Empowering SMEs with Accessible Knowledge: Developing Practical Guidance for Web Accessibility

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Abstract:
With the European Accessibility Act (EAA) taking effect in June 2025, many EU businesses, especially SMEs, face challenges in ensuring digital accessibility. This thesis explores how designing and developing a digital learning platform can help SMEs understand and implement EAA requirements, considering their limited resources and knowledge gaps. Using qualitative interviews, prototyping, and co-creation with a business partner, the research applies a user-centered approach informed by Sarasvathy's effectuation theory and Lean Startup principles. Findings reveal SMEs need simplified language, practical examples, and step-by-step guidance to navigate complex standards. The resulting prototype includes a course, guide, and webinar with a simple design tailored to fit SMEs' daily workflows. The study highlights that digital tools gain traction only when they add clear business value and recommends future iterations to align with business goals and foster community exchange to address the widespread lack of internal accessibility expertise.

1. Summary

As the European Accessibility Act (EAA) comes into effect in June 2025, many businesses across the EU will be legally required to ensure that their digital products and services meet specific accessibility standards. This presents a challenge, especially for Small and medium-sized enterprises (SMEs), which often lack the internal expertise, time, and financial capacity to proactively address web accessibility. Despite regulatory pressure and the potential business value of inclusive design, accessibility remains an under-prioritised and poorly understood area among both SMEs and larger businesses.

This thesis explores how a digital learning platform can support SMEs in understanding and initiating the implementation of the EAA's web accessibility requirements, considering their practical limitations, knowledge gaps, and preferences. Adopting a user-centered and needs-driven design approach, the research is based on qualitative interviews with SMEs and an accessibility expert, as well as iterative prototyping and co-creation with an initial business partner.

The co-creation process is inspired by Sarasvathy's theory of effectuation, particularly the "first customer" principle, which emphasises building viable solutions from available means in collaboration with real stakeholders. In parallel, the iterative development of the platform follows principles from the Lean Startup methodology, such as Build-Measure-Learn loop and Minimum Viable Product, enabling iterative testing, feedback loops, and ongoing adaptation based on user input.

Findings reveal a significant disconnect between the complexity of accessibility standards and the SME's ability to act on them. While some participants recognised the importance of digital accessibility, they lacked clear, actionable guidance. There was a strong call for simplified language, practical examples, and step-by-step instructions that make technical content more approachable.

The resulting prototype consists of a learning course, a guide, and a webinar, and a simple layout so that the focus can remain on navigation. It aims to lower the threshold for engagement and offer value in a form that fits SMEs' daily routines and resource constraints. However, the

narrow empirical base also limits generalisability, but this creates a methodological trade-off made to enable grounded, problem-first solution.

The thesis underscores that digital tools aimed at SMEs only gain traction when they are seen as directly value-adding. Future iterations should therefore align more explicitly with business goals and explore features that foster community exchange, given the widespread lack of internal accessibility expertise in many SMEs.

In conclusion, the thesis shows that a digital learning platform can be an effective means of making web accessibility more tangible and manageable for SMEs. When designed from user's lived contexts and grounded in entrepreneurial and iterative approaches, such a solution can help bridge the gap between legal compliance and practical action, which ultimately contributes to a more inclusive digital society.

2. Table of Contents

3. Introduction

As society becomes increasingly digital, access to digital solutions has also become crucial for people with disabilities. Web accessibility is about ensuring that everyone, regardless of physical or cognitive abilities, can use digital services and products. Web accessibility is not simply a technical discipline, but a fundamental prerequisite for equal participation in society and for businesses seeking to reach broader user groups (W3C, 2018).

From June 2025, web accessibility will become a legal obligation for a wide range of private companies, as the European Accessibility Act (EAA) comes into force across the EU. The directive requires e.g. e-commerce platforms, software providers, and certain financial services to meet specific accessibility requirements.

For small and medium-sized enterprises (SMEs) these requirements present a significant challenge. Many of these companies have limited knowledge of accessibility and face uncertainty regarding both the technical and legal aspects of the legislation. As a result, they often lack a clear understanding of what is specifically required and how to address it in practice (Lazar et al., 2015).

At the same time, studies show that a lack of web accessibility not only creates barriers for users with disabilities but also costs businesses significant revenue losses. Potential sales on e-commerce platforms are lost when users cannot navigate the site or complete purchases (Sohaib & Kang, 2017). Thus, web accessibility is not only a legal requirement but also a strategic business investment that can enhance both competitiveness and customer satisfaction.

Despite the legislation and potential benefits, a persistent barrier remains: existing solutions and knowledge about accessibility are often inaccessible to SMEs. Technical documentation, audits and consultancy services can both be complex and expensive. Theremore, low-threshold solutions that enable them to acquire knowledge in an accessible and manageable format, e.g. courses, guides, checklists, and tools tailored to their daily operations are called for. It is therefore relevant to investigate how a digital learning platform can help SMEs understand and comply with EAA requirements, not only for legal compliance but also to promote usability and digital inclusion.

This thesis is based precisely on this issue and therefore poses the following research question:

How can a digital learning platform help small and medium-sized enterprises understand and begin implementing the European Accessibility Act (EAA) requirements for web accessibility, based on their perceived needs, barriers and preferences?

The thesis is limited to B2B-oriented SMEs, which often lack internal specialists and operate with limited resources. Through a user-centered and needs-driven design perspective, it investigates how a digital platform and related learning content can serve as a practical tool within a complex regulatory and technological context.

4. Relevant Theory and Research

This chapter presents key theoretical frameworks that form the basis for analysing the development of the digital learning platform. The focus is on two central approaches to entrepreneurship and innovation: Sarasvathy's theory of Effectuation, which emphasises the entrepreneur's iterative decision-making processes and collaboration with stakeholders, and Eric Ries' Lean Startup method, which supports experimental learning and continuous adaptation through practical tools such as the Minimum Viable Product and the Build-MEasure-LEarn loop. These approaches complement each other and shed light on how innovation can be driven forward in complex and unpredictable environments.

Additionally, platform theory, including innovation platforms, portals and vortals, is introduced as a relevant framework for designing and developing digital ecosystems that facilitate collaboration and value creation. The Business Model Canvas is presented as a strategic tool to operationalise and structure the platforms business model.

Together, this theoretical overview provides a nuanced foundation for understanding and analysing how digital platforms are created through co-creation, experimental development, and strategic planning with a specialised and regulated field.

4.1 Web Accessibility and the European Accessibility Act

The implementation of the EAA directive creates new legal obligations that affect Danish corporations, especially those with digital products and services. To understand how companies navigate this transition from voluntary standards to legal requirements, it is necessary to include knowledge about web accessibility as both a technical, organisational and societal phenomenon. This section will form the basis for analysing how companies understand and work with WCAG standards and the broader implications of digital inclusions.

4.2 Digital Inclusion and the WCAG Guidelines

Web accessibility refers to guidelines and regulations aimed at ensuring that digital products and services are accessible to all users, including individuals with disabilities. In the European Union (EU) web accessibility is based on the Web Content Accessibility Guidelines (WCAG), established by the World Wide Web Consortium in 2018 (W3C, 2018). The WCAG guidelines are built around four key principles that digital products must meet to be considered accessible (W3C, 2018):

- **Perceivable:** Users must be able to perceive the information being presented. For example, text alternatives for images allow users with visual impairments to understand content through screen readers. Similarly, captions for videos helps users who are deaf or hard of hearing access audio content (W3C, 2018).
- **Operable:** Users must be able to navigate and interact with the interface easily. This means all functions should be accessible via keyboard for those who cannot use a mouse, and interactive elements must be designed to avoid confusion or frustration (W3C, 2018).
- **Understandable:** The content and navigation should be clear and predictable. This includes using simple language, consistent navigation, and clear error messages (e.g. using both colours and text or symbols) to support users with cognitive disabilities or limited technical skills (W3C, 2018).
- **Robust:** Content must be compatible with a wide range of assistive technologies and user agents. Following coding standards and using semantic markup ensures content can be interpreted correctly by current and future technologies (W3C, 2018).

Together, these principles aim to make digital content accessible and useable for all users, regardless of ability or the tools they use.

The WCAG guidelines have certain criteria of success. The criteria are divided into three levels: A, AA, and AAA, Level AA is often used as the standard in legislation and practice (W3C, 2018).

In Denmark, the accessibility of websites and mobile applications operated by public authorities is governed by the Act on the Accessibility of Public Bodies' Websites and Mobile Applications, which came into force on September 23, 2018 (Digitaliseringsstyrelsen, 2023). This legislation implements the European Union Directive 2016/2102 and applies to all public authorities and public law bodies providing digital services.

The primary objective of the Act is to enhance digital accessibility for individuals with disabilities by setting out technical requirements and design principles that must be considered during the development, maintenance, and updating of public digital platforms (Digitaliseringsstyrelsen, 2023). Compliance with the Act is supported by the harmonised European standard EN 301 549, which defines detailed accessibility criteria for public sector websites and mobile applications.

Public authorities are also obligated to publish an accessibility statement for each of their digital platforms, detailing the status of accessibility and any known limitations (Digitaliseringsstyrelsen, 2023). To assist with this obligation, the Danish Agency for Digital Government provides a digital tool called the WAS-Tool, which aligns with the EU's standardized format for accessibility statements.

An amendment to the Act, effective from July 1, 2023, clarified content responsibility by specifying that content provided by one public authority on another authority's website or mobile application is not considered third-party content (Digitaliseringsstyrelsen, 2023). This change aims to ensure clearer accountability for the content published on public digital platforms.

In academic literature, web accessibility is part of a wider field of research into digital inclusion and human rights in modern society. Within this field of study, accessibility is not simply recognized as a technical problem to be solved, but also as a societal necessity, which relates to

participation, independence and equal rights to digital resources. According to Lazar et al. (2015), digital accessibility is essential for both legal compliance but also for good design and empowerment for all users, and good legislation and regulations can significantly improve access to technology for people with disabilities.

4.3 Socioeconomic and Commercial Implications

While Denmark has made significant strides in establishing legislation and standards to ensure web accessibility in the public sector, the broader implications of accessibility extend beyond legislation. Web accessibility is not just a matter of compliance but a fundamental aspect of digital inclusion and human rights, emphasising participation and equal access for all users (Lazar et al., 2015). This understanding sets the stage for examining socioeconomic and commercial consequences for accessibility.

Studies have shown several barriers that users with disabilities meet in their everyday lives, e.g. using e-commerce websites. In Sohaib & Kang (2017), a study of 30 Australian B2C e-commerce websites highlighted the different types of disabilities that may affect users and make them unable to use the websites. The research highlighted that there is a need for web accessibility for users with disabilities, especially regarding sensory, cognitive and motor impairments. It is stated that "e-commerce sites lose up to 50% of potential online sales because users cannot find what they want". Thus, if these websites were accessible, businesses would be able to get more economic opportunities from online shopping and generally improve the experience for all consumers (Sohaib & Kang, 2017, 88). The result of the study shows that none of the 30 websites meets Level A of WCAG 2.0, meaning that there is little to no focus on accessibility guidelines, although the guidelines have been endorsed by the Australian government and it has set a level AA requirement for all public websites.

