

National Digital Inclusion Initiatives in the Nordic and Baltic Countries



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Stockholm, Sweden, 2024

Table of contents

About this publication	6
Executive summaries	7
Summary (English)	7
Resumé (Dansk)	7
1. Introduction	10
2. Digital Inclusion in the Nordic-Baltic Region	13
3. Definitions of Digital Inclusion	18
4. Methodology.....	20
5. Digitalisation Policies – Country Reports	22
5.1. Denmark	22
5.2. Estonia	26
5.3. Faroe Islands	29
5.4. Finland	31
5.5. Greenland	36
5.6. Iceland	40
5.7. Latvia	43
5.8. Lithuania	45
5.9. Norway	47
5.10. Sweden	50
5.11. Åland	55
6. Discussion – Framing Digital Inclusion through Barriers and Measures	58
7. Concluding Remarks – Nordic-Baltic Challenges and Strengths	62
References	64

About this publication

This policy report is published as one of the outputs of the "Digital Inclusion in Action" research project. "Digital Inclusion in Action" is a two-year research project aimed at investigating the phenomenon of digital inclusion in the Nordic and Baltic region and how it is being addressed. "Digital Inclusion in Action" is led by Nordregio Research Institute in Stockholm in partnership between Nordregio, the Nordic Welfare Centre and the consultancy consortium Digital Europe. "Digital Inclusion in Action" builds on the Ministerial Declaration Digital North 2.0, 2021-2024 and a joint statement

by the Nordic and Baltic governments on prioritising digital inclusion in the countries across the region. "Digital Inclusion in Action" is funded by the Nordic Council of Ministers, specifically the Ministerial Council for Digitalisation (MR-DIGITAL).

You can learn more about "Digital Inclusion in Action" and other related projects on the DigiHub at: www.nordregioprojects.org/digihub/

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Executive Summaries

Summary (English)

This study aims to analyse national policies and initiatives addressing digital inclusion in the Nordic and Baltic countries, including Greenland, the Faroe Islands and Åland. That includes documenting how digital inclusion is defined and to what extent the policies set out practices for monitoring digital inclusion. The focus is particularly on national policies published after the pre-study "Monitoring Digital Inclusion in the Nordic-Baltic Region" in the period from December 2021 to September 2023. However, the study also considers significant policies published before December 2021 that are still in effect. Of the 33 political strategies and documents identified and analysed, 19 were published since the pre-study.

The focus on digital inclusion has intensified significantly since completion of the pre-study, as is evident from the 19 new strategies published in the Nordic and Baltic region in just two years, with several new strategies underway. Despite this increased attention, a cross-national Nordic and Baltic definition of digital inclusion is still lacking. Similarities in the frameworks and definition of digital inclusion highlight a shared understanding among the 11 Nordic and Baltic communities. However, differences in these frameworks reveal the unique challenges that individual countries

in the Nordic and Baltic region face. The diversity of perspectives underscores the need for flexible, context-sensitive approaches to address digital inclusion effectively.

Furthermore, monitoring of digital inclusion still lacks a definition of common criteria and harmonisation with the various indicators and metrics used in a range of fields. Little has changed in this regard. However, developments are taking place here, with several countries having either initiated efforts to monitor digital inclusion or declared their intention of commencing in the near future.

A more coordinated and harmonised approach to monitoring digital inclusion is crucial for achieving digital inclusion both at the national level and for the Nordic/Baltic region as a whole. Existing methods often focus narrowly on certain aspects of "digitalisation", limiting the depth of insights available for comprehensive studies and evidence-based policy formulation. Greater harmonisation in monitoring efforts will enable a more holistic understanding of the status of digital inclusion and facilitate the development of more targeted, effective policies.

Resumé (Dansk)

Denne undersøgelse har til formål at analysere nationale politikker og initiativer fra de nordiske og baltiske



lande, herunder Grønland, Færøerne og Åland, der beskæftiger sig med digital inklusion. Dette inkluderer dokumentation af, hvordan digital inklusion er defineret, og i hvilket omfang politikkerne omtaler overvågningspraksisser relateret til emnet digital inklusion. Fokus er især rettet mod nationale politikker, der er offentliggjort efter forundersøgelsen "Monitoring Digital Inclusion in the Nordic-Baltic Region", i perioden fra december 2021 til september 2023. Det inkluderer dog også betydelige og stadig aktive politikker, der blev offentliggjort før december 2021. Af de 33 politiske strategier og dokumenter, der blev identificeret og analyseret, blev 19 offentliggjort siden forundersøgelsen.

Fokus på digital inklusion er markant intensiveret siden afslutningen af forundersøgelsen, hvilket ses ved de 19 nye strategier, der er blevet offentliggjort i i den Nordiske og Baltiske region på blot

to år, og flere nye strategier er under udarbejdelse. På trods af denne øgede opmærksomhed mangler der stadig en tværnational nordisk og baltisk definition af digital inklusion.

Fælles træk i rammerne og definitionen af digital inklusion understreger en fælles forståelse blandt de 11 nordiske og baltiske samfund. Dog afslører forskelle i disse rammer de unikke udfordringer, som de individuelle nordisk og baltiske lande står overfor. Mangfoldigheden af perspektiver understreger behovet for fleksible, kontekstfølsomme tilgange for effektivt at håndtere digital inklusion.

Desuden mangler der stadig en definition af fælles kriterier og harmonisering med forskellige indikatorer og metrikker, der anvendes på forskellige områder, når det gælder overvågning af digital inklusion, og der er sket få ændringer i den henseende. Dog finder der også udviklinger sted i denne

sammenhæng, idet flere lande enten har påbegyndt overvågning af digital inklusion eller erklæret ambitioner om at påbegynde det i nær fremtid.

En mere koordineret og harmoniseret tilgang til overvågning af digital inklusion er afgørende for at opnå digital inklusion både på nationalt plan og for Norden/Baltikum-regionen som helhed. Eksisterende metoder fokuserer ofte

snævert på aspekter af "digitalisering", hvilket begrænser dybden af indsigt tilgængelig for omfattende studier og evidensbaseret udformning af politikker. Større harmonisering i overvågningsindsatsen vil muliggøre en mere holistisk forståelse af den nuværende status for digital inklusion og lette udviklingen af mere målrettede, effektive politikker.

1. Introduction

The countries of the Nordic-Baltic region are globally perceived as frontrunners in the field of digitalisation. Over the past decades, a range of notable tech companies from the northern part of Europe have revolutionised the way we listen to music, communicate digitally and back up government data. Alongside the innovation-driven private sector, the public sector of the Nordic and Baltic countries has also stood out. Extensive digitalisation efforts have resulted in leaner bureaucracies, characterised, for example, by comprehensive implementation of the Once-Only principle (OOP), meaning that citizens, institutions and companies using e-government services need to inform the authorities and administration only once, thereby streamlining the process. The success of such processes has been attested by favourable scores in various international rankings such as the European Union's (EU) Digital Economy and Society Index (DESI), the UN's E-Government Development Index (EGDI) and the digital toolkit of the Organisation for Economic Co-operation and Development (OECD).

Nevertheless, past studies have pointed to remaining shortcomings across the Nordic and Baltic region. Paradoxically, some of these shortcomings are especially present in the Nordic and Baltic region because the countries are highly digitally

mature. As societies become more digitalised, marginalised population groups that are left out of the public discourse on digitalisation and lack representation are facing the consequences of limited involvement in the development, design, implementation and advocacy of new digital solutions in the private and public sphere. That makes it especially important to work towards digital inclusion in the Nordic and Baltic countries. Building on that understanding, a substantial political effort has been made in recent years in the Nordic and Baltic countries. Such political prioritisation is also reflected in the joint statement on the importance of promoting digital inclusion as a central aspect of the digital transformation in the Nordic-Baltic region, signed by all Nordic and Baltic governments on 26 November 2021 (Nordic Council of Ministers, 2021).

Experiences of exclusion and discrimination when using digital services undermine the socially sustainable and democratic development of the region and hence require further attention – both within research and policy making. In the context of the "Digital Inclusion in Action" project, special emphasis is placed on the experiences, needs and considerations of seven target groups: (1) older adults, (2) people with disabilities, (3) people with low income, (4) people with low or no



Photo: Jon Flobrant / Unsplash.com

education, (5) immigrants lacking language skills, (6) young adults lacking domain knowledge and (7) residents of rural areas. Building on previous research, these groups have been found to be at risk of digital exclusion for various reasons and are more likely to struggle to access and benefit from the opportunities brought about by digitalisation in an equal manner. Yet there are also several ongoing initiatives in the public sphere that aim to address

these remaining shortcomings, which will be discussed in greater detail in Chapter 5. Such initiatives often focus on the national level and seldom reach regional uptake. An overview of existing strategies is provided in order to help understand where overlaps lie in framing digital inclusion and contribute to fostering a more harmonised Nordic-Baltic approach through shared learning processes.

Fact box: "Digital Inclusion in Action"

- A research project running from October 2022 to October 2024
- Focusing on the phenomenon of digital inclusion in the Nordic and Baltic region
- Digital Inclusion in Action is funded by the Nordic Council of Ministers and builds on Ministerial Declaration Digital North 2.0, 2021-2024
- The paper aims to map relevant policy initiatives in the Nordic and Baltic region in recent years
- This paper is one of several outputs of the project; please read more at: www.nordregioprojects.org/digihub/

As one of the project's first deliverables, this policy report intends to provide an overview of relevant policies aimed at addressing such inequalities in all the Nordic and Baltic countries, including the Faroe Islands, Greenland and Åland. The policy review thereby builds on the pre-study of the *"Digital Inclusion in Action"* project titled *"Monitoring Digital Inclusion in the Nordic-Baltic Region"* (Nordic Council of Ministers & Digital Europe, 2022 – hereinafter referred to as the "pre-study"). The pre-study explored various dimensions of digital inclusion in the region by reviewing the countries' digitalisation policies and other relevant strategies up until December 2021 in view of definitions of the concept of digital inclusion/exclusion. The report further investigated monitoring practices and the overall state of digital inclusion in the Nordic and Baltic countries. That comprehensive evaluation is supplemented by the present report, which includes recent policies that have been published since release of the pre-study. The emergence of new definitions is assessed in that context. This report further places a strong focus on evaluating the barriers and solutions to digital inclusion described by the various

national policies. The aim is to better understand what hurdles are already being considered and used to frame the term in the respective policy debates on digitalisation – and which might not yet have been pinpointed – both on a national and cross-national level. The identification of overlaps and gaps is intended to further facilitate the exchange of relevant knowledge within the Nordic-Baltic region and beyond.

To that end, the document is structured as follows: the chapter following this introduction provides a brief overview of the status of the digital inclusion debate and landscape in the Nordic-Baltic region. The third chapter discusses various definitions of digital inclusion. The fourth chapter informs the reader about the chosen methodological framework. Chapter 5 provides a more detailed overview of the policies that have been reviewed for each country. Chapter 6 provides a summary and analysis of new developments in terms of (1) definitions of digital inclusion and (2) identified barriers that define each country's concept of and approach to digital inclusion. Finally, the document concludes with a number of closing remarks alongside a list of key takeaways.

2. Digital Inclusion in the Nordic-Baltic Region

The pre-study concluded that the Nordic-Baltic region was characterised by high digital maturity overall, with digital exclusion only affecting a relatively small proportion of the region's population. However, the report also criticised the lack of national and cross-regional monitoring indicators specific to digital inclusion. While most of the countries in the Nordic and Baltic region follow and report to the DESI, it has been argued that DESI only covers certain aspects of digital exclusion. Furthermore, due to the fact that the countries in the Nordic and Baltic region are so highly digitalised, it is important to have strong national monitoring practices in place in order to combat digital exclusion. The absence of inclusion-specific monitoring standards, including evaluation practices, has limited thorough analysis and comparison of both the status and impact of digital inclusion on relatively small, but equally important population groups (Nordic Council of Ministers & Digital Europe, 2022). Central areas for improvement identified by the study relate to the lack of established inclusion-related monitoring mechanisms and definitions of digital inclusion. Both aspects pose a challenge to the advancement of political cooperation, research analyses and technological

development of user-centric solutions in the Nordic-Baltic region based on a shared understanding of the term and harmonised indicators. It hence becomes apparent that more cross-border engagement with the topic is necessary on both a research level and policy level to facilitate and step up the setting of common standards and, eventually, stronger collaboration.

Despite the lack of cross-regional indicators specific to digital inclusion, there are other monitoring mechanisms in place which have served as a foundation for the evaluation of countries' digitalisation trajectories. Most notably, the EU's DESI has provided quantitative input on a yearly basis since 2014, facilitating comparisons and allowing developments to be tracked over time. The indicators are reviewed on a regular basis. While monitoring of digital inclusion is not the explicit emphasis of DESI, several dimensions relevant to digital inclusion are covered by the DESI. DESI has been updated annually since 2014 with minor variations between the various years. As of the end of September 2023, the DESI index is no longer published as an independent report, but instead incorporated into the State of the Digital Decade report. Overall, the DESI index of 2023 includes four



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main dimensions (1) Digital skills, (2) Digital infrastructure, (3) Digital transformation of businesses and (4) Digitalisation of public services. All four of the DESI dimensions relate to the topic of digital inclusion to some extent, but especially (1) Digital skills, (2) Digital infrastructure and (4) Digitalisation of public services, with the first measuring human capital in the various countries and the latter two providing important prerequisites for digital inclusion to a greater extent.

Questions of connectivity are touched upon in the second dimension, namely "Digital infrastructure"; here the status quo for the Nordic and Baltic region is rather more unclear, with varying results for the different indicators and different countries. In terms of the share of the population having access to at least 100 Mbps fixed broadband, Sweden, Denmark and Latvia rank above the European average, whereas Lithuania, Estonia and Finland score below the European

average. However, when looking at the national levels of 5G coverage, the picture is almost reversed. Here, Denmark, Finland and Lithuania rank above the European average, while Estonia, Latvia and Sweden rank below the European average. The difference between the two indicators is perhaps most clear in the case of Sweden, which ranks second for the first indicator with 85.28% take-up, but ranks number 28 out of 28 European countries for 5G coverage (as a % of households) with the figure of 20.46%.

