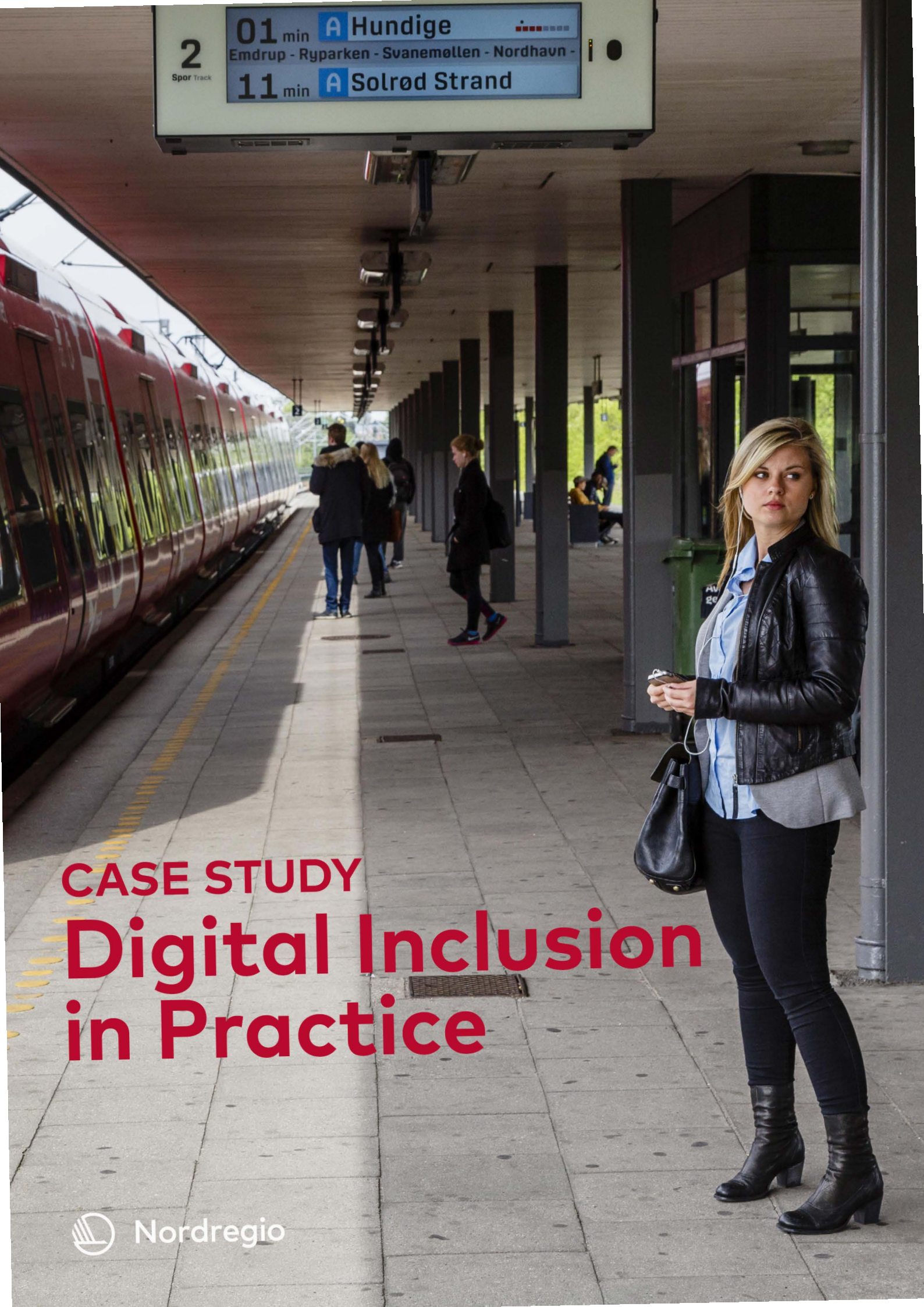

CASE STUDY

Digital Inclusion in Practice

Nordregio

Case study: Digital inclusion in practice

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nextpuzzle

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Table of Contents

Executive summary

The digital transformation in public services has reshaped how citizens engage with essential services. Many Nordic and Baltic countries are engaged in efforts to promote digital inclusion and are considering various initiatives. However, across all countries, there is generally a lack of knowledge about the effectiveness of initiatives to improve digital inclusion. The purpose of this case study is to gather knowledge about the effects of different kinds of efforts from numerous initiatives. It has been the objective of this case study to analyse an organisation that has worked ambitiously with digital inclusion and has gained experiences that other organisations, other sectors, and other countries can use. An example is Denmark's public transport system. Rejsekort & Rejseplan A/S (hereafter RK), Denmark's national e-ticketing system, has been critical in facilitating seamless travel across the country's various transport modes. With an increasing demand for digital services and the need to enhance user experience and operational efficiency, RK has launched a new app-based solution as part of its broader digitalisation strategy. This case study examines RK's journey in balancing digital innovation with the imperative of digital inclusion, providing valuable insights for other sectors and regions in the Nordic and Baltic countries.

The study demonstrates that achieving digital inclusion requires a nuanced strategy, and in this case, including an alternative solution to the standardised and digital app solution that addresses the specific needs of vulnerable user groups, including older adults and people with disabilities. RK's initiatives to support these groups included creating a comprehensive feedback forum, early and continuous engagement with user organisations, extensive user research, and strategic collaboration with the Agency for Digital Government. Together, these steps ensured that RK's digital transformation reflected not only technological progress but also accessibility and inclusiveness.

In developing the Rejsekort app (e-ticketing app), a primary goal was to ensure that the solution met regulatory requirements and user needs. The phased rollout included several pilot tests with a representative sample of users to identify technical and usability challenges early, allowing RK to refine the app before a broader release. By adapting the app and adjusting user communication in response to user feedback, RK was able to enhance user satisfaction and accessibility, a priority given the public importance of transportation services.

A key strategic consideration has been balancing RK's business goals – such as cost efficiency and increased adoption of digital solutions – with its social responsibility to ensure accessibility for all citizens. RK's unique ownership structure, comprising multiple public transport operators, underscores this dual responsibility, ensuring that decisions around digital transformation serve both commercial and societal interests. This has involved developing a non-app-based, physical alternative solution

for users unable to access the app, demonstrating transport operators' and RK's commitment to inclusivity even when it adds complexity and cost.

The case study highlights several best practices in digital inclusion that could benefit similar initiatives across the Nordic-Baltic region. These include leveraging existing knowledge on digital inclusion, maintaining continuous engagement with user groups, conducting pilot testing to mitigate implementation risks, and supporting users throughout their journey with accessible onboarding and customer support. Additionally, RK's experience reinforces the importance of internal organisational readiness – building competencies in areas such as UX design, digital accessibility, and data-driven decision-making is crucial for delivering inclusive digital solutions. Lastly, without sustained leadership focus, these initiatives risk losing internal traction, underscoring the critical role of leadership in fostering organisational readiness and driving impactful outcomes.

