	National	Register	Objective
	חסר	Public sector, private	,,,	1100010	i togioto.	0.0,0000
	Economic conditions	sector and household debt	#8	National	Register	Objective
		Employment rate	#8	National	Register	Objective
_	Employment	Unemployment	#8	National	Register	Objective
ECONOMY		Not in education, employment or training (NEET)	#8	National	Register	Objective
ш		Job satisfaction	#8	National	?	Subjective
	Housing	Housing cost	#11	National	Register	Objective
		overburden				•
		Quality of	#11	National	?	Subjective
		housing				
		At risk of poverty	#1/#10	National	Register	Objective
	nes	Persistent poverty	#1	National	Register	Objective
	Incomes	Material and social deprivation	#1	National	Register	Objective
		Equality (Gini-index)	#10	National	Register	Objective
	afe t	Particulate	#11	National	Register	Objective
	Air quality and climate	matter Greenhouse				
	는 무 무	Greenhouse	#13	National	Register	Objective
	an A	gas emissions	#15	National	Register	Objective
ENVIRONMENT		Progress in land	#15	National	Register	Objective
Σ	Land	reclamation	#15	National	Dogister	Objective
RO		Protected areas Ratio of renewable	#15	National	Register	Objective
\geq	Energ y	energy in total energy	#7	National	Register	Objective
Ш	Ene	consumption	π1	radona	rogister	Objective
	ste d ling	Quantity of municipal solid waste	#6 / #12	Local	Register	Objective
	Waste and recycling	Recycling of municipal public waste	#11	Local	Register	Objective

Source: Own elaboration

The focus on well-being and incomplete statistics – both in terms of data as well as the lack of sub-national data – the approach proposed by the Icelandic Government is of partial use in this study. However, there is a second data source measuring QoL on Iceland. For many years, the regional office of West Iceland, SSV, has performed a survey among its inhabitants regarding QoL aspects. It started with the region West Iceland, and then it expanded to cover all regions

except the capital region and the Northeast and Eastern Iceland. Unfortunately, **this survey** does not cover the case study region, Northeast Iceland .⁶³

In the report published in 2018, the data was collected in 2016 and 2017.⁶⁴ An online survey questionnaire was submitted to the residents of each of these regions, containing five separate actions: 1) A random sample was obtained from the population of the regions from the National Register. 2) The chosen sample group was invited to participate. Those who wanted to participate could do so online or via a postal survey. 3) The survey was then sent out, either by e-mail or traditional mail. Subsequently, the participants were sent a reminder twice. 4) Replies with traditional mailing were merged with the online replies. 5) Processing.

The average response rate differed between the included regions. In Suðurnes the participation rate was 21%, in Vesturland (West Iceland) 28%, Vestfirðir (Westfjords) 31%, Norðurland vestra (Northwest Iceland) 28% and in Suðurland (South Iceland) 33%. In the smallest areas, it was difficult to reach a statistically sufficient number of responses. Another problem was that some respondents did not state the municipal they lived in, which makes it difficult to link these surveys to a certain geographical unit. 65 Although the response rates are low, it is still possible to analyse the data.

In a later report in 2020, the information on the participation was missing to a large extent, so that the author concluded that it was not useful to talk about participation rate at all.⁶⁶ The implication of this is that **we still do not know if the results are representative for the surveyed population**, and this is indeed problematic. For quantitative analyses, a representative sample is of key importance.

The two surveys ask two overarching questions regarding living conditions. The first question is "What is your opinion on the status of the following factors / issues in your municipality? The respondent has then to evaluate 40 different statements. S/he is asked to choose between very good, rather good, neither / nor, rather bad and very bad. The second question, "Which of the following factors / issues do you think are of major or minor importance to your continued residence in the municipality?", is constructed the same way. Based on these responses, two average scores that range from 1 to 5 were calculated, one for position and the other for the

⁶³ For time being, a survey collecting data for all Icelandic regions is made, but the results will be available after the closure of this project. When the Northeast Iceland was chosen as a case study region, this was unknown to us. When we became aware of this, most of the case study work was already done.

⁶⁴ Vifill Karlsson (2018).

⁶⁵ Vifill Karlsson (2018).

