

Digital identity for all?

Barriers and solutions for an inclusive eID rollout in the
Faroe Islands, Greenland and Åland

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Executive summary (English)

The Nordic and Baltic societies have undergone a comprehensive digital transformation of the public sector in recent decades, with several public and financial services now requiring the use of eID. This study aims to explore how eID is being rolled out in smaller societies and the barriers and solutions to doing so in an inclusive manner. The report is based on extensive desk research and in-depth fieldwork conducted in the Faroe Islands, Greenland and Åland in 2024. During the fieldwork in the three societies, a total of 50 interviews were conducted with a range of stakeholders, including policymakers, NGOs, civil society representatives, banks, business representatives and municipalities.

The study highlights the specific challenges small societies face when adopting eID schemes in a way that ensures and promotes inclusivity. Although each case study presents a distinct set of implementation approaches and associated inclusivity barriers and solutions, various similarities and overlaps also emerged. These can provide valuable insights for the inclusive development and implementation of eIDs in other contexts as well. The report draws on these findings to present several key takeaways for an inclusive eID rollout, emphasising the importance of digital inclusion as a starting point in the design and implementation of eID schemes.

Resumé (Dansk)

De nordiske og baltiske samfund har gennem de seneste årtier gennemgået en omfattende digital transformation af den offentlige sektor, hvor flere offentlige og finansielle tjenester nu kræver brug af eID. Denne undersøgelse havde til formål at forstå, hvordan eID bliver udrullet i mindre samfund samt barriererne og løsningerne for sikre at alle borgere kan være med i den digitale transformation. Rapporten er baseret på en omfattende desk-research og dybdegående feltarbejde udført på Færøerne, Grønland og Åland i 2024. Under feltarbejdet i de tre samfund er der gennemført i alt 50 interviews med forskellige interessenter, herunder politiske beslutningstagere, NGO'er, civilsamfundsrepræsentanter, banker, erhvervsrepræsentanter og kommuner.

Undersøgelsen fremhæver specifikke udfordringer, som mindre samfund står over for, når de indfører eID-ordninger på en måde, der sikrer og fremmer inklusion. Selvom hvert casestudie fremstiller en unik tilgang til implementering samt tilknyttede inklusionsbarrierer og løsninger, kunne der også identificeres lighedspunkter og overlapninger. Disse kan tilbyde værdifulde indsigter i en inkluderende udvikling og implementering af eID'er også i andre kontekster. Rapporten bygger på disse resultater og afsluttes med en række vigtige takeaways for en inkluderende eID-udrulning, med vægt på vigtigheden af digital inklusion som udgangspunkt for design og implementering af eID-ordninger.



Photo: Sigrid Jessen/Nordregio, Toa Heftiba/unsplash.com

1. Introduction

In recent years, electronic identity (eID) systems have become a critical component of today's increasingly digitalised societies (European Commission, 2025a). The Nordic and Baltic societies have experienced a particularly pronounced digital transformation of the public sector, with several public and financial services now requiring use of eID, including bank transfers, online shopping and interactions with the public sector (Motzfeldt et al., 2024). The uptake of eIDs has been especially high in the Nordic countries, with 90 to 98% of the population using eIDs in 2023-2024. In contrast, an average of 67.4% of the eligible population uses eIDs in the remaining European Union countries with available data (*Signicat*, n.d.). Through verifiable digital credentials, eIDs provide individuals with secure access to public and economic services. However, this increased reliance on eIDs also carries the risk of certain societal groups being excluded from accessing key services and practices, potentially hindering their civic and democratic engagement. Those most at risk of exclusion are individuals who lack access to the necessary physical resources and knowledge due to socioeconomic, physical, age-related and health-related factors. At present, there is limited evidence and scholarly focus on how eIDs can be rolled out in an inclusive manner, especially in geographically remote regions.

Accordingly, this report takes its empirical points of departure in the Faroe Islands, Greenland and Åland, the three Nordic autonomous societies. This study aims to understand the eID landscape in these three societies, the barriers they face and the solutions they are adopting as they integrate various eID systems. The role of their relationships with Denmark and Finland respectively will be explored further in this context.

The report is structured as follows: Chapter 2 outlines the digital transformation of the public sector in the Nordic countries, including the importance of eIDs. It also describes barriers to inclusive digital transformations identified in the relevant literature, as well as the role of universal design. Chapter 3 presents the empirical contexts of the Faroe Islands, Greenland and Åland, along with methodological considerations behind the report. Chapter 4 introduces the findings of the report, followed by a discussion of these findings in Chapter 5. Chapter 6 concludes the report and provides an overview of the key lessons learnt.



Photos: Sigrid Jessen/Nordregio, Maud Lervik/norden.org

2. Theoretical background

2.1 Digital transformation of the public sector in the Nordic countries

The Nordic societies are recognised as frontrunners in the digitalisation of the public sector, with digital services having become an integrated element of public sector services over the last two decades (see e.g. Fossheim & Lund-Tønnesen, 2024).

Political strategies have long emphasised the digitalisation of the public sector as a means of strengthening the welfare state through more efficient and cost-effective service delivery and improvement of the population's access to services (Huby et al., 2024). However, scholars have also raised concerns regarding the increased digitalisation of the public sector, including the risk of exclusion of certain groups and individuals from society (Van Dijk, 2020) and how this may ultimately reshape the relationship between citizens and the public sector (Jørgensen, 2023).

A core feature of the digitalisation of the public sector in the Nordic countries is the use of eIDs. Today, eIDs are required for a range of everyday activities, including bank transfers, online shopping and interacting with and receiving information from public authorities. eIDs generally provide data security for individuals and offer a more cost-efficient solution for the welfare state. However, if not rolled out inclusively, they risk excluding individuals who lack digital skills, internet access or the necessary hardware from participating in everyday activities. The following section outlines the definition, relevance and shortcomings of eID use and rollout.

2.1.1 Definition, relevance and shortcomings of eIDs

An eID is a digital solution used to verify the identity of an individual, company or organisation. Across the EU, there is considerable variation regarding the entities issuing eIDs, the types of documentation required to obtain them and the personal data associated with them (European Commission, 2025a). While eIDs are government-issued in several Member States, others rely on private actors, such as banks, to provide eID solutions. Although eIDs are primarily used to ascertain a legal or natural person's identity in online environments, they can also be used in non-digital settings, such as at a physical post office.

With the digital transformation moving many administrative and commercial transactions online, eIDs have enhanced the efficiency and security of these processes. In line with the "Once-Only Principle" (OOP), eIDs and associated e-government infrastructures are designed to enable securely stored information on citizens and organisations to be accessed and reused for and by multiple public and private services and transactions, thereby reducing the administrative and financial burden on both the individual and the government authorities (Schmidt et al., 2021).^[1] It is therefore important to view eIDs not merely as individual identity documents, but as integral components of a broader ecosystem encompassing digital governance and data management structures. Particularly in the Nordic context, access to analogue alternatives for some digital government services has been decreasing or becoming more complicated. Prominent examples include the Danish digital public mailbox, e-Boks. With increasing efforts being made to phase out the use of paper-based solutions, individuals must now apply for an exemption to receive public communications in a physical format (Danish Agency for Digital Government, 2025).

As eIDs become increasingly essential for everyday activities, the secure use of eIDs has been widely addressed by policymakers and security scholars alike. In the context of the GDPR and advanced authentication methods for protecting individuals' information in the digital age, eIDs are generally regarded as a more secure alternative to traditional ID cards, passports and other forms of physical identification. Due to past fraudulent activities, including counterfeiting and identity theft, conventional forms of identification have reportedly seen a decline in trust at both individual and state levels (Blue et al., 2017). In Estonia, this has contributed to a shift away from paper identification towards eIDs for certain official transactions involving particularly sensitive data, such as access to health records, voting or the submission of tax declarations (Blue et al., 2018; Estonian Information System Authority, 2025).

However, electronic forms of identification are not immune to fraud and misuse. By allowing access to comprehensive details on individual citizens and organisations,

1. The Once-Only Principle was included in the 2009 EU Ministerial Declaration on eGovernment as a key element of the development of the Digital Single Market (Rohen, 2015).

technical loopholes and poorly implemented privacy regulations have been among the central concerns regarding protection of identity integrity in the digital transformation. Various vulnerabilities of single national eID infrastructures have been the subject of scholarly debates on technical shortcomings over the past years; see e.g. Kingo & Aranha (2023). As eIDs assume increasingly central roles in modern democracies, such vulnerabilities highlight the potential expenses and damages that any security breach could cause (Edu et al., 2023). The advent of future quantum capabilities could further exacerbate such risks (Csenkey & Bindel, 2023). Beyond the technical security challenges, it is crucial to consider broader dependencies and resilience in maintaining functional digital infrastructure (Raieste et al., 2024).

Additionally, the risk of excluding citizens who lack access to necessary resources, thereby undermining the democratic structures of a country, must be considered in the discussion on eIDs. This expands the concept of security to encompass the human and socioeconomic dimension. While eIDs provide citizens with a more seamless and resource-efficient way to access key public and private services – one that is becoming increasingly indispensable – societal consequences, especially regarding inclusion, remain understudied.

2.1.2. eIDAS

The acronym eIDAS stands for “electronic Identification, Authentication and Trust Services”. It refers to EU Regulation No 910/2014, which “provides a regulatory environment for electronic identification of natural and legal persons and for trust services in the internal market” (European Commission, n.d.). The regulation came into force in July 2016, focusing primarily on standardising and legitimising electronic signatures, seals and timestamps across the union. The updated “eIDAS 2.0” framework, which came into force in May 2024, continues to emphasise interoperable cross-border eID usability across the EU and European Economic Area (EEA), and introduces the implementation of the universal digital identity wallet concept. Under eIDAS 2.0, every EU and EEA Member State is required to offer a version of the EU Digital Identity Wallet (EUID Wallet) by 2026. The regulation pursues two main objectives. First, EUID Wallet aims to make it easier for EU and EEA citizens and residents to store, manage and share their credentials digitally. Second, the EUID Wallet is intended to allow for a more seamless and comprehensive use of national eIDs across the European Union and European Economic Area, for both private and public services (Hendrickson, 2024).

Regarding the first objective, the EUID Wallet offers EU and EEA citizens and residents greater transparency by allowing them to choose which credentials, identity information and attributes to include and with whom to share them. This functionality links to the concept of Self-Sovereign Identity (SSI), which emphasises the decentralised control of digitised data. In this case, it places data management control in the hands of the individual citizen or resident, rather than a centralised

public authority (Pöhn et al., 2021). The goal of making this eID system more user-centric is closely linked to improvements in the overall usability of the wallet, as well as heightened security and interoperability across all Member States to allow for seamless online transactions and services involving private and public actors.

The second objective, while closely related to the first, focuses more strongly on interoperability and its possible effects on the internal market. A standardised and pan-European system for identity authentication and trust services allows businesses to rely on secure and accurate data to deliver their services (Hendrickson, 2024). It further facilitates labour migration, as citizens can move and work more freely across the Member States, strengthening the internal market and fostering an environment of trust and cross-border cooperation (European Commission, 2025b). Despite these ambitions for an improved and more inclusive system, many of the challenges outlined in the previous section persist, including security vulnerabilities and questions pertaining to digital inclusion.

In the case of Åland, the Faroe Islands and Greenland, it is important to note that the unique administrative and political status of each political entity influences the relevance of the eIDAS Regulation. While Åland, through its political association with Finland, is subject to EU regulations, Greenland and the Faroe Islands are neither part of the European Union nor the European Economic Area (Rebhan, 2023) and are therefore not required to implement eIDAS. However, Faroese and Greenlandic citizens who hold a Danish passport are considered EU citizens and are entitled to and bound by the associated rights and obligations. This status does not affect the implementation of eIDAS in Greenland or the Faroe Islands. Nevertheless, changes to the Danish electronic ID system, MitID – which allows residents to access a wide range of public and private services – in compliance with eIDAS will affect Danish and Greenlandic citizens equally, as it is also used in Greenland.