RK's experience with digital inclusion offers valuable lessons for other Nordic and Baltic organisations, especially as they navigate similar digitalisation and transformation projects. The emphasis on balancing economic objectives with social responsibility, addressing varied user needs through flexible solutions, and fostering an organisational culture of inclusion provides a model for advancing digital public services in an inclusive manner.

1 Introduction

Digitalisation has transformed numerous aspects of modern society, including public services such as transportation. In the Nordic and Baltic countries, where digitalisation is advanced, there is a strong focus on ensuring that the benefits offered by digital technologies are accessible to as many citizens as possible. This emphasis on digital inclusion is central to Nordregio's research programme, "Digital Inclusion in Action," which aims to support an inclusive digital transition in Nordic-Baltic societies by fostering collaboration, dialogue, and knowledge-sharing among practitioners and policymakers.

One of the objectives of this research programme is a case study focused on the private sector, intended to contribute to a better understanding of the dilemmas faced by private companies responsible for supporting groups at risk of digital exclusion. Nordregio's research programme recognises that while digitalisation offers substantial opportunities, there is also a risk that certain population groups may be excluded unless targeted measures are taken to promote inclusion. Concurrently, within the Nordic-Baltic collaboration and among individual countries, there is growing recognition that although considerable knowledge has been gathered about the challenges of digital inclusion, there remains insufficient understanding of the specific initiatives and actions that may bring us closer to achieving digital inclusion. This recognition of the need for more knowledge on the practical aspects of digital inclusion underpins the work of this case study.

1.1 Purpose of the case study

This case study aims to gather knowledge about specific actions taken to promote digital inclusion within a selected organisation in a particular part of the private sector. Additionally, it aims to generate insights that can be generalised based on relatable experiences so that other sectors—public and private—in other countries may benefit from this work. Accordingly, the study focuses on identifying and understanding the potential barriers to digital inclusion that digital transformation can entail and gathering insights into the strategic considerations and practical measures this has required.

While significant efforts have been made among public authorities in the Nordic and Baltic countries to gather and share experiences in working with digital inclusion, there has been less focus on drawing insights from the private sector and applying them in the public sector. This case study focuses on that aspect.

Rejsekort & Rejseplan A/S (hereafter RK) in Denmark (Denmark's national e-ticketing system) serves as an example of a transport solution currently undergoing digital transformation. RK has made significant strides in digital inclusion, making it a relevant case study for examining digital inclusion in practice. RK was selected as a case within Nordregio's research programme because it represents a critical service in Danish society, where access to public transportation is essential for citizens' mobility and participation in societal life. Studying RK provides insights into the broader challenges and opportunities that arise when private and public services are digitalised and how inclusion can be ensured in this process.

This case study can support knowledge and learning that will inform future efforts and strategies in the Nordic and Baltic countries regarding the digital transformation of services for citizens/users. In this way, other countries and regions in the Nordic-Baltic area can benefit from the insights gained, strengthening the collective understanding of specific initiatives for digital inclusion, an area where knowledge remains limited across the Nordic and Baltic countries.

1.2 Overall approach

The case study on RK's digital transformation is based on a multifaceted method that combines strategic document analysis, interviews with key stakeholders, and the involvement of user organisations. This approach ensures a comprehensive understanding of the challenges and opportunities that arise from the digitalisation of public transport, with a particular focus on digital inclusion.

As part of the study, an analysis of strategic documents and other relevant materials from RK was conducted. This includes the company's internal strategies for digital transformation, plans for implementing the Rejsekort as an app, and documentation of measures taken to ensure digital inclusion. Analysis of these materials has provided insights into the considerations and decisions shaping the development and implementation of the Rejsekort app and how RK has balanced business objectives with social responsibility to prevent exclusion of any user groups.

In-depth interviews were conducted with senior managers and staff at RK to complement the document analysis. These interviews focused on understanding the strategic choices and implementation decisions made throughout the process and gaining insight into the challenges RK encountered along the way. The interviews also explored how RK pursued digital inclusion goals, and how user feedback has been incorporated into the app's development, and the creation of an alternative user solution to the app, tackling digital exclusion.

A key component of the case study's methodology involved collaboration with user organisations, namely Disabled People's Organisations Denmark (in Danish, Danske Handicaporganisationer) and daneage Association (in Danish, Ældre Sagen). Interviews with representatives from these organisations provided valuable insights into the challenges faced by their members concerning the digitalisation of public transport. They, furthermore, offered perspectives on their involvement in RK's work on digital inclusion.

By combining analyses of strategic documents, interviews with key staff, and insights from user organisations, the case study has enabled an understanding of how RK has navigated between technological innovations and the need for digital inclusion and how various stakeholders have contributed to this process. Through this method, the case study has identified specific learning points and best practices that can be applied across other contexts, sectors, and countries.

A list of information sources is provided at the end of this report. RK has approved this level of source citation.

2 Justification for case selection

Different factors underlie the choice of area for a case study on digital inclusion. One criterion was to examine a private market where citizens are compelled to purchase a company's products. In fields where citizens cannot avoid purchasing essential services such as electricity, water, and transportation, typically managed by utility companies, the situation mirrors that of the public sector. Consequently, there is a risk of digital exclusion similar to that observed in the public sector. **Thus, a relevant case would be a company where citizens are, to a significant extent, obliged to purchase its products.**

Considerable knowledge has been accumulated regarding approaches to digital inclusion within public sectors across various countries, particularly through work carried out under the auspices of the Nordic Council of Ministers and Nordregio. However, there has been very limited research into the types of digital inclusion initiatives undertaken within the private sector. In addition, public sectors frequently express a need for further knowledge, especially about the effectiveness of various interventions, with a focus on impact evaluations and shared experiences. Due to the limited body of knowledge regarding digital inclusion within the private sector, it remains unclear whether any initiatives, activities or even conceptual frameworks could be transferred from the private to the public sector, thereby benefiting public sector practices. This supports the notion that there is a need to collect inspiration and concrete, experience-based knowledge about private sector interventions and their effects wherever they may be found. **A relevant case would be a company that has systematically pursued knowledge gathering and initiatives to advance digital inclusion at a high level, compiling insights into methods and outcomes that may serve as an inspiration for the public sector.**

2.1 Reasons for selecting the Digital Rejsekort as an app as case

Rejsekort is an electronic ticketing system for public transport in Denmark, operating within a market with very limited competition. Public transport and its ticketing solutions are essential services that are widely utilised by the population, making it challenging for people to avoid using public transportation. **As such, citizens are generally required to purchase the service.**