The fourth dimension, namely "Digitalisation of public services", sheds light on the status of digitalisation in the public sector in the various countries, both in terms of digital users of public services and also the overall quality of those digital services, e.g. in terms of transparency and mobile-user friendliness. In general, the Nordic and Baltic countries perform well in comparison to other European

countries in terms of digitalisation of public services. An example of that is the indicator measuring the share of e-government users as displayed in Figure 1. Here it is also evident that the Nordic and Baltic countries are among the highest-scoring countries

in Europe. Denmark, Finland, Sweden and Estonia rank in first, third, fifth and sixth place respectively. Lithuania and Latvia rank somewhat lower, but still above the European average, in 13th and 21st place respectively.

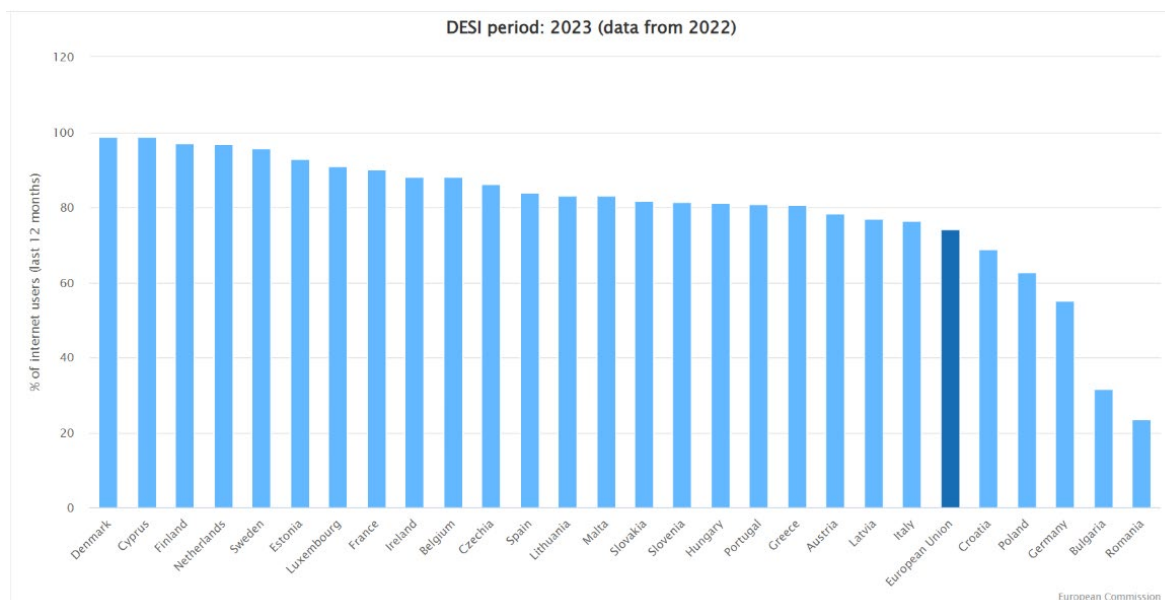


Figure 1: Overview displaying e-government users (as a % of all individuals aged between 16 and 74) per country as monitored within the scope of the DESI's "Digitalisation of public services" dimension. (European Commission, 2023a).

While the second and fourth dimensions ("Digital infrastructure" and "Digitalisation of public services") provide important insight into the availability of digital connectivity and public services, the first dimension ("Digital skills") focuses on digital skills. That dimension includes the percentage of individuals with basic and above basic skills and the percentage of internet use in the population (European Commission; 2023a) and gives an indication of a country's general digital literacy rates. Except for Lithuania and Latvia, the Nordic and Baltic countries attain scores above the EU average in the indicator measuring

the percentage of individuals with at least basic digital skills in the 2023 index (see Figure 2). The same is true for the indicator measuring overall internet use in the population. Here it is only Lithuania that ranks below the European average.

While providing a general overview of a country's current status in terms of digitalisation and competence levels, such rankings do not provide any insight into groups lacking advanced and especially basic IT skills – i.e. who are the members of such groups, why have they not acquired the same skills as many of their fellow residents and how is this affecting their everyday life? In

particular, minority and marginalised groups are at risk of being overlooked in quantitative studies that focus on the identification of general trends. As the "digital by default" assumption becomes more omnipresent in highly digitised societies like the Nordic and Baltic countries, this trend risks being reinforced (Schou & Pors, 2019). Several scholars have explored various aspects of digital inclusion and exclusion in a Nordic-Baltic context. Johansson et al. looked at the use of digital devices and the internet amongst various disability groups in Sweden (Johansson et al., 2021) while Heponiemi et al. (2022) explored the effect of older adults aiming to access digital healthcare solutions in Finland. Leppiman et al. (2021) investigated older adults and digital exclusion in Finland and Estonia. Looking at the Swedish case, Jensen et al. (2020) note that everyday practices of minority

groups, such as immigrants, are only considered to a limited extent when designing public services, exacerbating access restrictions in "transitional phases of citizenry" (Jensen et al., 2020, p. 1). Rohatgi et al. (2020) investigated the determinants for digital inclusion in Danish and Norwegian schools. They found that the availability of digital tools and digital technologies had a significant effect on development of ICT skills among pupils. While the factors causing individuals to be at risk of digital exclusion are relatively well-described, the literature on solutions is sparser. Exceptions to that include the role of education/training and other types of civil society involvement. For example, Hechavarria et al. (2017), Ayoung et al. (2020) and Manžuch & Macevičiūtė (2020) showed the role of libraries in Estonia, Latvia and Lithuania respectively.

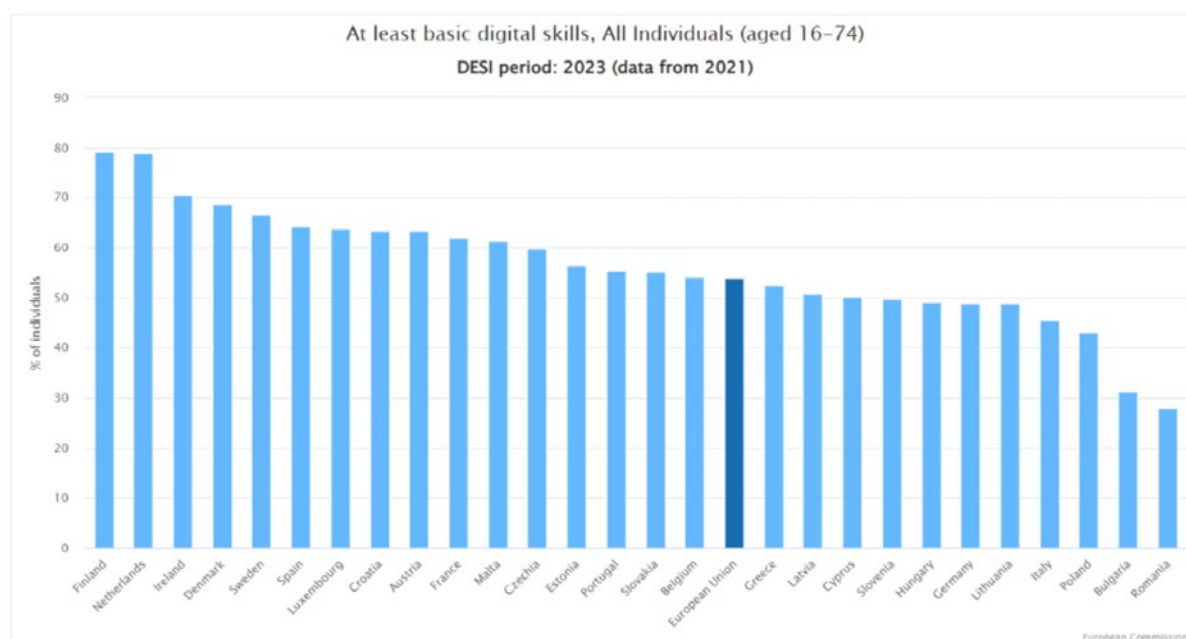


Figure 2: Overview displaying basic digital skills per country as monitored within the scope of the DESI's "Digital skills" dimension. (European Commission, 2023a).

The work of these researchers underlines the remaining discrepancies between various population groups in terms of digital skills and inclusion in general, insights which might be counterintuitive seen against the backdrop of overall relatively high levels of trust in the public sector and comparably egalitarian societies (Gulliksen,

2021). The literature agrees that more research into the causes of digital exclusion, and especially potential solutions to reduce digital exclusion, is required for the countries of the Nordic-Baltic region to remain leaders of the digital transition (ibid). The following chapter will discuss commonly adopted definitions of digital inclusion.

3. Definitions of Digital Inclusion

The last five years have resulted in substantial scholarship and public discourse on the topic of digital inclusion. However, the concept of digital inclusion emerged in academic literature back in the late 1990s and early 2000s. Closely linked to the term "digital divide", digital inclusion was first introduced as a way to widen the debate on an initially limited range of identified digital divides (Parsons & Hick, 2008), while also establishing a link to the more commonly used concept of "social inclusion" (Buré, 2006). The World Bank defines social inclusion as "... the process of improving the terms on which individuals and groups take part in society – improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity" (World Bank, n.d.).

That focus on participation, equality and anti-discrimination is also reflected in more recent concepts of digital inclusion. However, while participation and human-centred design to facilitate usage appear to be at the heart of both international and national definitions, the social dimension seems less prominent. That is also reflected in the definition offered by the European Commission, which characterises digital inclusion as follows:

"Digital Inclusion relates to seamless, transparent, accessible,

and user-friendly digital government services. Citizens must be able to use such digital services without having legal knowledge. The members of our societies should have the opportunity to help shape the digital transformation and share their ideas and content with others unimpeded, while respecting the rights of third parties. The public sector should encourage such wider participation in policymaking by involving society in the design of public services through co-creation, experimentation and collaboration." (European Commission, 2022h).

While stressing the participatory aspect of inclusiveness, the socially based causes of potential exclusion are not referred to explicitly in this definition. National governments have also engaged with the task of defining digital inclusion and have taken a similar approach. In 2014, the UK Government established that: *"Digital inclusion, or rather, reducing digital exclusion, is about making sure that people have the capability to use the internet to do things that benefit them day to day – whether they be individuals, SMEs (ed. "Small and medium sized enterprises") or VCSE (ed. "Voluntary, Community and Social Enterprise") organisations."* (UK Government, 2014).

It could be argued that these definitions underrepresent the wider social dimension and potential implications of digitalisation beyond the acquisition of digital skills and the ability to participate in and shape digital society. While these are two central pillars of an inclusive digital society, these definitions fail to stress the complexity of other barriers that individuals might encounter. For instance, an immigrant could be a fully trained computer scientist but might lack a national social security number enabling him/her to access fundamental digital services in the region.

In the Nordic-Baltic context, neither a shared definition nor many clear national definitions have emerged so far, as also discussed and highlighted by the pre-study. Based on a thorough review and extensive engagement with national stakeholders representing the 11 political entities in question, the pre-study hence developed its own definition of the term according to a more nuanced approach: *"Digital inclusion prevails when all people, including the most disadvantaged and vulnerable groups, have access to and the ability to use ICT related to public sector services."* (Nordic Council of Ministers & Digital Europe, 2022, p. 19).

Since the publication of the pre-study, additional discussions around the topic have taken place. For example, a Finnish report from 2022 associated with the Finnish digitalisation strategy offers a new take on the Nordic definition, coming closer to the definition resulting from the pre-study: *"Digital inclusiveness*



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[means that] all members of society can participate in the operation of the digitalising society" (Kuusisto et al., 2022). It should also be mentioned that the Norwegian digitalisation strategy builds on the work of Midtgård et al. (2021), who framed the concept by noting that the risk of digital exclusion depends on four factors: (1) barriers to access, (2) digital competence, (3) bureaucratic competence and (4) health-related challenges. That framing of the concept indicates an orientation towards more nuanced discussions, perceptions and hence solutions that address digital inclusion by evaluating and approaching the topic and its potential implications from multiple perspectives. That also informed design of the evaluation chart presented in the following chapter.

4. Methodology

The review of national policies on digital inclusion published in the Nordic and Baltic region in recent years (Chapter 5) follows a set methodology. Due to the qualitative, literature/policy-based focus of the review, a critical discourse analysis framework was selected. Based roughly on the methodology suggested by Cummings et al., (2020) the chosen research design draws on a four-phase approach (Cummings et al., 2020).

The first phase looks at existing discourses to define the project's outlook and further engagement with the selected policies. That has been performed through engagement with the findings from the pre-study and other peer-reviewed literature described in Chapter 2, as well as assessment of indicators used by monitoring schemes, predominantly DESI. Based on that analysis, three

lead questions and 15 barriers to digital inclusion (criteria for digital inclusion) and possible measures to address those barriers were selected (see Table 1). Those barriers not only reflect the discussions and findings in the reviewed literature, but also the experiences of the seven population groups that this project focuses on: (1) older adults, (2) people with disabilities, (3) people with low income, (4) people with low or no education, (5) immigrants lacking language skills, (6) young adults lacking domain knowledge and (7) residents of rural areas. By evaluating engagement of the selected policies with those 15 indicators using a three-tier scale (low, medium, high engagement), the various approaches to the concept of digital inclusion and the maturity of digitalisation policies regarding digital inclusion were explored.