2.2 Digital inclusion and accessibility theories

2.2.1 Digital inclusion as social inclusion

The concept of digital inclusion, defined by the UN as "Equitable, meaningful and safe access to use, lead and design of digital technologies, services and associated opportunities for everyone, everywhere", is closely linked to the concept of social inclusion (United Nations, n.d.). 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.). The institution further explains that "in every country, some groups confront barriers that prevent them from fully participating in political, economic and social life" (ibid). The barriers faced by these groups in

relation to their social inclusion often overlap with or are closely related to the barriers that hinder their digital inclusion. Examples of such barriers can be found in the extensive literature on the digital divide, which identifies divides at the first level (physical access), second level (skills and use) and third level (effects arising from the first and second level, such as the social, economic and political consequences of digital exclusion) (Reisdorf & Rhinesmith, 2020).

In recent years, the concepts of social and digital inclusion have therefore become not only closely related but also inseparable. In today's digitalised society, social inclusion cannot be achieved without digital inclusion and vice versa, particularly as digital services such as eIDs increasingly play a central role in everyday life as a key pillar for citizens' engagement in political, social and economic affairs.

2.2.2 Universal design and accessibility principles

Universal design and accessibility principles, particularly in relation to web accessibility, are crucial components of digital inclusion and accessibility theories. They are pivotal to both policy discussions and scholarly debate on ensuring equal access opportunities for all population groups.

Universal design is a concept focused on creating products and environments that are accessible and usable by everyone, to the greatest extent possible, without requiring adaptation or specialised design. It can be applied to both physical and digital environments. Regarding digital environments, this approach ensures that everyone, regardless of their abilities, can access and use digital services and tools effectively. The principles of universal design emphasise inclusivity from the start, focusing on creating solutions that cater to diverse needs and promote equal access to technology (Centre for Excellence in Universal Design, n.d.). The "Seven Principles of Universal Design" were developed in 1997 to guide the design of environments, products and communications (Connell et al., 1997).

Box 1: The Seven Principles of Universal Design

Principle 1: Equitable use – The design is useful and marketable to people with diverse abilities.

Principle 2: Flexibility in use – The design accommodates a wide range of individual preferences and abilities.

Principle 3: Simple and intuitive use – Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.

Principle 4: Perceptible information – The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Principle 5: Tolerance for Error – The design minimises hazards and the adverse consequences of accidental or unintended actions.

Principle 6: Low physical effort – The design can be used efficiently and comfortably and with a minimum of fatigue.

Principle 7: Size and space for approach and use – Appropriate size and space is provided for approach, reach, manipulation and use regardless of the user's body size, posture or mobility.

Source: Connell et al., 1997

Web accessibility ensures that everyone, including people with disabilities, can perceive, understand, navigate and interact with the internet (European Commission, 2025). The Web Accessibility Directive (WAD) was adopted in 2016 and came into full effect in 2021. The WAD mandates that all online websites and mobile apps of EU public sector entities must be digitally accessible to everyone, regardless of their abilities (ibid). The WAD outlines three main requirements:

1. An accessibility statement for all public sector websites and mobile apps, detailing non-accessible content and providing relevant contact information.
2. A mechanism for users to offer feedback and report accessibility issues.
3. Regular monitoring of the accessibility of public sector websites and apps, with the results published every three years (European Commission, 2025).

The WAD complements the European Accessibility Act, a directive designed to enhance the internal market for accessible products and services by eliminating barriers caused by differing regulations across Member States. The European Accessibility Act covers a range of products and services in the private sector (European Commission, n.d.).

Web accessibility specifically focuses on making websites and web applications accessible to all people. This involves adhering to standards such as the Web Content Accessibility Guidelines (WCAG), which provide a comprehensive set of recommendations for making web content more accessible. These guidelines cover various aspects of web design, including text alternatives for non-text content, keyboard accessibility and compatibility with assistive technologies. Implementing web accessibility ensures that all users, including those with visual, auditory, motor or cognitive disabilities, can navigate and interact with web content effectively (W3C, 2024).

Such policy initiatives highlight the European Union's commitment to addressing exclusion challenges in the context of increasing digitalisation. However, despite these growing efforts to bring digital inclusion topics to the pan-European political agenda and foster harmonised approaches across the Member States, numerous challenges remain. These range from uneven implementation and enforcement measures (Directorate-General for Communications Networks, Content and Technology (European Commission) et al., 2022) to regulatory gaps in the private sector (Ferri & Favalli, 2018) and the persistence of barriers beyond web accessibility, such as compatibility with assistive technologies (Droutsas et al., 2025). As with eIDAS, it is important to note that while Åland is bound by EU law, the Faroe Islands and Greenland are not required to apply the outlined legal instruments due to their status as non-EU political entities. However, since Greenlandic users rely on MitID, a system developed in Denmark, the compliance of MitID with EU laws will indirectly affect them.

The following section explores in greater detail the empirical context of the three remote yet very different, smaller societies that this report takes as its point of departure: the Faroe Islands, Greenland and Åland.



Photos: Maja Brynteson, Sigrid Jessen/Nordregio

3. Methods

The following section presents the empirical settings of the Faroe Islands, Greenland and Åland, along with a discussion of the relevant methodological considerations, including data collection and analysis.

3.1 Empirical context: The Faroe Islands, Greenland and Åland

One aim of this research was to understand the mechanisms behind inclusive eLD rollout in geographically remote, smaller regions, taking the three Nordic autonomous societies, the Faroe Islands, Greenland and Åland, as the empirical point of departure.^[2] These three islands offer unique insights and markedly different perspectives on inclusive eLD rollout in remote, smaller societies, due to their distinct demographic characteristics, institutional background, relationships with Denmark and Finland respectively, degree of digitalisation and geographical contexts. The following section provides a brief introduction to the Faroe Islands, Greenland and Åland.

2. "Remoteness" in this study is defined by geographical distance from inner urban areas and limited physical accessibility due to geographical features, such as the island nature of Greenland, the Faroe Islands and Åland.



Figure 1: Map of the Nordic countries highlighting Greenland, Åland and the Faroe Islands.

Today, all three are self-governing, but the path to their autonomous status has differed significantly. Åland is part of Finland, whereas the Faroe Islands and Greenland are part of the Danish Kingdom. Åland has shifted between Swedish and Finnish control for much of its history. It was eventually granted autonomy within the Finnish state in 1920,^[3] becoming the first autonomous territory in the Nordic Region. The sole official language is Swedish (Naucmér, 2009).

The Faroe Islands became self-governing in 1948, when the Faroese Home Rule Act was implemented. Today Faroese and Danish are the two official languages in the Faroe Islands (Wylie, 1987). Greenland, on the other hand, first achieved autonomy in 1979 through the Home Rule Act, with further expansion of Greenlandic control in

3. This autonomy was later reaffirmed in 1921.

2009 under the Self-Government Act (Kuokkanen, 2017). Greenlandic (Kalaallisut) is the official language of Greenland. In contrast to the Faroe Islands – an island group without a pre-existing indigenous population and settled by Norse people in the 9th century – Greenland was claimed by Denmark in 1721 (Dahl, 1970). The colonisation of Greenland involved suppression of the indigenous Inuit population's self-determination for several centuries, as the Danish language, religion, education system and way of life were imposed on the local population in an attempt to assimilate the local population. External trade was also dominated by Denmark as the ruling power (Dyrendom Graugaard, 2009). Although the Faroe Islands were not colonised in the same manner, their history also features elements of colonisation (Kočí & Baar, 2021). At present, in early 2025, independence discussions are underway in both the Faroe Islands (DIIS, 2025) and Greenland (Jakobsen & and Larsen, 2024).

Today, the Faroe Islands, Greenland and Åland hold exclusive political competence in most areas. In the Faroe Islands, areas still under Danish control include foreign policy, security and defence policy, citizenship, the Supreme Court and currency and monetary policy (West, 2024). Digitalisation comes under Faroese control and is the responsibility of various ministries, including the Ministry of Finance (*Nordic Cooperation*, n.d.-a). In Greenland, the picture is similar, with the exception that Greenland has its own Digitalisation Agency (Digitalinngortitsinermut Aqutsisoqarfik, n.d.). In Åland, foreign affairs, most areas of civil and criminal law, customs policy and monetary policy fall under Finnish control. Digitalisation initiatives in Åland are managed by the Digitalisation Council (Government of Åland, 2017). While this council operates within the autonomous government of Åland, it collaborates with Finnish authorities on digitalisation matters.

The Faroe Islands, Greenland and Åland also differ in terms of digital accessibility. Connectivity is more expensive in Greenland due to factors including its larger geographical scale and harsher Arctic weather conditions, which increase the risk of breakdowns (Abildgaard, 2022; Reinhold, 2024). The Faroe Islands, in general, are digitally advanced, with 4G connectivity available to the majority of the population for several years and the rollout of 5G underway (Wendt-Lucas & de Jesus, 2023). In Åland, the rollout of 5G is still in progress, while 4G is widely accessible (ibid).

The three societies also differ demographically. In 2023, the average age in the Faroe Islands was 39.7 years (Statistics Faroe Islands, 2025), in Greenland 36.4 years (Statbank Greenland, 2025) and in Åland 44.6 years (Statistics and Research Åland, 2023), the highest average age of the three case studies. While only limited data are available on the proportion of homeless individuals in each society, as a clear definition of the term is lacking, there have been observations of a general increase in people who can be considered homeless. In 2023, a Faroese newspaper reported that homeless shelters in the Faroe Islands were increasingly operating at full capacity (Nielsdóttir, 2023) while a research paper from 2024 found that the number of individuals experiencing acute and "hidden" homelessness was also on

the rise in Greenland (Christensen et al., 2024). Another aspect that should be highlighted is the difference in average annual income between the Faroe Islands, Greenland and Åland. In 2023, the average disposable income for individuals aged 14 and above in Greenland was DKK 185,959 (Statbank Greenland, 2023).^[4] In Åland, the average disposable income was approximately DKK 242,671 in 2025 (World Population Review, 2025).^[5] Meanwhile, in the Faroe Islands, the average disposable income was DKK 235,652 in 2022 (Statistics Faroe Islands, 2024).

Factbox: The Faroe Islands

- Autonomous territory of: Denmark
- Autonomous from: 1948
- Population: 54,800 in 2024 (39.2 per sq. km)
- Language(s): Faroese (official language) and Danish
- EU or EEA membership: No
- eID solution: Faroese Samleikin
- Proportion of eligible population with Samleikin: 90% (December 2023)
- eID requirements: Samleikin can be issued to individuals aged 13 and over listed in the Faroese population register and having a Faroese P-tal

4. The lower average disposable income, especially among the rural population, can be attributed to the traditional lifestyle of the residents, who often rely on hunting and gathering to supplement their food intake (Poppel & Kruse, 2009).