RK, the company behind Denmark's digital ticketing solution (Rejsekort as an app) for public transport, has in September 2024 launched a digital version to a significant part of their customer base that is expected to replace the current physical travel card (Rejsekort as a card). The new app will enable users to check in and out via mobile phones. This Rejsekort as an app will have a significant impact on user behaviour, including that of specific citizen groups/users at risk of digital exclusion. RK has been actively engaged in digital inclusion initiatives, which could potentially offer valuable lessons for other service areas. It is evident that the company has taken digital inclusion seriously, integrating this objective into its operational practices. Furthermore, our preliminary desk research shows that RK has undertaken concrete initiatives that may serve as a source of inspiration for other companies and, likely, the public sector. Overall, our research reveals that RK has employed interesting methods and acquired valuable experiences, which could be condensed and shared across the Nordic and Baltic countries as a source of

inspiration. **We can conclude that RK is a company that has systematically engaged in knowledge gathering and initiatives to promote digital inclusion at a high level, collecting insights on methods and effects that can serve as inspiration for the public sector.**

RK is a central element in Danish public transport, with broad applicability across various transport modes and regions. The shift from a physical plastic card to a digital, app-based solution exemplifies the broader digitalisation process underway in society and the challenges that arise in its wake. RK's efforts to include as many user groups as possible, regardless of their technological proficiency, make it a critical study subject for understanding the initiatives taken to advance digital inclusion in public transport and other service and user solutions within the private and public sectors.

Through the case of RK, we gain insights into how technological innovations can both enhance accessibility and risk creating barriers if all user needs are not addressed. The focus of this case study will be on the lessons that can be drawn and transferred to other sectors and countries, including the Nordic and Baltic countries. For instance, both Finland, with its Whim app[1], and Estonia, with Pilet.ee[2], which focus on mobility (e-ticketing and journey planning) within public transport, could potentially benefit from RK's experiences, particularly regarding the inclusion of elderly and disabled users.

2.2 Digital inclusion and public transport

The digital evolution within public transport has transformed how users interact with and utilise transport services. With the introduction of digital solutions, such as apps for ticketing and journey planning, new opportunities have arisen alongside challenges, particularly concerning digital inclusion.

Public transport is an essential service that should be accessible to as many citizens as possible. The digitalisation of transport services aims to improve user-friendliness, make journey planning easier, and reduce operational costs. From a user's perspective, this development means that transport services can now be accessed directly from smartphones, making the travel experience more flexible and efficient. For most users, these digital solutions represent an advancement in convenience and information access. However, digitalisation can present significant barriers for certain user groups, potentially leading to exclusion from essential societal functions. Without a focus on digital inclusion, certain groups risk being left out of these crucial services, with potentially severe consequences for their mobility and quality of life.

There are several user groups at risk of exclusion from digital solutions in public transport, including:

- **Older users:** Many older individuals have limited skills and experience with digital technologies and may find it challenging to navigate apps or digital services. The complexity of new technologies can lead to frustration and insecurity, which, at worst, may discourage them from using public transport.

[1] https://maasification.com/applications/by-application/whim-maas-global/
[2] https://pilet.ee/cgi-bin/splususer/splususer.cgi

- **People with disabilities:** Users with physical and/or cognitive disabilities may have specific needs that are not always met by digital solutions. For example, visually impaired users may rely on screen readers that are not always fully supported in apps, while individuals with motor difficulties may find touch screens difficult to use effectively.
- **Citizens without smartphone access:** Not all citizens have access to a smartphone, or having an older smartphone, making digital solutions like apps inaccessible to them. This may be due to financial reasons, personal preference, or a lack of trust in digital technologies.

When digital solutions, such as apps and online ticketing, replace traditional methods, it can create a series of challenges for those who are unable or unwilling to adapt to these new technologies. For these vulnerable groups, exclusion from digital services can mean losing access to public transport. This may significantly reduce their mobility and make it difficult to maintain daily routines, such as attending medical appointments, visiting family, or participating in social activities. Social isolation may become a direct consequence, leading to poorer mental and physical health. Furthermore, reliance on "helpers," whether professionals or family/friends, may cause stress and frustration for the individual and heighten the risk of exclusion from the labour market, education, and other essential aspects of societal life.

Overall, digital exclusion can result in certain groups in society losing their freedom and autonomy, thereby undermining their equal participation in society. This underscores the particular need to work towards digital inclusion in this area.

3 Rejsekort as an App

The Rejsekort app was launched through a carefully planned, gradual implementation process to ensure a smooth transition from the existing plastic card solution to the new digital version. The phased implementation of the Rejsekort app was carefully structured, starting with initial pilot testing, which took place in North Jutland and Copenhagen during the winter of 2022-2023, allowing for a deeper understanding of the transition process and enabling better planning and requirement-setting. This was followed by a beta test from January to March 2024 involving older adults and individuals with disabilities. During this phase, journeys were free of charge to encourage participation and gather feedback. Finally, a Minimum Viable Product (MVP) was rolled out between April and August 2024 to a limited user group, where standard fares applied but without discounts for older adults or people with disabilities, resulting in their limited participation at this stage. This gradual implementation ensured that the app was tested by a broad population sample, making it possible to identify and address potential issues before the app was made available for all.

After receiving and analysing feedback from pilot users, necessary adjustments and improvements were made to the app. By mid-2024, the implementation had expanded from 20,000 users to an additional 40,000 users (60,000 in total). The phased implementation process also emphasised the importance of refining efforts to address areas where users encountered challenges or required support, ensuring the app was intuitive and accessible. Additionally, to alleviate concerns from some users, a focus on user data minimisation was incorporated, enhancing trust in the platform. Efforts were also directed towards preparing the app for new user groups, such as pensioners, to ensure inclusivity and relevance across diverse demographics.

This phased implementation enabled RK to minimise risks and continually adjust the app based on experiences from each phase. As a result, the final nationwide launch, which took place on 4 September 2024, was conducted with high confidence in the app's stability and user-friendliness. The implementation process highlighted the importance of rolling out a new digital solution in controlled stages to address any challenges proactively and effectively. The implementation has been rolled out to adults and pensioners (a significant part of the customer base), with the expectation that the app will replace the existing plastic card as the primary method for managing public transport journeys. It should be noted, however, that the Rejsekort app does not yet include all features; for instance, discount schemes for people with disabilities have not yet been integrated into the app. Work on addressing the needs of this important user group is, therefore, still ongoing. This gradual app implementation may also provide valuable lessons for the Swedish transformation project, ubigo, seeking to expand digital mobility across Sweden.[3]

To ensure a successful rollout, RK plans to continue gathering user feedback and making ongoing adjustments to the app's features and user interface. This also includes a sustained effort to engage with vulnerable user groups to ensure their needs are met throughout the implementation process.

[3] https://www.energimyndigheten.se/en/cooperation/sustainable-nordic-cities-with-focus-on-climate-smart-mobility/activities-and-documentation/mobility-as-a-service--experiences-from-the-nordic-countries/

3.1 Background and Objectives of the Rejsekort app

The development of the Rejsekort app is part of a broader digitalisation strategy within the Danish public transport sector. For many years, Rejsekort as a card has been central to Denmark's public transport ticketing structure, providing a physical travel card for seamless payment and journey registration across various transport modes. However, this solution has shown limitations, especially with increasing digitalisation and evolving user preferences. Originally, Rejsekort as a card was introduced to simplify fare payment for citizens and commuters without needing physical tickets for each journey. While effective, the system has increasingly revealed a need for modernisation as society transitions towards digital solutions. Traditional plastic cards and physical check-in stations require maintenance and support, resulting in substantial operational costs and logistical challenges.