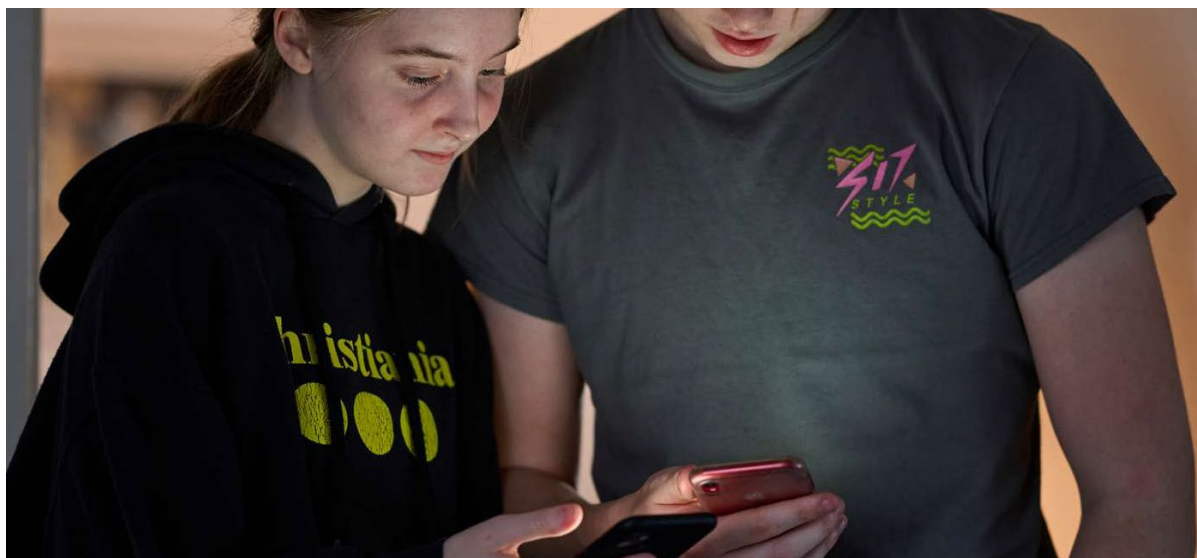


Table 1: Aspects used to evaluate the approach to digital inclusion of each policy.

Lead questions
Is digital inclusion/exclusion discussed?
Is digital inclusion/exclusion defined?
Does the policy list digital inclusion/exclusion indicators that are being monitored?
Barriers/ Measures
Digital skills/competence
Accessibility/connectivity
Trust in digital (public) services
Transparency of policies and technologies
User-friendly design of digital services
Language/provided translations
Physical and mental/cognitive disability
Age – young (lack of domain knowledge)
Age – old
Perceived/actual security of offered services
Price/affordability of connectivity and services
eID use
Motivation/willingness
Data ethics
Power of attorney

In the second phase, the texts to be analysed were selected. As described in the previous section, this report mainly encompasses digitalisation policies and other relevant public strategies that have been published

since the release of the pre-study in order to supplement that preceding study. In cases where no additional policies could be identified, the most recent policy was considered for evaluation. Due to obstacles to obtaining data and information regarding Greenland, the Faroe Islands and Åland, the background information regarding these specific countries also includes interviews with experts from the three countries during the summer of 2023.

The third phase of this approach covers the actual evaluation of the policies using the lead questions and barrier/measure indicators identified in the first phase. That was performed by means of manual coding and critical analysis. A low engagement score (white) is given if the topic does not seem to be addressed by the respective policies. A medium score (light blue) is given if the policy touches upon the given topic but without establishing a clear link to issues of digital exclusion or elaborating on the topic in more detail. A high score (dark blue) is given if the policy clearly covers one of the identified topics. All information in the paper has been monitored and fact-checked by the reference group members for the Digital Inclusion in Action research project. The reference group consists of country experts from each of the 11 societies in the Nordic and Baltic region.

In the following chapter, the main findings of the papers are described and discussed on a country-by-country basis.

5. Digitalisation Policies – Country Reports

Digitalisation is an omnipresent topic in the public sectors of the Nordic and Baltic countries, including Greenland, the Faroe Islands and Åland. The following sections are based on the methodology described in Chapter 3. They provide an overview of the most relevant policies that have been published since the pre-study and that form the basis for the future development and trajectory of digitalisation and hence digital

inclusion/exclusion in the Nordic-Baltic region. Each section provides insight into the current status of digitalisation in the country, how the reviewed policies contribute to the local approach to and understanding of digital inclusion and whether there are any new definitions or monitoring practices or indicators which have emerged since release of the pre-study.

5.1. DENMARK

Overview of Identified Digital Inclusion-Related Policies

Table 2: Overview of reviewed Danish policies and strategies. Sources: (Danish Ministry of Finance, 2022b, 2022a; Danish Ministry of Finance et al., 2022, Ministry of Digital Government and Gender Equality 2023).

No.	Name	Responsible institution(s)	Timeframe
1	Denmark's Digitalisation Strategy – together for digital development	Ministry of Finance	2022-2026
2	The Joint Government Digital Strategy	- Ministry of Finance - Local Government Denmark - Danish Regions	2022-2025
3	The Danish National Strategy for Cyber and Information Security	Ministry of Finance	2022-2024
4	Considerate digitisation	Ministry of Digital Government and Gender Equality	2023-2027

National Landscape of Digitalisation in Denmark

Denmark plays a leading role internationally in terms of digitalisation. In the 2023 DESI, Denmark ranks first in terms of percentage of e-government users, with a figure of 98.86% compared to the European Union average of 74.20%. In terms of digital skills, Denmark ranks in the top five for both the categories "At least basic digital skills" (68.65% in Denmark compared to the European Union average of 53.92%) and "Above basic digital skills" (37.37% in Denmark compared to the European Union average of 26.46%). In December 2022, Denmark established a ministry responsible for digitalisation, the Danish Ministry of Digital Government and Gender Equality, further showcasing the country's commitment to the continued digitalisation of society. All four policy documents reviewed in this policy report further highlight this trailblazing position. They discuss several dimensions of digitalisation which need to be addressed over the coming years to maintain this position and to integrate and further benefit from emerging digital technologies in a sustainable, ethically sound and efficient way. Central concepts from the strategies that will feed into securing Denmark's leading position when it comes to digitalisation relate to (1) information security, (2) responsible data usage and (3) improved access to and usage of digital public services. The Joint Government Digital Strategy also discusses how digitalisation can function as a tool to address today's central challenges, including climate

change and the lack of (qualified) workforce, considering all sections of society. It could hence be argued that these policies are further testimony to Denmark's advanced standing in terms of digitalisation, as the focus of the reviewed policies goes beyond the provision of digital connectivity and skills towards a stronger conceptualisation of digital services as a means to an end.

Framing Digital Inclusion

Four policies were reviewed to identify initiatives and concepts relevant to advancing digital inclusion in Denmark (see Table 4)^{4,5}. The review followed the methodological outline described above. The four reviewed policy documents do not offer a clear-cut definition of digital

⁴ Moreover, in May 2023 a new law was put in place allowing for people struggling with digitalisation to be exempt for digital self-service. For further details, please see: <https://digst.dk/nyheder/nyhedsarkiv/2023/maj/ny-lov-om-digital-fritagelse-vedtaget-i-folketinget/#:~:text=Ny%20lov%20om%20digital%20fritagelse%20vedtaget%20i%20Folketinget,Loven%20tr%C3%A6der%20i%20kraft%20den%201.%20juni%202023.>

⁵ In November 2023, the Danish Government published a new digitalisation strategy titled "Denmark's digitalisation strategy: Responsibility for the digital development". The strategy focuses on digital inclusion among other issues. However, due to the advanced stage of finalising this report, the strategy has not been included in the review. For further details, please see: [https://digmin.dk/Media/638357207253210400/SVM%20regeringen_Danmarks%20digitaliseringsstrategi_2023_V9_Online_Final%20\(1\)-a.pdf](https://digmin.dk/Media/638357207253210400/SVM%20regeringen_Danmarks%20digitaliseringsstrategi_2023_V9_Online_Final%20(1)-a.pdf)

inclusion/exclusion, nor do they describe current or future monitoring mechanisms which could serve the long-term tracking, evaluation and improvement of digital inclusion. The Danish Digitalisation Strategy outlines 61 initiatives and five principles, several of which pertain to issue areas relevant to the digital inclusion debate: (1) digital solutions must benefit everyone, drive growth and support competitiveness and productivity, (2) digital development must focus on security, responsibility and ethics, (3) digital progress must be made in collaboration between the public and private sectors, (4) public data is a common good that must contribute to growth and innovation, (5) Denmark must shape digital development globally (Danish Ministry of Finance, 2022a, p. 15). The attainment of these goals and the strengthening of Denmark's position as a digital pioneer is to be supported by an investment of the Danish government of more than DKK 2 billion. Yet the documents, especially Denmark's Digitalisation Strategy and the Joint Government Digital Strategy, note that certain groups might still be missing out on the opportunities that come with increased digitalisation and deployment of digital solutions. The Joint Government Digital Strategy addresses three main focus areas: (1) The necessary assistance for challenged citizens; (2) the right support for support persons; and (3) collaboration to create user-friendly solutions that meet the needs of challenged citizens. This strategy refers to the groups at risk of digitally exclusion as being

"digitally challenged" (Danish Ministry of Finance, 2022a, p. 21). While this group remains undefined, various population groups are mentioned in this context, including elderly citizens and people with cognitive or physical disabilities, as well as individuals lacking language or digital skills (Danish Ministry of Finance, 2022a, p. 22). Three of the four reviewed documents elaborate in more detail on the need to equip children and young adults with sufficient skills to engage critically with online content and to navigate the digital space responsibly. While young adults were identified as one relevant target group of the "Digital Inclusion in Action" project, this more detailed engagement with children and young individuals in the context of information security does not necessarily seem to link back to questions of exclusion and discrimination, but rather general democratic education and individual safety.

The Danish Digitalisation Strategy and the partial focus on "digitally challenged" individuals build on the "Danish Government Digitisation Partnership" discussion and concluding report from 2021. The document contains 46 policy recommendations, one of which stresses the need to offer equal access to digital services to everyone, including those with "few digital skills" (Danish Government Digitisation Partnership, 2021, p. 114). The document mentions the government's commitment to strengthening efforts to support "equal access", particularly in the context of digital public services. The



Photo: Camilo Jimenez/ Unsplash.com

documents lists various approaches as to how that can be achieved, including support solutions adapted to the needs of the target group, improved support for individuals that function as a “link” between affected citizens and the public sector, a generally more inclusive public sector and a community-centred digitalisation process (Danish Ministry of Finance, 2022a, p. 21). The need for better IT skills training is mentioned as well, but this does not refer specifically to the groups in question (Danish Ministry of Finance, 2022a, p. 57). The need to offer alternatives for those who do not wish or are not able to use digital solutions is also described in the document (ibid). One aspect that both the Joint Government Digital Strategy and Denmark’s Digitalisation Strategy address in more detail is the need to improve the “easy and secure” use of a power of attorney in cases where the “digitally challenged” need support from a

third party when interacting with digital public services, for example (Danish Government Digitalisation Partnership, 2021, p. 11).

The three first policy documents address questions of data ethics and the responsible use of data. These topics are not presented in conjunction with inclusion questions but play a role when it comes to developing digital services that are in line with the interests and values of a society as a whole (Danish Ministry of Finance et al., 2022, p. 7). In this context, the Danish data ethics council is mentioned and the need to reinforce its role. Against the backdrop of increased use of artificial intelligence and other emerging technologies, data ethics councils play an increasingly important role in safeguarding society against unfair or discriminatory algorithms and associated practices.

Trust and security are two other concepts that are addressed without specific connection to the

inclusion/exclusion topic. Yet all three policies address the value of the provision of secure and transparent digital services in the public sector; that is deemed central in order to foster trust in Danish public institutions and their use of citizens' data (Danish Ministry of Finance et al., 2022, p. 10). In terms of digital security, the policy finds that children and young adults in particular are at risk of falling victim to cybercrime and fraud and hence require better support.

The last document, "Considerate digitisation", was launched in June 2023 and is based on a broad political coalition. The document builds upon the three previously mentioned documents. "Considerate digitisation" proposes five new initiatives to combat digital exclusion: i) better help regarding the Danish eID and MitID, such as telephone support, ii) better opportunities for power of attorneys for digital post, iii) better

circumstances for support persons and access for citizens to obtain digital training, iv) efforts to make it more attractive to become an IT volunteer and v) launch of yearly analysis of citizens' interactions with the digital sector. Those initiatives also make it evident that civil society, both in the form of NGOs and private individuals, are placed at the forefront as a key resource for tackling digital exclusion.

Defining and Monitoring Digital Inclusion

The four policies that were reviewed did not offer an explicit definition; nor were any indicators listed or discussed that could facilitate the continuous monitoring and evaluation of digital inclusion. However, the launch of yearly analysis of citizens' interactions with the digital sector could potentially result in improved monitoring practices.

5.2. ESTONIA

Overview of Identified Digital Inclusion-Related Policies

Table 3: Overview of relevant Estonian policies and strategies. Sources: (Ministry of Economic Affairs and Communications, 2021).

No.	Name	Responsible institution(s)	Timeframe
1	Digital Agenda 2030	Ministry of Economic Affairs and Communications	2021 – 2030*

National Landscape of Digitalisation in Estonia

Estonia ranks high in several international surveys related to digitalisation in general and e-government in particular. For instance, in the United Nations (UN) e-participation index, Estonia is tied for third place with Singapore and is the highest ranked European country (UN Department of Economic and Social Affairs, 2022). That leading position is also reflected in the DESI 2023, where Estonia – among other things – comes third in the “Digital Public Services for Citizens” ranking with a score of 94.04 out of 100 (European Commission, 2023a). Estonia, furthermore, comes sixth in terms of share of e-government users with a score of 92.96% compared to the European Union average of 74.20%. The fact that Estonia performs less well related to its overall ranking as ninth out of 27 member states in the 2022 DESI index can be linked back to the country's weaker results in the “Connectivity” dimension, where it comes in second last place, mainly due to its delayed 5G roll-out and allocation process (European Commission, 2022a; Kaceriakova, 2022a), as well as because of the internal national debate on cybersecurity regulations (Wendt-Lucas & de Jesus, 2023). That is also reflected in the 2023 DESI index, where the country's digital infrastructure, especially its connectivity infrastructure, is identified as one of the country's weak points. Here, however, it should be mentioned that this delay in the country's 5G roll-out is due to extensive cybersecurity debates

and the drafting of a relevant policy preceding the roll-out. While that delayed the establishment of 5G technology in Estonia, it provided an example of responsible and secure adoption of a new digital technology to its European neighbours (Kaceriakova, 2022b). In the “Human capital” dimension, which covers people's basic IT skills, Estonia lies slightly above the EU average (European Commission, 2022c). Estonia's strong standing when it comes to digitalisation of its public sector has been traced back to an early and long-term commitment to innovation and investment in the digital advancement of the country (Kassen, 2019). Prominent examples of solutions resulting from that are the Estonian data exchange platform X-road and its e-residency programme (ibid).