This lack of accessibility within e-commerce websites is also evident in other studies. In a study of 50 large ecommerce websites, Acosta-Vargas et al. (2020) evaluated web accessibility, by applying automatic audits using the Web Accessibility Evaluation Tool (WAVE). The study found, that the most prominent errors were related to perceivability, creating usability barriers for users with visual impairments.

Similarly, in a study by Santoki & Patvardhan (2021) it was affirmed that e-commerce websites did not live up to accessibility audit checklists provided by their government, and that there were many accessibility issues that especially affected users with visual impairments. The study notes, that visually impaired people wish to use the websites and contribute financially, so it is necessary to fix these problems of perceivability, if the companies want to remain competitive (Santoki & Patvardhan, 2021, p. 192). According to these studies, inaccessibility is a barrier of entry that affects not only people with disabilities but also corporations, as they may not realize that they have an entire user base that are unable to utilize their services. Thereby, missing out on financial benefits.

However, interestingly, Lazar et al. (2015) notes that there is not a lack of expertise or ability to make accessible IT solutions, but that there is simply a lack of interest or knowledge, on the side of the developers who build web technology or software. They note that there is a barrier of knowledge about how to make products accessible to begin with.

4.4 Automatic Accessibility Audit Tools

With the increasing regulatory requirements and standards such as WCAG and the upcoming implementation of the European Accessibility Act, the need for practical tools to evaluate and improve digital solutions has increased. For many organisations, automated and manual audit tools are an important part of the method of operationalising web accessibility in practice. An understanding of these tools is therefore essential in the context of organisational implementation.

Accessibility audits can be performed using a combination of automated tools and manual evaluations. According to Nguyen (2024), automated tools like WAVE, axe DevTools, and Google Lighthouse are valuable for quickly detecting common WCAG violations during the initial accessibility check. WAVE (Web Accessibility Evaluation Tool), developed by WebAIM, highlights both errors and warnings based on WCAG criteria, and is therefore widely used in both academic research and practical use (WebAIM, n.d.).

Manual evaluation, such as the use of screen readers, keyboard navigation, and expert analysis, is often necessary to ensure that a website or other product is truly accessible to users with various

disabilities, and live up to the WCAG requirements. These manual methods address complex usability issues and real-world scenarios that automated tools cannot fully capture.

4.4.5 Conclusion

Accessibility audit tools provide a necessary foundation for digital inclusion, but their effectiveness depends on the combination of automation and human assessment. As the EAA is implemented in the EU, both public and private actors will need understandable, practical tools to document and improve their digital solutions.

4.5 The European Accessibility Act

While WCAG and the Web Accessibility Directive are primarily about the public sector, the *European Accessibility Act* (EAA) broadens the scope by setting accessibility requirements for a wider range of products and services across the EU internal market. This is an important step towards systematic improvement of accessibility in Europe.

The EAA is a directive which was approved in 2019 and is set to take effect across the EU in June of 2025. However, not all Member States have fully transposed the directive into national law as of 2025, and some face ongoing infringement procedures from the European commission (European Union of the Deaf [EUD], 2022; Cyprus News Agency [CNA], 2022).

The EAA aims to harmonise accessibility requirements related to goods and services, as divergent national regulations can hinder cross-border trade and contribute to market fragmentation (European Commission, 2015, p.4).

Therefore, the EAA directive was created to improve the internal market for accessible services and products, by making WCAG 2.1 legally binding for relevant products and services. This is done in order to reduce costs and the fragmentation of the market, and secure access for people with disabilities (European Commission, 2015, p. 4).

It is important to know that not all businesses are equally affected. According to Article (4(5) of the EAA, microenterprises, that is businesses with fewer than 10 employees and an annual turnover or balance below EUR 2 million, are exempt from certain obligations, unless Member

States individually choose to apply stricter legislation. This means that while SMEs in general must prepare for compliance, the smallest enterprises may not be fully covered by the legal requirements depending on national implementation. The EAA is targeted towards sectors that are considered crucial, and where there have previously been significant differences in legislation between Member States. These sectors include websites and software, telecommunication, banking services, e-books and eCommerce (European Commission, 2015, pp. 10–12).

The implementation of the EAA directive is expected to have several advantages. For corporations, the common guidelines may reduce costs and create easier access to the internal market through less technical trade barriers and more uniform requirements (European Commission, 2015, p. 14; 2021). This is also an environment with more competition and room for innovation; where businesses can gain greater market shares (European Commission, 2015, p. 15). The directive will result in more affordable and accessible goods and services for people who need them, creating fewer barriers to access education, employment and transport (European Commission, 2015, p. 16). Furthermore, industry participants claim that similar harmonizing laws have already had a beneficial impact, citing the elevator and escalator sector as an example, where shared European standards have boosted innovation and competition (European Commission, 2015, p. 18).

However, several analyses point to potential implementation challenges. Drabarz (2020) notes that there is a need for a common and binding requirement for accessibility in the EU, to reduce costs for companies and strengthen consumer protection, but that the success of the EAA depends on quick and inclusive standardization. This should include actors in both the public and private sectors, and good communication and coordination from the EU Commission.

Similarly, Easton (2013) mentions, that to be successful the EAA needs to focus on a broader definition of accessibility and need clear requirements, that can complement the existing directives. Most importantly, it will need to be properly enforced, with true effect within the internal market, with accessibility being prioritized in both public and private sectors. Without the right enforcement, it will not be useful.

4.6 Summary and Research Gap

The literature reviewed shows that web accessibility exists at the intersection of technology, organization and legislation. Several studies focus on technical barriers and user experiences, while others analyse the socio-economic barriers. However, there is limited research that examines how organizational actors specifically navigate the transition phase between voluntary practice and legal obligation in connection with the entry into force of the EAA.

This thesis seeks to contribute to this field, by analyzing how Danish actors, specifically SMEs, are working to operationalize WCAG in light of upcoming legal requirements and what barriers they are facing in doing so. In contrast to previous research that focuses either on technical solutions or legal analysis, this thesis takes a practice-based and organizational perspective on how knowledge, understanding and processes affect the implementation of web accessibility.

4.7 Effectuation and Uncertainty in the Accessibility Domain

As written in chaper X the EAA introduces binding requirements for digital accessibility across the EU. For many SMEs, this creates uncertainty about how to comply, but it also creates potential for innovation. When regulations shift, new needs emerge, and with them, opportunities for entrepreneurial initiatives.

To understand how business might act in response to the EAA, it is necessary to explore how uncertainty can be handled as a productive condition rather than a barrier. In entrepreneurial research, Sarasvathy's theory of effectuation offers a framework for understanding opportunity creation in dynamic and unpredictable environments (Sarasvathy, 2001). Rather than starting with a specific goal and planning toward it, as with causal logic, effectual entrepreneurs begin with their available means and develop multiple possible outcomes through iterative experimentation. This is particularly relevant in the context of digital accessibility, where the EAA brings legal, technical and market uncertainty. Instead of aiming only for compliance, some businesses may explore new products, tools, or services that promote accessibility more broadly.

The work of Saras Sarasvathy, especially her theory of effectuation, will be a prominent part of this project. In her 2001 article *Causation and Effectuation: Toward a Theoretical Shift from*

Economic Inevitability to Entrepreneurial Contingency Sarasvathy presents a contradistinction to causal thinking, that is *effectuation.* Sarasvathy states that, when most entrepreneurs start out, they usually have a broad goal, that they may not know how to achieve. Moreover, as the world becomes more entrepreneurial and new technologies cause prominent changes, the way that people create business has changed, e.g. in fields like e-commerce, many markets are new or non-existent, making it harder to use a causation approach (Sarasvathy, 2001, p. 244). Therefore, Sarasvathy presents the theory of effectuation as an alternative, when creating new companies (Sarasvathy, 2001, p. 244).

In the article, she makes a differentiation between the approaches of causation and effectuation. She notes that "The distinguishing characteristic between causation and effectuation is in the set of choices: choosing between means to create a particular effect, versus choosing between many possible effects using a particular set of means" (Sarasvathy, 2001, p. 245). This defines one of the key differences between effectuation and causation, which is in how decisions are made - the causation approach focuses on choosing between different means to reach a specific goal, while the effectuation approach focuses on choosing between the means that are already available to you. This means that while causative decision-making processes start with a clear vision of what is to be achieved, effectuation begins with the resources, e.g. knowledge, finances, etc. of the specific entrepreneur. In other words, the entrepreneur, using an effectuation approach, evaluates multiple directions, depending on their current means and the development of their situation. Sarasvathy emphasises that the approach allows entrepreneurs to remain responsive to unexpected events or opportunities. Rather than using one single strategy, they can continually adapt and reshape their goals. This means, that the same set of means, can lead to very different outcomes across different markets or industries (Sarasvathy, 2001, p. 247). Thereby, the original idea does not necessarily determine the final direction of the business. Instead, goals evolve over time. .

4.7.1 Four Principles of Effectuation

In Saravasthy's theory of Effectuation (2001) she outlines four core principles that distinguish the two approaches:

The first principle is *affordable loss*, which suggests that entrepreneurs should not focus on maximizing expected returns by following set strategies, but instead calculate what they can afford to lose, followed by trying out as many strategies as possible with their limited means (Sarasvathy, 2001, p. 252). This principle promotes experimentation and reduces fear of failure.

The second principle is *strategic alliance*, where entrepreneurs prioritise building strategic partnerships and obtaining early commitments from stakeholders, rather than relying on competitive analyses. These alliances help co-create the venture and reduce uncertainty by involving others in the process from the beginning (Sarasvathy, 2001, p. 252.).

The third principle is *exploitation of contingencies*, which highlights the ability to embrace the unexpected. Instead of relying only on existing knowledge or set plans, the entrepreneur should see unforeseen circumstances or surprises as valuable opportunities that can be exploited (Sarasvathy, 2001, p. 252).

The final principle is *controlling an unpredictable future*. Rather than trying to predict what will happen through detailed analyses, the entrepreneur should focus on taking action that brings aspects of the future under their control. That is, if you can influence the environment through your own means and partnerships, prediction becomes less necessary (Sarasvathy, 2001, p. 252).

Together, these four principles frame effectuation as a highly iterative, action-oriented, and adaptive approach to entrepreneurship. Instead of relying on fixed goals and predictions, the entrepreneur leverages their available means, engages stakeholders, and stays open to change. This enables development of multiple possible futures, rather than the pursuit of a single predetermined outcome.

4.7.2 The Role of The First Customer

A part of the effectuation approach is the role of the first customer. Sarasvathy (2001) notes that the person who buys the product or service essentially becomes the first target customer. This initial sale is not just a transaction, but a starting point for the entrepreneur. From there, the entrepreneur can receive feedback, build relationships, and slowly identify a customer segment that works for their venture (Sarasvathy, 2001, p. 247). In that way, the market is not something

that exists in advance, but rather something that gets developed over time through interactions with customers and partners.

4.7.3 A Process of Co-Creation

Finally, in Sarasvathy (2001) it is argued that effectuation is not just a theory about individual entrepreneurs, but rather that it is a broader explanation of how firms and markets are created. Instead of assuming that there are stable conditions and independent decision-makers, effectuation sees entrepreneurship as a dynamic process shaped by people interacting and experimenting together, adjusting as they go. Through ongoing choices and collaborations, businesses, markets, and industries are formed.