5. Exchange rate from EUR to DKK on 14 April 2025.

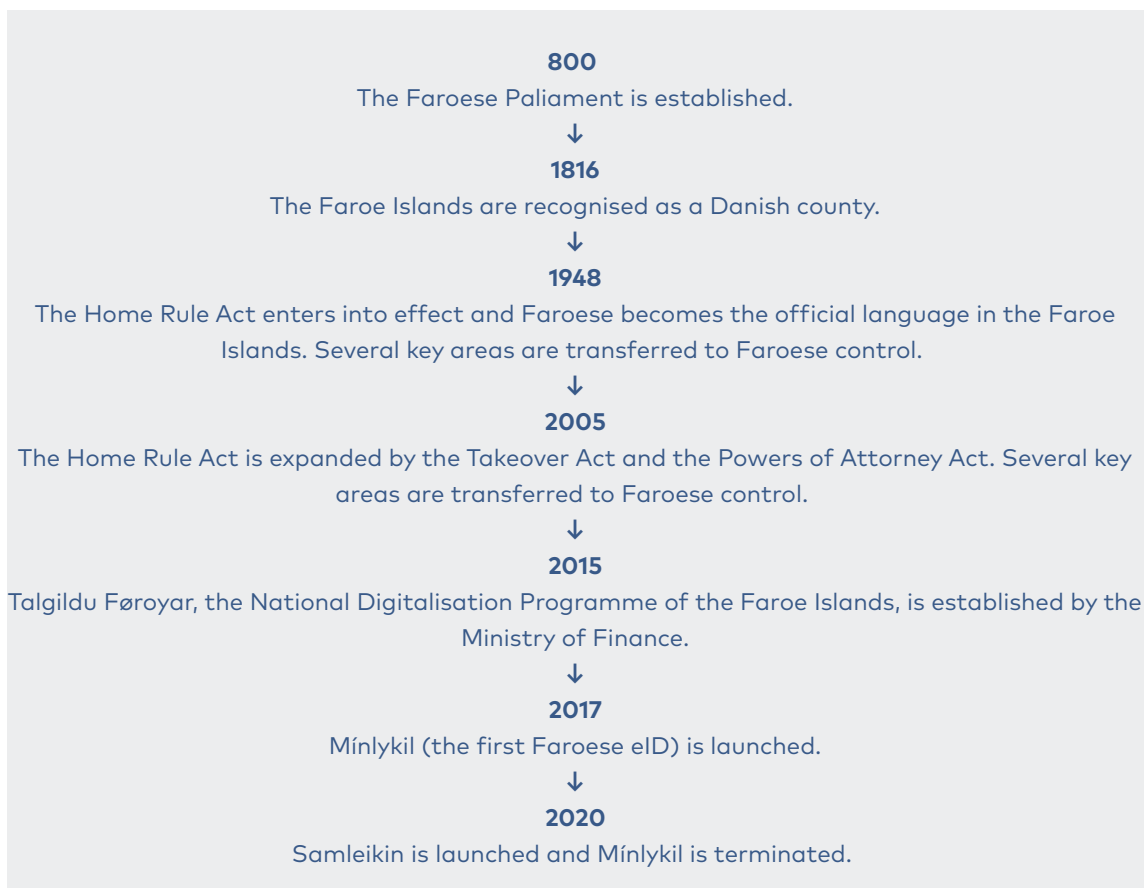


Figure 2: A brief timeline of Faroese history, focusing on Faroese independence, digitalisation and eID. Sources: (Føroya Løgting, n.d.; Government of the Faroe Islands, n.d.; Nordic Cooperation, n.d.-a; Nordics Info, 2019; Signicat, n.d.; Talgildu Føroyar, n.d.).

Factbox: Greenland

- Autonomous territory of: Denmark
- Autonomous from: 1979 (Home Rule Act) and 2009 (Self-Government Act)
- Population: 56,700 in 2024 (0.026 per sq.km)
- Language(s): Kalaallisut/Western Greenlandic (official language), Tunumiit oraasiat/East Greenlandic, Inuktun/Thule Greenlandic
- EU or EEA membership: No
- eID solution: Danish MitID (MyID)
- Proportion of eligible population with MitID: 84.89% (January 2025)
- eID requirements: Can be issued to individuals aged 13 years and over with valid identification documents



Figure 3: A brief timeline of Greenlandic history, focusing on Greenlandic independence, digitalisation and eID. Sources: (BBC, 2012; Heinrich, 2023; Nordic Cooperation, n.d.-b; Sullissivik, n.d.).

Factbox: Åland

- Autonomous territory of: Finland
- Autonomous from: 1920
- Population: 30,400 in 2024 (19.2 per sq.km)
- Language(s): Swedish (official language)
- EU membership: Yes, with special status – Åland's relationship with the EU is regulated through a special protocol. To maintain the sale of duty-free goods on ferries operating between Finland and Sweden, Åland is not part of the EU's VAT area
- eID solution: Various banking IDs; no national eID
- Proportion of eligible population with eID: No data available
- eID requirements: Vary depending on the bank



Figure 4: A brief timeline of Ålandic history, focusing on Ålandic independence, digitalisation and eID Sources: (Nordiskt Samarbete, n.d.-b; Utrikesministeriet, n.d.; Visit Åland, n.d.).

3.2 Research design: Data collection and analysis

The empirical work underlying this report was conducted in two stages. The first stage consisted of desk research focusing on policy/document analysis, stakeholder mapping and online interviews with national experts. This laid the groundwork for the second stage of the research, which consisted of in-depth fieldwork in Åland, the Faroe Islands and Greenland during 2024. The fieldwork in Åland took place in Mariehamn in February 2024, where 11 interviews were conducted with 12 participants. The fieldwork in the Faroe Islands took place in Tórshavn and the surrounding towns, as well as in Klaksvig, in March 2024, with nine interviews and one focus group, bringing the total number of participants interviewed to 19. The last fieldwork occurred in Nuuk, Greenland, over ten days from September to October 2024. Here, 17 interviews and one focus group were conducted with 20

participants. The interviewees consisted of representatives from agencies and ministries, politicians, bank representatives, human rights advocates, NGOs working with various population groups (including homeless individuals), library representatives and representatives from the IT and telecommunications sector.

The interviews were generally conducted in Swedish and Danish, except for one in English and one using a sign language interpreter. All interviewees were offered the opportunity to conduct the interview in English or their national language, accompanied by a translator, but all declined the latter option. The interviews and focus groups were all semi-structured, focusing on the challenges and solutions of an inclusive eID rollout. All interviewees were given information sheets prior to the interviews and were asked to give written consent, confirming that they had read and understood the information on the project and on the handling of data, including anonymisation.



Photos: Louise Ögland/Nordregio, Darya Tryfanava/unsplash.com

4. Findings

The following sections will discuss the eID landscape in the Faroe Islands, Greenland and Åland, including the barriers and solutions for ensuring an inclusive rollout of eID.

4.1 The Faroe Islands

4.1.1 Landscape: Digital strategies and the Faroese eID "Samleikin"

For several years, the Faroe Islands have experienced a digital transformation of society, encompassing both public services and the use of private digital services, such as social media and the digitalisation of businesses. The Faroese digitalisation trajectory has been influenced by several factors: (1) high educational attainment, (2) high trust in the public sector (*E-Riigi Akadeemia*, 2023), (3) its dispersed island geography, resulting in longer travel times, (4) the peripheral location of the Faroe Islands and (5) its relationship with Denmark, including an increased push towards independence (McBride, 2019). The Faroe Islands have invested in IT and digital infrastructure for decades. Despite having only three underwater cables connecting the Faroe Islands to the rest of the world, most homes have broadband, 4G access and/or 5G access. As a result of this prioritisation of digitalisation, the Faroe Islands are today a highly digitalised society with a digitally mature population (*E-Riigi Akadeemia*, 2023).

As part of their digital strategy, the Faroe Islands have developed their own state-owned eID and decided against adopting MitID, the current Danish eID. Samleikin (Faroese for “Identity”) is the current national eID of the Faroe Islands, consisting of a Digital Identity and Signature.^[6] The Financial, IT and Digitalisation Agency, Gjaldstovan, runs the national digitalisation programme, Talgildu Føroyar, which also encompasses the national eID scheme, Samleikin (Gjaldstovan, 2019; Talgildu Føroyar, n.d.). It was launched in autumn 2020 and replaced the previous eID, Mínlykil, for all services and usage channels. Samleikin has also replaced NemID, the previous Danish eID used by banks in the Faroe Islands, with the transition taking place in early 2022 (Interviewee FI01; (Samleikin, n.d.-a). A key criterion for Samleikin, although not legally required, was for the national scheme to be eIDAS-compliant. Representatives from Talgildu Føroyar explained that compliance with eIDAS is important to enable use of the eID solution in other countries in the future and for alignment with other European eID schemes and the overall development of eIDs (Interviewee FI01).

Samleikin has the assurance level *substantial*, which is the intermediate level of assurance under eIDAS, allowing for a balance between user convenience and security (Signicat, n.d.-b). Samleikin needs to be renewed every second year, meaning that users must update or revalidate their digital identity credentials (Samleikin, n.d.-b). Samleikin provides access to, among other things, Vangin, a digital self-service portal for citizens to access public services online (as well as Mínboks, a personal digital mailbox, which forms part of Vangin) and to banking services (Vangin, n.d.). Samleikin can be issued to individuals aged 13 and over who are listed in the Faroese population register and have a Faroese registration number, called P-tal. Samleikin can be obtained in the app or at physical help desks in Tórshavn. The documentation required for registration includes personal identification, such as a passport or driver's licence. If an individual does not have a Faroese or Danish ID, their identity must be confirmed by a witness and a meeting with the registration staff is required. The meeting can take place online (*Nordic Cooperation*, n.d.-a).

Unlike the Danish state-owned eID option, MitID, and its associated digital mailbox service, the Mínboks and Vangin services – and therefore also Samleikin – are not mandatory by law but rather opt-in solutions for citizens. According to interviewees, this was a deliberate decision to ensure that Samleikin would be as inclusive as possible:

6. In the context of eID, a digital identity is an online version of an individual's personal information, and a digital signature is an electronic way to sign documents securely.

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Since our task was not only for the public sector, but rather digital infrastructure that needed to be used broadly in society, we realised very early on that we needed to think broadly of all the user groups we would come into contact with. Therefore, from the beginning, we have tried more or less constantly to think of all our user groups, and that's where the focus on inclusion comes in.

- Interviewee FIO1

As a result, Samleikin is available, for example, as an app for smartphones and tablets or as a USB stick for computers. In late 2023, around 44,700 individuals had access to Samleikin out of the approximately 54,500 inhabitants of the Faroe Islands. In terms of the geographical distribution of Samleikin users, the majority are located in the capital region of Tórshavn, with lower user densities in the less densely populated areas. However, the differences are small (Interviewee FIO1).

4.1.2 Challenges: Immigration trends, Faroese family structures and geography

This section discusses the specific Faroese features that have posed challenges to the inclusive eID rollout in the Faroe Islands. At the time of conducting the fieldwork for this report, the rollout process of Samleikin was already well advanced. This means that several of the hurdles relevant to an inclusive eID rollout in the Faroe Islands had been addressed prior to our fieldwork. These initiatives will be discussed in greater detail in Section 4.1.3, with a focus on the solutions. The interviewees generally appreciated the efforts made by Talgildu Føroyar to achieve an inclusive rollout of Samleikin. However, some challenges still persisted in ensuring all Faroese residents can access and use Samleikin. During the analysis for this report, it became apparent that the challenges highlighted in the interviews largely related to four main themes: (1) changes in the population due to increased immigration, (2) social control and family structure, (3) socially vulnerable people and (4) people with disabilities.

The Faroe Islands have historically had a predominantly ethnically homogeneous population. However, with expansions in the construction and fishing industries, as well as increases in tourism, immigration has grown, with more than 80 nationalities living in the Faroe Islands today (see e.g. Faingold, 2023). In the period between 2010 and 2023, the proportion of non-Nordic residents increased from 1.5% to 5.5% (Hayfield, 2024). The top three non-Nordic nationalities are the

Philippines, Poland and Thailand (Faroe Islands.fo, 2023). In addition, around 200 Ukrainians refugees have arrived in the Faroe Islands since the beginning of the Russian invasion of Ukraine in February 2022 (Statista, 2025).

Several interviewees identified these groups, particularly those who are not fluent speakers of Faroese, Danish or English, as well as those without a strong social network in the Faroe Islands, as the groups experiencing challenges accessing Samleikin. It was noted by banks that this group was among those seeking help the most (Interviewee FI06) and a representative from Talgildu Føroyar identified this group as one which it would like to support more in the future (Interviewee FI01). Representatives from the Immigration Office in Tórshavn further specified some of the challenges facing immigrants in the Faroe Islands, often related to integration and onboarding to Samleikin. The first challenge identified concerns the structure of the immigration system in the Faroe Islands in relation to Denmark.