⁶⁶ "It is not easy to calculate a meaningful response rate because this is a web survey. First, the acceptable minimum of respondents was calculated. Then the necessary number of e-mails was estimated accordingly, on the grounds of how many of those who accepted the invitation would finalise the survey. Finally, the size of the sample was decided, based on experience of the number of rejections of a web-survey invitation. Thus, it is almost meaningless to discuss the response rate based on this sample size" (Vifill Karlsson 2020, p. 21).

importance of the factors called living conditions.⁶⁷ The two average scores, for each component, were then calculated.⁶⁸

On "Indicators and measurement" we cannot go into any further details, as no regional or local statistics exist, no such overview can be provided.

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⁶⁷ Response alternatives such as the ones used in these surveys - very good, rather good, neither / nor, rather bad and very bad – are based on what is called ordinal scale, and for this scale only the median value can be calculated. However, it is clearly stated that an average value has been calculated, which can only be used for a ratio scale. See Göran Djurfeldt, Rolf Larsson & Ola Stjärnhagen (2010) Statistisk verktygslåda. Lund: Studentlitteratur for a more thorough discussion on this. In any case, the calculations of the results violate the mathematical rules.

⁶⁸ Vifill Karlsson (2018, 2020).

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

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

The well-being indicators proposed by the Icelandic Government are fundamentally different from a citizen centred territorialised QoL indicators proposed in this project. As shown in section 3 above, the proposed indicators cover the national level. These are mainly register based and the evaluation criteria are predominantly objective.

A citizens-centric approach to Quality of Life assessment would put individuals (the people) at the centre of the QoL measurements efforts, and, especially, the measurement of QoL in local communities. A citizens-centric approach to Quality of Life is about the well-being of individuals living in particular economic and social contexts. Any citizens centric QoL mapping and planning scheme should be based on the collection of data at the individual level, sufficient to represent the local context nuances and dynamics.

In the proposal presented by the Icelandic Government, it is explicitly stated that data for several indicators are missing:

Lack of information on the environmental factors, on the one hand, and a lack of measurements directed at social capital and the work-life balance, on the other hand, make it difficult to choose indicators for prosperity and quality of life /.../ Efforts should be directed at rectifying the lack of statistical data on environmental issues and social capital.⁶⁹

The surveys performed by the SSV display a citizens-centric approach to Quality of Life assessment. Firstly, the data is collected directly at the individual level of the residents. Secondly, the measurement of QoL in local communities focuses on the quality of live among individuals living in particular economic and social contexts. However, these citizens-centric surveys also struggle with shortcomings. The most serious shortcomings are that

- they do not cover all Icelandic regions (of which the case study region is one of the regions not covered).
- · they struggle with achieving a representative sample size, and
- the weighting for the composite indicators does not follow conventional mathematical rules.

This leaves us with 1) a non-citizen centric approach, based on well-being, objective statistics and missing indicators as well as no sub-national statistical data, and 2) a citizen centric QoL approach not covering the case study area and struggling with methodological problems.

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⁶⁹ Government of Iceland (2019), p. 6.

⁷⁰ Vifill Karlsson (2018, 2020).

Good Life Enablers Life Flourishing Life Maintenance Personal Health Housing & basic utilities Personal Flourishing Self-esteem Personal enablers :Enablers of good Shelter, Education, **PERSONAL** & Safety **SPHERE** Health Personal Safety Self-actualisation Education indicators: Inclusive Economy Digital connectivity Community Flourishing :Enablers of good (social belonging) Economic & Societal SOCIO-FCONOMIC Mobility, Connectivity, Work and Consumption **SPHERE** choices, Social and Cultural life Healthy Society Institutional Trust indicators Cultural assets Health Green infrastructure Ecological Flourishing :Enablers of good indicators Ecosystems **ECOLOGICAL** services and life in greer Ecological biodiversity **SPHERE** environments Climate Change wealth Protected areas

Figure 7 The TQoL framework for the national QoL system

QoL ENABLERS PILLAR

Nevertheless, this generates a problem when discussing the allocation of the TQoL indicators elaborated in this project. Since data for regional or local levels do not exist, it is not possible to map the needed indicators. However, it is possible to map the indicators at a national level as this will explain how QoL is perceived.