Framing Digital Inclusion

In its Digital Agenda 2020, the Estonian Ministry of Economic Affairs and Communications framed IT skills as the central tool to advance digital equality amongst the country's inhabitants (Nordic Council of Ministers & Digital Europe, 2022). The follow-up policy “Digital Agenda 2030” takes a similar approach, with a strong focus on digital capabilities in the context of creating equal opportunities: “it must be ensured that [the citizens] have up-to-date skills to deal with digital solutions in a useful and safe manner” (Ministry of Economic Affairs and Communications, 2021, p. 46).

Yet the policy also expands the framing of barriers and enablers by including additional dimensions

of digital inclusion, going beyond acquisition of skills. One of the guiding principles in the new Digital Agenda 2030 is hence to ensure that everyone has an "equal opportunity to participate in digital society" (Estonian Ministry of Economic Affairs and Communications, 2021, p. 11). While the policy does not define digital inclusion, refer to the concept explicitly or list any groups that might be affected by the phenomenon, repeated reference is made to the protection of "fundamental rights". Associated measures include improving the user-centricity and accessibility of services, as well as fostering more self-determination in the management of personal data and the protection of privacy (Estonian Ministry of Economic Affairs and Communications, 2021). Human or user-centred design is discussed repeatedly in the policy, indicating an inclusive-by-design principle underlying the Estonian approach to the facilitation of "equal opportunities". In that context, the policy notes that technology-centred solutions lack transparency and may result in increased mistrust and unwillingness to use digital services, creating a divide in society between "sceptics" and users (ibid, p.17). User-centric services are intended to further help provide access to public services to any person who "lacks skills, has special needs, comes from a foreign country or has a different cultural background" (ibid, p.20). While the strategy does not list any groups that are considered to be at risk of digital exclusion, it

becomes apparent which variables need to be considered when aiming to include all population groups in a fair digitalisation process. Beyond the more design-centred approach towards increased inclusiveness, the policy also addresses connectivity in several chapters and links access challenges to the risk of digital exclusion. Uneven coverage and hence poor connectivity are named in the policy as one of the main challenges that the country is facing (ibid, pp. 7, 11). The policy also points towards affordability of internet access as an aspect affecting rural communities (ibid, p. 36). In Estonia, the process of reviewing, changing and supplementing the Digital Agenda 2030 has got underway. It is a regular process, but has also been prompted by political decisions made after the parliamentary elections in spring 2023. The new version of Digital Agenda 2030 must be approved by the government in March 2024.

The main policy change is the concept of a personal state. The goal of the concept is to build a personal digital state, which is a system that automatically sends reminders concerning relevant dates. It can be used by both individuals and entrepreneurs. The personal state is designed to be proactive and take events in people's lives and economic activities of entrepreneurs into account. The personal state is intended to use available data to the greatest extent possible when providing the service, with the aim of making it reliable, human-centred and cost-saving.

Defining and Monitoring Digital Inclusion

In the reviewed Digital Agenda 2030, no new definition of the concept of digital inclusion nor monitoring indicators could be identified. The policy notes that "the needs of all people" and "social cohesion" must

be considered and mentions tools such as "principles of inclusive design" and "co-creation" as ways to achieve that (Estonian Ministry of Economic Affairs and Communications, 2021, p. 4).

5.3. FAROE ISLANDS

Overview of Identified Digital Inclusion-Related Policies

Table. 4: Overview of relevant Faroese policies and strategies. Sources: National Digitalisation Programme of the Faroe Islands (2015; 2023).

No.	Name	Responsible institution(s)	Timeframe
1	National Digitalisation Programme of the Faroe Islands	National Digitalisation Programme of the Faroe Islands	2015
2	Digitalisation of society continues	The National Digitalisation Programme of the Faroe Islands	2023-2025

National Landscape of Digitalisation in the Faroe Islands

The Faroe Islands are not included in the DESI monitoring and reporting scheme or the EGDI scheme. Accordingly, they are not assessed or ranked in terms of digitalisation status. However, some general facts about digital infrastructure and connectivity are known, giving an overview of the digitalisation landscape in the Faroe Islands.

Talgildu Føroyar is conducting preliminary research on performing DESI monitoring together with the Faroese Statistics Agency. For example, a plan to conduct a survey to identify the main challenges and appropriate solutions is in place

(according to the representative from Talgildu Føroyar interviewed in connection with this project).

For several years, the Faroe Islands have prioritised investments in their digital infrastructure with the aim of making it well-connected and secure, namely investing in the mobile network, 5G roll-out and fibre. As a result, internet connectivity is high and the Faroe Islands are advanced when it comes to internet access. As of 2017, 98% of the population in the Faroe Islands uses the internet (World Bank, 2017a) and nearly all citizens have a mobile phone (Talgildu Føroyar, 2015; World Bank, 2021). There is nationwide mobile coverage throughout the Faroe Islands, with good mobile phone service in the

remote settlements and smaller islands as well (Faroe Islands, n.d.).

The reviewed digitalisation policy of the Faroe Islands (Digitalisation of society continues) builds upon the Faroese digitalisation strategy from 2015. The strategy is developed by the National Digitalisation Programme of the Faroe Islands (Talgildu Føroyar), which is a programme launched by the Ministry of Finance.

Framing Digital Inclusion

The reviewed Faroese digitalisation policy document does not explicitly define digital inclusion, yet the topic is discussed in various ways throughout the document. The digitalisation strategy outlines three visions and 16 initiatives, several of which relate to the issue of digital inclusion. Initiative 14 is titled "Digital Inclusion and Empowerment" and discusses what can be done to ensure that all citizens can navigate the digital world. Although the digitalisation policy does not specifically outline groups that are at risk of digital exclusion, a number of groups are mentioned that might still be missing out on digital solutions, namely older adults, people with a low level of digital skills, people with disabilities and people with a low level of Faroese language skills.

Several efforts to strengthen digital inclusion are mentioned, e.g. (1) develop accessible and inclusive digital solutions to ensure equal access to digital services. For example, people with visual impairments should have the option to have information read to them when using digital services; (2) develop all digital solutions in

both Faroese and English, taking into account that not all people in the Faroe Islands are proficient in Faroese. An English translation can ensure that many (but not all) newcomers and foreigners can use the digital solutions; (3) promote digital literacy and ICT skills for those who need such training so that everyone can develop their digital skills and feel confident (Talgildu Føroyar, 2023).

Initiative 13, named "Representation", discusses measures to offer alternatives for those who either do not want to or cannot use digital solutions. For instance, citizens should easily and safely be able to appoint others to act on their behalf in the digital world through a power of attorney. It is stated that "a person who is a party to a case may at any time appoint someone else to represent them or seek assistance from someone else. It is crucial that citizens do not lose such rights when the interaction becomes digital" (Talgildu Føroyar, 2022, p. 18). Additionally, a representative of the digitalisation programme mentioned that power of attorney is a solution that they are looking into further, with the aim of developing a centralised representation solution that can be used by all service providers offering digital services (interview with a representative from Talgildu Føroyar in relation to this study, June 2023). At the time of writing, banks and several public service providers accept a power of attorney. Hence, a power of attorney is not possible for some services, but there is ongoing work to add new services.

Defining and Monitoring Digital Inclusion

As of the latest digitalisation policy, no new definitions of “digital inclusion” or any monitoring practices or indicators can be identified for the Faroe Islands.

However, monitoring is performed in the Faroe Islands of how many people and what groups have accessed Samleikin (the Faroese eID) and Vangin (the Faroese service from Talgildu Føroyar, which gathers digital services of public institutions and municipalities).

5.4. FINLAND

Overview of Identified Digital Inclusion-Related Policies

Table 5: Overview of relevant Finnish policies and strategies. Sources: Finnish Ministry of Finance (2021; 2022)

No.	Name	Responsible institution(s)	Time-frame
1	Finland's Digital Compass	Ministerial working group on developing the digital transformation, the data economy and public administration	2022-2030
2	Digital Inclusiveness in Finland Report	Ministry of Finance	2021
3	Systematic Model of Digitalisation	Ministry of Finance	2022

National Landscape of Digitalisation in Finland

In the 2023 DESI, Finland is a frontrunner in several dimensions. In terms of connectivity, Finland's successful and fast 5G roll-out and industry uptake can be highlighted (European Commission, 2023g). Finland is also a forerunner when it comes to “Digital skills”. For instance, Finland comes second regarding the share of individuals with “Above basic skills” (79.18% in Finland compared to the European Union average of 53.92%) and comes first

in the share of population with “At least basic digital skills” (48.13% in Finland compared to the European Union average of 26.46%). Finland's proportion of individuals working as ICT experts lies three percentage points above the EU average (ibid). Finland ranks third with respect to e-government users, with the figure of 97.03% compared to the European Union average of 74.20%.

In 2020, the Strategy for Public Governance Renewal (Finnish Government, 2020) included the goal of Finland further advancing its

position in the field of digitalisation, allowing it to benefit from new digital opportunities across all sectors. The programme to promote those goals, namely the "Digital Programme", was set up by the Ministry of Finance and concluded in March 2023. The programme generated a variety of outputs. A key document worth mentioning here is Finland's Digital Compass, which is intended to guide the country's digitalisation process until 2030. The present report also considers associated publications such as the report on "digital inclusiveness" and the systematic model of digitalisation. While these do not constitute "policies" in themselves, they lay out findings and approaches related to "digital inclusion" and address the often-criticised lack of structural oversight when it comes to digitalisation processes on a national level.

Framing Digital Inclusion

Finland's Digital Compass provides guidance and orientation for the country's digital development. Early in the report of the Finnish government on the Digital Compass, it is stressed that the Finnish digitalisation process needs to transition from a technology-centric approach towards "value-centric technologies". Such values are "based on the European value base, such as democracy, equality, respect for human rights and freedom" (Finnish Government, 2022, p. 27). Going into more detail, the document lists sustainability, trust, a human-centric approach, inclusion, renewal and digital security (ibid). As one element to achieve that, the policy refers to

the need for citizens to have digital skills, which requires further support for the development of such skills and investment in relevant education schemes (Finnish Government, 2022, p. 10). In general, however, the document rates Finland's overall IT skill level as one of the country's strengths.



Figure 3: The vision behind underlying values of the Finnish Digital Compass. (Finnish Government, 2022, p. 31)

A separate section addresses digital inclusion in more detail. With the aim of ensuring that everyone can benefit from the opportunities brought about by digitalisation and play an active role in Finnish society, the report names "digital skills" and "accessibility of digital services" as two prerequisites for achieving digital inclusion. The document conceives digital skills as "new civic skills" (ibid, p.17). Another component addressed by the Digital Compass is trust, which is presented as a foundation for a positive attitude towards

the provision and usage of digital services. The Finnish Digital Compass further stresses the importance of offering services in the country's two official languages, as well as other languages (i.e., Finnish and Swedish) to increase accessibility across any language barriers. Support is to be provided to those requiring it due to any of the barriers referred to in the report.

According to a separate summary in the Ministry of Finance's report on digital inclusiveness, there are three predominant digital divides in Finland today, involving: (1) access to digital services and availability and functionality of technology, (2) digital skills and competence regarding the use of digital services and technology and (3) the benefits, impact and relevance of digital services. The document further lists potential factors that may put a given group at risk of digital exclusion; these largely overlap with the groups identified by the Digital Inclusion in Action project and the pre-study. The report further zooms in on various types of support that can be offered, ranging from

technical solutions, including screen readers, through to public service agents and other professional, peer or community support.

Defining and Monitoring Digital Inclusion

The Digital Compass does not offer an explicit definition of digital inclusion. However, it stands out for its repeated and clear engagement with the concept as a central pillar of the country's digital future. The report on the Ministry of Finance's work on digital inclusiveness is only available in Finnish. Nevertheless, a summary of the report provides an overview of the main findings and ambitions, while also offering a definition of the term: "Digital inclusiveness [means that] all members of society can participate in the operation of the digitalising society" (Kuusisto et al., 2022).

The document further suggests a list of 34 indicators which can be tracked and considered when evaluating the status of digital inclusion (see Table 6):

Table 6: Indicators of digital inclusiveness as proposed by the Ministry of Finance's Digital Inclusiveness project. Source: (Kuusisto et al., 2022) [English translation by original authors].

	Area of Digital Inclusion	Indicator
1st degree of the digital divide: access to digital services and the availability and functionality of technology	Infrastructure and technological tools	Households' possibility of at least 100Mbit/s internet connectivity (by 2025), %
		Mobile network availability for households (4G100Mbit/5G100Mbit/5G300Mbit), %
		3G/4G/mobile phone connections in use per household, %
		Internet connection in the household, %
		(Any) computer in the household, %.
		Public internet terminals and connections
		(Users) experience having at his/her disposal the a) infrastructure and b) technological tools he wants
	Accessibility	The accessibility directive is part of national legislation by 2022 and will be implemented by 2025
		The services provided by entities covered by the accessibility requirements meet the minimum accessibility requirements
		The provider of public digital service(s) has carried out accessibility assessment of its website
2nd degree of the digital divide: digital knowledge and information skills for using digital services and technology	Skills, know-how and digital support	(Users) experience of a) findability and b) ease of use of digital services
		Ranking in the international country comparison in basic digital skills and digital skills beyond the basic level. (DESI)
		Users who are able to use services and devices completely independently and can guide and help others
		Reason for not using digital devices and services: not knowing how to use the devices.
		The resources used by the public administration for digital support and the impact on getting the necessary support, and on digital skills and competence(s).
		Quantity and quality of digital inclusion education/training and b) digital skills of students and teachers. (ICILS)
		(Users) experience of a) having sufficient digital skills and b) willingness to learn new digital skills.