4.8 Lean startup

Developing digital solutions, including accessible IT platforms, often involves high complexity and unpredictability. Therefore, it is essential to understand how companies can work experimentally and iteratively to reduce risk and learn. Therefore, I want to introduce Lean Startup as a framework in this project, as it focuses on how innovation can be promoted through rapid feedback and validating learning, rather than traditional strategies of predictability and extensive planning.
When creating a startup or e.g. when developing a digital platform, Lean Startup can be used as a method for managing uncertainty and promoting learning in the early stages of innovation. Eric Ries' work The Lean Startup: How Today's Entrepreneurs Use Continous Innovation to Create Radically Successful Business (2011) introduces the Lean Startup approach, with a focus on learning from customer feedback and continuous adaptation.

Ries (2011) describes Lean Startup as a "principled approach to new product development" that helps entrepreneurs manage and adapt quickly (Ries, 2011, p. 61). Moreover, he highlights that success is not only about building a product, but about determining whether the product should even be built, and if a sustainable business can be built around it. He writes: "In the modern economy, almost any product that can be imagined can be built. The more pertinent questions are 'Should this product be built?' and 'Can we build a sustainable business around this set of products and services?'" (Ries,

2011, p.61). According to Ries (2011) the Lean Startup Model is an experimental approach that can be used to answer these important questions.

4.8.1 Build-measure-learn and Minimal Viable Product

A central concept in the Lean Startup approach is the so-called Build-Measure-Learn (BML) loop, which describes an iterative process where the entrepreneur first builds a solution, then measures customer response, and finally learns from the results. The BML loop is represented by figure X (Ries, 2011, p. 81). Ries (2011) states that "The fundamental activity of a startup is to turn ideas into products, measure how customers respond, and then learn whether to pivot or persevere." (Ries, 2011, p. 18). This cycle forms the core of the Lean Startup method and suggests that the goal is not just to develop products, but to achieve validated learning, where knowledge about customers and the market is continuously tested and confirmed through data and feedback. The terms "pivot" and "persevere" here describe whether to take a sharp turn and do something else, or continue with what is already being done (Ries, 2011, 32).

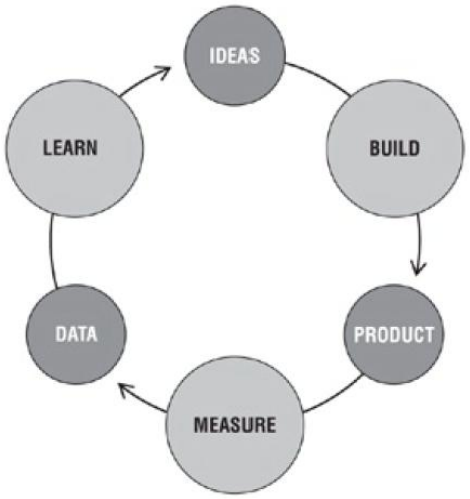

Figure 1: Build-Measure-Learn Loop (Ries, 2011)

As a continuation to this, Ries introduces the concept of Minimum Viable Product (MVP), which refers to the simplest version of a product that can still deliver value and be used to gain knowledge about the customer (Ries, 2011, pp. 81-82). This concept is particularly relevant in IT development, where complexity is often high, and where a

finished solution can rarely be planned from the beginning. The MVP enables a more experimental approach, where the risk of failed investments is reduced by testing core assumptions early in the process. As Ries writes: “Remove any feature, process, or effort that does not contribute directly to the learning you seek” (Ries, 2011, p. 111), which highlights the iterative and learning-oriented focus of the Lean Startup approach.
As with most approaches, Lean Startup has been criticised. Several researchers have pointed out that the experimental approach can lead to an over-focus on incremental improvements rather than radical innovations. Felin et al. (2019) argue that Lean Startup lacks tools for generating new hypotheses, and that the method often results in repeated testing of already existing ideas.

Similar criticism is found in York & Danes (2019), who note that many startups face difficulties applying the method efficiently, due to the demanding nature of maintaining systematic experimentation throughout the development process. This is especially difficult when customer data is limited, imprecise, or unrepresentative. They identify several types of bias that can arise in customer dialogues, including selection bias, confirmation bias, and overconfidence, which can lead to limited learning (York & Danes, 2019).

4.9 The Link between Effectuation and Lean Startup

While Sarasvathy’s theory of effectuation focuses on the entrepreneur’s use of available resources and iterative decision-making processes, the Lean Startup method as presented by Eric Ries offers a more structured approach to operationalising processes in practice. Both theories acknowledge that entrepreneurs must often navigate complex and unpredictable environments, but where effectuation emphasises human resources, networks, and emerging goals, Lean Startup concretises this through tools such as MVP and the BML loop, which support continuous validation and rapid learning. In this way, the two theories complement each other. Effectuation clarifies the underlying mindsets and conditions for decision-making, while Lean Startup contributes methods and practices for bringing ideas to life. In combination, they provide a broad theoretical foundation for understanding and analysing entrepreneurial processes.

4.9.1 Summary and Application

This report uses both Sarasvathy's theory of effectuation and Erik Ries' Lean Startup as a unified theoretical framework to analyse the development of a digital IT platform. Effectuation is used to analyse how choices and direction are shaped by available resources and partnerships, and how unforeseen events and opportunities are exploited as part of the development process. The four central principles are used to analytically understand how decisions are made and how collaboration with actors contributes to changing processes. Especially collaboration with an external actor is seen as an example of the type of co-creation that Sarasvathy highlights as central to effectuation. At the same time, this actor acts as my "first customer", both in the use of the solution and in the role of co-creator through ongoing feedback, tests, and adjustments.

Lean Startup is used in parallel to structure and understand the specific stages of creation. The concepts Minimum Viable Product and Build-Measure-Learn loop will be used as a method for testing assumptions and learning along the way. The creation of the platform is not planned from start to finish, but is based on experiments and continuous adaptation based on the feedback of the co-creator. This means, that the product will be used, as in effectuation, as something that is created in interaction with the surroundings, but with Lean Startup as a method to structure and measure interaction. Taken together, the theories thus contribute to showing how the innovation process is driven forward through mutual adaptation, experimental learning, and collaboration, rather than through predetermined plans.

5. Platform Models and Innovation Platforms

As knowledge and learning become more digital, and with new requirements for accessibility and compliance, there is a need for innovative formats that support collaboration and learning. Platform-based business models offer a structured framework for understanding and designing digital ecosystems that can facilitate interaction, content sharing, and complementary products. In this context, it is particularly relevant to look at innovation platforms and specialised platforms such as portals and vortals, as well as tools such as the Business Model Canvas (BMC).

5.1 Innovation Platform

Cusumano, Gawer & Yoffie (2019) define platforms as digital infrastructures that create value by facilitating interaction between two or more independent groups, typically producers and users. Their central distinction is between transaction platforms (e.g. Airbnb, Uber) and innovation platforms (e.g. iOS, Android), where the latter supports third-party development of complementary products and services (Cusumano, Gawer & Yoffie, 2019) This type of platform is especially relevant in connection with the development of a learning platform that not only disseminates content, but also creates the framework for collaboration and co-creation between experts, developers, and end users. An innovation platform thus enables external actors to contribute content and tools, which thereby expands the overall value creation potential (Cusumano, Gawer & Yoffie, 2019). In the case of a web accessibility platform, experts in the field could contribute with their knowledge of accessibility.

5.2 Portal vs. Vortal

The terms portal and vortal are used to describe types of digital access and knowledge platforms. A portal is a board entry point to information, typically covering multiple topics (Wimmer, Du, & Rada, 2019). A vortal (vertical portal) focuses on a specific domain or sector and offers targeted, expert-oriented content and functionality. In this context, the vortal strategy is relevant because the platform targets web accessibility as a specialised practice, where the target audience is both professionals and organisations with a specific need. According to Chuang (2020), vortals enable deeper user engagement, niche communities, and higher conversion rates, as the content is more tailored, and the user identifies with the domain to a greater extent. Thus, the role of the platform becomes not only the distribution of learning but also creating community within its field.

5.3 Business Model Canvas

To structure and operationalise the strategic elements of the platform, the business model canvas (Osterwalder & Pigneur, 2010) is used. The model divides a business idea into nine central building blocks: customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structure. The BMC

provides an overview of how the platform creates, delivers, and captures value, as well as how the different components interact.

Below is presented a concrete Business Model Canvas for the project platform, focusing on SMEs as the primary target group:

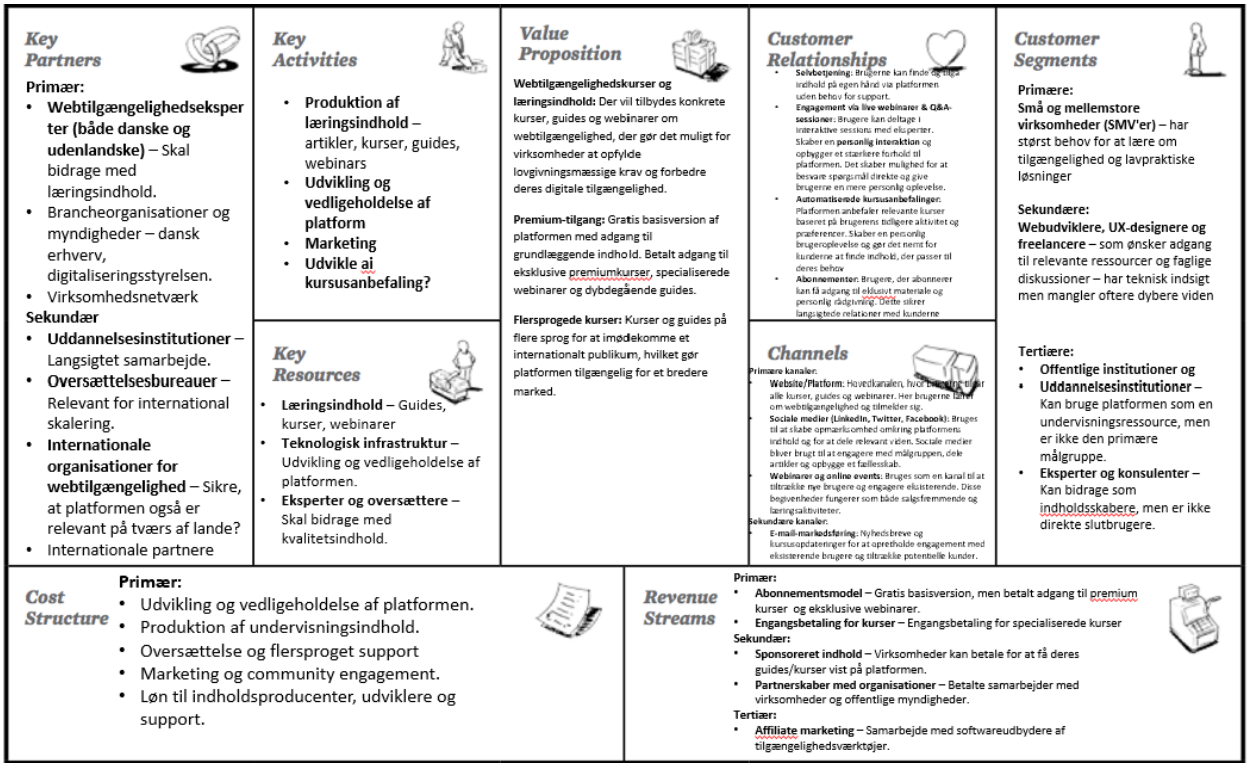

Figure 2: Business Model Canvas

In my proposed BMC (Figure 2), the customer segments include primarily SMEs with limited capacity or expertise in digital accessibility. Secondary user groups include developers, designers and freelancers seeking practical content or learning materials, which tertiary segments include public institutions or educational organisations, that may benefit indirectly from the platform.