Currently, the card version of Rejsekort functions as a plastic card usable across all forms of public transport in Denmark, including buses, trains, the metro, and light rail. Users check in at the start of their journey and check out at the end, with the fare automatically deducted from the card's balance. Users can top up their cards online, at ticket machines, or through subscription services.

Despite its widespread adoption, the current Rejsekort as a card has encountered challenges. Users have frequently expressed frustration over the need to remember to check out after each journey and change check-in during journeys. Additionally, the card's reliance on physical check-in stations that require regular maintenance poses a source of potential errors and delays for users. Given the growing prevalence of smartphones and digital payment methods, there is a natural need to modernise Rejsekort as a card into a more streamlined digital solution.

The primary objective of the Rejsekort app is to modernise and digitalise the existing ticketing infrastructure, resulting in a more user-friendly and cost-effective solution for both users and operators. The app aims to give users greater flexibility by allowing them to manage their journeys directly from their smartphones. This includes options for purchasing tickets, tracking travel history, and easily adjusting travel plans.

Another core objective has been to ensure that the shift to a digital solution does not lead to exclusion among citizens who may face challenges in using digital technologies. To this end, RK has prioritised digital inclusion, initiating measures to make the app accessible to as many users as possible.

Overall, the Rejsekort app represents an important component of the digital transformation within Danish public transport, aiming to ensure a more efficient, flexible, and inclusive ticketing solution for future users.

3.2 RK's Strategy for app development

RK's strategy for developing the Rejsekort app has been closely aligned with the legislation and regulatory requirements that apply to public services in Denmark. Legislation has directly influenced how RK has structured its strategy for the existing plastic card solution and the forthcoming digital app solution. The legal framework governing RK includes laws related to transportation and payment systems, as well

as regulations concerning the collection and handling of personal data, and now also requirements regarding web accessibility.

The original strategy for RK was heavily focused on providing a solution that could meet the needs of a broad user base, from commuters to tourists. The plastic card was designed to be robust, easy to use, and compatible with various technological platforms, such as ticket machines and check-in terminals. However, as digitalisation has increased and user preferences have shifted, RK has adapted its strategy to accommodate a new reality where smartphones and digital services are more prominent. The most significant regulatory framework for RK is Act on Amendments to the Act on Public Transport Companies and the Railway Act[4], stipulating that RK shall operate and develop an electronic travel card system. Another significant regulatory shift has been an emphasis on meeting the requirements of the "Act on Accessibility of Public Sector Websites and Mobile Applications," [5] which aims to make it easier for people with disabilities to use public websites and mobile applications.

The app strategy has been to create a digital counterpart to the plastic card and expand functionality and accessibility. This includes requirements that the app be compatible with assistive technologies for disabled users, such as screen readers, while ensuring a high user-friendliness level for all age groups. RK has also collaborated closely with relevant authorities to ensure the app complies with data protection requirements outlined in the Data Protection Act.[6]

Thus, RK's strategy has evolved from a primarily physical solution to a digital one. As a private sector solution with a broad public ownership structure, RK continues to meet the regulatory requirements for digitisation, inclusivity, and standardisation, now with a stronger emphasis on flexibility, usability, accessibility, and data protection.

3.3 Ownership structure of RK

Rejsekortet (both as a card and app) is a solution developed and operated by RK, a private company owned by several Danish public transport operators. The ownership primarily includes the largest players in Danish public transport network, such as DSB, Movia, Nordjyllands Trafikselskab (NT), fynbus, Sydtrafik, and Midttrafik. These owners represent a broad spectrum of public transport providers operating across various regions in Denmark. This ownership composition has significantly influenced RK's strategy development. As owners, the public transport companies have had a dual role in ensuring that they function both as an efficient, user-friendly ticketing solution and as a means of fulfilling overarching political and social objectives related to accessibility and digital inclusion. This balance between business objectives and social responsibility has been central to RK's strategy development.

The broad ownership base has ensured that strategic decisions regarding RK's development have been anchored in a broad public interest. This structure has also

[4] https://www.retsinformation.dk/eli/lta/2019/206
[5] Act 692 of 08/06/2018. https://www.retsinformation.dk/eli/lta/2018/692
[6] The Act supplements the rules in the General Data Protection Regulation, Regulation (EU) 2016/679 https://www.retsinformation.dk/eli/lta/2018/502

meant that decision-making often requires close coordination among the various owners to ensure that regional and local considerations are reflected in the overall strategy. For example, the decision to develop the Rejsekort app was driven by a shared understanding among the owners of the need to modernise and digitalise the ticketing solution to align with changing user preferences and technological trends. At the same time, the ownership group has been mindful of the challenges of full digitalisation, particularly regarding digital inclusion.

It is likely that the owners' public sector background—and the associated attention to social and "political" considerations—has resulted in RK placing greater emphasis on ensuring accessibility and inclusion in its solutions.

3.4 The non-app-based solution – "The alternative solution"

In developing the Rejsekort app, RK recognised that it is not possible to create an app solution that suits all users. Therefore, it is necessary to provide a solution that meets the needs of users who cannot or prefer not to use a digital platform. Given RK's societal responsibilities, it has not been an option to omit a travel solution for the "non-digital" segment of citizens. For commercial reasons, it has also been in RK's interest to ensure that no groups of travellers are excluded. The alternative solution, often called the "non-app-based solution", is currently under development. At this point, an alternative solution has been decided upon, closely resembling the existing system. This approach ensures a level of familiarity for users by maintaining the current "check-in and check-out" functionality using physical card readers. The solution follows a "pay-as-you-go" model, where users tap their travel card on a reader at the start of their journey when switching between different modes of transport, and upon completing their trip. This continuity not only supports users accustomed to the existing system but also enhances accessibility for those who may prefer or require a non-digital option.

The alternative solution is a central element in RK's overall strategy for digital inclusion. By providing a physical option that operates alongside the digital app, RK can ensure that all users—regardless of digital proficiency—can access public transport. This approach meets society's requirements for equal treatment of citizens. It aligns with both national and international standards for digital accessibility, which emphasise the importance of preventing digitalisation from leading to inequality or exclusion.

By implementing this alternative solution, RK can retain its user base, ensure customer satisfaction, and fulfil its social responsibility to guarantee that no citizen is excluded from public transport due to lack of access to digital solutions. The non-app-based solution demonstrates how RK balances modernisation with inclusion and underscores its understanding that digitalisation is not an end in itself but a means to improve accessibility and service for the widest possible user base.