The 3rd degree of the digital divide: benefits, effects and relevance of digital services	Safety and Reliability	Ranking in the international country comparative assessment of cyber security. (ITU)
		Public digital services meet data security and data protection requirements.
		The level of trust of the public administration personnel for the digital (operational) environment.
		Information security program or service on a smartphone, share of smartphone users, %
		Obstacles experienced by individuals related to the quality of online services and trust in using the service.
		(Users) experience in a) reliability of digital services and b) own know-how to take care of data security
	Usability	Consideration of the needs and special features of different user groups in all public administration digital services
		Plain language and comprehensibility of on-line content of public digital services
		Evaluation and development of the usability of online content of public digital services as part of service development and maintenance
		(Users) experience of a) smooth use of digital services and b) comprehensibility of content
	Use and benefits	Use of the Internet a) for banking matters and b) for eServices of authorities or public service providers
		Experienced obstacles and worries when using electronic services (%)
		(Users) experience of the usefulness of digital services (for oneself)
		(Users) experience of a) the effectiveness of digital services and b) the smoothness of one's everyday life by utilizing digital services
		(Users) experience of the possibility of participating in society by utilizing digital tools
		(Users) experience of own equality as a user of digital services

5.5. GREENLAND

Overview of Identified Digital Inclusion-Related Policies

Table 7: Overview of relevant Greenlandic policies and strategies. Sources: Naalakkersuisut (2018) and Naalakkersuisut (2023).

No.	Name	Responsible institution(s)	Time-frame
1	The digital society: National digitalisation strategy 2018-2021*	Greenlandic Government (Naalakkersuisut)	2018-2021
2	Den Nationale Digitaliseringsstrategi 2023-2026**	Greenlandic Government (Naalakkersuisut)	2023-2026

National Landscape of Digitalisation in Greenland

Greenland does not report to either the DESI monitoring and reporting scheme or the EGD scheme. Consequently, Greenland is not evaluated or ranked in terms of the status of digitalisation through those particular mechanisms. However, some general facts about its digital infrastructure and internet connectivity are known, providing an overview of the current landscape of digitalisation in Greenland.

As of 2017, 69% of the Greenlandic population use the internet (World Bank, 2017b). The Digitalisation Agency's survey "Citizens and IT" (Borgere og IT) from 2017 shows that, by the end of 2017, 83% of the Greenlandic population over 15 years of age had internet access at home and a further 5% access the internet elsewhere, 24% own a regular mobile phone and 73% own a smartphone (Greenlandic Agency for Digitalisation, 2017). However, that also means that, in 2017, 12% of Greenlanders do not

have access to the internet from their home, at their workplace or a third place. Data from Tusass (Greenland's provider of telephony and internet services) shows that as of 2019, 92% of the population in Greenland had access to high-speed internet, after expansion of the sea cable and radio chain and investments in the 4G network. It is noted that part of its future efforts will focus specifically on the 8% of citizens that currently do not have the same digital opportunities as the rest of Greenland's population (Tusass, 2020). That is to be achieved, for example, through a comprehensive satellite programme that will provide citizens in Tasiilaq, Ittoqortormiit and Qaanaaq (i.e. towns in North and East Greenland that are not covered by submarine cable or the radio chain network) with a stable internet connection (Tusass, 2023). Work on rolling out 5G is underway, but in the initial phase the 5G network will only be tested and activated in the cities of Narsaq, Maniitsoq and Sisimiut. In a later phase, 5G will be rolled out

in ten other cities with submarine cable access, although the process is expected to take time (Tusass, n.d.a). Figure 3 shows the submarine cable coverage in Greenland (the blue lines, not the dotted). Greenland's first submarine communications cable (known as Greenland Connect) went into operation in March 2009. It is a 5404-kilometre fibre optic connection running from Newfoundland in Canada to Nuuk in Greenland, from where it continues to Qaqortoq and Iceland. The second submarine communications cable is Greenland Connect North, running from Nuuk through Maniitsoq and Sisimiut up to Aasiaat.

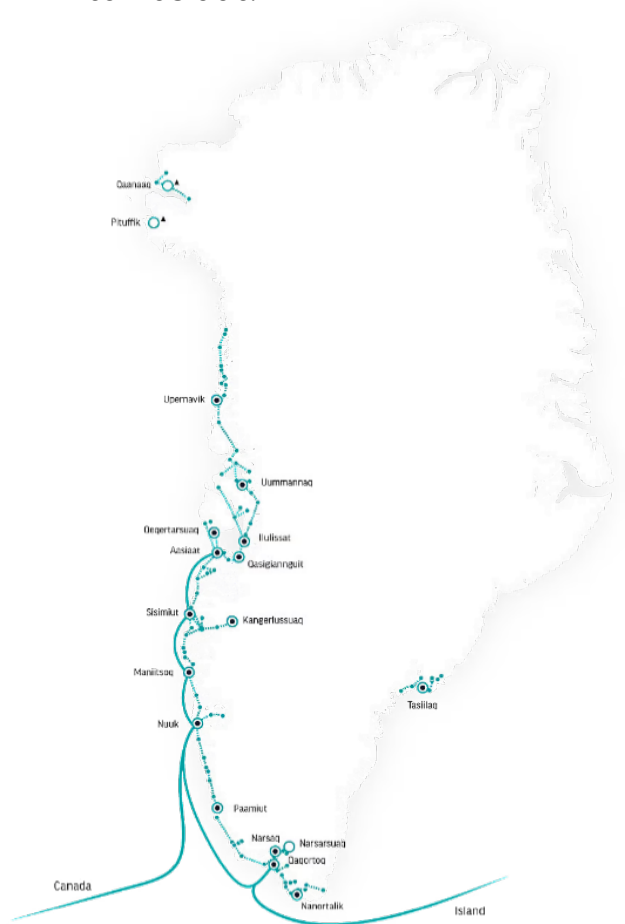


Figure 4. Submarine cable coverage in Greenland (source: Tusass, n.d.b),

The representative from the Greenlandic Agency for Digitalisation interviewed in relation to this study noted that the agency has started to focus more on measures related to digital inclusion. The primary focus was first to strengthen digital infrastructure throughout Greenland, as some areas struggle with slow and unreliable connections. Having access to the internet is not a given for all citizens, as there is an issue of poor coverage and connection in some places and, in general, high costs in many places – sometimes the two issues are coupled. Furthermore, as the internet in some of households in Greenland can be expensive, it is not something some citizens use very often, so they may lack knowledge of how to navigate and use digital solutions. It is important to note that this is the case for a small part of the population, particularly citizens in the remote areas. The citizens in larger cities, on the west coast and south Greenland, have high internet usage and knowledge of navigating digital solutions (interview with a representative from the Greenlandic Agency for Digitalisation, August 2023).

Framing Digital Inclusion

Two documents were reviewed for Greenland. The reviewed digitalisation document, titled "The digital society: National digitalisation strategy 2018-2021" (Det digitale samfund: National digitaliseringsstrategi 2018-2021), is the same document that was reviewed in the pre-study. The digitalisation strategy is developed by the Greenlandic Agency for Digitalisation and was published

in 2018 (Greenlandic Agency for Digitalisation, 2018). The National Digitalisation Strategy 2023-2026 was released for public consultation in April 2023. However, the new digitalisation strategy (planned to be launched in 2023) had not been released at the time of writing (November 2023). Accordingly, the new digitalisation strategy is not a published national policy, but it is included in this report as it provides an indication of how digital inclusion is discussed.

"The digital society: National digitalisation strategy 2018-2021" lacks a precise definition of digital inclusion and does not specifically identify groups at risk of digital exclusion. However, it includes some discussion of those topics. The Greenlandic digitalisation strategy revolves around six primary topics, each comprising multiple initiatives, several of which are linked to the concept of digital inclusion. Much emphasis is placed on improving digital public solutions to ensure all citizens have equal access to all digital public services. That is a prerequisite for digital inclusion in Greenland, yet there are still people that are lagging behind in this regard, either due to an inability or a lack of interest in accessing public digital solutions. It is noted that some people are struggling with being part of the digital realm and accessing digital solutions, and it is also acknowledged that digital skills tend to vary considerably among citizens. There are some measures in place, e.g. courses in IT so that citizens can acquire digital skills, and municipal service centres have been

equipped with citizen PCs to cater to people lacking internet access, thereby facilitating their use of digital solutions (Naalakkersuisut 2018).

The aforementioned representative from the Greenlandic Agency for Digitalisation commented that the agency has recently starting to focus more on matters of digital inclusion, including identifying groups experiencing challenges such as elderly people, people in rural settlements, immigrants and people with disabilities. It is on the agenda to start work on understanding the needs of various minority groups regarding digital inclusion (interview with a representative from the Greenlandic Agency for Digitalisation, June 2023).

In the new national digitalisation strategy for 2023-2026, which is currently under political consultation, one topic is that of digital inclusion. As digital inclusion has recently become a focus, one of the first aims is to determine the level of ambition for Greenland, which should be realistic and manageable on a day-to-day basis. It is noted that Greenland, just like other countries, is undergoing a digital transformation, one that will place new demands on private companies, public authorities and citizens, and that to achieve a successful digital transformation, everyone needs to be on board. The digitalisation strategy for 2023-2026 is structured around five topics: (1) The foundation for digitalisation, (2) Towards higher information and cyber security, (3) Data, (4) Sullissivik.gl, the public service portal, and (5) Digital inclusion (Naalakkersuisut, 2023).

In the new digitalisation strategy, digital inclusion is discussed throughout the text. Within topic 1 "The foundation for digitalisation", the guidelines for legislation connected to digitalisation are discussed. It is noted that the legislation should address, for example, digital service solutions, web accessibility and exemptions from digital communication for individuals who cannot use digital communications or other digital methods. Furthermore, in topic 5 "Digital inclusion", it is noted that the digital transformation introduces an increasing number of digital solutions, while there is a gradually increasing need for digital skills in the public space. It is stated that "Through Greenland's membership in the Nordic Council of Ministers, including the Ministerial Council for Digitalisation (MR-DIGITAL), we work to promote digital inclusion through equality of access for all citizens. The digital transformation with inclusion as its foundation should take place through Nordic and Baltic cooperation, through dialogue and knowledge sharing" (p.12) A strategic initiative concerning digital inclusion was formulated: preparing principles and guidelines for digital inclusion in Greenland (Naalakkersuisut, 2023). Furthermore, another focus area within the topic of digital inclusion is web accessibility: "Web accessibility is about ensuring that all citizens, regardless of disability or impairment, should have the opportunity to use government digital platforms and participate in society on an equal footing with other citizens. Especially in situations that

concern the relationship between the government and citizens" (p.12). The approach to web accessibility in Greenland will be examined to define an ambition level for the roll-out of possibilities. Here, developing a strategy for web accessibility is formulated as a strategic initiative (Naalakkersuisut 2023).

Defining and Monitoring Digital Inclusion

The two reviewed strategies do not offer an explicit definition of digital inclusion. Furthermore, as of the digitalisation strategy published in 2018, Greenland does not perform any specific monitoring of digital inclusion. The existing indicators are connected to the broader statistics on internet use and access to mobiles, but are not explicitly used for tracking digital inclusion. However, the digitalisation strategy states that the long-term vision is for the digitalisation strategies in Greenland to be aligned with the DESI, making it easier to compare development with other countries (Naalakkersuisut, 2018).

In the new strategy for 2023-2026, it is stated that one of the goals of the project on digital inclusion is to create indicators and collect data, both quantitative and qualitative. The project will be defined within the coming months and Greenland wishes to follow the standards determined by the Nordic Council of Ministers for Digitalisation. The strategy notes that data on citizens' behaviour, including those groups who may encounter challenges connected to the digital transformation, are vital for decision-making and as the

foundation for developing digital solutions that provide citizens with easy access to public services regardless of external factors (Naalakkersuisut, 2023). However, since the new digitalisation strategy

planned to be published in 2023 had not been politically approved as of writing this text (November 2023), it is uncertain if the work of creating indicators and collecting data will be a priority.

5.6. ICELAND

Overview of Identified Digital Inclusion-Related Policies

Table 8: Overview of relevant Icelandic policies and strategies. Sources: Prime Minister's Office (2022) and Digital Iceland / Ministry of Finance and Economic Affairs (2021)

No.	Name	Responsible institution(s)	Timeframe
1	Government Information Policy	Prime Minister's Office	From November 2022
2	Digital Policy	Ministry of Finance and Economic Affairs and the Icelandic Association of Local Authorities	From 2021
3	Web services policy	Ministry of Finance and Economic Affairs	From 2021
4	Content strategy	Ministry of Finance and Economic Affairs	From 2021

National Landscape of Digitalisation in Iceland

As a non-EU country, Iceland is not included in the monitoring and reporting scheme of the DESI. However, in the 2022 UN EGDI, Iceland ranks in fifth place and is considered one of the 15 countries leading e-government development worldwide (UN Department of Economic and Social Affairs, 2022). That is also evident from the yearly survey conducted by the Ministry of Finance and Economic Affairs on public satisfaction with digital services in Iceland, revealing a

relatively high score that has further increased over the last recent years (Icelandic Ministry of Finance and Economic Affairs, 2023).

Additionally, Iceland has shown strong progress in the European Union's annual eGovernment Benchmark of 2023, which assesses the quality of digital public services (European Commission, 2023h). Its ranking improved significantly, moving from 11th place in 2020 to fourth place in the most recent evaluation in 2023. The top three spots were claimed by Malta, Estonia and Luxembourg, with Iceland

close behind, alongside Finland, the Netherlands, Lithuania and Denmark. The assessment encompasses a range of factors, particularly the user experience, aligning with the EU's goal of enhancing user satisfaction and digital public services. The benchmark evaluates countries in four primary categories: user-driven services, transparency, core services and cross-border services.

Iceland's performance is particularly strong in three of those categories, surpassing the average. It ranks sixth for user-friendly digital services. Regarding transparency, Iceland ranks second, signifying transparent and accessible information for service access. In core public services, Iceland also holds second position, and in digital cross-border services, it ranks ninth. Iceland is notably strong in the domain of eID. Approximately 95% of Icelanders aged 13 and above possess electronic certificates, highlighting their widespread adoption (DigDir 2022).