Faroese immigration still falls under Danish jurisdiction (The Government of the Faroe Islands, n.d.). The Immigration Office representatives described how this structure could create a sense of being restricted in terms of the initiatives they could undertake (Interviewee FI14). Together with the public perception that immigration to the Faroe Islands is temporary in nature, this hinders the willingness to push for changes for this group:

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Sometimes I think that the Faroese people think that this (ed. increased immigration) is only a temporary situation. Our economy has been quite volatile at times and our immigration is connected to unemployment figures. If the unemployment figures go above a certain point (ed. 3.5%), then we must stop foreign workers from coming to the Faroe Islands. We've always had this belief that worse economic times may come and then things will change. But we've had a good economic time for a long period and it really has an impact on society now. I have this feeling that people think that we don't need to make all these efforts because the people will leave again at some point, as it's only a temporary situation. But it turns out it's not.

- Interviewee FI13

According to the respondents, specific traits of Faroese society challenge integration and hinder the onboarding of immigrants to Samleikin. The first relates to the language skills required in everyday life in the Faroe Islands. As one respondent explained, it is necessary to speak Faroese, Danish and English fluently to be able to study *"because Faroese is the language that we communicate in, but our school system is very much geared towards the Danish system and is originally a Danish system, so a lot of our material is in Danish. As you progress to higher education, it's also in English."* This means that *"(...) if they (ed. immigrants) come and do not speak any of the languages that we have here, it's a really steep learning curve for them to adjust to that"* (Interviewee FI13).

Another issue relates to Faroese family structures, which are described as very *"tight-knit"* (Interviewee FI16) and *"Mediterranean/Italian"* in nature (Interviewee FI07, FI14). On the one hand, this is described as a benefit, because it means that if a family member struggles with digital issues, family members will come together to offer help. On the other hand, it is noted that immigrants might not have access to the same support networks. In addition, the tight-knit society can also make it difficult to voice complaints and share opinions: *"We have very tight-knit family networks and large families. If you're a third cousin, you're still family. But it's a small society and a lot of people know each other and there's a type of social control or a tall poppy syndrome ("Janteloven")"* (Interviewee FI13).

The question of Faroese family structures is also relevant to groups beyond Faroese immigrants. Faroese family structures were a recurring theme in the interviews, with both positive and negative features described in relation to an inclusive Samleikin rollout, especially among socially vulnerable individuals. One interviewee noted, *"Those who have problems with digital inclusion may often face other challenges, such as controlling partners or issues of illiteracy or multiple disabilities, meaning that they are already more vulnerable. The digital aspect can increase the control over them. It may not be widespread here, but it's certainly a danger. Digital exclusion affects those who are already more vulnerable"* (Interviewee FI16).

Participants emphasised that people with cognitive and physical disabilities may face challenges with Samleikin and overall digital inclusion. Individuals with visual impairments, dyslexia or low literacy rates have difficulties with reading, creating a need for tools like screen readers. Interviewees also noted that some individuals in the Faroe Islands have multiple disabilities, further emphasising the need for digital aids and inclusive technologies (Interviewee FI16).

The disability sector in the Faroe Islands is considered relatively young, having previously been under Danish administration. It has been established in the Faroe Islands for approximately 50 years (Interviewee FI08; (MEGD, n.d.). However, significant progress has been made in a short time, according to several interviewees, even though there are some aspects left to work on, such as a long-term plan for inclusion of people with disabilities in society. One participant noted, *"If you don't have anyone near you who needs support to be digitally included, it's*

hard for them to understand why it's important" (Interviewee FI16). Interviewees reported that Talgildu Føroyar had actively reached out to disability organisations, asking about the challenges they were facing and showing an interest in solving the problems. Nonetheless, it was noted that some groups of people with disabilities, such as visually impaired people, are able to get through the "first door" by logging into Samleikin. However, when they try navigating it and proceeding further – for example, to read documents – they encounter obstacles and cannot continue (Interviewee FI07).

4.1.3 Solutions: Digital inclusion as a starting point

Digitalisation has been a priority in the Faroe Islands for some time, with increased independence in the digitalisation field perceived as a way of gaining independence in general. Interviewees noted that digitalisation, especially eID, is considered critical infrastructure and is therefore something the Faroese want to be in control of themselves (Interviewee FI04). There has been political support for the creation of a Faroese digitalisation system, which was seen as key to developing it (Interviewee FI11).

Representatives from Talgildu Føroyar explain that one of the successful strategies for a small economy such as the Faroe Islands, when designing their own eID, was to draw inspiration from abroad:

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We don't want to be first movers. We have to see what others have done and try to learn and copy the others as much as possible. We started our strategy by looking at the countries that have done well like Estonia. We closely cooperated with them, adopting their X-road data exchange platform. Estonia has been a great inspiration both in terms of particular solutions but also in terms of digitalisation and decentralisation. Denmark has also been a great inspiration. We constantly look at what others are doing and try to stay updated.

- Interviewee FI03

Accordingly, the Faroese approach was described as learning from others and tailoring the solutions to fit the Faroese context.

As previously mentioned, Talgildu Føroyar states that digital inclusion has been a core feature of digitalisation efforts in the Faroe Islands from the outset. Several approaches have been implemented to achieve this, including allowing online registration even if an individual does not have a Faroese or Danish passport (*Nordic Cooperation*, n.d.-a), having a physical helpdesk in Tórshavn, providing phone support, holding information evenings for various citizen groups in the Faroe Islands and, in general, continuously striving to improve the usability of Samleikin and make it more inclusive.

Through Samleikin, it has become possible to reach a target group that previously had experienced difficulties with eID, namely sailors. The Faroe Islands is a nation of sailors, with many hundreds of individuals sailing around the world. They can now access Samleikin from anywhere globally, as only an internet connection is required. Previously, under the old eID scheme, they needed a phone connection, which is not always available, especially out at sea (Interviewee FI01).

During the rollout and implementation of Samleikin, significant efforts were made to foster strong cooperation with various actors who could assist user groups in overcoming the challenges they faced. Throughout the implementation of Samleikin, numerous events were organised with civil society organisations, including informative sessions to ensure that they were well-equipped to support their communities. It was noted that Talgildu Føroyar has worked to involve user groups and listen to their feedback. One interviewee remarked: "(Ed. named representative from Talgildu Føroyar) *has been like a locomotive! We've had many meetings with her!*" (Interviewee FI10). Additionally, cooperation with banks proved beneficial, given the substantial impact that financial and banking issues have on people's daily lives. This collaboration helped streamline the adoption of Samleikin among the general population (Interviewee FI03, FI06).

Several channels provide support with Samleikin, including video calls, phone calls and in-person assistance at the physical service desk located in Tórshavn. Significant effort has been invested in the service desk to ensure that not all guidance is digital. This approach has received positive feedback, as it allows users to receive assistance not only through digital means but also from a person they can reach out to and discuss their concerns with (Interviewee FI05).

Representatives from Talgildu Føroyar recognised that not all people will be able to or want to use Samleikin and that people who are in the digital gap need different solutions. As noted above, use of Samleikin is not mandatory. In 2015, when developing the new digitalisation agenda for the Faroe Islands, the goal was set to include everyone who wanted to be part of the digitalisation process, with participation being voluntary (Interviewee FI02, FI03, FI04). The aim is to make the digital solutions, including Samleikin, as effective and user-friendly as possible so

that people will voluntarily join. However, it is recognised that some groups lack strong digitalisation skills or do not want to engage with it and therefore need other solutions or analogue services. For this reason, the old solutions have been maintained (Interviewee FI01).

In the Faroe Islands, Power of Attorney (POA)^[7] can be used for some services by those who are not yet registered for or are unable to use Samleikin. For example, POA has been accepted by banks and certain services on Vangin, the Faroese service that consolidates digital services from municipalities and public institutions, pharmacies and the Tax Self Service (*Borgaragluggin*). However, it was indicated that it will not be possible to provide a POA for Samleikin, as it grants access to too many services (Interviewee FI01).

Efforts to ensure that everyone who wants access to Samleikin can obtain it are ongoing. One strategy involves exploring how municipalities can play a more significant role in the implementation of Samleikin. The plan is to use Denmark's citizen service centre (*Borgerservice*), where citizens can receive assistance with eID issues, as a model. Work is underway to determine how a similar approach could be adopted in the Faroe Islands, potentially giving municipalities a greater role in providing support and assistance to those who are unfamiliar with accessing or using Samleikin (Interviewee FI05). With regard to the digitalisation process, interviewees highlighted the need for a continued focus on web accessibility, especially for online public services.

4.2 Greenland

4.2.1 Landscape: Relationship with Denmark and adoption of MitID

Greenland adopted the Danish eID solution, MitID, in 2021, when it was announced that the previous eID in Denmark, NemID, would be replaced with MitID.^[8] The MitID law is a royal decree that applies Danish law to Greenland, with effect from 2021. The Danish Agency for Digital Government is responsible for ensuring that people in Greenland have the same rights regarding MitID (and other IT solutions that are deployed in Greenland) as those living in Denmark (Digitaliseringsstyrelsen, 2021; Naalakkersuisut, 2021, 2022).

The Danish Agency for Digital Government is responsible for implementing MitID in Greenland^[9] but has outsourced this responsibility to the Greenlandic

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7. Power Of Attorney is a legal document that grants one person the authority to act on behalf of another person in legal or financial matters.
 8. MitID was introduced as a more secure eID solution. MitID is owned by a partnership between the Danish state and the banks.
 9. The Greenlandic Agency for Digitisation is not responsible for and cannot issue MitID. It only plays an intermediary role and provides information about the requirements.

municipalities.^[10] The Danish Agency for Digital Government and the Greenlandic Agency for Digitisation have collaborated on the implementation process, with the Agency for Digitisation in Greenland assuming the role of project manager for the MitID rollout in Greenland and acting as an intermediary between Danish actors and Greenlandic municipalities. It provided materials regarding MitID to the municipalities and assisted when difficulties arose in understanding the requirements related to MitID and the process of becoming a Registration Authority. Additionally, the Greenlandic Agency for Digitisation produced a MitID information campaign, which was broadcast on national television, radio and social media. When asked why the agency took on this supporting role, it was explained that the Agency for Digitisation in Greenland was keen to help. A participant further elaborated:

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The responsibility is 100% Denmark's. We've spent resources on this project, but it's entirely Denmark's responsibility to ensure its implementation in Greenland. However, we were interested in implementing MitID in Greenland because the key to all our public services, NemID, was shutting down. But strictly speaking, we don't have responsibility.

- Interviewee G19

The banks in Greenland have also played a significant role in the implementation of MitID, with Grønlandsbanken assuming substantial responsibility. At the beginning of the MitID rollout process in Greenland, Grønlandsbanken was one of the first and, for a while, the only institution where MitID could be issued. Still, to this day, citizens can visit their bank to obtain information regarding MitID and refer to citizen services and the municipality for further guidance (Interviewee G03, G15).

Since the migration to MitID started in 2021, it has been possible to use the old eID (NemID) for some services. However, sullissivik.gl discontinued this option on 31 January 2023, with only digital solutions using MitID available on the site since then. NemID was fully removed from use on 31 October 2023 (Sullissivik, n.d.).

The proportion of MitID users today is relatively high, as per January 2025, 87.4% (in total 39,551 people) of the Greenlandic population over the age of 15 had an active MitID, and approximately 84.89% (in total 39,600 people) over the age of 13

10. To specify, the Greenlandic municipalities are responsible for issuing and maintaining MitID in Greenland according to the "Lov om MitID og NemLog-in" (§5 & stk. 2)

residing in Greenland had a MitID.

While MitID is not mandatory in Greenland or Denmark, Public Digital Mail (*Offentlig Digital Post*) is. Public Digital Mail can be read through e-Boks, a digital letter box to which communications from the public sector are delivered. MitID is needed to access e-Boks. However, individuals can be exempted from use of e-Boks if they provide a valid reason (Interviewee G01, Digitaliseringsstyrelsen, n.d.). MitID is also the key for all digital services provided by the public administration through sullissivik.gl. Greenlanders who cannot or do not want to use the eID solution can access the respective services in person at their banks or the municipality. The age limit to obtain MitID is 13 years. It is possible to acquire MitID via the MitID app if the individual has a passport and a smartphone. If the individual does not have a passport (from e.g. Greenland, Denmark or the Faroe Islands with a CPR number, the Danish civil registration number), they can obtain MitID at a citizen service centre or village office. In this case, they will need to provide other valid identification, meaning either a photo ID or two forms of identification without a photo (Skattestyrelsen, n.d.).