This alternative, non-app-based solution is expected to be deployed in late 2025.

4 Initiatives to foster digital inclusion

The development of the Rejsekort app has required a range of targeted initiatives to ensure that the new digital solution meets both technical standards and users' needs, thereby promoting digital inclusion.

This chapter first presents the initiatives RK has launched to address digital inclusion in developing and implementing the Rejsekort app. It then describes the organisational adjustments RK has made to support these efforts. Finally, it includes perspectives from user organisations on RK's work towards digital inclusion.

4.1 Initiatives supporting inclusion

RK has launched several initiatives aimed at identifying and addressing potential barriers faced by various user groups and developing an accessible, user-friendly, and inclusive app. Additionally, it is developing an alternative solution for citizens unable to use the app. This section describes the primary initiatives undertaken to promote digital inclusion and the considerations and outcomes associated with each initiative.

1. **Gathering existing knowledge and experiences on digital inclusion**

   Description: RK drew on existing knowledge and expertise from both internal and external sources, including collaboration with Movia, which had already begun to adopt an inclusion perspective. RK also consulted with the Agency for Digital Government, which has significant experience in implementing public digital infrastructure and working with vulnerable groups, including engaging representatives of these groups. The Agency for Digital Government also led the development of *Principles for Digital Inclusion* to guide public authorities in this work.[7] One of the cases included in these joint public principles comes specifically from RK's work on digital inclusion.

   Considerations: This initiative was prompted by the awareness that a significant portion of the population, particularly older individuals and people with disabilities, might face challenges using a digital solution. Additionally, despite RK's experience with user journey mapping and user-focused design, it was deemed beneficial to approach digital inclusion as a specialised discipline and build upon the knowledge and concrete experiences others had already gained.

   Outcome/expected outcome: Starting with a foundation of existing theoretical and practical knowledge proved advantageous. This approach helped identify early on which user groups might face challenges with a Rejsekort app. Moreover, RK Established a reference group, ensuring that user perspectives directly informed the development of the Rejsekort app and the alternative solution. The reference group was inspired by *the digital inclusion network* established by the Agency for Digital Government.

[7] https://digst.dk/digital-inklusion/principper-for-digital-inklusion/

2. User studies and persona development

Description: In 2023, RK conducted extensive user studies to identify user segments and their specific needs. These studies resulted in the development of personas representing different user groups based on in-depth interviews, observations, and analyses of travel habits, technological understanding, and digital skills. These personas were then used in the design of the user onboarding processes and in the design of the alternative solution to the Rejsekort app.

Considerations: The user studies and persona development were initial steps in RK's overarching strategy to launch a user-friendly app for all, regardless of digital proficiency. Understanding the specific needs and challenges of different user groups allowed RK to acquire and develop a solution that would meet the needs of as many people as possible. This approach also aimed to reduce the risk of public criticism and resistance by focusing on broad accessibility.

Outcome/expected Outcome: The personas provided valuable insights into digitally proficient user groups, enhancing the understanding of those who struggle with the app but can be supported. This informed a continued focus on user-friendliness and accessibility in app development and targeted communication tailored to this group's needs.

3. Establishment of the Forum for Digital Inclusion On the Go

Description: In 2022, RK established the Forum for Digital Inclusion On the Go, which brought together representatives from user groups, including the daneage Association, Danske Seniorer, the Dementia-Friendly Society, Disabled People's Organisations Denmark, the Danish Association of the Blind, Autism Denmark, Lev, KL (Local Government Denmark), the Library Network for Digital Inclusion, Movia, and DSB. The forum aimed to identify and discuss challenges that different user groups might face in the digitalisation of Rejsekort as an app and the alternative solution. Through regular meetings and workshops, the forum ensured that the needs of these groups were considered in the app's development. The forum also evaluated the alternative solution for those likely to face difficulties using an app-based system. The forum remains active and will continue throughout the implementation phases of the solutions.

Considerations: Involving relevant organisations early in the process enabled RK to gain insights into specific challenges and develop more user-friendly, accessible solutions. The forum plays a central role in communicating feedback to RK's development team.

Outcome/expected outcome: The Forum for Digital Inclusion On the Go has positively impacted the app's development by providing valuable feedback on design and solutions, helps identify and overcome barriers for the target group, ensures a continued focus on accessibility, offers testers when requested, assists in formulating messages, and facilitates the dissemination of knowledge.

Feedback has led to tangible changes in the app's design and functionality, such as improved screen reader compatibility. This is expected to result in broader acceptance of the app among user organisations, likely positively affecting adoption and user satisfaction.

4. Solution selection and adjustment

In selecting the app solution from available proposals, RK placed a strong emphasis on accessibility requirements and on choosing a simple solution to accommodate as many users as possible. During the development/adjustment process, RK recognised the importance of adhering to initial product decisions and avoiding excessive or frequent changes, which could confuse users and complicate implementation. *"We have learned that too many changes can create more confusion than clarity, and it has been challenging to find the right balance between flexibility and consistency,"* one of the involved leaders reflected.

5. Accessibility testing

Description: RK developed the new app in compliance with the web accessibility legislation,[8] followed by external accessibility testing to ensure that the app met legal accessibility requirements. These tests, conducted by external accessibility experts, assessed technical aspects (e.g., screen reader compatibility) and usability factors (e.g., font size and contrast ratios).

Considerations: Accessibility testing was considered essential to ensure that the Rejsekort app met legal standards and could pass subsequent compliance inspections. The tests were conducted early in the development process, allowing for adjustments before the app's wider release.

Outcome/expected outcome: The tests significantly impacted the app's accessibility by leading to adjustments that made it more user-friendly. These proactive tests not only resulted in an easier solution for people with disabilities but also reduced the risk of negative feedback, which could have arisen had the app not passed accessibility testing in a regulatory inspection.

6. Pilot testing of Rejsekort as an app

Description: In early 2024, RK conducted a pilot test of the app with 20,000 users, later expanded to 60,000. The pilot aimed to test the app's functionality in real conditions, identify technical issues, and gather user feedback. The results of this phase were used to fine-tune the app and ensure optimal performance before the broad launch.

[8] The "Act on the Accessibility of Public Sector Websites and Mobile Applications" (the Web Accessibility Act) came into force on 23 September 2018. The Web Accessibility Act implements Directive (EU) 2016/2102 of 26 October 2016 on the accessibility of websites and mobile applications of public sector bodies. https://www.retsinformation.dk/eli/lta/2018/692

Considerations: The pilot testing phase was considered critical to minimise risk for the broader rollout. Strategic considerations were made on how best to collect and utilise feedback in further development, enabling necessary changes based on actual user experiences.

Outcome/expected outcome: Pilot testing led to several improvements in app functionality and design. Early feedback was crucial for identifying and resolving potential issues, which are expected to increase user satisfaction and support a successful app rollout. Although the pilot did not focus specifically on the most vulnerable user groups, it is expected to have a positive effect on these groups as well. In addition, RK conducted beta testing with more vulnerable user groups.