The value proposition revolves around accessible, actionable learning content tailored to the needs of SMEs. This includes free basic resources and a premium tier offering specialised courses, webinar and multilingual content. By enabling companies to comply with legislation and improve digital inclusion, the platform provides both legal and ethical value.

The key partners segment include accessibility experts (both Danish and international), industry associations (e.g. Dansk Erhverv and Digitaliseringsstyrelsen), as well as universities. These partners contribute expertise, legitimnacy and access to relevant target groups.

The key activities involve creation of high-queality learning content, technical development and maintenance of the platform, marketing, and future integration of AI-based course recommendations.

Key resources include the learning content itself, the technical infrastructure of the platform, and the contributors (experts, developers, translators). These enable the platform to offer up-to-date relevant material.

Revenue is generated through a freemium model, combining a free basic version with a subscription-based model, with access to premium content. Secondary revenue streams include sponsored content, institutional partnerships, and affiliate marketing.

The platform builds costumer relationships primarily through self-service and interactive elements such as live webinars and Q&A sessions.

Channels include the central website, supplemented by social media, email newsletters, and live online events. These are used to distribute content and attract users.

Finally, the cost structure includes platform development, content production, translation, and salaries.

In summary, the combination of platform theory, portal/vortal, thinking, and BMC creates the understanding of the groundwork for a digital platform, operating in a specialised, regulated, and technological field. The focus on innovation platforms and vortals points to how a learning platform for web accessibility can differentiate itself, while the BMC helps to clarify how it creates and delivers value.

6. Methodological Approach to User-Centered Design and Data Collection

This chapter presents the methodological foundation of the development of the platform. The method has been chosen with a focus on ensuring a user-centered and iterative process, where the needs and feedback of the target groups informs the design and content development. Furthermore, this method was useful based on the time that was allotted. The aim of the methodology was to create a solution that is both relevant, user-friendly and practically applicable in real work and business contexts.

6.1 Data Collection Methods

The data collection primarily consisted of three qualitative interviews, two interviews with people from the target demographic (Management of SMEs) and one with an accessibility expert. This has provided insight into the user's needs, challenges and expectations for a learning platform on web accessibility. The interviews have served as an important source for understanding the context and priorities of the target groups, and have contributed to shaping the design and content.

In addition, there were conducted two iterations of co-creation sessions, where a user actively participated in the development of content, and provided feedback on structure, functionality and a prototype. This approach ensured that the platform was devbeloped with the users' perspective as a jumping off point.

By combining interviews, co-creation and user testing, a comprehensive understanding of both usability and content relevance was ensured, which supported a practical and targeted development of the learning platform.

6.2 Interviews

To gain a deeper understanding of the practical challenges and opportunities that SMEs have in relation to web accessibility, initial exploratory interviews were conducted. The purpose of these interviews was to validate initial assumptions, establish user needs, and identify contextual

relationships that informed the proceeding process of creating the product. The interviews would therefore function as a way to ground the thesis in concrete experiences and practices of the SMEs. Two sets of interview guides were created, one for a web accessibility professional, and the other for management roles of SMEs.

The guide used for the interviews of SMEs was based on the overall research context and relevant theory introduced in chapter X. With inspiration from Effectuation and Lean Startup, the questions were formulated to be open and exploratory, to the interviewees explain their own experiences, needs, and challenges. The central themes were digital procedures, current practices of web accessibility, knowledge about the EAA, and the value of web accessibility. Follow-up questions were asked during the interviews, to elaborate or clarify relevant points, and explore new things that emerged during the conversations. When choosing participants, the emphasis was on interviewing people in a management position in SMEs in North Jutland, who offer B2C eCommerce. The interviewee should have insights into digitalisation, communication, or web accessibility through their work. The purpose was to gain insights from actors that have direct experience with problems that the thesis is investigating, not to necessarily achieve representativeness.

The interview guide for the web accessibility professional was created in a similar manner. Here, however, questions were added that specifically focused on the interviewee's experience with working with different firms. They were also asked what they thought the challenges were based on their personal experience, as well as other aspects specific to their expertise.

In total, three semi-structured interviews were conducted. The interviews were all conducted online, as the respondents preferred this approach. The length of the interviews was between 10-15 minutes, and all of the interviews were recorded, with informed consent from the participants. After the interviews, the recordings were transcribed, so it would be possible to do a thematic analysis and use the insights systematically in the following work. The transcriptions created a qualitative foundation for the first design choices and the development of the platform's first iteration.

By involving the users of the platform early in the process, it was made possible to integrate their perspectives, before there was a need for concrete solutions. This reflects the Lean Startup

principle of validated learning and also aligns with the Effectuation-based approach, where the solutions are created collaboratively. Here, user development was used as a driving force for innovation from the beginning of the development process.

6.3 Analysis of Interviews

This chapter presents an analysis of three interviews, conducted with an accessibility expert and two interviewees who hold relevant positions in SMEs in North Jutland. The purpose of the interviews was to gain a deeper understanding of the target groups' knowledge, experience and needs in relation to web accessibility and the EAA.

The analysis is based on a qualitative reading of the interview transcript with a focus on the attitudes, reflections and wishes that the participants themselves highlighted. Instead of using a thematic analysis or coding, a more open approach has been chosen, the insights arise directly from the participants' own words and experiences. This approach was chosen for both practical and methodological reasons. The timeframe for the thesis made it necessary to prioritise simple but meaningful form of analysis that could still ensure that the participant's' perspectives were clearly expressed and could be actively used in the development work. Furmermore, it was assessed that the qualitative value of the interviews lay mainly in the concrete statements and assessments that could be translated directly into design decisions and development of written content.

The purpose of the analysis is thus not to be able to generalise, but to understand the concrete needs and the experiences that these specific informants brought forward, and to use them as a basis for further development.

6.3.1 Interview 1 - CEO of a Company Specialising in Digital Accessibility

This participant is the CEO of a company that focuses exclusively on web accessibility and has extensive expertise in the field. The company primarily works with large organisations but is also experiencing increased interest from private companies because of the implementation of the EAA. The participant provided insight into the different attitudes towards accessibility in the business world, barriers to implementation, and the importance of leadership and education about

accessibility. The interview also highlighted technical challenges and the importance of understanding users.

According to the interview, the accessibility professional works for a company whose sole purpose is web accessibility, saying that "it's actually the only thing that we do" (Appendix 2) This highlights a dedicated expertise and continual practice within the field. It also appears that the company's primary consumers are large organisations, especially public authorities, but that with the EAA there is now an increased focus from private companies such as "large webshops, insurance companies, damage reporting and financial institutions" (Appendix 1).

The interviewee mentioned that the attitude towards accessibility varies between players, with the most committed companies "seeing it as a competitive advantage and not just a necessary evil" (Appendix 1) and they "can see that the proportion of older people shopping online has completely exploded" (Appendix 1). In addition, the social aspect is highly valued by serious firms. On the other hand, some companies are referred to as "all the other bandits who are just out to make money…" (Appendix 1) The expert, however, does not want to work with these firms. These descriptions illustrate a segmented market where commitment is unevenly contributed, with some companies caring about web accessibility for social reasons, and others only for compliance or economic gain (Appendix 1)

Barriers to implementation of web accessibility are identified in particular as "ignorance of what it really is about and who it affects" (Appendix 1), indicating that there is a lack of knowledge about it, and what it means for both the firms and their customers. According to the interview, this can turn into discussions about "edge cases, and where the users who are affected disappear in complexity" with the users who need accessibility being forgotten or ignored (Appendix 1). The fact that web accessibility is not on the agenda of management is described as a crucial weakness. He said: "[web accessibility] must be anchored in management, otherwise it is of no use" (Appendix 1). So, he believes that if accessibility is not taken seriously by management, it will never work properly. Furthermore, the expert believes that the lack of knowledge stems from web accessibility not being part of higher education, stating that "it is a huge problem that his subject is not included in the curriculum in the education programs," (Appendix 1) again, highlighting the lack of knowledge of the field as a crucial challenge.

For smaller companies, costs can be a barrier, even though "what we cost to help them get a handle on accessibility is a small thing" (Appendix 1). Typically, the price is "Around 50,000 kroner" (Appendix 1) for a complete testing and consulting process. There is therefore potential in developing support packages, for example through programs like SMV digital, which the expert has tried to promote, without much impact. As an incentive, the company also offers "free screening" (Appendix 1) of websites, where an employee spends "4-5 hours just sitting and testing on the most important of their pages and writing down in a report the thing that we have found" (Appendix 1) giving firms a chance to see, where they lack accessibility, so they have an opportunity to either solve it themselves or get help from the accessibility firm.

The most typical accessibility errors are described as technical aspects, especially "lack of support for screen readers," errors in "keyboard navigation, voice control", and "lack of responsive design that allows for easy zooming and magnification" (Appendix 1). Furthermore, "unstoppable page movement creates problems for people with cognitive challenges" (Appendix 1). The expert emphasises that "the main responsibility for accessibility lies with the design phase", with "67% of all accessibility problems can be traced back to the design phase" (Appendix 1). So, this highlights that accessibility should be thought of early in the process, so firms do not have to go back and fix mistakes after they have been made. He also believes that many companies believe that they know enough about web accessibility, but that this is not the case, stating that "vendors often say they have it under control, but they don't" (Appendix 1) and that they need more information.

According to the interviewee, a significant part of the work on accessibility is about understanding users, with the expert emphasising the necessity of "looking a little at understanding the user groups. So something like personas, for example… to get beyond the fact that people think that its just a few blind people" (Appendix 1). He believes that using real examples helps people understand who web accessibility affects, besides for example, blind people who need screen readers. An effective approach is to show specific problems through authentic stories, for example they have an employee who is blind himself and makes videos about the problems he encounters (Appendix 1). This user perspective contributes to a deeper understanding and commitment to accessibility work. In terms of legislation, the interviewee emphasises that all aspects of accessibility have equal priority, as the legislation does not allow

errors or shortcomings in any part of the solution: “everything is equally important, because the legislature does not accept errors in any of those…” (Appendix 1). If a company chooses to deviate from certain requirements, it requires a strong and well-founded argument. He stated: “You [must] at least be able to argue very well for it” if you choose not to live up to the requirements (Appendix 1). It is also crucial to approach accessibility with a focus on the specific disadvantage it entails for users with disabilities, and to include these users’ experiences and needs as a central perspective (Appendix 1). In addition, the particular complexity of ensuring accessibility across digital formats is also emphasised, not only on websites and in apps, but also in documents. The PDF format is mentioned as particularly problematic here, as it often entails technical challenges and, in practice, can be completely inaccessible for users e.g. with screen readers (Appendix 1)

In summary, the interview provided deep insights into the many facets of web accessibility, from organisational attitudes and market segments to practical challenges in design and implementation. It also mentioned that a crucial challenge is the need for increased education and systematization. These insights can thus form the basis for further work to promote accessibility as an integrated and value-creating practice in digital solutions.