Photo: Sigrid Jessen

4.2.2 Challenges: Copy-pasting of Danish solutions into a Greenlandic context

This section discusses the challenges of an inclusive eID rollout in Greenland. At the time of conducting the fieldwork for this report, the rollout process for MitID was

still ongoing. As a result, some of the obstacles had been recognised but not yet addressed by the time of our fieldwork.

While the majority of the eligible Greenlandic population today is using MitID, the implementation process has not been without challenges, especially for socioeconomically disadvantaged groups and those with limited digital capabilities. A recurring theme in the interviews was the perception that MitID, as a Danish solution, was being copy-pasted into a Greenlandic context without adjustments (Interviewee G02, G04, G19). Some of the main features of Greenlandic society causing issues with respect to the implementation of the Danish MitID concerned connectivity and digital capabilities, languages, access to physical help and a lack of coordination between Greenland and Denmark, as well as internally in Greenland between key actors.

One key challenge hindering eID implementation and usage in Greenland relates to connectivity issues. Especially in northern Greenland and eastern Greenland, digital connectivity tends to be unstable and unreliable, while high costs impact the entire society. The sea cable "Greenland Connect" (Tusass, n.d.) provides most of the west coast with reliable digital connectivity, but other areas still rely on satellite services (G06) (Tusass, 2024).^[11] The internet was described as a "luxury" by several of the interviewees, noting that it is extremely expensive (estimated at approximately DKK 500/month for phone data and DKK 800-1,200/month for Wi-Fi) (Interviewee G02, G03, G04, G08, G15, G16).

The fieldwork showed that the expensive internet and bad coverage impact everyone. However, homeless individuals, older adults, people with disabilities and residents of areas outside of Nuuk might encounter additional challenges due to factors including a lack of funds, technologies and skills or greater reliance on digital services (G07, G05, G11). Interviewees described people standing outside the library in Nuuk in the evenings, on days when it is closed and even in snowstorms, since the library is one of the few places in Nuuk where the internet can be accessed free of charge (G03, G08, G16). This was further illustrated by the description of a man in a wheelchair sitting in snow drifts outside of the library's opening hours to access Wi-Fi (Interviewee G08), underlining the scarcity of the resource "accessible internet" in Greenland.

The lack of reliable and affordable internet connectivity can be seen as a central factor in a downward spiral of digital exclusion, with limited access also making it more difficult to acquire digital skills and literacy ("*digital dannelse*"). This affects the ability of some population groups to use eID and associated services meaningfully to exercise their citizen rights. One participant stressed that the connectivity issue also impacts municipalities' ability to issue MitID (Interviewee G04).

11. Please see the Tusass annual report from 2023 for more information about connectivity in Greenland.

Another challenge relates to the lack of availability of MitID in Greenlandic. Greenland's Self-Government Act and the Greenlandic Language Act stipulate that Greenlandic is the official language of Greenland. As a result, the Danish authorities must ensure that they exercise their authority in Greenland in the official language. However, for a long period, MitID was only available in Danish and English. Interviewees stated that the translation of the login site began in early 2024, with the translation process continuing (Interviewee G01, G04 & G19). About half of the Greenlandic population neither speaks nor writes Danish.^[12] It is further estimated that a small minority of 10% only speak Danish, while 20% are bilingual with Greenlandic as their stronger language and another 20% are bilingual with Danish as their stronger language (Sæhl, 2018). These data do not indicate the distribution of speakers of the various Greenlandic dialects. Respondents note that there are large differences between the eastern and western Greenlandic dialects (Interviewee G04, G15).

As noted above, respondents stated that MitID had not been tailored to the Greenlandic context. To acquire MitID, valid identification documents are needed, such as a passport, ID card or a combination of identification documents. Interviewees noted that not all people in Greenland have valid identification documents, as they are either perceived as unnecessary or too expensive to acquire. It was also noted that there was a lack of understanding among some residents regarding what an eID is and why it is needed. At the time of implementing MitID, the question "why do you need an eID in a society where everybody knows everybody"? arose many times. One interviewee recounted their experience of receiving the comment: *"You're my former pupil and the lifelong friend of my daughter, you know me. Why do you need my documents to approve my identity?"* (Interviewee G04).

Greenland is divided into five municipalities. A large proportion of the population resides in the municipality Sermersooq, which includes the capital, Nuuk. In Greenland, municipalities can issue MitID. To do so and to assist citizens with MitID, municipalities must first become a Registration Authority (RA). This process requires municipalities to submit an audit statement for approval by the MitID supplier. Every entity authorised as an RA to issue MitID (including both municipalities and banks) must also submit a MitID declaration for auditor approval every year – a process that is considered relatively extensive. In mid-2022, the first municipality was approved to issue MitID, followed by others.^[13] The delayed RA-approval for Qeqertalik municipality meant that residents who needed

12. Note that these numbers are estimates and there are uncertainties associated with the exact numbers.

13. Timeline when the municipalities could begin issuing MitID:
Sermersooq Municipality: summer of 2022
Qeqqata Municipality: January 2023
Avannaata Municipality: March 2023
Kujalleq Municipality: April 2023
Qeqertalik Municipality: April 2025

MitID to be issued or assistance with it had to rely on alternative methods or locations where assistance was available. If residents already have a passport, the MitID app can provide guidance. Qeqertalik municipality's previous lack of approval as an RA had significant implications for both residents and bank operations. Residents who do not live in the main town of Aasiaat were particularly affected, as they were required to visit Grønlandsbanken's branch in Aasiaat for MitID-related services. This was described as inconvenient for these residents and placed an additional burden on the bank's branch employees, who had to handle tasks that would typically be managed by the municipality's citizen service. This increased workload led to longer response times for the bank's customers in Aasiaat, affecting their ability to conduct regular banking transactions efficiently (Interviewee G15).

Several factors contributed to this delay and ongoing challenges in obtaining RA approval, including an incomplete legal framework, as certain sections had not been enacted, a lack of skills and capacity across municipalities and a high turnover rate of employees. Additionally, connectivity issues impeded the ability to follow courses required for the approval process, as videos often had to be restarted or lagged, resulting in them being marked as incomplete. In 2022, some of the training materials were translated to Greenlandic, and the rest of the training material has been translated to Greenlandic since August 2024.^[14] Some respondents note that there was a lack of necessary documents for municipal employees and that the requirement for physical witnesses further hampered the process (Interviewee G04, G19).

Distances are vast in Greenland, meaning that individuals who need assistance with acquiring or using eID may have to travel long distances to reach their nearest municipality citizen service office (*Borgerservice*). In section 4.2.3, a solution to overcome this challenge is discussed. One participant shared stories of individuals sailing in dinghies along the western coast for several hours to receive help from a citizen service allowed to issue MitID or travelling as far as 400 km to obtain help (Interviewee G04; (Berthelsen, 2022). Although a help phone line is available, it is located in Denmark and operates with a three-to-four-hour time difference.^[15]

Greenland faces socioeconomic challenges, including increasing homelessness and adverse circumstances for people with disabilities and older adults. It is estimated that approximately 1% of the Greenlandic population is homeless (Interviewee G07, (Christensen et al., 2024). A previous report reveals that some individuals with disabilities are placed in residential facilities or institutions, sometimes far from their home region. This is partly due to a lack of highly specialised services and

14. In addition, an interpreter has been used during seminars since December 2023 and for trainings since 2024.

15. The usual time difference between Nuuk and Copenhagen is three hours. However, differences in the timing of the Daylight Saving Time transitions can extend this to four hours.

difficulties in obtaining adequate support, especially in smaller towns and settlements (Gaardsted Frandsen et al., 2019). Participants noted that, unless purchased separately, there is no internet access in disability institutions and elderly homes and there is only limited free internet in shelters. The high cost of the internet, limited access to devices and the need for a computer to access all information, such as debt details, exacerbate these issues (Interviewee G07, G09, G11).

One critical problem is not just the number of MitID users but also the extent to which it is used. There have been instances of people being evicted from their homes because they missed important information in their digital post due to a lack of internet access. The one place in Nuuk that always offers free Wi-Fi is the public library. Respondents noted that citizens seeking help are often sent from one place to another – such as the bank, citizen service or library – without clear guidance on where to obtain assistance (G11, G18). This causes deep frustration, especially in cases where the library is not permitted to help due to privacy concerns (the library is not always able to help users as they cannot handle sensitive personal information). It was reported that, in some cases, librarians wear alarms on their bodies and alarms are installed under tables, with security personnel conducting hourly patrols to ensure safety (Interviewee G08).

One concern involves the ability to identify misinformation and scams, particularly on social media platforms like Facebook. Facebook serves as a primary information source for many individuals and is frequently used by public authorities to disseminate information to the public (Interviewee G16). However, it is also a channel through which rumours, community news and disinformation etc. can be spread. Interviewees note that fake news and conspiracy theories are increasing in Greenland and scams are becoming more widespread. Additionally, there is a pervasive feeling of insecurity regarding state ownership of personal data, with many people subscribing to related conspiracies. One participant noted, *"It's more than you would assume – I was surprised by just how many felt this way"* (Interviewee G04). Despite these challenges, few courses are being held to improve digital skills and knowledge or to provide information about MitID.

The legal implementation of MitID falls under Danish jurisdiction by virtue of a "royal decree" (Digitaliseringsstyrelsen, 2021; Naalakkersuisut, 2021, 2022). There is a prevailing sense of frustration among Greenlandic agencies towards the Danish Agency for Digital Government regarding the MitID efforts in Greenland, with interviewees expressing feelings of neglect and a lack of understanding of the Greenlandic context and warnings about foreseeable issues (Interviewee G19). The Danish Agency for Digital Government made its first visit to Greenland in September 2024 (the implications of the in-person visits are further discussed in Section 4.2.3 below). On the other hand, Danish agencies also expressed their concerns about the lack of communication with stakeholders in Greenland, citing issues such as contact persons changing without notification and lengthy processes. This lack of clarity regarding responsibility and ownership of MitID issues

has had tangible impacts, with reports of the bank Grønlandsbanken experiencing employee burnout and the citizen service office in Nuuk losing several employees during the migration from NemID to MitID due to the intense workload and limited assistance (Interviewee G04, G15).

One respondent shared their experiences: *"Overall, I think communication has been really difficult. We all spoke Danish, but it felt like we were speaking different languages. Despite various attempts and different people trying to explain to the Danish Agency for Digital Government their responsibility, it remained a challenge. We involved our legal expert and the chief legal officer to explain the connection between the Self-Government Act and the royal decree on MitID, which finally created understanding at the Danish Agency for Digital Government of their responsibility in relation to MitID. Once this understanding was in place, the conversation and the process changed completely and I wish it had happened sooner for a smoother process"* (Interviewee G19).



Photo: Sigríð Jessen

4.2.3 Solutions: Collaboration in Greenland and between Denmark and Greenland

Challenges to the widespread implementation and usage of MitID persist, yet efforts to overcome them exist. As noted above, the login process for MitID is now available in the Greenlandic language and work is underway to translate the entire

eID and the related website and app. One measure taken to address the immediate language challenges, to ensure that all residents understand MitID, was the creation of a picture guide. The guide explains what MitID is, how to use it and where and how to obtain it (Interviewee G19). In the discussion on future solutions, translation work emerges as a recurring theme. Efforts to translate the MitID website, including the guidance materials, are currently underway.^[16] Providing additional training materials to both citizens and employees in citizen services is also considered a priority and work in progress in May 2025, to ensure appropriate assistance can be offered (Interviewee G19). The already translated material has been developed in collaboration with the Greenlandic Agency for Digitisation.