QoL OUTCOMES PILLAR

4.2 Coding the indicators

In Table 4 below, the indicators at a national level have been mapped as if they were indicators at the regional level. In the Icelandic case, 'regional' refers to the LAU1-level. The first pillar the "Good Life Enablers"- pillar - is hardly covered by the wellbeing data in Table 3. The personal sphere is relatively well-covered (health care, housing and basic utilities), while the socio-economic and ecological spheres are blank. The second pillar - life maintenance pillar is covered when it comes to the personal and ecological spheres, but the socio-economic sphere only covers inclusive economy indicators. However, several of the indicators in the socio-economic sphere that are likely to interdependent (e.g. employment/unemployment as well as material and social deprivation/persistent poverty). This indicates that the socioeconomic sphere is relatively well-covered. The last pillar - the life flourishing pillar - lacks indicators in Table 3 to cover for the sub-domain self-esteem in the personal sphere. While indicators are missing for the ecological sphere in Figure 7, the socio-economic sphere is wellcovered.

When mapping the national data in Table 3 from the wellbeing work by the Icelandic government to identify how QoL is seen (although regional data is missing), it is clearly shown that the wellbeing work focuses on life maintenance. When it comes to good life enablers, only the personal sphere is covered, and for life flourishing the socio-economic sphere is covered. These differences between well-being and QoL are not surprising: well-being focuses primarily in the individual⁷¹, while QoL has its focus on both the individual and society.⁷² The different focus explains why indicators from Table 3 are missing in Table 4 and Figure 7.

⁷¹ Naci & Ioannidis (2015).

⁷² Barcaccia et al. (2013).

However, the wellbeing focus in Table 3 relative the QoL focus in this study also explain the use of national indicators: as the focus is on the individual territorial differences to wellbeing are ignored. In the territorialised QoL approach used in this project, geographical differences regarding good life enablers, life maintenance and life flourishing are actually the starting point. Hence, regional data is needed to perform the analysis.

Since the TQoL approach elaborated in this project goes beyond the economic indicators as determinants for quality of life aspects, several of the economic indicators listed in Table 3 are not allocated here: the indictors GDP and economic growth, inflation, purchasing power and household dept.

Table 4 Coding system for the national indicators

Dimension	Domain	Sub-domain	Indicator
Good Life	Personal enablers	Housing & basic utilities	Housing cost overburden
Enablers			
			Quality of housing
		Health	Unmet need for health care
		Education	
	Socioeconomic enablers	Transport	
		ICT connectivity	
		Work opportunities	
		Consumption opportunities	
		Public spaces	
		Cultural Assets	
	Ecological enablers	Green infraestructure	
	LCOTOGICAL EHADIEIS	Protected areas	
Life Maintenance	Personal Health and Safety	Personal health indicators	Life expectancy
			Healthy life years
			Mental health
		Personal safety indicators	Feeling safe after dark
			Crime victimization
	Economic and Societal Health	Inclusive economy	Level of education
		,	Dropouts from Secondary School
			Lifelong learning
			Employment rate
			Unemployment
			Not in education, employment or training (NEET)
			At risk of poverty
			Persistent poverty
			Material and social deprivation
			Equality (Gini-index)
		Healthy Society indicators	
	Ecological Health	Healthy Environment indicators	Particulate matter
			Progress in land reclamation
			Protected areas
			Ratio of renewable energy in total energy consumptio
			Quantity of municipal solid waste
			Recycling of municipal public waste
		Climate change indicators	Greenhouse gas emissions
Life Flourishing	Personal Flourishing	Self-esteem	
		Self-actualization	Long working hours
			Working during unsocial hours
			Multiple jobs
			Job satisfaction
	Community Flourishing	Interpersonal Trust (Social	Voter turnout
		Belonging)	Formal volunteer activities
			Trust in others
		Institutional Trust (good	
		governance)	Social support
			Trust in political system
	Ecological Flourishing	Ecosystems services and	
	<u> </u>	biodiversity wealth	

4.3 Other relevant features of the approach

In the following section some key aspects for other features defined in the applied approach will be discussed. These relevant features directly link back to the findings in this case study.

4.3.1 Involvement of citizens

Both at national and local levels citizens are put in the centre when discussing QoL aspects. Two methods appear common for involving citizens: (1) at all levels (national, regional and local), surveys are used to monitor the opinion of what a good QoL is; and (2) at the local level, "talking to people" is a very successful strategy for monitoring the opinion of citizens.⁷³

4.3.2 QoL in a territorial context

When approximately 80 per cent of the population lives in the functional urban area of the capital city, the areas outside the functional urban area can easily be neglected. A survey focusing on the population outside Reykjavik and the suburban municipalities display significant variation in QoL-related aspects.⁷⁴

The nationwide high QoL on Iceland is partly a misconception. The interviews illuminated discernible frustration with welfare related services and especially how accessible they are. As an example, a government report noticed that persons who have declined medical treatment due to bad accessibility increased from ca. 1.7 per cent in 2008 to ca. 4.5 per cent in 2014. After 2014, the share of person declining medical treatment due to bad accessibility has decreased somewhat.⁷⁵ Several of the respondents emphasised that **bad accessibility** does not only refer to distance, but also to costs.⁷⁶ However, statistics from Statistics Iceland shows that distance to medical service and being unable to use them is more complex than this.