6.3.2 Interview 2 - CTO in a SME within the Beauty Industry

The participant is the CTO of a SME and is responsible for technical development, including the implementation of digital accessibility in the company’s web shop. The purpose of this interview, as well as interview 3, is to get insights into the opinions SMEs have about web accessibility, as well as their knowledge about the subject. Moreover, the goal is to find out what challenges they face when it comes to implementation of web accessibility legislation.

In the interview, the participant emphasised the increasing importance of digital accessibility as an integrated part of both public and private services: “Our society functions on the basis that online is a big part of it… of course, it has now come to the private sector” (Appendix 2). The interviewee showed an understanding of the legislation and why it should exist. However, it became clear that knowledge of the legislation has primarily been built through networks and industry associations such as Dansk Erhverv, where implementation and practical challenges are the primary topic of discussion(Appendix 2). At the same, the interviewee noted that the

guidelines of the legislation have not yet been fully specified, which creates uncertainty within the company: “When it is rolled out, the guidelines for it are not in place yet… it is an area that I am responsible for, so it is important for me not to be too late, nor to overdo it” (Appendix 2).. Here, she also highlights that she does not want to make too many unnecessary changes.

The company has previously worked with accessibility in collaboration with a development agency, and several accessibility functions such as keyboard navigation and contrast improvements have been implemented via the CMS theme (Shopify) (Appendix 2).. However, the interviewee explained that accessibility is not a “headline” theme in the development process, but rather an implicit part of the work (Appendix 2). She said, “there has definitely been more focus on it now that the legislation is around the corner, which there wasn’t before” (Appendix 2), which shows that they might now begin to focus more on it.

The interview showed that a significant barrier to further implementation of accessibility is the limited human resources. The Interviewee stated that, “in my department of four, there aren’t many people… it’s hard to get something like that in here” (Appendix 2). Moreover, she pointed out that financial resources also play a central role, as the costs for web developers the make necessary changes are expected to be significant(Appendix 2). This illustrates how the prioritisation of accessibility is balanced against other business considerations.

According to the interviewee, the company had already conducted a test with assistive devices such as screen readers, and the upcoming relaunch of their web shop is expected to be an opportunity to fully integrate the legislation (Appendix 2). She stated that, “We will probably start from scratch within the next year and a half… and of course I will make sure that we follow the legislation” (Appendix 2). However, despite the implementation plans, she highlighted that accessibility is not perceived as a direct business advantage for them, as she believes that it will not affect their target group (Appendix 2). Finally, the interviewee stated that she would like concrete and easily accessible tools to support accessibility work, especially automated tests combined with clear instructions (Appendix 2). It was also noted that a Danish or EU-specific testing tool would be desirable, as existing tests such as Google’s Lighthouse are not adapted to the new legislation (Appendix 2).

The interviewee thus made it clear that web accessibility in SMEs is largely characterised by uncertainty about final requirements, lack of resources, and the need for clear, practical tools. Companies might therefore be awaiting the full concretisation of legislation before embarking on larger implementations.

6.3.3 Interview 3 - Owner of a Webshop, with Independent Operation of the Website

The participant runs a store that is physical but has an accompanying web shop and booking system. He is responsible for the maintenance and development of the website himself.

In this interview, it is made clear that the participant had limited knowledge of web accessibility before the interview, and he stated “So for me, I think it has become confusing… I think it can be difficult to even create that need for understanding.” (Appendix 3). He believes that the legislation and web accessibility concepts are extremely confusing, and he does not know where to begin. Therefore, the participant had not focused on web accessibility when developing their website. Instead, they used their “gut feeling” (Appendix 3), and did not initially try to implement accessibility concepts such as alt-text (Appendix 3).

However, the interviewee stated, that they do not believe technical or economic issues to be a barrier for them. Instead, the interviewee stated, it is “Just a question of prioritising it” (Appendix 3). The interviewee did, however, highlight that they would need knowledge and education(Appendix 3). These, he believes, are key prerequisites for being able to carry out the task, saying that “there may be some knowledge that it would be smart to learn more about or take a course ” (Appendix 3), highlighting that he would be willing to learn more about it through e.g. courses. He also believes that web accessibility is a positive expectation and that web accessibility could be a long-term advantage. He compares it to learning about SEO. In relation to the first step towards improving web accessibility, the need for competence development is again highlighted, and he also mentions that he prefers working with others or a professional to learn, stating that he wants to “draw on some experiences” from others to learn(Appendix 3). The participant assesses that an automated testing tool, combined with concrete step-by-step guides, would be most useful for improving accessibility, noting that “something that is perhaps a little more concrete, not too general” would be preferred (Appendix

3). He also notes that tools should provide quick feedback so that you can monitor the effect changes quickly, without having to "sit around waiting for some consultant… you want to know if the actions you have taken have made an improvement" (Appendix 3).

In summary, the interview indicates that web accessibility is not yet a prioritised focus area, but that there is a will and resources to strengthen efforts through knowledge, competency development, and user-friendly tools. There is a recognition that accessibility can have both a business advantage and a societal responsibility, and that organisational prioritisation and practical implementation must be supported by relevant knowledge and hands-on solutions.

6.4 Interview Findings

Three semi-structured interviews were conducted to uncover SMEs' experiences, needs, and challenges with web accessibility. One interview was conducted with a web accessibility expert and two with representatives of SMEs in North Jutland SMEs with web shops. The purpose was to create a practical basis for further product development and ensure user involvement early in the process.

A central theme in all interviews was a lack of knowledge. The expert pointed to widespread ignorance and lack of management support as major barriers and believed that accessibility should be considered in the design phase. One SME had limited resources and requested clear guidelines, while the other SME experienced the area as confusing and expressed a need for learning and guidance. Both companies saw accessibility as something that could have value, but not as a current priority. There was agreement that concrete tools, automated tests, and easy-to-understand step-by-step guides would be helpful. The interviews also showed that understanding the target group, e.g. through cases and personas, could strengthen engagement.

These findings confirm and give nuance to the themes presented in chapter X. In particular, the interview supports the identification of missing knowledge and competence as a main barrier to web accessibility implementation in SMEs (Lazar et al., 2015). Both the expert and SME representatives pointed to unclear legislation, need for concrete tools and limited resources as significant challenges. Furthermore, there was a consensus that web accessibility holds potential as a long-term benefit for both business and society, aligning with the literature's view as

accessibility as a technical, organisational, and socio-economic necessity (Sohaib & Kang, 2017; Santoki & Patvardhan, 2021).

The interviews agreed with the literature's emphasis on automated tools combined with manual evaluation. Like Kous & Díaz (2023) and Miftah et al. (2023), the interviewees highlighted the importance of automated tests paired with user-friendly, concrete guidelines as practical aids for SMEs. However, it was clear that accessibility cannot rely on automation alone but also requires human judgement and continuous learning. This underlines the complexity of operationalising WCAG requirements in practice.

Moreover, the interviews revealed uncertainty about the final form and implementation of the EAA, which also appears as an issue in the literature (Drabarz, 2020; Easton 2013). This uncertainty hinders prioritisation and investment in web accessibility, especially in resource-constrained and time-pressured SMEs.

One noticeable insight, also not entirely surprising, is the interviewees' limited perception of accessibility as a current competitive business advantage, despite the literature pointing to economic opportunities arising from the inclusion of more users (Sohaib & Kang, 2017). This may be due to a lack of concrete knowledge about user's needs, indicating a demand for better cases and personas, to strengthen engagement.

Overall, the interview findings show that the challenges and needs described in the literature are very much present in practice. SMEs want to work with accessibility but lack clear knowledge, guidance and resources. This highlights the need for practical solutions and user involvement that can make accessibility tangible and feasible in the busy SME context, which is exactly the focus of this study.

6.4.1 Use of Insights to Inform Design Decisions

The insights from the three interviews directly influenced the development of my thesis platform, a learning platform that aims to strengthen the knowledge and ability to work with web accessibility in SMEs. The platform is developed with a focus on both developers and decision-makers and offers practical, flexible learning formats, as well as the opportunity for knowledge sharing between professionals.

1. **Lack of knowledge is addressed through structured learning**

A common point in all three interviews was a significant lack of knowledge about digital accessibility. Both company participants expressed uncertainty and confusion about where to start, while the expert highlighted that accessibility is not included in most education programs. This has guided the platform's core content:

- Online courses at different levels of complexity, that introduce and build knowledge.
- Guides that translate technical requirements and concepts (e.g. screen reader compatibility or WCAG principles) into concrete, tangible steps.
- Webinars that provide the opportunity to follow practical topics and hear professionals share experiences and solutions.

2. **Accessibility must be tangible and relevant**

Both the expert and the interviewed companies called for a more concrete and user-friendly approach to the topic. Therefore, the platform contains:

- Personas and cases that show how people with different disabilities experience digital barriers.
- Video content with real people (e.g. a blind employee from an accessibility firm) that illustrates specific problems and solutions.
- Practical examples that companies can test or adapt to their own solutions.

3. **Teams with fewer resources should be able to participate**

Both companies pointed out that time, staffing, and finance are limited resources. It is therefore important that the platform is accessible in both content and format:

- Short, modular learning courses that can fit into a busy life.
- Checklists and templates that can be used directly, without the need for specialist knowledge.

- A searchable research bank or similar, divided by function (e.g. “for developers”, “for managers”), so the content is easy to find and use.

4. **Clear and translated regulatory requirements**

Both companies mentioned the upcoming legislation (EAA), but expressed uncertainty about what exactly it requires of them. Therefore, the following could be included:

- A regulatory section that explains the requirements in easy-to-understand language with visual summaries.
- Content that distinguishes between compliance and best practice, so that companies understand the difference between minimum requirements and recommendations.
- Guides targeted at different roles, so that both management, developers, and designers know what they have to take responsibility for.

5. **A community for professional sparring and knowledge sharing**

The accessibility expert mentioned that knowledge about accessibility is often scattered and unsystematic. To address this, the platform should be developed as a vortal:

- Professionals can contribute their own guides, webinars, and courses that others can learn from.
- A dialogue and Q&A section where users can ask questions and share experiences.
- This supports shared learning and continuous updating, and ensures that the platform remains relevant.

6. **Focus on the design phase and error prevention**

The accessibility expert highlighted that the majority of accessibility problems arise early in the design phase. Therefore, the platform prioritises:

- Materials focused on inclusive design, checklists for Figma, and concrete UI patterns.
- Guides specifically aimed at designers and developers, with a focus on early integration of accessibility rather than subsequent fixes.

Summary

The platform's structure, content, and functions are shaped directly by the insights from the interviews. It addresses concrete barriers such as a lack of knowledge, lack of resources, and regulatory uncertainty, and offers solutions in the form of targeted learning, concrete tools, and access to a professional community. In this way, the platform can support a systematic and practical approach to digital accessibility in Danish SMEs.

7 Co-creation

This chapter presents the first iteration of the co-creation process, which took place after the preliminary interviews. The purpose of this session was to validate early ideas and the direction, and to get concrete feedback on content, structure, and functionality. The iterations in the development process are based on the Build-Measure-Learn (BML) cycle and Minimum Viable Product (MVP) principles, where the product is gradually improved and rested through user involvement. Feedback form this first session formed the basis for significant design adjustments and prioritisation of content.

7.1 Iteration 1 - First Co-creation Session

The participant was a CTO from a startup, with responsibility for digital development and knowledge of the company's strategic and operational needs. The meeting was semi-structured and took place as an open dialogue about idea development, expectations, and priorities.