7. Onboarding collaboration with IT volunteers

Description: RK is collaborating with IT volunteers from the daneage Association to help older users transition to the Rejsekort app. These volunteers received training in using the app so they could guide and support older users in their communities. RK also provided user-friendly guides, materials, and temporary access to a beta version of the app for the volunteers to practice and demonstrate its functionality.

Considerations: This initiative was launched in response to the growing population of older adults in Denmark, recognising their need for extra support in adopting new digital solutions. RK leveraged the trust and reach of the IT volunteer network to ensure broader app adoption among older users.

Outcome/expected outcome: This initiative is expected to positively impact older users' onboarding process with the Rejsekort app. The personal guidance and support from IT volunteers, coupled with their extensive geographical reach, are anticipated to increase older users' app usage, enabling them to benefit from the new solution.

8. Training programme for customer service staff

Description: RK launched a training programme for its customer service staff to ensure they are well-prepared to handle questions and challenges related to the new app. The programme included training on supporting users with varying digital skills. Customer service staff were also trained in the technical aspects of the app to assist users in troubleshooting efficiently.

Considerations: The training programme was part of RK's strategy to ensure a smooth transition to the new digital solution. It was considered essential that customer service staff could provide the necessary support to users facing challenges with the app, helping build trust between users and RK.

Outcome/expected outcome: This initiative is expected to aid effective implementation and improve user experience by ensuring that users can quickly

get help if they encounter issues with the app. It also reduces frustration and increases satisfaction among users uncertain about digital solutions.

9. Development of a non-app-based solution ("The alternative solution")

Description: To meet the needs of users who cannot or prefer not to use the Rejsekort app or own a smartphone, RK is developing a non-app-based solution – the "alternative solution." As mentioned, it has been decided that the alternative solution will closely resemble the existing system. This approach ensures a level of familiarity for users by maintaining the current "check-in and check-out" functionality using physical card readers. The solution follows a "pay-as-you-go" model, where users tap their travel card on a reader at the start of their journey when switching between different modes of transport, and upon completing their trip.

Considerations: This alternative solution aims to ensure maximum inclusivity by providing an option for users without access to digital solutions. RK understands that a fully digital solution cannot meet all user needs, thus necessitating a physical alternative, despite the costs and diminished economic benefits associated with the app. Balancing the needs of vulnerable user groups with financial considerations has been the main strategic concern.

Outcome/expected Outcome: The alternative solution is intended to ensure that no users are left without ticketing options, maintaining inclusivity in public transport. However, work on this alternative solution remains in its early stages, and its impact on the inclusion of specific user groups has yet to be determined.

4.2 Strategic and organisational effort of RK

The development and implementation of the Rejsekort app has been, and continues to be, a complex process requiring a range of strategic considerations as well as the need for internal organisational adjustments.

4.2.1 Strategic considerations and vision

The vision to develop a digital ticketing solution to replace the older, physical Rejsekort technology was driven both by an ambition to enhance the user experience and a need to reduce the operational costs associated with the old system. This overarching strategic objective was not only a response to technological trends but also an acknowledgment that users increasingly demand digital services that offer greater convenience and flexibility.

"We are in the midst of a digital transformation, and Rejsekort as an app is a natural step to ensure that we can deliver a contemporary and efficient transport solution to our customers," explained a senior RK employee. This statement reflects the organisation's ambition to lead development while meeting the expectations for modern services.

The vision for a digital version of RK was also shaped by an awareness of the societal implications of transitioning a large portion of users to a digital platform. There was

recognition that a digital solution like the Rejsekort app could lead to exclusion, particularly among older people and individuals with disabilities, if their needs were not addressed during development and in the final product. This understanding called for a strategy to manage digital inclusion and an approach to the critical strategic question of how far to go to ensure inclusivity in the solution being built.

4.2.2 Balancing social responsibility and business objectives

One of the most complex challenges in this development process has been balancing the social responsibility to ensure digital inclusion—especially significant given the partially public ownership of RK—with the business objectives of efficiency and cost reduction. RK is aware that its solutions must be sustainable not only economically but also socially.

At the core of RK's strategic considerations regarding digital inclusion is the recognition that there is a positive correlation, to a certain extent, between investing resources in solution development and the number of citizens who can use it (the more resources invested, the greater the inclusivity—up to a point). However, regardless of the resources allocated, it will not be possible to build a solution that everyone can use, and an alternative solution will inevitably be necessary. Striking a strategic balance between economic sustainability and inclusivity has been the key issue concerning digital inclusion.

"We must find a balance between offering a financially sustainable digital solution while also ensuring that all our users, including the most vulnerable, can access public transport," stated a key representative from RK, highlighting the difficult priorities the organisation has had to make.

As part of its dialogue with user organisations, RK has been transparent about this balancing act, which has likely resonated with these organisations. Many of them have acknowledged this strategic dilemma and do not necessarily desire a 100% digital solution.

RK has chosen to develop a non-app-based solution for those who cannot or prefer not to use the digital app, even though this entails additional costs and technological challenges.

4.2.3 Organisational initiatives

To implement this strategy, RK has undertaken several internal organisational measures. A central part of this effort was the establishment of a dedicated program organisation, led by a program director responsible for realising the strategy, which also included a focus on digital inclusion. This leadership role, which also holds responsibility for focusing on inclusion throughout the development and implementation phases, has prompted other senior executives to assume similar shared responsibilities.

A significant part of RK's internal focus has thus been on ensuring the organisation has the necessary skills to manage this extensive digitalisation process with an inclusion perspective. To meet the new demands posed by digital inclusion, RK has strengthened its expertise in UX design, digital accessibility, user engagement, service design, and customer experience. This has involved both hiring new employees with specialised skills and upskilling existing staff through training and education.

"We have had a strong focus on building the necessary internal competencies so that we can not only develop a technical solution but also ensure it is accessible and user-friendly for all our users," stated a key representative from RK.

4.3 Perspective of the user organisations

As previously mentioned, RK has worked closely with user organisations in the development of both the Rejsekort app and the alternative non-app-based solution. These organisations represent some of the most vulnerable user groups that may be affected by the digitalisation of public transport. Their feedback has been crucial in ensuring that the solutions developed by RK are as responsive and considerate as possible to the specific needs of these user groups.

4.3.1 User organisations' perspective on RK's initiatives

User organisations, represented by Disabled People's Organisations Denmark (DPOD), an umbrella organisation for 36 disability organisations, and the daneage Association, representing the interests of older adults, have generally expressed appreciation for RK's initiatives in developing the Rejsekort app. They particularly highlighted the positive impact of RK establishing the Forum for Digital Inclusion On the Go, in which both DPOD and the daneage Association have been active participants. This forum has been central to RK's strategy for ensuring the app is developed with a focus on digital inclusion. The organisations value that their input and expertise are taken seriously, leading to important adjustments and improvements to the app.