Table 5 People who could not afford medical services by degree of urbanisation 2015

	Medical services		Mental health	services	
	Could not afford service %	Needed service %	Could not afford service %	Needed service %	
Densely populated	7,8	60,1	33,4	22,3	
Sparsely populated	5,4	61,0	24,6	19,5	

Source: Statistics Iceland Database

At first glance, the findings in Table 1 appear to contradict the information given by several informants. However, we need to remember that the table only shows the share of population who **cannot afford medical services itself**. The costs for transport and eventual accommodation are not included in the table. As health care and accessibility to health care is considered the most important aspect when discussing QoL, the findings in this brief discussion

⁷³ By walking around talking to people in e.g. shopping malls, public swimming pool, outside schools, recycling stations or at bus-stops lots of opinions about QoL related information can be collected. As the respondent himself concludes, this method of collecting information works well in small communities where a lot of people know each other, but not in a bigger city as Reykjavik.

⁷⁴ Vifill Karlsson (2018) Íbúakönnun á Íslandi. Staða og mikilvægi búsetuskilyrða 19 landsvæða á landsbyggðunum frá Hornafirði í austri að Skagafirði í norðri. Skýrsla SSV Nr. 1 2018.

⁷⁵ Stjórnarráð Íslands (2019) Mælikvarðar um hagsæld og lífsgæði. Reykjavik: Forsætisráðuneytið.

⁷⁶ Local health stations exist in most smaller towns on Iceland, but all advanced heath care is centralised to Reykjavik. In practical terms, this means that a person in need of more advanced health care needs to go to Reykjavik at their own expense. The costs for travel and eventual hotel nights make it too expensive for many persons in peripheral Iceland to utilise the health care they need.

illuminates the importance of a territorial dimension when analysing accessibility to health care services. Moreover, it also indicates the presence of a potential misconception about the high QoL on Iceland: the reason why a good health and accessibility to health care are consider as the most important aspect of QoL is because a substantial share of the population cannot afford medical services.

4.4 Application of the methodology in the case study context

Due to the lack of data at a regional level, none of the methods developed in this ESPON project can be applied. Hence, a proposition on how to develop the regional approach is made and so is how to expand the citizen-centric approach.

Analyse the data collection and composition of the indicators to develop the methodology towards a citizen-centric approach

A citizens-centric approach put the single individuals and the economic and social context in which they live in the centre. In order to illuminate the local context and nuances of life where the individual lives, data at the individual level is needed. This data should be able to display the subjective character of the quality of life in the specific context in which the individual lives. Survey data is the only way to build a quantitative dataset on to do so.

To technically construct a survey to control for all these aspects is not difficult. However, the concentration of population to the functional urban area of Reykjavik, with approximately 80 per cent of the Icelandic population residing in it, is a problem for the construction of a survey. Some of the Icelandic regions are small population wise, which causes integrity and small sample problems. The region of Westfjords has a population of approximately 7,500 inhabitants (see map 1). If you ask the respondents what they think about the treatment of cancer in the Icelandic health care system, the number of persons treated for cancer in this region are so few that they are identifiable. The same can be said if you ask women what they think about the maternity care. When the inhabitants are so few the integrity of the respondents cannot be guaranteed, and hence such survey will be considered as unethical to conduct.⁷⁷

Moreover, small sample population causes problems when analysing data in general, and not only survey data. Let us assume that we have a response rate on 30 per cent on a survey, it is very likely that 10 per cent of the respondents are very dissatisfied with something. If we take Westfjords as an example again, ca 6,000 persons are 18 or older and 20 per cent of this population receives the survey, i.e. 1,200 persons. About 400 persons fill in the survey and 10 per cent are dissatisfied – 40 persons. Their opinion may not be representative for the whole population of Westfjords.⁷⁸

These two aspects challenge a citizens-centred approach to measuring QoL in Iceland at a regional or local level. However, this should not be interpreted as it is impossible to make surveys nor as if the Icelandic government is ignorant towards regional differences in QoL. These challenges can be overcome, but it is costly to do so. The added value of this kind of survey material must be weighted towards the cost for obtaining it.