For the session, a presentation was prepared, which would create the structure of the session. The presentation included:

- A sitemap outlining the overall structure of the platform (See figure 3).
- Conceptual ideas for content and functionality (including learning paths, leveling, and time estimates).
- A Business Model Canvas (see Figure 2) to show how value creation and user needs are considered in the solution.

7.1.1 Feedback and Wishes

Several valuable inputs were received during the session:

The co-creator suggested starting by developing guides first, as it is the most cost-effective and low-utility content to produce. Courses require more resources and technical set-up, and could come in the next phase, or be integrated via external sources.

The participant recommended producing the content in Danish first, making it internally, and then using AI (Such as ChatGPT) for translation. Later, professional translators could be hired, to make the content better before the platform would be officially launched, to ensure correctness.

The co-creator pointed out that the solution should be adaptable to different company's skill levels and resources. For example, if the company has 50 employees, it is more likely that an internal employee can use the platform. With fewer employees, consulting services may be preferred.

It was also suggested to divide the learning content into levels or tracks, such as "Make it compliant" or "Make it perfect". The platform should clearly show time spent per module or track so users can choose a course that fits their daily routine and budget.

7.1.2 How the Input Influenced The Design

The feedback from the first co-creation session led to several concrete changes in the structure and functionality. Firstly, guides were prioritised as the first content type on the platform, as they are easy to implement and would be the first thing, that the co-creator would look for on the platform. The learning content was divided into levels (beginner, intermediate, advanced) and with time consumption indicated directly in the course and webinar overview. Furthermore, two approaches should be used when creating courses: one focusing on compliance (legal requirements), and one on best practice, which meets different needs and ambition levels. Considerations were also made around the future use of an AI-assistant and translation as scalable solutions.

7.1.3 Key Themes from the Feedback

- Simple and intuitive structure with clear sections (guides, courses, webinars).
- Clear and targeted language, with the possibility of scaling to other languages.
- Precise descriptions of what is being learned, how long it takes, and what level it requires.

The session confirmed the need for a low-barrier entry to web accessibility and the importance of clarity in structure, content, and language. These insights were used to shape the first interactive prototype in Figma, which presents a user-friendly learning platform with guides, courses, and webinars as core content. The content of the platform was created in Word documents, and is presented along with the platform for testing for the next co-creation session.

8. Prototyping Process

Before the prototype was made, a sitemap was created which described the overall structure and content pages of the platform (figure X). This served as the basis for the subsequent co-creation session, where ideas and structure were validated through dialogue with a representative from the target group. Feedback from this session impacted the design and prioritisation of the platform.

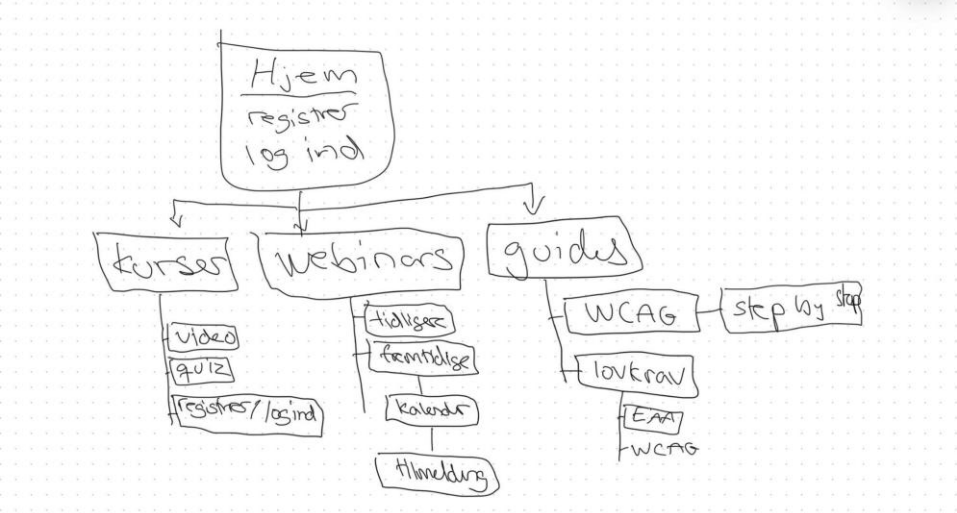

Figure 3: Site Map Sketch

8.1 Development in Figma

The process began with a sitemap to ensure a focus on structure and functionality over aesthetics, which allowed for quick iteration. Based on the feedback from the first iteration of co-creation sessions, a high-fidelity mock-up of the platform was created using the tool Figma, a popular digital design tool, that is well suited for interactive prototypes. This tool was chosen as I have experience using it, and as it has the ability to quickly test different versions of a prototype. The mock-up contained four main pages, including a landing page, guide-page, course-page, and a page for webinars. The purpose of these pages were to visualise the page navigation and content, and to be able to test understandability and functionality in a more realistic format. After creating the pages, they were turned into a clickable prototype, that the co-creator would be able to use for testing in iteration 2. The pages were created in a very simple format, with simple navigation and few colours, in order to make the page as user friendly as possible. The colours chosen were tested against each other to make sure that they lived up to AA or AAA WCAG standards, and so was text sizing.

8.2 Included Pages in the Prototype

As previously mentioned, the prototype consisted of four central pages.

1. Landing page: This page was an overview of the purpose of the platform, with access to the other pages. It, for example, would show the most popular courses (Figure 4).

2. Guide page: This page (Figure 5) creates an overview of the available guide categories, including a dropdown menu about legislation, including the EAA, a large clickable headline that leads to the WCAG guidelines, and more. This would lead the users to step-by-step guides, with easy-to understand texts, divided by themes or difficulty. The guides should function as a low-barrier entry to web accessibility (Figure 5 & 6).

3. Course page: This page worked as an overview of available courses, with each course having their difficulty level, time estimate and subject listed, followed by a short introductory text. The courses are intended for companies with slightly more resources or

professional ambitions (Figure 7).

4. Webinar page: A page showing upcoming and past webinars, both live and recorded. The user would be able to sign up for up-coming courses, or go back and watch previously held webinars. The purpose would be to make it possible to learn from experts and ask questions in real time. The webinar was created for future collaborations with industry players in mind (Figure 8).

The design decisions that were chosen for the prototype were directly connected to the needs and barriers that were identified in the interviews and the co-creation session. The guide page and its content were priorities first, time estimates and levels were introduced to meet the needs of businesses for effective learning, and language and accessibility were considered with a view to how content can be scaled and translated later in the process.