Another initiative that these organisations regard as valuable is RK's user studies and persona development. Through in-depth user research and the creation of personas, RK was able to identify and address specific needs across different user groups. Both DPOD and the daneage Association emphasise that this user-centred approach is essential to prevent digital solutions from excluding particularly vulnerable groups. They see it as a strength that RK has prioritised understanding the needs of older adults and people with disabilities in depth.

The pilot testing of the app received mixed reactions. While the user organisations acknowledge the importance of testing the app in real-world conditions, they expressed concerns about whether the test users represented a sufficiently broad cross-section of the most vulnerable groups. The organisations suggested that future pilot tests should include more individuals with significant challenges related to digitalisation.

The development of a non-app-based solution (the "alternative solution") for those who cannot or do not wish to use a smartphone is also considered essential by the user organisations to prevent anyone from being excluded from public transport. However, they are concerned about whether this alternative will be simple and accessible enough for those who face the greatest digital challenges.

The collaboration with IT volunteers from the daneage Association has been positively received, as it reflects RK's commitment to helping the most vulnerable users overcome digital barriers. However, the daneage Association emphasised that there is still a need for more comprehensive training programmes and support initiatives to ensure older users feel confident in transitioning to the Rejsekort app.

The user organisations are mindful of not becoming so deeply involved in the development and implementation of new IT solutions that they risk losing their critical role. Three potential dynamics warrant attention:

1. **Negotiation dynamics:** There is a risk that organisations may get drawn into a negotiation dynamic where members "soften" each other's demands, effectively taking on the task of negotiating and compromising. This could shift the responsibility for finding a solution away from the organisation that initially held this role and invited them into the process.
2. **Over-involvement in problem ownership:** Organisations might assume such ownership over the issues (e.g., balancing financial considerations with inclusion responsibility) that they lower their expectations for the product, neglecting their role as "watchdogs" for their members' interests.
3. **Being "taken hostage" by involvement:** Extensive involvement could make it challenging for organisations to remain critical later on, as they were part of recommending the solution.

It is worth noting that these are potential concerns that the user organisations are aware of and are not dynamics observed in their collaboration with RK.

Overall, the user organisations view RK's initiatives as important efforts to promote digital inclusion. They recognise many positive steps, but also stress the ongoing need to ensure that as many user groups as possible are included in the continuous development and that proposed solutions remain accessible and user-friendly in practice. The organisations encourage RK to continue open dialogue and engagement with user groups to ensure that solutions remain inclusive for a broad range of users over time.

4.3.2 User organisations' perspective on RK's solutions

User organisations, represented by Disabled People's Organisations Denmark (DPOD) and the daneage Association, have provided an overall positive assessment of both the Rejsekort app and the anticipated non-app-based solution. However, their evaluation also reflects ongoing concerns for certain user groups. Rejsekort as an app is seen as a natural development in the digital age, but the organisations have expressed concerns about whether the app will genuinely meet the needs of older people and those with various challenges.

For DPOD, it is crucial that the app supports necessary accessibility features so that users with visual impairments, hearing loss, or motor challenges can use the app on an equal basis with others. There is concern that even small design flaws could have major consequences for these groups, potentially limiting their ability to use public transport.

The daneage Association is worried that the app's complexity may be a barrier for many older users who may not be comfortable with smartphones or digital solutions. Although RK has made efforts to make the app as intuitive as possible, the daneage Association believes there is still a risk that older users may experience frustration and difficulties, which could result in lower adoption rates among this group.

Regarding the upcoming non-app-based solution, the user organisations agree that it is a necessary alternative to ensure that no one is excluded from accessing public transport. DPOD has emphasised that this solution must be robust and easily accessible, with physical kiosks placed in strategically important locations where

users can purchase and activate tickets; see the overall description of the alternative solution in Section 3.4. DPOD considers it essential that the non-app-based solution is not deprioritised by RK but is developed with the same care and focus on usability as the app.

Similarly, the daneage Association has stressed the importance of a straightforward alternative solution that does not require advanced technological skills. They recommend that this solution be as simple as possible, with clear instructions and the option for personal assistance if issues arise. The daneage Association has voiced concerns that if the non-app-based solution does not function optimally, it could have serious consequences for the most vulnerable groups already at risk of digital exclusion.

Thus, the organisations underscore that the success of the solution developed for those unable to use the app will be a crucial measure of RK's overall efforts to ensure inclusion. The organisations have several suggestions and requirements for this alternative solution but are still awaiting details on its implementation.

5 Lessons learned

Through a series of initiatives aimed at digital inclusion, as described in Chapter 4, RK has gained valuable insights into both the opportunities and challenges of introducing a digital solution within public transport. It has become clear that balancing technological innovation with user needs is crucial to the project's success.

The development and implementation of the Rejsekort app have been complex, multidimensional processes that have yielded numerous valuable lessons. These insights can be used to improve future digital initiatives for RK and other private and public services across the Nordic and Baltic countries facing digital transformations.

Below is a summary of the key lessons learned from the project:

A. Building on existing knowledge and experience:

One significant lesson from RK's work is drawing on existing knowledge and experience in digital inclusion. As part of their approach, RK utilised existing knowledge, including lessons learned and best practices, including the eid solution, from the Danish Agency for Digital Government, which has played a central role in shaping Denmark's strategic framework for digitalisation and inclusion. Gathering knowledge from previous projects and analyses of digital inclusion by other private actors in the public transport sector also enabled RK to build on past experiences, offering a stronger foundation for understanding the challenges specific user groups might face. By leveraging existing knowledge and experience, RK was able to take a more qualified approach to developing the Rejsekort app.

B. Early and continuous involvement of user groups:

Another key lesson has been the importance of engaging different user groups early and continuously in the development process. RK established the Forum for Digital Inclusion On the Go, where representatives from user groups such as Danske Seniorer, Disabled People's Organisations Denmark, and the daneage Association actively participate. This was further supplemented by bilateral meetings with user organisations, allowing RK to engage these organisations closely and purposefully. This approach ensured that the app was developed with a strong focus on accessibility and user-friendliness, strengthening user trust and increasing the likelihood of broad adoption. Strategically, RK chose to involve user organisations closely and consistently to integrate their knowledge of users' needs from an early stage. This collaboration has helped RK establish a trusting relationship with user organisations, which is likely to reduce criticism from these organisations when the products are launched, as feedback has been incorporated and addressed throughout the process – and more importantly, they can play an active role in the migration to new solutions.

This involvement of user groups could serve as a model for other countries, such as Finland and Estonia, which are also seeking to involve user organisations and ensure digital inclusion in their transport apps (Whim and Pilet.ee).[9]

[9] https://balticguide.ee/en/helsinki-tallinn-and-tartu-create-joint-public-transport-mobile-ticket-app-making-it-easier-to-buy-tickets-when-travelling-to-each-city/

C. Importance of pilot testing:

Pilot testing of the Rejsekort app was likely critical to the project's implementation. These tests collected real user experiences, allowing RK to identify and resolve potential issues early in the process. User feedback during the pilot testing phase led to adjustments in the app's functionality and design, which improved the user experience and minimised the risk of errors during the broader launch.