In the initial phase of implementing MitID in Greenland, raising awareness of the migration from NemID to MitID was a priority. Making citizens aware about MitID in Greenland has been a multifaceted effort, with several campaigns launched by the Greenlandic Agency for Digitisation. These campaigns have been disseminated through various channels, including television, radio, social media, pamphlets and posters sent to all municipalities. Radio and television were seen as particularly effective, as these media channels remain very popular in Greenland. Social media has also been used, especially in larger settlements, while television and radio are more effective in smaller and rural settlements. This diverse approach has proven beneficial as the migration to MitID continues. Most of the campaign materials are available in both Greenlandic and Danish. The audio content is always in Greenlandic, with campaign films featuring Danish subtitles. Posters are bilingual and pamphlets are in Greenlandic. All campaign materials direct citizens to the citizen portal, sullissivik.gl, where more information is available about MitID (Interviewee G19).

Accessing reliable internet at a reasonable price remains a challenge in the rural and remote areas of Greenland, which currently rely primarily on satellite services (Interviewee G06). Respondents noted that some, but not all libraries across Greenland offer free Wi-Fi. The library in Nuuk offers free internet to all visitors, available around the clock, every day of the week. One respondent stressed that the cornerstone of libraries is their openness to all, commenting: *"All library services should be free for everyone, that's why our internet is free as well"* (Interviewee G08). Librarians can also support visitors by means of "self-help", teaching and guiding them on how to handle digital issues themselves. However, participants emphasised the need for IT courses and support sessions. These sessions could cover navigating the internet, source criticism and using MitID and other e-services. For example, the possibility for support sessions held by the national library in Nuuk in collaboration with the municipality is being explored, aimed at assisting less digitally proficient residents. One such initiative could be MitID evenings, which

16. As of April 2025, parts of the website MitID.dk where guidance on MitID can be found are translated.

individuals could attend to ask questions and receive more information about MitID and related services (Interviewee G04).

Starting in September 2024, more regular visits from Denmark to Greenland are planned. As one representative noted, *"It has become clear in the current budget (finansloven) that there will be a fixed allocation for employees from our agency to visit and assist the Greenlandic authorities managing the solution. So far, visits have been at the management level, but it looks like they will also occur at the employee level"* (Interviewee G01). These visits are described as crucial in order to fully understand the Greenlandic context, experience the connectivity issues firsthand, grasp the vast distances and hear the insights of the people involved in implementing MitID on the ground (Interviewee G01, G19).

In the Greenlandic context, the ability to physically visit a citizen service office is considered crucial, as it enables individuals to receive assistance from staff authorised to issue MitID and provide guidance on its use. Participants emphasised that Greenland's vast territory often means that long journeys are necessary to access help. To address this challenge, village workers (*bygdemedarbejdere*) now provide local support.^[17]

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Today, it's possible for a village worker to issue MitID to a resident in a remote village. That's quite significant because there isn't always internet access and the nearest municipal citizen service can be very far away. It's been very challenging to implement, but we've managed to get it up and running in compliance with our legislation. The question remains whether it meets EU standards.

- Interviewee G01

The banks' involvement in the implementation phase of MitID was deemed essential, as they may have branches in towns that are otherwise far from a citizen service office (Interviewee G03). *"When people come into the bank because of*

17. The so-called "Lokal medarbejderløsning" has been developed specifically for Greenland. Through this solution, a local employee employed at the municipality can help issuing and maintaining MitID. The employee helps verify the individual's identity by contacting the local citizen service centre, where a Resource Authority (RA) staff member completes the process. This approach is made possible by the small society and close-knit nature of Greenlandic communities, where it can reasonably be assumed that the local employee knows the citizen personally.

encountering a challenge with MitID, we can help them. Those who are authorised to issue MitID use their training to do so. Then, we go through the process together with the customer, ensuring they understand how to use it," explained one interviewee (Interviewee G15). Now that more citizen centres are able to issue MitID and the village worker solution is in place, more places to access physical help are available. However, more locations and support are still needed (G04, G15). Additionally, maintaining analogue services is considered important for individuals who face challenges with digital connectivity, lack digital literacy or simply prefer not to engage with digital solutions.

4.3 Åland

4.3.1 Landscape: Navigating digital identity and private eID solutions in Åland

Åland, an autonomous Swedish-speaking region of Finland, currently does not have a state-owned eID scheme. Finland is engaged in discussions on the development of an eIDAS-approved eID scheme and an eID law, but, to the best of the authors' knowledge, it is not yet in place.^[18]

The Ålandic Government and the Digitalisation Unit are observing Finland's progress and approach to developing its state eID and the eID law. It is important to note that legislative authority in relation to electronic identity lies with Finland (*Lagen om stark autentisering och betrodda elektroniska tjänster (617/2009)*) (Finlex, 2009). Therefore, it is not possible for Åland to enact its own legislation in this area. Instead, the role of the Ålandic Government and the Digitalisation Unit is to monitor developments and assess how Finland's solution can be implemented within the framework of Åland's autonomy (Interviewee Å02 & Å03).

The eID landscape in Åland primarily consists of private eID vendors, with banks issuing eID apps^[19] to their customers. This identification tool allows users to log into the banks' digital services, as well as tax services, insurance and public e-services like Suomi.fi (Interviewee Å2). To open a bank account and use the bank's e-identification, an Ålandic or Finnish passport with a personal identity code (*personbeteckning*) is required (Nordiskt Samarbete, n.d.-a). This code is necessary for e-identification, because banks have developed the technical platform for identification of customers in line with the Act on Strong Electronic Identification and Trust Services (Nordea, n.d.). Additionally, each bank imposes its own age

18. Note that the eID landscape in Finland currently also consists of a variety of actors issuing eID. In Finland, electronic identification methods include the state-issued FINEID card, BankID, operated by financial associations, and MobileID, endorsed by telecom operators. A 2020 survey by the Ministry of Finance found that 90% of respondents used BankID, 8% used MobileID and fewer than 2% used FINEID, with BankID's popularity attributed to its ease of use on both smartphones and computers without the need for a separate card reader (Kempainen et al., 2023).

19. For example, banks such as Nordea, Danske Bank, Ålandsbanken, S-Banken, Andelsbanken, Sparbanken, POP Banken, Aktia and Oma Säästöpankki Oyj.

restrictions for issue of eIDs (Interviewee Å04). Many of the services available through eID can still be accessed using other types of e-authentication or analogue methods, such as code charts and mobile certificates, and analogue services are still widely available (Interviewee Å02, Å04).

Alongside the banks, other important actors and stakeholders in the eID landscape include the Ålandic Government and the Digitalisation Unit. These entities are responsible for setting the digital agenda for Åland and liaising with Finland and the counterpart of the Digitalisation Unit, the Finnish Digital and Population Data Services Agency. They engage in discussions about the potential state eID and the digital systems implemented in both mainland Finland and Åland.

To the best of the authors' knowledge, no official statistics exist on the number or percentage of people who have access to and use eIDs. While banks should have data on the number of customers with their eID apps, there are no official user statistics. For public services, there should be data on the number of people using eIDs to access various services, but it is unclear if these data exist specifically for Åland or only for Finland as a whole (Interviewees Å02 & Å04). Interviewees indicated that it is likely that many Ålanders have eIDs, but do not use them frequently (Interviewees Å01).

Access to fast and reliable internet is a prerequisite for using any eID solution. The infrastructural conditions in Åland are very good, with a high level of coverage for fast fixed broadband and mobile networks. A variety of providers distribute different types of ICT services and connectivity to the public, businesses and the public sector (Bärkraft, 2018). In Åland, 96% of households have access to fixed broadband coverage with speeds of at least 100 Mbit/s, while 76% of households have access to mobile network coverage for 4G at 100 Mbit/s and 52% to 5G coverage at the same speed (data from December 2021 and 2024 for 5G, the latter provided by Traficom) (Laurell, 2022).



Photo: Sigrid Jessen

4.3.2 Challenges: "Digital debt" and pros and cons of a small community

During the fieldwork in Åland, several challenges were identified, including structural issues and specific groups facing difficulties with eID and overall digital exclusion.^[20] One general challenge is the requirement to have an active bank account at a commercial bank to obtain an eID. As noted above, to open a bank account, an individual needs a valid biometric passport. In addition, to access the bank's e-identification, an Ålandic/Finnish personal identity code (*personbeteckning*)^[21] is necessary. This requirement poses difficulties for socially vulnerable people and immigrants, among others (Interviewees Å06, Å07).

For older individuals, common challenges include a lack of necessary devices, such as more recent smartphone models, which are required to access and use eID. The need for newer, expensive smartphone models goes against the habit of using older devices handed down by children, as described by several interviewees. Additionally, participants reported that some older adults are uninterested in adopting digital solutions like eID due to habit and a reluctance to change. In the literature, this attitude has been connected to mistrust and a fear of scams in the digital sphere (see e.g. (Ezeudoka & Fan, 2024). One interviewee explained: "*Feeling that you have control over the login process is important. With eID, I don't feel like I have that control*" (Interviewee Å01). Furthermore, elderly people may lack digital skills, as highlighted in a 2020 survey on internet use among Ålanders. The survey shows a generational divide and a risk of digital exclusion, with internet access and usage being significantly lower among those aged 75 and over than in the overall population (Viktorsson, 2020).

Young people also face challenges related to eID and may be at risk of digital exclusion, despite growing up with a range of digital tools. Different banks impose varying age restrictions for opening a bank account with a connected eID. Additionally, some young people may lack bureaucratic knowledge and understanding of public systems, making it difficult to navigate the digital public sector or understand the language used (Interviewee Å01 & Å05).

Socially vulnerable people may not have access to eID due to certain conditions and requirements. These challenges are connected to a lack of economic resources, such as the cost of being an active banking customer, obtaining a passport or maintaining a broadband network and digital devices at home. Additionally, a lack of digital skills and fear of using digital solutions can prevent these individuals from obtaining or using eID (Interviewee Å06 & Å07).

20. It is important to note that not everyone within these groups faces challenges. However, these groups were highlighted as being more likely to experience difficulties. Additionally, these groups are not homogenous and may have diverse experiences and needs.

21. To obtain this "personbeteckning", the individual must be registered in Finland's Population Information System, which can occur at birth, upon receiving a residence permit or by registering as a foreign citizen moving to Finland.

Similarly, people with disabilities may experience difficulties in both accessing and using eID solutions. eID systems often require physical actions, such as typing or swiping, which can be challenging for individuals with motor impairments. Visual or auditory disabilities can limit the ability to navigate digital interfaces or understand prompts and instructions. Accessibility features are not always adequately integrated into eID platforms, making it difficult for people with disabilities to use these systems independently and effectively (Interviewee Å10). Foreigners face additional challenges connected to eID, particularly those who do not have an Ålandic or Finnish passport or identity number, which are required for eID registration with the bank. Moreover, foreigners with limited English skills may struggle with the eID process (Interviewee Å02, Å03, Å11).

The consequences of digital exclusion in the Ålandic context include missing out on important information, being excluded from certain services provided by authorities, not receiving updates in health and financial matters and the risk of further social exclusion (Interviewees Å04, Å06, Å07, Å10). One interviewee noted, *"There will always be a group of people who are not digitalised. This is due to various reasons. Inevitably, there will be a category of people who are left out. So, societal planning must also take into account that not everyone will be able to participate in the digital world"* (Interviewee Å01).

Libraries in Åland play an important role in improving digital literacy and skills among the population (discussed in more detail under Section 4.3.3). However, a challenge arises: sensitive matters such as banking-related questions and eID logins cannot be handled by library staff due to policies and regulations. One interviewee expressed this concern, noting,

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If we go back maybe two or three years, we had a lot of people coming here to do their banking and asking for help with logins, eID and such. We can't help with that because these are sensitive matters. We have a policy on handling digital matters, which means the person must do it themselves while we stand behind and instruct. The staff feels quite uncomfortable when it involves money or handling social benefits or applying for residence permits, because these are sensitive questions

- Interviewee Å11

The fieldwork revealed a number of common challenges connected to eID rollout and usage among the population. However, larger societal challenges were also noted. The notion of "digital debt" was raised in several interviews, described as Åland lagging behind in digitalisation and needing to catch up regarding technological advancements, digital systems and digital literacy among the population (Interviewees Å01, Å03, Å06 & Å11). One interviewee explained, *"I have a perception that we have a digital debt in Åland that needs to be paid off. We are behind other regions when it comes to digitalisation. That includes not only having the infrastructure in place, but also digital processes and digital behaviour. I perceive that digital maturity is low here"* (Interviewee Å08).