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⁷⁷ This is based on the interviews with three of the respondents with key competence in this area and they were explicit on this matter.

⁷⁸ The confidence interval is close to +/- 100% for such small group, see William H. Greene (2020) Econometric Analysis. Harlow: Pearson.

5 Conclusions

This case study aims at analysing the application of QoL in a territorial development perspective in order to understand how the QoL is defined, which methodologies for measuring QoL and which indicators are used and the context in which it is applied. The policy relevance of the concept, i.e. understanding in which territorial and sectorial policies concepts for measuring QoL, are used and how different government levels interact is also discussed.

5.1 Specific challenges of measuring QoL for sparsely populated regions

With few exceptions, it is difficult to identify any territorial patterns and disparities by using the available statistics. In general, no sub-national division of data exist on Iceland. For a limited number of indicators, a very blunt sub-national division is made: densely and sparsely populated areas (i.e. the capital region vs. the rest of the country), or explicitly the capital region and the rest of the country. Hence, it is difficult to identify a territorial dimension of QoL by quantitative data. However, the qualitative expert interviews displayed a presence of significant territorial patterns and disparities between the functional urban area of Reykjavik and the rest of the country for the two analysed indicators (health care and housing).

Due to the lack of data, it is difficult to specify what the territorial dimension of QoL actually is, and nor can much be said about what territorial patterns and disparities can be identified and how did they develop throughout time. The only conclusion that can be made is that they exist. A second conclusion is that the concentration of approximately 80 per cent of the population residing in the functional urban area of the capital city creates a bias in the national results of QoL, well-being or happiness as the remaining 20 per cent of the population are statistically invisible.

The Icelandic Government proposed a set of 39 indicators to measure well-being on Iceland, with the aim at looking beyond the conventional GDP focused measurements. The report was presented during the Autumn 2019. Several of the conclusions are highly interesting for this project: there is a lack of data for several of the proposed key indicators, Statistics Iceland have been asked to bridge the data gaps and a discussion on how to proceed with the work is proposed. However, nothing is said about the territorial dimension of well-being in this report or in the proposed work to come.

To produce a sub-national register-based statistic covering e.g. the LAU2 level would be costly in relation to the utility. We must consider that outside the capital region just more than 100,000 inhabitants live in seven LAU2 regions. Only approximately 7,500 persons reside in the population wise smallest one, Westfjords. Survey-based data struggle with small sample problems and problems related to the integrity of the respondents. Most likely small sample problems would bias the results for a population wise small region as Westfjords.⁷⁹ Ultimately, it is a political decision to spend the needed resources to overcome small sample problems.

5.2 Actual and possible usability of the QoL

The heart of the proposed QoL approach lies in the recognition that Quality of Life cannot be gauged and explained by a single composite index, but should be measured and explained by using a set of qualitatively distinct indicators and methodologies that help to detect underlying patterns. Hence, instead of looking at the aggregate outcome, we argue that the focus should

⁷⁹ In a population wise small region, an increase in e.g. the number of unemployed with 50 persons may actually be an increase with 100 per cent.

shift to the underlying qualitative patterns of QoL. This calls for a more contextual and regionspecific approach, i.e. assessing how regions score on a range of dimensions and thereby revealing their specific challenges and achievements in terms of relevant QoL dimensions.

As this case study report has shown, the actual usability of a QoL approach in the Northeast Iceland is limited. Without any data it is difficult to monitor the development, and consequently difficult to steer actions and investments when shortcomings have been identified. As long as this lack of data prevails, the situation will not change.

The ambitions of the Icelandic Government are interesting and, given that adequate subnational data can be produced, could mean a huge potential usability of the QoL approach. To look at measurements beyond GDP when analysing issues related to quality of life, well-being or happiness is a good starting point. Another starting point, which is just as promising, is to analyse issues related to quality of life, well-being or happiness by a set of indicators rather than via one composite indicator.

It must be emphasised that the proposed well-being indicators by the Icelandic Government was presented in the early Autumn 2019. This marks the start of a process, especially when the report admits that there is a lack of data and this must be bridged, as well as an explicit urge to stimulate a discussion on how to move the process forwards. It is simply too early to expect any results. Notwithstanding this, given that sub-national data can be produced to monitor the key indicators at, at least, a LAU2 level, the initiative by the Icelandic Government has a huge potential to improve the quality of life of its inhabitants.