D. Inclusion throughout the user journey:

A key lesson from RK's work is the need to ensure inclusion across the entire user journey – from onboarding to daily use. RK found that effective communication and support are essential to achieving broad adoption. This was supported by initiatives such as customer service training, equipping staff to guide and assist users with different levels of digital skills, and collaboration with IT volunteers from the daneage Association, who support older users. This focus on support throughout the user journey and the associated continuous feedback loop enables RK to respond to new challenges and adjust solutions so digitalisation remains accessible to as many users as possible.

E. Flexibility in solution design and differentiated user needs:

Inclusion in digital transformation is not always about incorporating all users into a single standardised technology solution. In some cases, it may be necessary to offer alternative solutions to ensure that no one is left disadvantaged compared to those who can adapt to the standardised digital solution. RK's decision to develop a non-app-based solution to accommodate users without access to or a preference for digital tools exemplifies how flexibility in solution design can be essential to meeting the needs of all citizens.

F. Organisational readiness and internal competencies:

RK's experience demonstrates that strong organisational structure and internal competencies are essential for handling the challenges of digital transformation and inclusion. RK established a clear internal structure with explicit responsibility for digital inclusion goals, ensuring that the focus on accessibility and user needs is anchored and embedded across the organisation. RK has also invested in building internal competencies in UX design, digital accessibility, and data-driven decision-making. The organisation has enhanced its ability to develop and implement solutions that meet user needs and support digital inclusion through targeted recruitment and training.

G. Balancing social responsibility and business objectives:

At the heart of RK's digitalisation process is the need to balance overall social responsibility with business objectives. Digital inclusion requires ongoing efforts to ensure that as many user groups as possible, regardless of their digital skills, have equal access to digital solutions. At the same time, these solutions must be economically sustainable to justify investment and ensure long-term success. RK has sought to navigate this balance by implementing a digital solution that is both inclusive and considerate of costs and business objectives. Achieving this balance requires strategic compromises and the ability to manage conflicting interests. On the one hand, there are economic benefits to reaching as many

users as possible through digitalisation. On the other hand, it becomes necessary to consider alternative solutions, such as the non-app-based solution, when returns start to diminish. In other words, digital inclusion can be good business, but only up to the point where economic benefits plateau, and difficult decisions must be made regarding further strategic development. This process underscores the need to find a strategic balance where inclusion is not merely seen as an expense but also as part of the business gain that contributes to a larger user base and increased public trust.

RK's experience in balancing creating an economically sustainable solution with ensuring inclusion could inspire other Nordic and Baltic countries in their work with digital user solutions. This may be particularly relevant for the Norwegian Entur project, which aims to unify various mobility solutions under a single digital platform and reduce private car use by making public transport and other services more digitally accessible. RK's experiences with both digital and non-digital solutions can help the Norwegian project avoid digital exclusion.

5.1 Transfer of lessons to other organisations in the Nordic and Baltic countries

This case study has yielded specific insights into practical initiatives for digital inclusion and the lessons learned from them. The aim has been to address a knowledge gap within the Nordic-Baltic collaboration on digital inclusion, particularly concerning the practical actions and their effects. It is, therefore, valuable to consider how transferable these lessons and insights are to other organisations and sectors across the Nordic and Baltic countries. Below is an overview of the key takeaways, with notes on their applicability to other sectors, large and small organisations, and other Nordic and Baltic countries.

Building on existing knowledge and experience: As RK didn't start from scratch, other projects in these countries also need not reinvent foundational knowledge on digital inclusion, potentially challenged user groups, and common issues if this knowledge already exists. Knowledge availability varies across countries depending on how extensively digital inclusion has been prioritised. However, some previous projects under the Nordic Council of Ministers and Nordregio on digital inclusion offer a significant knowledge base, which projects in individual countries can use as a foundation.

Early and continuous involvement of user groups: A clear recommendation is that user groups should be actively involved from the beginning, with continuous dialogue maintained. Developing mutually trusting relationships with user organisations can yield valuable insights into user needs and enhance the development process. It also strengthens trust and reduces the risk of criticism at launch, as concerns can be addressed along the way. All Nordic and Baltic countries have citizen organisations representing, for example, older adults or people with disabilities. Thus, the positive experience of building collaborative relationships with such organisations is a lesson that can benefit all countries.

Importance of pilot testing: Pilot testing is also a general best practice for IT development across all Nordic and Baltic countries. By conducting pilot projects,

organisations and authorities can collect real user feedback and refine solutions before broad implementation. This can help minimise errors and enhance usability.

Inclusion throughout the user journey: An important takeaway that can be applied in other countries is that it is advantageous to support users throughout the entire journey, from onboarding to daily use. Recognising that initial difficulties in using a specific IT solution can overshadow its potential benefits, it's crucial to help users overcome initial barriers to adoption. RK's experience in engaging volunteer organisations to assist less tech-savvy users is a valuable example for other projects in other countries. Likewise, the emphasis on training staff for the onboarding process is an initiative that could be replicated in similar projects.

Flexibility in solutions and differentiated user needs: A key lesson from this project is that a single standardised solution may not suit all users. For public organisations, which are often required to serve all citizens, providing alternative solutions for those who struggle with digital tools may be essential. Offering alternatives to those who cannot use digital tools could be especially relevant for countries where digitalisation is less widespread, and some population segments are still adapting to digital solutions.

Organisational readiness and internal competencies: Most organisations in the Nordic and Baltic countries may need to strengthen competencies in digital inclusion to work with the field in a structured and effective manner, as RK has done. Organisations with available resources can benefit from establishing a clear organisational structure with defined responsibility for digital inclusion goals. Investing in upskilling staff and recruiting specialists in UX design, digital accessibility, and data-driven decision-making may be critical for meeting user needs.

Balancing social responsibility and business objectives: This fundamental but central consideration is relevant for all Nordic and Baltic countries in their work on digital inclusion concerning the development of digital solutions. There is often a potential conflict between economic concerns and digital inclusion when developing citizen-oriented IT solutions. Ensuring digital inclusion can provide economic benefits if it enables more people to use a digital solution. However, it often requires additional resources to build inclusive IT solutions, particularly when involving user organisations in the development process. Each project must find its balance, but as a rule, one could argue that when the marginal utility of each additional investment in digital inclusion starts to diminish, alternative (perhaps analogue) solutions for the remaining groups of citizens should be considered.

These insights and lessons can assist other organisations across the Nordic and Baltic countries in navigating digital inclusion within complex digital transformation projects, regardless of sector or industry.

List of Information Sources

Interviews

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- Jens Willars, Customer Director, Rejsekort & Rejseplan
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- Anders Seedorf Karlberg, UX Designer, Rejsekort & Rejseplan
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