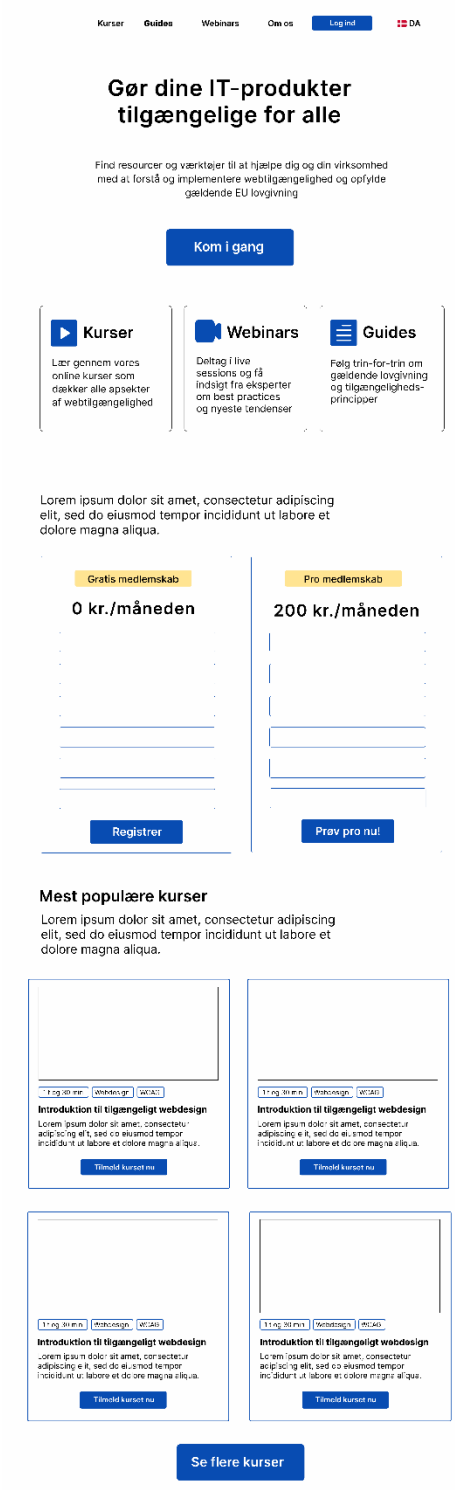

Figure 4: Landing-Page

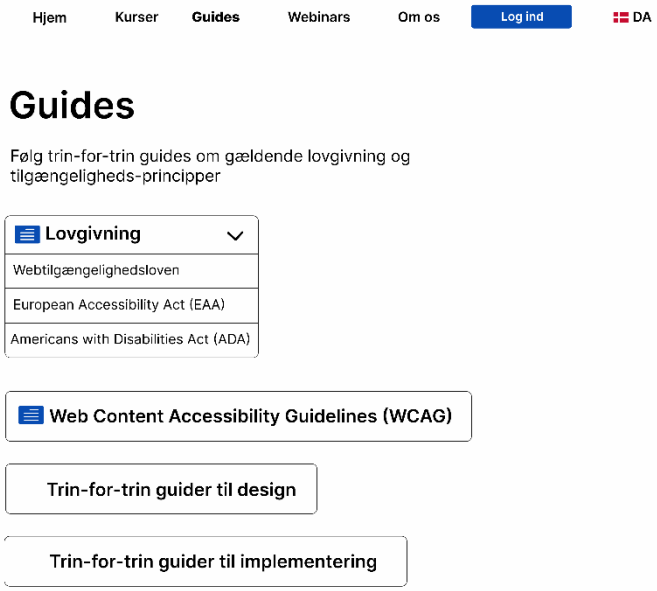

Figure 5: Guide-page

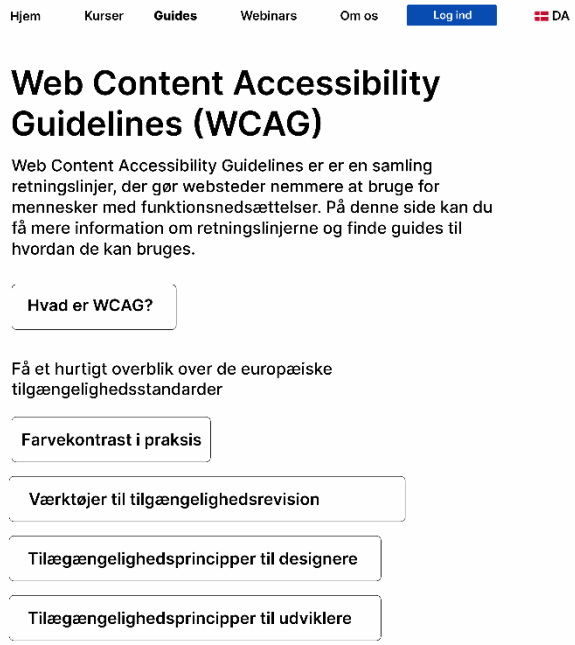

Figure 6: Guide-page WCAG

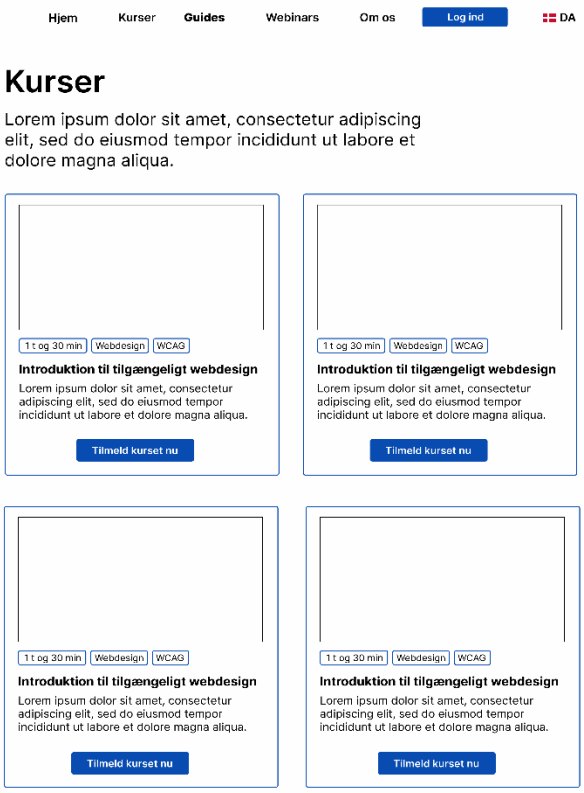

Figure 7: Course-Page

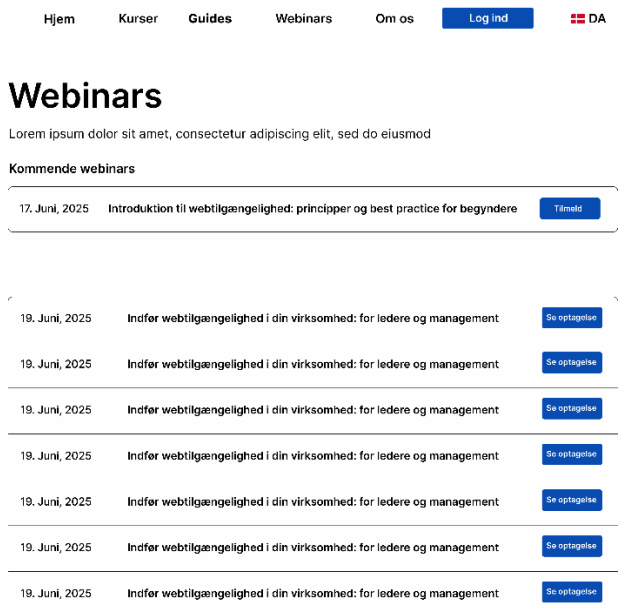

Figure 8: Webinar-page

8.3 Creating Learning Content - Guide, Course and Webinar

The creation of the learning content for the platform followers an iterative and user-centered approach, where academically based material was translated into practice-oriented and accessible resources.

The guide “Comprehensive Guide: Color Contrast in Practice for Web Accessibility Based on WCAG 2.1 & UX Best Practices” (Appendix 4) was developed as a practical tool for designers, developers and management with a focus on ensuring colour contrast in digital user interfaces in accordance with WCAG 2.1 (W3C, 2018). The guide is structured in seven manageable steps that combine theoretical knowledge with concrete tools and action-oriented checklists. It aims to provide users with independent tools to identity and solve contrast problems and thus improve web accessibility for people with visual impairments.

To support the guide, a webinar was developed as an interactive and accessible introduction to the topic. The webinar consists of five modules that combine theoretical presentations, live demonstrations of testing tools and dialogue with participants to strengthen understanding and application of the material.

Finally, a web accessibility course for beginners was created, which introduces the basic principles of accessible digital design for users without a technical background. The course is structured in shoer, self-contained modules with clear learning objectives, based on microlearning principles (Leong et al., 2021) and on W3C's guidance on cognitive accessibility (COGA) (W3C, 2021).

8.3.1 Methodological and Academic Foundation

The content of the three learning resources is based on recognised standards and recommendations, including WCAG 2.1 (E3C, 2018), national guidelines from the Danish Agency of Digitalisation (Digitaliseringsstyrelsen, 2023), and expert knowledge from leading organisations and experts in web accessibility, namely WebAIM (WebAIM, 2023), TPGi (TPGi, 2022), Nielsen Group (Nielsen Norman Group, 2021) and Stark (A plugin for Figma). These have been used as key sources of inspiration and reference to ensure that the learning content reflects the latest knowledge and best practices. For example, WebAIM’s practical testing tools,

such as the WebAIM Contrast Checker, have helped shape the specific guidance on color contrast measurement (WebAIM, 2023), while TPGi's comprehensive guidelines have contributed to the implementation of WCAG standards and compliance strategies in the material (TPGi, 2022. Nielsen Norman Group's research into user experience and accessibility has laid the foundation for the didactic design principles that ensure that the content is conveyed in an intuitive and user-friendly manner (Nielsen Norman Group, 2021). In addition, Stark has worked as a practical tool in the guide and webinar.

8.3.2 The Development Process

The content was developed in Word documents, which formed the basis for testing and iteration in interaction with the co-creator in the second iteration session. The guide was prioritised from as the first content type on the platform based on input from co-creation sessions, where the need for low barrier practical and easily implementable resources was clarified. The structure and content of the course and webinars were also adjusted along the way to ensure relevance, accessibility and usability for the target group.

9. Co-creation Iteration 2: Prototype Test and Feedback on Written Content

This chapter covers the second iteration of development, where an interactive prototype of the platform was tested with the co-creator. As a part of the iterative development process, the second iteration was conducted to test the platform prototype and evaluate the guide, course and webinar content. This approach also follows the Lean Startup methodology and its Build-Measure-Learn cycle, where the product is built, tested with users to measure their feedback, and the insights are used to learn and improve the product. The prototype was developed as a Minimum Viable Product (MVP), containing simple functionalities and content to obtain user feedback and identify necessary improvements.

The test consisted of several tasks, where the co-creator was asked to navigate the platform, sign up for a course, open a specific guide, apply for a webinar, and provide feedback on the experience, content and functionality. The purpose was to uncover the user's first-hand

impressions, understanding the platform's purpose, motivation for use, and any barriers the user might meet. These tasks and questions can be found in appendix 5.

9.1 Feedback and Recommendations

When asked about their first impression of the platform, the co-creator noted that the top menu was cramped with too many links, which caused confusion. Furthermore, the login button and the language selector were assessed as having inappropriate placement and size, and it was recommended to optimise these elements for better usability, which was then corrected after the test (appendix 5). The communication of the platform's goals and target audience was perceived as slightly unclear, and it was suggested to make the purpose and value of the platform clearer. Specifically, it was mentioned that the wording on the front page and in the navigation menu could be more targeted, making it clearer who the platform is for, and what value the user can get (Appendix 5). For example, it was suggested to replace general terms such as "accessibility" with more specific descriptions such as "user-friendly" and "legally compliant" (Appendix 5). In addition, the co-creator recommended highlighting the practical benefits of the platform, e.g. time savings and step-by-step guides, to emphasise the relevance for decision-makers in SMEs (Appendix 5).

When asked, guides were again prioritised as the most relevant content for the user, as they provide quick and concrete value (Appendix 5). The content of the guide was generally assessed positively, but with suggestions for improvement. The participant found the guide useful as a low-level entry point to the topic it covered, especially if presented in a short and clear format that link directly to relevant legislative requirements (appendix 5). However, the co-creator requested more concrete examples relevant to his business and visual elements, such as infographics or similar content, especially in technical areas such as colour contrast (Appendix 5)

In relation to webinars, they were considered less relevant. He expressed that these could be valuable if they contained something unique, e.g. a special expert or case (Appendix 5). Furthermore, he would prefer a live webinar to a recorded video, as there would be opportunity to ask questions (Appendix 5). However, scepticism was also expressed towards those that appear as "sales pitches", instead showing a preference to guided or written material if the content can be communicated effectively in that way (Appendix 5).

The course was perceived as relevant, but only under certain conditions. The co-creator emphasised that the content should be targeted at the needs of the company rather than the individual user. He pointed out that the value of the course would largely depend on whether it had practical application in relation to the company's operations, growth or employee responsibility (Appendix 5). It was further emphasised that it would be useful that the courses contain concrete and recognisable examples that make accessibility relevant and operational, e.g. how a dyslexic employee experiences a digital solution (Appendix 5). It was also suggested to include statistics, e.g. how many potential customers could be lost due to poor accessibility, to make it more business relevant (Appendix 5). The co-creator also requested a clear structure in the course, with clear indications of level, time consumption and learning outcomes. Online formats were preferred because they could easily be integrated into a busy workday, and because the topic did not necessarily one's physical presence or a discussion (Appendix 5). Emphasis was placed on the fact that the course should be effective and action oriented, should not be too long, and should be without unnecessary or overly theoretical passages. The content was assessed as overall good and relevant, but a few examples were described as a "bit extreme", and thus difficult to relate to in a normal business context. More balanced and realistic cases were therefore suggested (Appendix 5).

The navigation of the platform functioned intuitively, but the top menu's dense placement of tabs created confusion. It was recommended to reduce the number of links, remove or move "membership" and make the language selector smaller and more discrete (Appendix 5). The visual expression was assessed to appear too template-like or outdated, and emphasis was placed on creating a more modern and trustworthy design to increase user trust in the platform (Appendix 5). The user believed that the relevance of the platform as low in the short term, but with potential in the longer term, provided that the content and visual expression are further developed. It should be noted, that this opinion was also related to his own company and the resources they specifically have (Appendix 5).

9.2 How Input should Influence the Design

The input from the test provides valuable insights for the next iteration of the MVP and contributes directly to the BML loop used in the development process. Based on the feedback, several areas of improvement were identified.

Firstly, the top menu needs restructuring to reduce cognitive load. The login button and language selector should be repositioned and resided to enhance usability, and the number of visible tabs should be reduced to improve clarity.

Secondly, the guide was considered useful and relevant but should be changed to be more visual, accessible and practical. This includes implementing a clearer step-by-step format and integrating illustrations and infographics, especially in technically complex areas. The inclusion of business-relevant examples, especially ones drawn from real contexts, would also increase the perceived value of the co-creator.

Regarding the webinar, although it was seen as potentially useful, it was considered secondary to other content formats. If retained, it should offer unique value, e.g. through access to experts, and ideally should allow interaction. Otherwise, written or guided formats were preferred due to their clarity and time-efficiency.

The course was believed to be relevant, but only under certain conditions. To be valuable to the co-creator and his company, it must be clearly connected to business operations and present actionable, realistic content, such as relatable, concrete cases, practical statistics, and clearly indicated levels, learning outcomes and estimated durations. Courses should avoid overly theoretical content and instead focus on concise, structure and applicable knowledge suitable for time-constrained professionals.

Finally, the overall communication and visual identity of the platform needs to be improved. It was recommended to make the wording on the landing page and navigation sharper, to better reflect the target audience and business value. The current design was also seen as too template-like, undermining credibility. A more modern and trustworthy look should be pursued in the next iteration.