Iceland has furthermore worked towards enabling the opportunity for powers of attorney for members of groups struggling with eID and other digital matters. A power of attorney is ensured through the authentication system that the Icelandic Authorisation system uses. Disabled individuals who struggle with obtaining eID due to their disabilities can obtain support through the rights protection office for disabled people at the Ministry of Social Affairs and Labour. Currently, the rights protection office is working on moving its website to Island.is to make sure accessibility standards are met.

Iceland's main digitalisation policy was developed by the Ministry of Finance and Economic Affairs in collaboration with the Icelandic Association of Local Authorities and is based on the Government's Action Plan for the Promotion of Digital Services, adopted in 2019. Implementation of the policy is coordinated by the Ministry of Finance and Economic Affairs.

Framing Digital Inclusion

Several policy documents and strategies on digitalisation have been published in recent years, many of which either directly or indirectly discuss the topic of digital inclusion, most notably the "Government Information Policy" of 2022, "Digital Policy" of 2021, "Web services policy" of 2021 and "Content strategy" of 2021. Iceland's "Government Information Policy" aims to keep public services clear, reliable and accessible (Government of Iceland, 2022). The policy sets out to foster greater transparency in government work through better access to a wider range of data on government activities. While the policy does not have a clear focus on digital inclusion, it does mention the need to educate members of the public, e.g. on information law and other legislation related to information rights, to enable them to retrieve and benefit from the available information. The information should be made available in an "accessible" and user-centric manner using simple and clear language (ibid). The policy further states that information needs to be disseminated in additional languages.

Another policy document is Iceland's "Digital Policy" developed by Digital Iceland in 2021 (Digital Iceland, 2021). This policy was already discussed in the present project's pre-study. However, a brief summary of the main points is also provided here as it is noted in the policy that the document remains under constant review given the rapid changes in the digital sphere. One aim addressed by the policy is the provision of better public services. For that purpose, the policy mentions the need to make digital services accessible so that they "... reach the whole of society as well as improve services for the non-urban population and support all those who have difficulty accessing services." (ibid).

The Web services policy of 2021 aims to improve government services for individuals and businesses by means of accessible data communication through web services. Along the same lines, the Content strategy of 2021 sets out specific guidelines with three conditions for creating a good informational website to ensure accessibility for several user groups: i) the information needs to be there, ii) people can find it, and iii) people

can understand it. A core element for all three conditions is to be user-centric and understanding of the needs of end-users.

The reviewed Icelandic policies do not explicitly address the effects that digitalisation might have on certain population groups such as people with cognitive and physical disabilities. In a publication from 2021, Rice and Bjarnadóttir evaluated the Icelandic national disability strategy in a digitalisation context. It became apparent that the impacts of digitalisation are mainly analysed on an accessibility level, meaning that in-depth experiences of digital exclusion are not considered (Rice & Bjarnadóttir, 2021).

Defining and Monitoring Digital Inclusion

No specific definition of digital inclusion has been identified. The Digital Iceland document includes a list of metrics which are being followed to track the impact of the suggested changes. The 15 metrics are hence divided across the four focal areas of the project and have been followed since 2019 with a goal value set for 2027.

5.7. LATVIA

Overview of Identified Digital Inclusion-Related Policies

Table 10: Overview of relevant Latvian policies and strategies. Sources: Ministry of Environmental Protection and Regional Development of the Republic of Latvia (2021) and Ministry of Defence of The Republic of Latvia (2023)

No.	Name	Responsible institution(s)	Timeframe
1	Digital Transformation Guidelines for 2021-2027	Ministry of Environmental Protection and Regional Development of the Republic of Latvia	2021-2027
2	Cybersecurity Strategy of Latvia 2023-2026	Ministry of Defence of The Republic of Latvia	2023-2026

National Landscape of Digitalisation in Latvia

According to the 2022 DESI, Latvia's overall score grew at a slower rate than that of most of the other EU countries in the period between 2017 and 2022 (European Commission, 2022e, p. 3). However, there are several areas where progress in the digitalisation landscape has been strong.

In the DESI 2022 ranking, the country's rank remained 17 out of 27 as in the previous year. The relatively low score is due to the grouping of variables related to the "integration of digital technology" section, where Latvia ranked in 23rd place in 2022, revealing potential for further improvement. DESI 2022 finds that Latvia is below the European average regarding almost all indicators in this dimension (except for the percentage of enterprises that use electronic information sharing, where Latvia lies one percentage point above the EU average). However, Latvia, to a certain extent, performs better in

other dimensions of the DESI index. In the dimension more closely related to digital inclusion, "human capital", Latvia ranks just slightly below the EU average (total score of 44.1 compared to 45.7 on an EU level). The DESI report found that 51% of the Latvian population between 16 and 74 years of age have at least basic digital skills and 25% have above basic digital skills, against the respective EU averages of 54% and 26%. A study focused on the Latvian education sector highlights in this context that academic staff also largely lack digital skills. The authors point to the importance of investment in the modernisation and adaptation of teacher training programmes and emphasise the importance of better oversight and accountability in this endeavour (Petrovica et al., 2022).

The recent Digital Decade 2030 (European Commission, 2023e) also reveals that Latvia performs well with respect to availability of digital public services, scoring 87 on digital public services for citizens (EU

average: 77) and 86 for businesses (EU average: 84). With a score of 79, Latvia ranks above the EU average of 72 for online access to electronic medical records. In the field of electronic identification (eID), Latvia has notified the Commission of a scheme under the eIDAS Regulation. It is one of the trailblazing Member States to have developed a mobile eID solution involving the "eParaksts mobile" app, which allows users to sign documents electronically, enter into contracts and receive services from authorities. Two digitalisation policies that touch upon the topic of digital inclusion could be identified. The first is Digital Transformation Guidelines 2021-2027, which serves as a basis for other policies, strategies and plans in Latvia and was already covered by the present project's pre-study. The second strategy identified is the Cybersecurity Strategy of Latvia 2023-2026.

Framing Digital Inclusion

The Latvian Digital Transformation Guidelines for 2021-2027 is a comprehensive policy document on various aspects of digitalisation in Latvia (Ministry of Environmental Protection and Regional Development of the Republic of Latvia, 2021). Chapter 4.1 of the policy document touches upon "Digital skills and education". Here emphasis is also placed on digital inclusion, especially development of digital skills in Latvian society, e.g. development of basic to advanced IT skills and support for everyday use of digital services. No target groups are explicitly discussed in the document. The focus is more on the

development of skills than on groups lacking such skills, and the document is aligned with the European digital competence framework, DigComp. That is evident, for example, in Chapter 4.5. "Digital skills in the health sector", which defines the overall objective: ensuring that digital skills and competences of healthcare workers in Latvia promote the introduction and use of high-quality, efficient and ethical digital solutions. Furthermore, the Latvian policy discusses the accessibility of internet connectivity, as well as the roll-out of 5G technology as a precondition for advancing the accessibility and usage of novel technologies across the country (Ministry of Environmental Protection and Regional Development of the Republic of Latvia, 2021). Additionally, the document also touches on subjects less closely related to digital inclusion, such as the country's engagement with the development, commercialisation and employment of digital innovation. An exception, where the Latvian Digital Transformation Guidelines are more explicit on the types of target groups is Chapter 4.4.8 of the policy, which focuses on preservation and development of cultural heritage in the digital environment, where it calls for promotion of the use of digital tools when promoting cultural heritage content among young people and providing access to people with special needs.

The Cybersecurity Strategy of Latvia 2023-2026 also touches on the topic of digital inclusion in relation to cybersecurity; Direction 3, "Public Awareness, Education and Research" (p.26), emphasises that Latvian

citizens must be able to safely navigate their digital lives, including fully utilising secure electronic communication tools such as eID cards and/or the mobile e-Signature application. That aim applies to children, youth and adults alike, to minimise the risk of Latvian citizens

falling victim to cybercrime or digital fraud in the future.

Defining and Monitoring Digital Inclusion

No definition or monitoring mechanisms can be identified.

5.8. LITHUANIA

Overview of Identified Digital Inclusion-Related Policies

Table 11: Overview of relevant Lithuanian policies and strategies. Sources: Ministry of Economy and Innovation (2021); Ministry of Finance (2021); State Progress Council (2018)

No.	Name	Responsible institution(s)	Timeframe
1	State Digitisation Development Programme	Ministry of Economy and Innovation	2021-2030
2	Lithuania’s Recovery and Resilience Plan	Ministry of Finance	2021-2026
3	Lithuania’s Progress Strategy “Lithuania 2030”	State Progress Council	2018

National Landscape of Digitalisation in Lithuania

Lithuania ranks 14th in the 2022 DESI as it did in the two previous years; with a score of 52.7, it lies slightly higher than the EU average of 52.3 points (European Commission, 2022b). The 2023 report points out Lithuania’s progress and good scores close to the EU average in the “Digital skills” dimension. Almost half of the Baltic country’s population possess at least basic IT skills. Nevertheless, Lithuania still does not have a specific digital skills strategy. However, it runs several initiatives to enhance the digital skills of the Lithuanian population: namely the 2020-2030 Industry Digitisation

Roadmap and the 2013-2022 State Education Strategy. Additionally, Lithuania has developed the National Skills Strategy in cooperation with the OECD (Digital Decade Country Report 2023 – Lithuania, 2023). Lithuania has made strong progress regarding 5G coverage, with an increase from 33% coverage (as a % of households) in the 2022 report to 90% in the 2023 report. Regarding the share of e-government users, Lithuania also ranks well above the European Union average with 84% in Lithuania compared to the European Union average of 84%. A working paper published by the OECD found that the further advancement of

Lithuania's digitalisation process depends on addressing remaining weaknesses in the promotion and provision of digital skill training opportunities for various population groups as well as on various skill levels (Koutsogeorgopoulou, 2023). In this context, the author points to Lithuania's share of individuals participating in online courses, which is only about 17% compared to the OECD average of 23% (ibid, p.50).

Framing Digital Inclusion

Three policy documents were considered for the review of Lithuania's framing of the digital inclusion concept in a policy context. There are no relevant digitalisation policies that have been published after conclusion of the pre-study. The State Digitisation Development Programme 2021-2030 focuses on ways to better benefit from the opportunities brought about by digitalisation in the public and private sector, as well as research. Regarding digital inclusion, the policy has a clear focus on the improvement of digital skills in the Lithuanian population. Various groups at risk of digital exclusion are referred to in this context, such as people with disabilities and people who could benefit from acquiring additional digital skills to strengthen their position on the local labour market (Government of the Republic of Lithuania, Ministry of Economy and Innovation, 2020).

This digitalisation-related policy document is linked to Lithuania's Progress Strategy "Lithuania 2030", which is also available in English (State Progress Council, 2018). That document is

from 2018 and outlines a set of priority areas to be addressed by 2030 in order to tackle challenges arising from technological, economic and climate changes. It forms the basis for the State Digitisation Development Programme and stresses the need to heighten digital skills to better equip the population for the decades to come. The document places emphasis on the goal of combating social inclusion; however, matters of digital inclusion are not discussed in detail. The document furthermore emphasises the importance of ICT education; however, no specific target groups are identified.

Lastly, the Lithuanian Recovery and Resilience Plan describes key measures for the digital transition. In this context, not only are "substantial reforms and investments" in the promotion of digital skills for, inter alia, senior citizens are discussed, but also the continued roll-out of digital connectivity, particularly to rural and remote areas (European Commission, 2021).

Defining and Monitoring Digital Inclusion

No new definitions of "digital inclusion" or monitoring practices or indicators can be identified. However, the Digitisation Development Programme 2021-2030 sets out two KPIs to be achieved by the end of the set timeframe with regard to the population's digital skills: (1) 90% of the population should use the internet regularly and (2) 60% of people with disabilities should use and be satisfied with digital public services.

5.9. NORWAY

Overview of Identified Digital Inclusion-Related Policies

Table 12: Overview of relevant Norwegian policies and strategies. Sources: Ministry of Local Government and Regional Development (2019; 2021; 2023)

No.	Name	Responsible institution(s)	Timeframe
1	Digital Throughout Life	Ministry of Local Government and Regional Development	2021-2027
2	Digital Throughout Life – Action Plan	Ministry of Local Government and Regional Development	2023-2026
3	One Digital Public Sector	Ministry of Local Government and Regional Development	2019-2025
4	National strategy for eID in the public sector	Ministry of Local Government and Regional Development.	From 2023

National Landscape of Digitalisation in Norway

Like the other Nordic countries, Norway can be described as being at the forefront of digital innovation and the digitalisation of public and private spheres. Although Norway is not part of the EU, the country reports to the DESI. In 2022, Norway came fifth in the overall ranking, closely behind its Nordic neighbours Finland, Denmark, (the Netherlands) and Sweden (European Commission, 2022d). Except for the "Connectivity" dimension, Norway's score lies above the EU average. The comparatively low score for connectivity can be linked back to low 5G coverage in 2021, when the respective data was reported to the DESI. Furthermore, there were only about 63% of households with at least 100 Mbps fixed broadband take-up in 2021 which may be related to Norway's topography and the challenges that poses in terms of providing broadband access to all parts of the

country (ibid, p.5). In the UN's 2022 E-Government Development Index, Norway ranks only 17th, meaning it is several places behind the other Nordic countries, Denmark, Finland, Sweden and Iceland as well as Estonia, which hold places 1, 2, 5 and 8 respectively.

While the Norwegian Ministry of Local Government and Modernisation is responsible for the key digitalisation policies, the role of the Norwegian Digitalisation Agency should also be mentioned in this context as it "operates and develops important national solutions and ensures the strategic coordination of digitalisation..." (Ministry of Local Government and Modernisation, 2020).