5.3 Lessons to be learned for transferability

At the very early stage of the process, in which the work with QoL related issues by the Icelandic Government is at, it is difficult to draw any conclusions regarding lessons to be learned for transferability but one: without sub-national statistical data it is difficult to identify, monitor and evaluate issues such as QoL, well-being or happiness. It is therefore logical that the Icelandic Government has asked Statistics Iceland to develop such statistics, but only at the national level. Until local or regional data is available, not much can be said about QoL on Iceland. The population concentration to the functional urban area of Reykjavik bias the results, emphasises the need of sub-national statistical data.

6 Recommendations

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

The two analysed indicators – health care and housing – indicate that remote and peripheral regions on Iceland have similar problems as other remote and peripheral areas have in other countries. This is not only a problem in a general sense, but also from a QoL perspective. However, the lack of indicators at a sub-national level disables any form of deeper analyses of the issues at hand. To enable any form of improvements in QoL in the case study region, indicators are needed to monitor the situation. If we cannot monitor the development, it is not possible to say anything about to what extent the concept of QoL works or not.

Our recommendation on how to develop the regional approach is the following:

First, any approach containing wellbeing cannot be used as the focus is on the individual; regional differences are seen as obstacles. Moreover, as the individual is in focus, it is very convenient to use register data on individuals. Such data will reveal how they perform – which is covered in the life maintenance pillar – but does not contain any information on the subjective preferences. Second, a regional approach to quality of life must take its point of departure in the region. Furthermore, not only the individual must be considered in the analysis, but also society as a whole. There are impacts on society if some regions in a country suffer from a very low QoL relative other regions. The use of citizens-centred data must be used to complement register data when performing such analysis.

These two steps are essential to develop a regional approach to QoL.

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

Two recommendations on what ESPON should do to improve, support and develop a European approach towards a territorialized QoL measurement can be made:

1. The design of this project – Quality of Life: Measurements and Methodology – is not made for regions in the European Periphery. Regions in peripheral Europe are characterised by low population density, huge distances and limited resources for public action. Regions in central Europe can be characterised by a high to very high population density, short distances and, importantly, a functional market operating in most areas. Consequently, the public resources are supplemented by private market resources, which can improve accessibility to services related to QoL. This contrasts to the situation in sparsely populated peripheral areas where it is extremely difficult to obtain a market provision of services. The prospects of profit are simply too low.

Regions and countries in peripheral Europe are not polycentric, but monocentric. By concentrating the available resources in one place, the capital city, economies of scale can be obtained. In polycentric regions in central Europe, the situation is different with a higher population density, a functional market and service accessibility. The preconditions of QoL – measured in either objective or subjective ways – are fundamentally different. With the current design and starting points of a project like this,

peripheral regions run the risk to be(come) 'places that don't matter'⁸⁰, which would be very unfortunate.

- 2. It is assumed that statistical data exists for most subjects and for most indicators. This is not only a problem for this specific project, but for most projects dealing with welfare related issues in peripheral and remote areas. The reality is that the data for these regions are troublesome. It is simple to give examples to back up this argument.
 - (a) Data for some of the QoL indicators elaborated in this project exist at the NUTS2 level for Iceland, but not at a NUTS 3 level. The NUTS3 regions on Iceland are the capital region and the rest of the country. Similar problems exist for data for peripheral regions in Finland and Sweden. However, Quality of Life is something of importance at a local level, so the data aggregation is not detailed enough.
 - (b) Some indicators are just collected occasionally. One example of this is the number of medical doctors per 100,000 inhabitants in Finland. Data only exists for 2011 and 2012. These numbers are obsolete today.
 - (c) In some cases, data is collected for the capital region, but not for the other regions in a country. The housing statistics used in this case study report illustrates this well. However, this is not unique for Iceland. Similar problems for different indicators exist also in Finland, Norway and Sweden.

These data issues can be explained by good arguments. One reason is that it is very costly to collect this information and this cost must be related to the utility. In case of survey data, the problems with small sample populations and integrity problems of the respondents are troublesome.

ESPON should work to improve the data situation. This case study report illuminates the problems with missing data.

⁸⁰ This is in analogy with the argument by Andres Rodriguez-Pose (2018) The revenge of the places that don't matter (and what to do about it). Cambridge Journal of Regions, Economy and Society 11(1): 189-209.

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