Digital maturity^[22] was a concept discussed by other interviewees as well, with some arguing that digital maturity in Åland is lower than in the neighbouring countries, contributing to the digital debt (Interviewee Å04, Å08 & Å10). Increasing digital skills within businesses, the public sector and the population was seen as a key factor in improving Åland's digital maturity (Interviewees Å03 & Å05). Interviewees discussed the consequences of this digital debt, noting that, in terms of digital exclusion, there is a risk that Åland as a whole could be digitally excluded from neighbouring countries (Interviewee Å08). The consequences of this were noted by another interviewee: *"The entire society will become less competitive if other regions around us are much more digital. So, the vision is for Åland to be a highly digital society, but everyone living here must be able to use the services and feel that they benefit from using them, rather than it being a burden"* (Interviewee Å03).

The pros and cons of being a small community are evident in Åland. While the close-knit nature of the community can facilitate communication and support, it also means that resources and expertise are limited. In such a small society, people tend to know each other well, which fosters a sense of familiarity and trust. The small society means that communication channels to stakeholders or decision makers are short, making it possible to gather almost all the important stakeholders for a given topic in the same room (Interviewee Å02 & Å09). According to one participant, Åland's small size is advantageous, making it an ideal test bed for new initiatives due to its manageable size and quick communication channels. This flexibility and agility facilitate the implementation of new systems, digital solutions or policies (Interviewee Å04). However, in small communities like Åland, social control and a lack of anonymity can also hinder people from voicing their complaints in fear of stigmatisation. This leads to a form of social self-censorship, with potentially controversial topics not being discussed beyond familiar circles of trusted individuals. Despite the accessibility of local policymakers, there is a siloed

22. In this context, digital maturity refers to the extent to which individuals and institutions effectively use digital technologies and tools to enhance their daily activities, services and overall quality of life. It encompasses factors such as digital literacy, access to technology and the integration of digital solutions in various sectors like education, healthcare and governance.

atmosphere, where group-specific challenges are not brought constructively into the public discourse (Interviewee Å10).

Åland faces unique challenges and opportunities compared to mainland Finland with respect to digitalisation. One significant difference lies in the digitalisation efforts and the adoption of eID. While Finland has made considerable progress in the field of digitalisation, Åland has struggled to keep pace. This disparity is partly due to Åland's smaller size and limited resources, which make it challenging to develop and implement large-scale digital systems independently. This is compounded by Åland's digitalisation efforts being relatively new and a lack of dedicated staff to drive these initiatives forward until quite recently (Interviewee Å02 & Å03). Additionally, Åland's autonomy and the use of Swedish as its official language have sometimes led to challenges in directly adopting Finnish systems. Respondents note that Åland has faced challenges in integrating fully with these systems due to its legal, linguistic and administrative status (Interviewee Å02, Å03, Å05).

4.3.3 Solutions: Future-proofing eID access in a changing landscape

To address the challenges of eID and digital inclusion, several solutions have been implemented or proposed. Banks, as issuers of eIDs, provide digital support services. These services are available when opening a bank account or when registering for the bank's eID solution, providing assistance with any questions related to eID (Interviewee Å02).

Various identification methods and analogue services are still offered to ensure that those who cannot access digital services and solutions are not left behind. Many services requiring eID can still be accessed using analogue methods or other types of e-authentication. These include code charts with a code calculator (*kodtabell*), mobile certificates (electronic identifiers in a mobile phone's SIM card obtained from the mobile operator) and certificate cards (identity cards containing a citizen certificate or organisation cards containing an organisation certificate) used with a card reader and card reader program. These solutions and other types of e-identification options can be used for various purposes, such as accessing banks, online banking, tax services, insurance and handling public e-services like Suomi.fi (Interviewee Å02). Additionally, tasks such as banking can be done in person, although this depends on factors such as the availability of staff, opening hours and geographical locations.

Many interviewees emphasised the importance of maintaining alternative identification and login solutions, as well as analogue services, to ensure that everyone can access essential services, including those who cannot or do not want to use digital solutions (Interviewee Å02, Å06, Å07 & Å10). One interviewee noted, *"We are undeniably moving towards an increasingly digital world. However, it's clear*

that not everyone is keeping up with this development. Alternative or complementary options must still be offered to cover different needs" (Interviewee Å10). While Åland may adopt a "digital first" approach in the future, with digital solutions being the default, there remains the option to opt out of and use analogue methods (Interviewee Å03 & Å04).

ICT courses are provided to improve digital literacy and skills among the population. These courses are essential for increasing digital skills and are aimed at including all user groups in digital society, emphasising the importance of digital inclusion. For example, pensioner associations and other organisations provide training on using smartphones, tablets and computers, focusing on daily needs rather than advanced software (Interviewee Å03, Å09, Å12). However, interviewees noted the continuous need for ICT courses (Interviewee Å01). One initiative highlighted as beneficial was the effort to increase online safety and security. For example, banks or the police held information sessions on how to manage online banking and shop safely online (Interviewee Å01).

One future vision Åland is exploring is a single login portal for all public services in Åland, i.e. an Ålandic citizen portal, allowing users to submit applications and sign documents with their eID. This system is intended to be connected to Finnish services like Suomi.fi. According to the vision, digital services would become more accessible and efficient, reducing the need for physical visits and paperwork and creating a seamless digital experience for all residents, including those in remote areas (Interviewee Å03). The aim is for everyone to be comfortable using digital services, making Åland a mature digital society (Interviewee Å02). However, for this to occur, interviewees argue that more resources and initiatives are needed to help users understand and use eID and to increase digital competences overall (Interviewee Å01, Å06, Å10).

Libraries also play an important role in this regard, serving as low-threshold service points and meeting places in Åland, open to all members of society. Libraries play a crucial role in digital inclusion by providing access to the internet, digital devices, media and information courses and providing basic assistance with digital issues, helping users navigate the digital landscape and avoid the spread of false information. This support is vital for those who are not yet comfortable with digital technology (Interviewee Å09 & Å11). Interviewees argued that third sector organisations, libraries and community centres should receive funding for IT education, as this issue affects both older and younger populations. They emphasised the importance of creating more accessible places where users can receive assistance with digital services and receive training in digital skills (Interviewee Å01).

Involving user groups in the early stages of policy implementation or product development can prevent exclusion and ensure that services meet their needs. A dual focus on developing secure services and educating users to identify risks was seen as crucial (Interviewee Å04). As one interviewee underlined, "*It's essential to*

ensure that everyone has the skills and knowledge needed to participate in this digital society; we need to promote both education and awareness" (Interviewee Å08). User-friendly design is crucial to making digital services more accessible and easier to use and is therefore essential for digital inclusion. Projects must take account of accessibility for all user groups, including those with disabilities. This involves ensuring that digital interfaces are easy to read and navigate, with options to enlarge text and simplify complex forms. Banks and other service providers must comply with accessibility directives to avoid excluding users (Interviewee Å02 & Å04).

Future visions and plans include finding a secure digital mobile solution that is compliant and easy to use, as code tables will not be sufficiently secure (Interviewee Å04). As noted above, Finland is exploring plans for developing a state-issued eID. Åland is awaiting that decision and will see how it will fit into the Ålandic context (Interviewee Å02 & Å03). The pros and cons of a state-issued eID are being debated. A state-issued eID could provide a more standardised and secure identification method, reducing reliance on banks and ensuring broader access to digital services (Interviewee Å02 & Å04). It would allow for the development of government services without relying on banks, making it easier for users to access services. While some may prefer to use their bank for this purpose, a state-issued eID could simplify the process and reduce the number of steps required to obtain an eID. However, interviewees speculated that Ålanders would still prefer to have the option for a private bank-issued eID (Interviewee Å07).

Developing and maintaining a state-issued eID system could be costly and complex, especially for a small community like Åland. The majority of interviewees argued against Åland developing its own eID system, favouring the adaptation of a potential Finnish solution. There has been limited dialogue between Åland and Finland on developing a unified eID system, although recent legislative efforts in Finland may pave the way for better cooperation in the future. Adopting a Finnish eID solution and tailoring it to fit the Ålandic context was seen as beneficial and cost-efficient (Interviewees Å02, Å03, Å05, Å12).



Photos: Sigrid Jessen/Nordregio, Maud Lervik/norden.org

5. Discussion

While parallels can be drawn between the Faroese, Greenlandic and Ålandic cases in terms of their geographical “remoteness” and their political ties to Finland and Denmark respectively, the findings of this study reveal several crucial differences. These fundamental variations in approaches to eID adoption underscore differing inclusion implications and offer valuable insights into inclusive eID design, rollout and usage in smaller societies and across the Nordic-Baltic region. History, political ties and prioritisation form the structural foundation for understanding these findings.

Interoperability versus data sovereignty

The current and historical political links to Denmark and Finland respectively have been key factors in the rollout of eID solutions in the three societies. In the cases of Greenland and Åland, existing solutions have been integrated into local contexts without first undergoing comprehensive adaptation processes in terms of interface, functionality or the use of underlying technical organisational and legal frameworks, such as personal data registries. In Greenland, the Danish public eID system, MitID, was adopted, whereas in Åland, private providers offer the same eID solution to their customers as in mainland Finland. This enables seamless integration within the broader digital administration of the respective society, supporting concepts like the Only-Once principle, thereby streamlining administrative processes. Moreover, the use of existing systems enables Åland and Greenland to spare resources as no new digital infrastructure needs to be

developed from the ground up. However, this also means that the authority to make changes and adaptations, as well as control over personal data, lies with entities other than the local governments.

The Faroe Islands, by contrast, have implemented their own public eID system, Samleikin. However, leveraging external expertise has also been a key element in the successful development and implementation of the local eID infrastructure. The Faroese collaboration with Estonia on secure digital data exchange constitutes a crucial technological backbone of the Faroese eID ecosystem and reflects the political will and prioritisation of data sovereignty. The Estonian X-Road allows for secure data transfer between Faroese public entities, ensuring interoperability and data integrity (Hardy, 2024). The open-source nature of X-Road further means that the Faroese government incurred only limited expenses for implementation of this system.

Data sovereignty guarantees control over a political entity's own data, meaning that data are generated, collected, processed and stored locally in compliance with the local regulations. This is pivotal to protecting citizens' privacy and data security. In the case of smaller communities like in the Faroe Islands, Greenland and Åland, it minimises the dependence on, and possible interference from, external actors and expertise. Data sovereignty also fosters the notion of digital self-determination, placing the digital transformation process under the control of local authorities (Remolina & Findlay, 2021). This can facilitate the adaptation of digital solutions to local contexts and needs. In the Faroese case, the establishment of a personal data registry operating independently of the Danish system paved the way for Faroese data sovereignty. The decision to adopt an independent eID approach further supported this path, contributing to the wider independence efforts and debates in the Faroe Islands.

In Greenland, where independence debates have been ongoing and have gained complexity since the beginning of 2025 due to US interests in "acquiring" the territory, the use of the Danish MitID has reinforced existing ties with Danish authorities and administrative infrastructures. Insights from the study confirmed that the implementation and use of MitID was conducted in cooperation with the Danish Agency for Digital Government. In addition, from autumn 2024 onwards, more regular visits by Danish experts to Greenland have been planned to assist with the implementation of MitID, indicating a predominantly top-down process. While this approach facilitates communication, transactions and even movement within the Kingdom of Denmark, it does not support Greenlandic data sovereignty or a bottom-up development and integration process.