Framing Digital Inclusion

To frame the concept of digital inclusion, the Norwegian "Digital Throughout Life" policy refers to the work of Midtgård et al. (2021), who state that "vulnerability to

digital exclusion" builds on four factors: (1) barriers to access, (2) digital competence, (3) bureaucratic competence and (4) health-related challenges. This approach is further elaborated on in the policy: access barriers can be related to hardware, software as well as internet access itself. Human and financial capital play an additional role, as does the temporal component – certain challenges are context-dependent while others are of a more permanent nature. Regarding the second point, namely digital competence, the policy further builds on the work of Midtgård et al. (2021) and defines the concept as the "ability to make use of digital technology to achieve personal goals, for example to use a keyboard and mouse to navigate a browser, find a form, complete it and upload attachments". Beyond those practical skills, Midtgård et al. (2021) define "bureaucratic" or administrative skills as the ability to understand which information is required to complete a defined task within a public service framework. The fourth and last element listed by Midtgård et al. (2021) is that of health-related challenges; those may consist of both physical and cognitive barriers, which can "reduce self-efficacy and self-confidence". The researcher highlights that self-efficacy and self-confidence are crucial pillars for individuals' motivation to navigate the digital sphere. The policy hence adopts a research-based and fairly nuanced outlook on framing of the digital inclusion concept. The strategy further lists groups that are at risk of digital exclusion, including "people

over the age of 65, first generation non-Western immigrants, especially women, people of working age who are neither in education nor employment, people with functional impairments, people with temporary or permanent health challenges" (ibid). Beyond the definition of groups, the policy further offers a categorisation of skill levels along three set descriptions.

The strengthening of digital skills become apparent when studying the "Digital Throughout Life" policy and is presented as a key to avoid the creation and consolidation of digital divides in the Norwegian society. The government's aims that are listed in this context draw a clear picture of engagement with the field of digital inclusion/exclusion, highlighting for instance the need for inclusion across all parts of the population, facilitated by targeted and, if possible, local support and a continued focus on strengthening people's digital skills.

Defining and Monitoring Digital Inclusion

As "One Digital Sector" and "Digital Throughout Life" were already reviewed for the pre-study and the framing based on the work of Midtgård et al. (2021) has also been considered, no new definitions could be identified. The Digital Throughout Life Action Plan that was released in 2023 does not offer new insights in this regard either. However, the Action Plan identifies both target groups and situations in which various groups risk becoming digitally excluded. The situational aspect of digital exclusion as a key aspect of the Norwegian strategies also becomes

evident, with the overview of policies more or less directly related to digital skills at different life stages, which is included as an appendix to the Action Plan. That document may be understood as implying that the risk of becoming digitally excluded changes throughout life (Digital kompetanseheving gjennom ulike livsfaser: Regeringen.no 2023).

The new action plan on digital inclusion, the "Digital Throughout Life Action Plan", builds upon and offers more specific action plans for achieving the goals set out in the "Digital Throughout Life" document. The Action Plan was released in June 2023; it further identifies barriers to digital inclusion and also pinpoints new measures put in place in order "to counteract digital exclusion and facilitate inclusion of everyone in society" (Digital Throughout Life Action Plan 2023, p. 5). In total, 32 actions were proposed, with the five main actions being:

1. To establish a collaborative forum for digital inclusion. The collaborative forum is to be for public, voluntary organisations and the business sector with the aim of coordinating a joint effort to address the main challenges in the action plan. The participants shall be at an operational level.

2. To strengthen IT support and user support – "IT fixers". The action will include test trials in a few selected municipalities to allow simple IT support to assist with the installation of apps, digital services and social media among citizens with low or insufficient digital skills.

3. To arrange and strengthen coordination of the national efforts on digital inclusion. That is among

other things achieved by evaluating current efforts to increase digital participation and skills in the population, including current subsidy schemes and recipients of funding and operational support.

4. A national helpline for the elderly. This national helpline includes telephone service for seniors over 65 who need assistance with simple tips and guidance on using public digital services. Assessment of the start of a pilot will be performed in collaboration with several ministries in 2024.

5. Visible need for offers and services for non-digital users. The aim of the fifth action is to ensure that the public sector offers guidance in the use of digital solutions to users with no or weak digital skills.

In spring 2023, the national strategy for eID in the public sector was launched. The aim of the new strategy for eID in the public sector is, among other things, to ensure that those who either do not get an eID at a sufficient level of security today or, for various reasons, cannot use it themselves, are also ensured participation in digital Norway. The strategy lays the foundation for further work on the spread of eID at a high level of security and the establishment of good digital power of attorney solutions. The strategy will thus support better, more robust and holistic eID solutions for both users and sectors. The strategy is based on the goal of one person, one identity in Norway (Norwegian Ministry of Local Government and Regional Development, 2023).

Regarding the monitoring of digital inclusion, the "Digital Throughout Life" policy stresses the

"regular mapping of citizens' level of digital competence" as one of the government's main aims when it comes to digitalisation in general and digital inclusion in particular. Furthermore, the Norwegian Authority for Universal Design of ICT offers a comprehensive set of statistics that provide insight into use of digital services and the related challenges in Norway. On its website, the institution presents itself as

being "responsible for following up regulations on universal design of ICT solutions, linked to the Equality and Anti-Discrimination Act" (Authority for Universal Design of ICT, 2022). Those include statistics on internet users and use of various services, as well as quantitative data on the various target groups, e.g. people with disabilities (Authority for Universal Design of ICT, n.d.).

5.10. SWEDEN

Overview of Identified Digital Inclusion-Related Policies

Table 13: Overview of relevant Swedish policies and strategies. Sources: Ministry of Health and Social Affairs & Swedish Association of Local Authorities and Regions 2016; Ministry of Health and Social Affairs & Swedish Association of Local Authorities and Regions 2020; Digitalisation Council (2019); Swedish Agency for Digital Government (2023a); The Government of Sweden 2021; Swedish Agency for Digital Government 2023b

No.	Name	Responsible institution(s)	Timeframe
1	Vision for eHealth 2025 – Common Starting Points for Digitisation of Social Services and Health Care	Ministry of Health and Social Affairs & Swedish Association of Local Authorities and Regions	2016-2025
2	A Strategy for Implementing Vision for eHealth 2025 – The next step	Ministry of Health and Social Affairs & Swedish Association of Local Authorities and Regions	2020-2022
3	Participation in a digital age (Delaktighet i en digital tid)	Digitalisation Council	2019
4	National roadmap for the digital decade ("Nationell färdplan för det digitala decenniet")	Swedish Agency for Digital Government	2023-2030
5	Strategy for systematic monitoring of disability policies in 2021-2031	The Government of Sweden	2021-2031
6	No digitalisation without inclusion**	Swedish Agency for Digital Government	Currently in political consultation

National Landscape of Digitalisation in Sweden

Sweden continues to be one of the main digital leaders in the EU. The 2023 DESI index shows that Sweden is a digitally mature country which continues to do well across several of the DESI indicators. The Swedish population has a high level of digital skills, with 67% of people in Sweden having at least basic digital skills (which is above the EU average of 54%) and 36% having above basic digital skills (also above the EU average of 26%). Regarding the share of e-government users, Sweden also performs well with 96% compared to the European Union average of 74%, and Sweden scores above the EU average regarding online provision of key public services for citizens and businesses. However, a weak spot for Sweden is connectivity and 5G coverage. Sweden is making progress on connectivity but it lags behind the overall EU average. That is primarily caused by delayed 5G deployment. Although the 5G roll-out has started to pick up pace, Sweden lags behind regarding coverage with a figure of 20%, far behind the EU average of 81% 5G coverage in 2023. There are geographical divides regarding gigabit connectivity; 85% (general) vs 76% (in rural areas) of households have access to gigabit connectivity, and the roll-out of fibre has slowed down (European Commission, 2023g).

In recent years several initiatives been implemented regarding digital inclusion in Sweden. One example is Digital idag, which is an NGO-driven initiative bringing together and encouraging public,

private and civil society actors to take action to advance digital inclusion (Digital idag, n.d.). Another initiative promoting digital inclusion is "Digital Aid" (Digitalhjälpen), a website launched by the Post- and Telecom Authority (PTS). Digital Aid provides guidance, information and tips with the aim of helping digital beginners get started using digital services and find out where to access more help and information. The website provides information and support, step-by-step guides and instructional films for various digital services for digital beginners. It also provides specific support material for various stakeholders who support digital newcomers, specific support material for health and social care professionals and collaborative projects and activities to spread information about the support available for digital beginners (Post- and Telecom Authority, n.d.).

Framing Digital Inclusion

Several policy documents were considered for the review of how digital inclusion is framed in Sweden in a policy context. None of those documents provide any specific definitions of digital inclusion, but some of them cover discussions central to the issue.

In August 2023, the Agency for Digital Governance in Sweden submitted a memo/report to the government with proposed actions for digital inclusion titled "No digitalisation without inclusion". The document is not a policy but aims to provide input into how digital inclusion policies and strategies are shaped in the future. The pace of digitalisation,

as measured by the number of public services and other services provided digitally, is high. Such digital development means that the gap between those who are included in digital society and those who are digitally excluded is increasing fast. The report proposes several solutions that can meet the need to include everyone who wants to be included in the digital society in a coordinated way. Some solutions are: (a) appoint a national coordinator for digital inclusion with the task of organising and coordinating the development of digital inclusion solutions, (b) create the conditions for digital helpers nationwide, both to educate people about digital skills and to help people to be included in digital society, (c) create the conditions to give all those who are currently digitally excluded access to equipment and an internet connection in order to be digitally included, and (d) increase knowledge of digital exclusion by gathering relevant data, statistics and information (Swedish Agency for Digital Government, 2023a).

In the strategy for systematic monitoring of disability policies during the 2021-2031 period, the Post- and Telecom Authority and the Agency for Digital Government are tasked with monitoring Swedish disability policy in the field of digitalisation from 2021 to 2031. The aim of the disability policy is to achieve equality of living and full participation in society for people with disabilities (based on the UN Convention on the Rights of Persons with Disabilities). In relation to digitalisation, that means people with disabilities should have the same opportunities to

participate in digital society. The two aforementioned agencies tasked with monitoring digitalisation have created a structure for it based on three overarching sections: accessibility of digital services, usability of services and individual factors such as access to internet and ICT devices, economy, motivation and digital skills. Both agencies are to report on their monitoring yearly (The Government of Sweden, 2021).

In the policy document on eHealth and digitalisation of social services and health care, digital inclusion is not defined *per se*. However, equality in relation to digitalisation is discussed and it is stated that "Equality is a fundamental principle of social services and health care (...). By making tools available that support actions tailored to the users', clients' and patients' individual needs, digitalisation can make it easier for the services to work for increased equality" (Ministry of Health and Social Affairs & Swedish Association of Local Authorities and Regions, 2016, p. 10). Digital solutions are described as having great potential to create more inclusive services, but caution in relation to accessibility is also discussed. On the issue of inclusion, it is remarked that digitalisation presents great opportunities for target groups for social services and health care: "The great majority of people want to be independent and to participate, and to have influence and control over issues and decisions that concern their health and their social situation. To meet these needs, tools are required for communication within and between services, and between services and users, clients

and patients. Digitalisation brings good opportunities to improve measures relating to children, young people, elderly people and people with disabilities." (Ministry of Health and Social Affairs & Swedish Association of Local Authorities and Regions, 2016, p. 5).

No definition of digital inclusion is given in the "Participation in a digital age" document, but the issue features throughout. Digital inclusion or exclusion needs to be seen as a fluid phenomenon. Digital exclusion is described as a border that people cross back and forth, i.e. some people can handle some digital solutions but not others, which is why digital exclusion needs to be understood by context rather than by people's character or identity. There is a digital divide in Sweden, with around half a million adults not using the internet at all. The text lists groups that are at risk of digital exclusion and discusses the digital divide. There is a generational gap, where a third of people aged 75 to 85 do not have internet access at home, whereas almost all people aged 16 to 54 have internet access at home. It may also be a question of education and income, as people with lower levels of education or low income have limited access to the internet at home and lower daily internet use. Other groups that may be affected by digital exclusion are socially vulnerable people (e.g. homeless people or people with addiction problems) and people with disabilities. To create favourable conditions for digital inclusion, strong governance and management are needed in order to increase

infrastructure/access, motivation, confidence and knowledge and skills. The document points out four favourable interventions to support digital inclusion, namely, (1) Motivating, (2) Creating access, (3) Promoting skills and (4) Promoting usage. One factor, such as lack of skills, may be enough to place a person at risk of not keeping up with digital developments, so the combination of all interventions is important. Good governance and management of the interventions can contribute to digital inclusion and participation (Digitalisation Council, 2019).

The "National roadmap for the digital decade" document presents a proposal for a national strategic report on digital development up to 2030. It does not define digital inclusion per se but emphasises how digital development can be strengthened in Sweden. The roadmap is part of the EU policy programme for the Digital Decade 2030, with the aim of driving the digital transformation in the EU. The roadmap includes a set of common digital objectives, divided into four areas: digital skills/competence, digital infrastructure, digital transformation of business and digitalisation of public services. The roadmap notes that even though Sweden is a highly digitalised country with a digitally mature population, there are still critical problems to be solved. There are still groups of people that lack basic digital skills and broadband infrastructure is lacking in the more rural settlements. Some groups that are at risk of falling behind in terms of digital development are elderly people, immigrants and people with disabilities, who often

lack basic digital skills. Sweden lags behind in international surveys on digitalisation of the public sector, as digitalisation has been carried out by each authority, region or municipality individually, resulting in a lack of coherent service structures. Currently not all citizens are able to log onto or use Swedish digital public services, often due to not everyone having a secure digital identity (e.g. eID). The roadmap recommends several actions to be taken to strengthen digital development in Sweden. For example, invest in digital skills of immigrants and other groups identified as lacking basic digital skills, provide funds for broadband deployment and invest in creating more coherent digital public services (Swedish Agency for Digital Government, 2023b).

Defining and Monitoring Digital Inclusion

In the action plan covering 2020-2022 for "Vision for eHealth 2025", the monitoring of digitalisation in the health care system and social services is discussed. The follow-up is based on an indicator-based framework, used to measure progress of the measures and effectiveness of the strategy. However, the action plan does not mention which indicators or measurements are to be included in the framework, merely stating that "This framework will be developed, including selecting internationally comparable indicators that enable

the vision to be followed up and to form the basis for future follow-up" (Ministry of Health and Social Affairs & Swedish Association of Local Authorities and Regions, 2020, p. 24).

"Participation in a digital age" does not specify any monitoring processes for digital inclusion. However, it underlines the need for more knowledge about the causes of digital exclusion. There is a lack of evidence-based research on what causes exclusion. As of now, it is possible to identify the groups of non-users, but the answer as to why these are not part of the digital development cannot be found in official statistics (Digitalisation Council, 2019).

The Swedish Agency for Digital Government (DIGG) monitors and analyses digital developments in Sweden, both at government agencies and in society as a whole. In 2022, it launched a new analysis tool, which is open and free to all so anyone can take part in the follow-ups and analysis. The tool contains follow-up data from the agency's annual monitoring of government agencies' digitalisation. It is designed to allow users to look at the monitoring data themselves, make comparisons and find collaborative partners in fields relevant to digital development. The aim is for the information to be used to support the authorities' continued work on digitalisation (Swedish Agency for Digital Government, 2022).

5.11. ÅLAND

Overview of Identified Digital Inclusion-Related Policies

Table 14: Overview of relevant Ålandic policies and strategies. Sources The Government of Åland (2012; 2017; 2022; 2023)

No.	Name	Responsible institution(s)	Timeframe
1	An accessible Åland – Functional disability policy action programme 2022-2025	The Government of Åland	2022-2025
2	ICT strategy for digital competence in the education sector in Åland	The Government of Åland	2023-2027
3	Digital Agenda for Åland*	The Government of Åland	From 2012
4	The Digital Council's vision for Åland 2.0: Simpler and safer*	The Government of Åland	From 2017

National Landscape of Digitalisation in Åland

Åland does not report to the DESI or the EGDI scheme, which makes comparison with countries in the Nordic/Baltic region difficult. However, some general facts about digital infrastructure and level of digital skills are known, providing an overview of the current digital landscape. The digital infrastructure in Åland is well developed, with a high level of coverage of fast fixed broadband and mobile networks. As of 2021, in Åland, access to fixed broadband with at least 100 Mbit/s is as high as 96%, while the mobile network's coverage for 4G 100 Mbit/s is 76% and for 5G at the same speed 53% (ÅSUB, 2022). Findings from a 2020 survey on internet usage among citizens of Åland underscore the existence of a generational gap, as internet usage is not comprehensive across all age groups. In general, 98% of survey participants reported

having access to the internet, with 97% actively using the internet. However, these proportions are notably lower among individuals aged 75 and above, namely 82% for internet access and 73% for internet usage (ÅSUB, 2020).

The pre-study included three digitalisation strategies issued by the Government of Åland. The latest strategies solely focusing on digitalisation were published in 2012 ("A Digital Agenda") and 2017 ("Åland 2.0 Simpler and Safer"). No new strategies focusing solely on digitalisation in Åland have been published since the release of the pre-study. However, an accessibility strategy for people with disabilities was published in 2022, partly focusing on digitalisation, and an ICT strategy for digital skills in the education sector was published in 2023.

The Ålandic government's vision for digital development is that Ålanders should have the right to at

least comparable digital development as citizens in the neighbouring countries (Ålands Lagting, 2022). The interviewed representative from the Digitisation Unit of the Government of Åland stated that Åland's digital development and public services lag behind in comparison with development in the neighbouring Nordic countries and regions. Issues of digital inclusion are not discussed in specific terms and few actions are mentioned in this context. How authorities work on digital inclusion is currently being explored (Interview with a representative from the Digitalisation Unit, August 2023).

Framing Digital Inclusion

None of the reviewed digitalisation documents define digital inclusion and it is largely not discussed in them either. However, some mention inclusivity and accessibility regarding digital solutions.

In the accessibility strategy for people with disabilities, it is noted that digital services need to be more accessible to enable a more inclusive society. Currently, people with disabilities risk digital exclusion as the digital products and services are not designed to accommodate their needs. However, work on making the digital solutions more accessible is underway. It is stated that "Technology is developing rapidly and there is a wide range of new digital solutions available for use. At the same time, digitalisation in society brings many challenges and also risks reducing accessibility for people." (The Government of Åland, 2022, p.16).

The 2012 digitalisation strategy "Digital Agenda for Åland*" focuses

on the need to establish the necessary digital infrastructure and digital public services, the fundamentals for digital inclusion, but does not go into further detail on the issue of digital inclusion (The Government of Åland, 2012). The digitalisation document from 2017 does not focus on the issue of digital inclusion, but underlines some issues that place people at risk of digital exclusion. One recommendation is to increase the digital skills of all Ålanders, indicating an awareness that the skill level among some citizens is lacking (The Government of Åland, 2017). As data shows, a substantial proportion of people aged 75 and above do not have access to the internet or use it regularly. The interviewed representative from the Digitisation Unit of the Government of Åland noted that some groups identified as experiencing challenges with accessing and using digital solutions are older adults people, people with a low income/level of education (socially vulnerable people), people with disabilities and foreigners. Such people may not have the necessary digital devices (e.g. smartphones or computers) or the necessary skills to navigate them. Strategies or policies focusing on digital inclusion are currently lacking or in need of updates.

The "ICT strategy for digital competence in the education sector in Åland" does not define digital inclusion or focus on it to a large extent. However, it revolves around digital skills and the need to strengthen skills in order to meet current and future challenges, both in the education sector and more widely in terms of society's digital development.

However, the digitalisation process of the education sector must be equal for all; equal education should ensure that all citizens of Åland can acquire the required digital skills. Yet digital skills are still uneven between and within age groups. The strategy is a steering document that includes four development areas that provide orientation on how digital skills are to be developed for all age groups in Åland, namely, leadership, support, learning environment and

competences (The Government of Åland, 2023).

Defining and Monitoring Digital Inclusion

None of the digitalisation documents define digital inclusion and no monitoring practices or indicators are identified for Åland. Åland has indicators of how many people have access to and use the internet, but these are general and are not linked up with digital inclusion issues.

6. Discussion – Framing Digital Inclusion through Barriers and Measures

Since the pre-study, a substantial number of policies have been published across the Nordic/Baltic region. Table 15 depicts the identified and investigated strategies for the Nordic and Baltic countries. The strategies marked with * were also included in the pre-study. Table 16 compares how digital inclusion is framed by the various digitalisation policies in the region. It is important to note that Table 3 should not be seen as reflecting the overall digitalisation status. The colour scheme does not necessarily reflect how far ahead or behind the other countries the country in question is. The table highlights the varying political priorities the countries are adopting. Some countries are already performing well in terms of connectivity or eID roll-out and are, therefore, prioritising those aspects less in their political strategies. However, other countries may not be focusing on specific topics because, for differing reasons, they are yet to include them in their political strategies, rather than because they have already moved beyond such discussions. It is, therefore, important to see the table in relation to the country-specific descriptions of the digitalisation landscape and

status quo in the various countries.

As evident from Figure 2, all of the countries have policies that either directly or indirectly discuss digital inclusion and develop strategies to address issues related to digital inclusion.

There are few countries that explicitly define digital inclusion. Norway, which follows the definition used by Midtgård et al. (2021), is an exception. However, while most of the countries have not developed definitions, the majority of the countries approach digital inclusion as an aspect of social inclusion. Åland, for instance, has developed no digitalisation strategies related to digital inclusion since the pre-study. However, digital inclusion is one of the initiatives included in its action plan on social accessibility for individuals with disabilities.

Most of the countries approach digital inclusion through either various societal target groups, with older adults (e.g. Denmark, Faroe Islands, Finland, Greenland, Norway, Lithuania and Åland) and individuals with disabilities (e.g. all countries either directly or indirectly) being most frequently mentioned. Other target groups are immigrants, young individuals and individuals

outside the workforce. In general, the target groups addressed in the 11 Nordic/Baltic societies are largely the same, with differences tending to occur in the intersectionality of the groups, meaning that the groups identified nationally tend to differ at the sub-group level due to national and even regional-specific contexts. For example, immigrants are addressed differently in the various countries: Norway places emphasis on Ukrainian refugees in its Digital Throughout Life Action Plan (2023). The Faroe Islands, on the other hand, include individuals living abroad, both of Faroese nationality and Faroese citizens, e.g. sailors (interview with representative from Talgildu Føroyar in relation to this study, June 2023).

Several of the policies emphasise specific solutions for situations where specific groups are at risk of digital exclusion. That is among other things evident for Norway, which has developed a range of strategies targeting specific groups at different stages of their lives and in relation to specific

situations, e.g. socio-economically disadvantaged children in schools, immigrants in the workforce and older adults after retirement. Latvia is one of the few countries not dealing with digital inclusion through barriers and specific target groups; instead it approaches the topic through the level of digital skills in Latvian society, aligned with the European framework for digital competencies, DigComp.

Regarding monitoring of digital inclusion, several indicators have been developed across the Nordic/Baltic region. While few of the policies explicitly discuss monitoring practices for indicators of digital inclusion (Iceland is an exception), several of the policies suggest new indicators to be tracked, such as Finland with its suggestion of 34 key variables (Finland's Digital Compass, 2022). Other countries, such as Denmark, have launched analyses to monitor developments in how citizens interact with the digital sectors.

Table 15: Identified strategies across the Nordic and Baltic region. Note 1: * = included prior to 2021 and included in Pre-study, Note 2: ** = As of writing, this text is still awaiting final political consultation

	Denmark	Estonia	Faroe Islands	Finland	Greenland	Latvia	
Identified main policies	Denmark's Digitalisation Strategy - Together for digital development	Digital Agenda 2030*	National Digitalisation Programme of the Faroe Islands (2015)*	Finland's Digital Compass	The digital society: National digitalisation strategy 2018 – 2021*	Digital Transformation Guidelines for 2021-2027* 2023-2027	
	The Joint Government Digital Strategy		The digitalisation in society continues: Comprehensive plan for the improvement of social services for the years 2023-2025	Digital Inclusiveness in Finland Report*	(Undersøgelse af borgere of IT)*	Cybersecurity Strategy of Latvia 2023-2026	
	The Danish National Strategy for Cyber and Information Security			Systematic Model of Digitalisation	Den Nationale Digitaliseringsstrategi 2023-2026**		
	Considerate digitisation						
	Lithuania	Iceland	Norway	Sweden	Åland		
	State Digitisation Development Programme*	Government Information Policy	Digital Throughout Life*	Vision for eHealth 2025 – Common Starting Points for Digitisation of Social Services and Health Care	An accessible Åland – Functional disability policy action programme 2022-2025	ICT strategy for digital competence in the education sector in Åland	
	Lithuania's Recovery and Resilience Plan*		Digital Throughout Life – Action Plan	Participation in a digital age (Delaktighet i en digital tid)	Digital Agenda for Åland*		
	Lithuania's Progress Strategy "Lithuania 2030"*	Digital Policy*	One Digital Public Sector*	Strategy for systematic monitoring of disability policies in 2021-2031	The Digital Council's vision for Åland 2.0: Simpler and safer*		
				No digitalisation without inclusion**			

Table 16: Comparison of the definitions and focus of the digital inclusion strategies in the Nordic and Baltic region.
Note: A low engagement score (white) is given if the topic does not seem to be addressed by the respective policies. A medium score (light blue) is given if the policy touches upon the given topic but without establishing a clear link to issues of digital exclusion or elaborating on the topic in more detail. A high score (dark blue) is given if the policy clearly covers one of the identified topics.

[illegible]

7. Concluding Remarks – Nordic-Baltic Challenges and Strengths

The Nordic and Baltic regions are among the most highly digitalised societies in the world and consist of countries that are renowned for striving towards social equality. This policy overview shows that political measures to ensure digital inclusion are ongoing in the Nordic and Baltic regions; the focus on digital inclusion has only increased in recent years since the pre-study titled "Monitoring Digital Inclusion in the Nordic-Baltic Region" (Nordic Council of Ministers & Digital Europe 2022) was published. While the Nordic and Baltic countries still have no clear and harmonised Nordic/Baltic definition of digital inclusion, the countries tend to approach the task of defining digital inclusion in a similar manner, with digital inclusion and social inclusion being dimensions that complement each other. Several of the countries have begun to deal with digital inclusion as a context-specific issue that can only be tackled by means of strategies for specific contexts and subgroups. The countries, furthermore, propose various strategies to achieve the goal of digital inclusion. Those strategies range from providing non-digital solutions to citizens struggling with society as it becomes increasingly digitalised

and providing both telephone and in-person support options, both to civil society actors providing support (e.g. NGOs providing digital training) and to private individuals (e.g. the possibility for a power of attorney (POA) and digital support).

The extent to which digital inclusion is monitored in the countries is limited, at least according to the policies. However, some of the countries mention that they have begun more structured monitoring practices, such as Sweden with its launch of a new digital dashboard research tool in December 2022 (Swedish Agency for Digital Government, 2022) and Denmark with its launch of a new yearly analysis of Danes' interactions with the digital sector (Ministry of Digital Government and Gender Equality, 2023). The target groups are largely the same, with differences tending to occur in the intersectionality of the groups, meaning that the groups identified nationally tend to differ at the sub-group level due to national and even region-specific contexts.

While the countries differ regarding their digital inclusion challenges in several ways – as is also clear from their differing approaches towards achieving digital inclusion –

many similarities exist. The numerous overlaps and similarities between the countries allow for many synergies and potential knowledge sharing among countries.

Key Takeaways:

1. Overall, increased attention has been paid to digital inclusion in the Nordic and Baltic region in recent years, with 19 new political strategies and documents being published in the last two years since the pre-study. Several initiatives have also been established. Moreover, a number of initiatives and new policies are underway.

2. Definitions are helpful to enable shared understanding and to advance harmonised approaches within the countries and across the Nordic/Baltic region. However, despite progress and ambitions, no common definition is in place.

3. The generally similar framing of digital inclusion indicates a common understanding of the issue across the Nordic and Baltic region, e.g. digital inclusion as a core aspect of social inclusion. By contrast, differences in the groups identified as being at risk and the situations in which the groups are at risk highlight the specific challenges that each country is facing.

4. In the Nordic and Baltic region there is largely alignment concerning the main groups at risk of digital exclusion, e.g. individuals with disabilities, older adults, immigrants and socio-economically weaker groups.

5. More harmonised monitoring is required to provide better insight into the status quo of digital inclusion beyond "digitalisation" and to allow for more in-depth studies and evidence-based policies

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