In the Faroese case, participants emphasised the benefit of their approach in terms of the ability to maintain close and direct contact with a range of user groups and learn from them. This approach fosters more democratic engagement in the rollout and further development of Samleikin, which is crucial for ensuring digitally inclusive processes. Participants from Åland highlighted a similar aspect, noting the

benefits of living in a small community where public authorities are able to gather all relevant local actors physically, streamlining communication processes. This is particularly relevant given that the future of a public eID system is still under negotiation in Finland and Åland. Like the Faroe Islands, Åland maintains its own personal data registry. However, due to the absence of a significant independence movement in Åland, the data sovereignty debate is of less relevance.

Tailoring digital solutions to local needs

The different approaches highlight the significant resources required for implementation of comprehensive digital transformation measures like the introduction of an eID system. In regions with limited economic capacity, political prioritisation of this area often comes at the expense of other fields, warranting careful consideration. However, the ability to adapt the system easily to local cultures, structures and needs, such as language and accessible support formats, can be vital to guarantee an inclusive rollout process and product. Particularly in the context of the introduction of eIDs, such local conditions are crucial considering the extensive everyday implications of eID usage. Compared to other recreational or administrative digital services, eIDs have become essential not only for identity verification to access, use, share and protect personal data – including health records and financial documentation – but also to apply for public financial support schemes and to communicate with public authorities more generally. This makes eID a key instrument for democratic engagement, safeguarding dignified living standards and other fundamental everyday tasks, however basic. This in turn underscores the importance of prioritising digital inclusion in the digital transformation, as neglecting it could have detrimental effects on certain population groups that might already be experiencing marginalisation in digital and other contexts due to factors such as age, language skills or disabilities, as indicated by this study's findings.

In the Faroe Islands, Samleikin has been developed with local conditions and interests in mind, resulting in the availability of a wide range of support solutions, including physical help desks, phone support, information evenings and a simplified way to access the scheme that is tailored to the needs of the island's large seafaring community. The Faroese approach is built on continuous efforts aimed at web accessibility and the involvement of a range of user groups to ensure that their needs are met. The integration of Samleikin and associated solutions has also been supported by the overall high digital maturity, particularly in terms of accessibility and skills, throughout the Faroe Islands. In addition, an extensive network of tunnels facilitates travel across the various islands, allowing for easier access to a range of physical support structures.

In the case of Greenland, the findings also indicated a lack of adaptation to local conditions. The interviews underlined various issues, including the lack or inaccessibility of coordinated support structures. As in Åland and the Faroe Islands,

most of the Greenlandic population resides in the capital region. This leaves the smaller and more peripheral archipelago islands and remoter parts sparsely populated, with poorer transportation links to local hubs. In Greenland, transport between towns and settlements is mainly limited to travel by air or sea, making it lengthy, expensive and potentially hazardous. Reports of having to undertake long journeys in harsh weather conditions to access physical MitID support were common. These issues make it particularly difficult for individuals with disabilities or limited socioeconomic means to obtain help. The small population, harsh weather conditions and difficult terrain not only negatively affect physical infrastructure but also digital connectivity, leading to high internet prices across Greenland. This particularly limits the ability of homeless and socioeconomically disadvantaged individuals to access the internet and benefit from eID use.

In addition to these geographical and (infra)structural challenges that disproportionately affect some population groups in the three case studies, further concerns specific to individual groups need to be identified and addressed to facilitate an inclusive eID rollout. While these differ from case to case and are highly context-specific, they also show certain parallels. For instance, physical impairments were mentioned several times as barriers for individuals with disabilities across all three case studies, with one Ålandic participant highlighting the need for tactile abilities to use an app as a key barrier. In both the Greenlandic and Faroese cases, concerns were raised related to the availability of translations. For instance, the MitID application is only available in Danish and English, with only very limited content translated into Greenlandic, affecting accessibility for members of the Greenlandic society who only speak Greenlandic. In the Faroe Islands, individuals who do not speak Faroese, Danish or English struggle with the use of Samleikin. In Åland, other accessibility obstacles included the requirement to have a bank account to obtain an eID – posing a barrier for homeless or socioeconomically disadvantaged individuals – or a lack of trust in digital services among older individuals.

The notion of trust emerged as a key theme in various contexts. In the close, tight-knit social structures of small communities, such as in Greenland, the Faroe Islands and Åland, both family networks and the population's relationship with the local government were seen to play an important role in the rollout and adoption of eID solutions. In both the Faroe Islands and Greenland, reliance on family members to access, understand and use the respective eID solutions was noted by several participants. As outlined in the "Findings" section of this report, such networks can provide crucial support but can also affect individual privacy. Some participants described controlling behaviour by relatives or partners, while others highlighted a silencing effect in the rollout and development process of eID solutions, driven by fear of stigmatisation within a small society. This underlines the importance of considering social dynamics in the design and acceptance of technology in small (island) societies differing from urban contexts.

While the identified challenges and barriers, as well as the solutions, are diverse and situational, they also reveal more substantial structural challenges that act as bottlenecks to inclusive eID accessibility in the Faroe Islands, Greenland and Åland. A lack of local influence and control, as in Greenland, can render adaptation to these challenges difficult. The reported and observed barriers underscore the need to treat digital inclusion as a starting point rather than an afterthought, ensuring inclusive access from the beginning in an anticipatory and participatory manner.

Concluding remarks

These highly contextual challenges suggest that there is no “one-size-fits-all” solution to eID rollout and usage. Specific cultural and socioeconomic realities, along with different population groups and their requirements, need to be taken into account to ensure inclusivity and access to support, making copy-paste solutions without adaptation to local contexts unfeasible at best and harmful at worst. The findings of this project have shown that citizen involvement and comprehensive support infrastructures that take account of different needs and abilities are crucial in the inclusive rollout of eID solutions. Furthermore, analogue solutions are essential, especially during the transition phase of the digital transformation, when not all members of society can be considered “digital natives”. In the multilanguage societies of the three cases studied, translation services have also emerged as pivotal to offering services that are equally accessible to a broad cross-section of society, including immigrants.

The varying conditions of the three societies in question have shown that local circumstances significantly influence the extent to which these solutions can be implemented. Improvements depend on external factors such as political mandate, economic feasibility, expansion of digital connectivity and physical infrastructure. These factors cannot be addressed solely within a digital inclusion policy. Rather, they must be considered during the development of solutions aimed at making eID systems more accessible to individuals and groups that are “digitally at risk”.



Photo: Lachlan Gowen/unsplash.com, Getty Images/unsplash.com

6. Conclusion

This study aimed to understand how eID is being rolled out in smaller societies and the barriers to and solutions for doing so in an inclusive manner. Through in-depth fieldwork in the Faroe Islands, Greenland and Åland involving 50 interviewees, the report identified differences in the challenges the three societies are facing and in possible solutions for a more inclusive eID rollout. The participants represented various public and private institutions that are either working on rollout of eIDs systems or with population groups that are at risk of being excluded from the digital transformation due to a range of socioeconomic and physical factors.

The data from this study revealed several context-specific barriers, underlining the critical importance of engaging with local stakeholders and thoroughly understanding the needs, concerns and digital capabilities of the respective populations. Such bottom-up development serves to ensure that implementation of eID systems benefits all groups in society. These considerations and consultations should be prioritised at the outset of the design and implementation process rather than being treated as an afterthought. The findings of this report have shown that delayed adaptation can negatively impact individuals' livelihoods, especially as eIDs become essential for accessing public support systems.

The following key takeaways summarise what can be drawn from this study and link these insights to policy recommendations aimed at ensuring a more inclusive rollout of eID solutions in the Nordic-Baltic region:

- **National differences:** The Faroe Islands, Greenland and Åland are at very different stages in the eID rollout, each with a unique and context-specific set of challenges and potential solutions. The approaches taken reflect the respective political ties, legacies and priorities.
- **No one-size-fits-all solution:** It can be helpful to gain international inspiration and collaborate with other countries. However, it is essential to consider the national, regional and local context when developing and implementing the eID. This requires engagement with relevant local stakeholders and understanding the needs, concerns and digital capabilities of the population and the organisations in question.
- **Digital inclusion as a starting point:** Digital inclusion should not be an afterthought but rather incorporated into the planning process of the eID rollout. However, different societies will have different opportunities for the inclusive rollout of eID depending on factors such as their mandate, digital maturity, geography, economic capacities and demographic composition.
- **User involvement:** When involving local stakeholders in the development and implementation process, it is essential to include NGO/civil society actors to ensure that the voices of otherwise underrepresented groups – such as homeless individuals – are heard.
- **Analogue options:** Analogue options should remain available as long as there are population groups that struggle to access and effectively use digital services and devices due to factors including a lack of skills and access to the necessary hardware or software.
- **Trust in the public sector:** Trust in the public sector is a crucial element for the successful rollout of eIDs and can be fostered through transparency.
- **Accessibility:** It is important to ensure that eIDs are accessible across a range of devices, in languages that are relevant and readily understandable to the users, and compliant with web accessibility guidelines and standards.
- **Inclusive registration standards:** Registration requirements should be designed to take account of the circumstances of a range of population groups, including immigrants, to ensure that public information and services are accessible to all.
- **Physical help:** In-person, physical help should be widely available, aligned with the needs of different population groups and easily accessible irrespective of location. Information on where such help is available should be easy to find.
- **Responsibility:** It should be ensured that public institutions and related entities clearly understand their respective roles in the eID rollout. Close collaboration and an efficient division of tasks are particularly beneficial in smaller societies.

- **Data security and privacy:** Measures should be taken to ensure that personal data are protected to the highest possible standards. In addition, digital fraud, exploitation of digital illiteracy and coercive digital control in close relationships should be addressed through awareness campaigns and appropriate support services.
- **Inclusive foundations:** Ongoing efforts should be made to meet the basic prerequisites of inclusive eID usage, including affordable and stable internet connectivity, as well as high digital literacy among all segments of the population, supported by measures including training programmes.
- **Motivation for adoption:** Ensuring that the use of eIDs simplifies everyday tasks in remote areas (e.g. by reducing the need for frequent travel for administrative purposes) and effectively communicating these advantages can support and facilitate the rollout and adaptation of eIDs.

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Appendix A

List of interviewees

	ID	Sector	Site	Chronology
1	FI01	Digital Governance	Tórshavn and Klaksvig, Faroe Islands	18-22 March 2024
2	FI02	Digital Governance		
3	FI03	Digital Governance		
4	FI04	Digital Governance		
5	FI05	Digital Governance		
6	FI06	Banking		
7	FI07	Civil Society		
8	FI08	Civil Society		
9	FI09	Civil Society		
10	FI10	Civil Society		
11	FI11	Public Administration		
12	FI12	Public Administration		
13	FI13	Migration Services		
14	FI14	Migration Services		
15	FI15	Local Government		
16	FI16	Ethical Oversight		
17	FI17	Local Government		
18	FI18	Local Government		
19	G01	Digital Governance	Online	19 September 2024
20	G02	Civil Society	Nuuk, Greenland	22 September to 1 October 2024
21	G03	Banking		
22	G04	Local Government		
23	G05	Civil Society		
24	G06	Regulatory Authority		
25	G07	Higher Education		
26	G08	Public Knowledge Services		
27	G09	Civil Society		
28	G10	Data and Statistics		
29	G11	Civil Society		
30	G12	Civil Society		
31	G13	Civil Society		
32	G14	Civil Society		
33	G15	Banking		
34	G16	Public Administration		
35	G17	Telecommunications Industry		
36	G18	Civil Society		
37	G19	Digital Governance		
38	G20	Civil Society	Online	19 November 2024
39	Å01	Civil Society	Mariehamn, Åland	26 February to 1 March 2024
40	Å02	Digital Governance		
41	Å03	Public Administration		
42	Å04	Fintech Company		
43	Å05	Business Organisation		
44	Å06	Civil Society		
45	Å07	Civil Society		
46	Å08	Local Government		
47	Å09	Public Administration		
48	Å10	Civil Society		
49	Å11	Public Knowledge Services		
50	Å12	Higher Education		

About this publication

Digital identity for all?

Barriers and solutions for an inclusive eID rollout in the Faroe Islands, Greenland and Åland

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www.nordregio.org/projects/digihub/

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