These recommendations feed directly into the next build phase of the BML loop, and inform what to measure in the following test, thus continuing the iterative development of the MVP.

9.2.1 Key Themes from the Feedback

- Need for clearer and more streamlined top menu with fever visible links.
- Guides were confirmed as the most valuable starting point for users seeking quick, practical insights.
- Course content should include realistic, relatable examples and concrete business relevance.
- The platform's visual design must appear modern and trustworthy to support credibility.
- Communication around the platform's purpose and target audience should be sharper and more engaging.

This iteration reinforced the value of an iterative, user-centred design process based on the BML loop and MVP principles. The feedback provided actionable input for the next build phase and validated the importance of testing early concepts to ensure alignment with real user needs. Insights from this round could be used to refine both consent and design, for an upcoming iteration and test cycle.

This thesis has highlighted key challenges and promising opportunities in developing a digital learning platform tailored to small and medium sized enterprises, with the goal of facilitating compliance with the European Accessibility Act and its web accessibility requirements. Insights gathered through qualitative interviews and iterative work reveal a recurring pattern: a lack of knowledge, limited time, and constrained economic resources significantly hinder SMEs ability to proactively address accessibility issues. These findings not only highlight practical barriers but also points to a broader systemic challenge, that is that without targeted support, many SMEs risk falling behind in digital inclusivity, potentially excluding a significant portion of users.

10. Methodological Considerations and Limitations

This chapter reflects on the methodological approaches that have shaped the development process, including the use of co-creation and the Lean Startup method's Build-Measure-Learn (BML) iterations. The focus is on both the strengths and limitations of the approach, as well as how methodological choices have affected learning, adaptation, and the potential for generalization. The discussion also provides a basis for considerations about further development of the platform.

10.1 Reflection on Co-creation

The involvement of a "first costumer" in the development process has played an important role in aligning the platform and written content with actual user needs and real-world-contexts. As Sanders and Stappers (2008) point out, co-creation can contribute to deeper user insights and result in more relevant solutions. The collaboration with the co-creator facilitated ongoing adjustments, anchoring the development process in practical realities.

However, it is necessary to reflect critically on the limitations of the methodology of this thesis. Relying on a single participant for co-creation introduces a risk of bias, as the platform may become overly tailored to the unique circumstances of one company. But this initial focus can be seen as a strategic step, as crafting the first iterations specifically for one costumer allows for a refined, user-centred prototype. Once this foundation is solid, the scope should expand to include a broader spectrum of SMEs.

Going forward, the platform could be tested and further developed in collaboration with several companies within different industries, digital maturity levels and resources, to ensure broader applicability and robustness in the design. This could also strengthen the platform's potential as a generic model for similar contexts. However, for the moment, it shall instead work as a prototype aimed at the one specific customer and their company, which is a necessary stepping stone toward wider applicability.

10.2 Limitations of Qualitative Generalisability

The qualitative approach and the use of the Lean Startup method's BML iterations have enabled an agile development process, where the content and functions of the platform were continuously adapted based on user feedback (Ries, 2011). This is, as previously mentioned in chapter 4.8-4.9, particularly valuable in innovation projects with high complexity and limited prior knowledge.

However, like the co-creation methodology, the qualitative approach and narrow empirical basis limit generalisability. Since interview participants and co-creator constituted a small and relatively homogeneous sample, the results cannot necessarily be transferred directly to the entire SME population. Further iterations should therefore include e.g. larger qualitative studies or quantitative measurements, such as learning outcomes, which could strengthen validity and make it possible to document the actual impact of the platform (Venkatesh et al. 2003).

Another factor that affects the ability to generalise and validate is time and resources, both in the thesis but also in the target group. SMEs are often characterized by time pressure and the need for short-time value creation (Rogers, 2003). The interviews and session of iteration 2, clearly showed that digital accessibility is only prioritised if it is easy, concrete and perceived as directly creating value. This confirms the importance of concise, practical and operational learning modules, which were prioritised in the platform design.

10.3 Build-Measure-Learn Loops in Practice

The use of Build-Measure-Learn cycles in this thesis was inspired by the Lean Startup approach and aimed to support a user-driven and iterative development process (Ries, 2011). In practice, however, it became clear that the implementation of BML could be quite unsystematic. Due to time constraints and limited resources, only two actual iterations were carried out. This meant that there were fewer opportunities for repeated testing and continuous adjustments, which is a core element of the BML approach.

Despite the low number of iterations, the process still provided valuable insight into how user feedback could be translated into concrete improvements to the platform. For example, user testing gave feedback which can be used to change the language and visualisation of the written content, which can make the material more accessible to the target group. Although the iterative

loop was not repeated more, the process gave a clear impression of how BML can function as a framework for learning through practice and continuous adaptation. It became clear that even a few, but well-implemented iterations, can contribute significantly. This experience emphasises that the Lean Startup method has potential for creating a platform such as this, but also that its full effect requires time and sustained user engagement, which can be challenging in practice. Perhaps even more so, when development takes place in collaboration with SMEs where time is often a scarce resource.

10.4 Opportunities for Improvement and Further Development

Based on the results of the study, several potential areas of improvement appear relevant to consider. The following elements do not point to unambiguous solutions, but could contribute to increasing the platform's usability, scalability and impact.

1. Larger test group with diverse SME representation.

It is debatable whether a broader user group, e.g. including users from different industries, SME sizes, digital competence levels and organisational structures, could have contributed to identifying other needs or challenges than those that emerged in the collaboration with a single co-creation. A larger group could perhaps make it possible to generalise the results and make the platform more robust to the diversity of the target group.

2. A qualitative measurement of learning and behavioural change

Although the qualitative data has provided insights into the user's experience and reflections, it is not possible to say anything about the platform's actual effect on learning or change. It could therefore be relevant in a future iteration to consider the use of quantitative methods, e.g. questionnaires before and after use, behavioural observations, etc., to investigate how learning takes place, or whether it takes place at all. This could also provide a more nuanced picture of what parts of the platform and the written content work best and what may need to be revised.

3. Better feedback processes to support iteration

It became clear during the development process that feedback from the co-creator was curial for adjustment, but it was difficult to achieve the desired frequency and depth of feedback. This was primarily due to time pressure on part of both the co-creator and I, and the limited resources on both sides. In an iterative development model such as BML, this is a significant challenge, as continuous feedback is central. It should therefore be considered, how to structure the feedback more effectively in the future, e.g. though planned check-ins, or shorter feedback processes. However, it is also important that the feedback mechanisms do not become a barrier in themselves but support the project's goals.

4. Improved communication of the platform's business value

A common theme in the interview and session insights was that SMEs often prioritise daily operational tasks over regulatory initiatives. This seems especially true, if these are perceived as complex without immediate utility. It is possible that the platform could motivate users to a greater extent if it was communicated clearly how accessibility can have strategic and financial value. Thereby, the learning content could become more relevant in a commercial context.

5. Integration of community functions for knowledge sharing and support

I can be considered whether social functions, e.g. forums or experience sharing could contribute to increasing learning outcomes and engagement on the platform, especially for companies without in-house experts. This perspective relates to the thinking behind innovation platforms (Cusumano, Gawer & Yoffie, 2019), where users and experts create value through collaboration. Since the platform is designed as a vortal with a narrow domain focus, it could be relevant to investigate whether community functions would further enhance the user experience. However, this will require more knowledge about the actual need and usage habits of the target groups before such elements should be implemented.

11. Conclusion

The thesis has examined how a digital learning platform can be designed to assist small and medium-sized enterprises in understanding and initiating the implementation of the requirements set forth by the European accessibility Act (EAA), with a specific focus on web accessibility.

The study has highlighted key barriers such as a lack of knowledge, time, and financial resources, which in practice hinder SME's ability to act proactively in relation to digital inclusion. Based on qualitative interviews and an interactive development process, a prototype consent was created that seeks to address these challenges through practical, easily comprehensible and value creating learning elements.

A central finding of the thesis is that many SMEs fundamentally recognise the importance of accessibility, yet they lack concrete tools and guidance to act. Interviews with businesses and a web accessibility expert consistently point to a need for clear guidelines, relevant examples, and a communication style that conveys technical content in a simple and useable manner. Consequently, the developed prototype is built on concise learning modules, a webinar and a guide.

Through the application of the Lean startup method and co-creation with a "first costumer", the platform has been continuously adapted to actual needs and context. This approach has fostered strong user anchoring but also presents methodological limitations, as the narrow empirical basis reduces generalisability. However, starting with one customer and building a first prototype is a first step toward a scalable and broader solution. Moving forward, it is recommended that the platform be further developed in collaboration with multiple companies across industries and varying levels of digital maturity to enhance relevance and robustness.

An important realisation is that digital solutions for SMEs only gain traction if they are perceived as directly value-adding. Therefore, future iterations should not only measure learning outcomes but also investigate how the content can be more closely linked to business objectives and economic incentives. Likewise, feedback processes should be strengthened, and the potential for integrating community features explored, as many SMEs lack internal expertise and may benefit from peer exchange.

To summarise, the thesis demonstrates that a digital learning platform can serve as an effective tool to make web accessibility more tangible and actionable to SMEs. However, for the platform to make a real difference, it must be developed based on users' everyday realities, communicate complex requirements in a simple manner, and simultaneously clarify the strategic and commercial value of accessibility. In doing so, it can not only promote compliance with the EAA

but also concretely assist SMEs in understanding and initiating the implementation of web accessibility in their digital practices.

Bibliography

Acosta-Vargas, P., Salvador-Acosta, B., Salvador-Ullauri, L., & Jadán-Guerrero, J. (2022). Accessibility challenges of e-commerce websites: An automated evaluation approach. *PeerJ Computer Science*, 8, e891. https://doi.org/10.7717/peerj-cs.891

Anna Drabarz, *Harmonising Accessibility in the EU Single Market: Challenges for Making the European Accessibility Act Work*, 43 Rev. Eur. & Comp. L. 83 (2020).

Blank, S. (2013). *The four steps to the epiphany: Successful strategies for startups that win*. K&S Ranch Press.

Blank, S., & Eckhardt, J. T. (2024). The lean startup as an actionable theory of entrepreneurship. *Journal of Management, 50*(8), 3012–3034. https://doi.org/10.1177/01492063231168095

Brown, T., & Wyatt, J. (2010). Design thinking for social innovation. *Stanford Social Innovation Review, 8*(1), 30–35.

Cusumano, M. A., Gawer, A., & Yoffie, D. B. (2019). *The business of platforms: Strategy in the age of digital competition, innovation, and power*. Harper Business.

Chuang, Y.-W. (2020). Promoting consumer engagement in online communities through virtual experience and social identity. *Sustainability, 12*(3), 855. https://doi.org/10.3390/su12030855

Cyprus News Agency. (2022, July 20). *Press Release - European Commission*. https://www.cna.org.cy/press-release/article/3594485/press-release-european-commission

Digitaliseringsstyrelsen. (2023). Webtilgængelighed. https://digst.dk/digital-inklusion/webtilgaengelighed/

Digitaliseringsstyrelsen. (2023). *Lovgivning om webtilgængelighed*. https://digst.dk/digital-inklusion/webtilgaengelighed/lovgivning/

Drabarz, A. *Harmonising Accessibility in the EU Single Market: Challenges for Making the European Accessibility Act Work*, 43 Rev. Eur. & Comp. L. 83 (2020)

Easton, C. (2013). Website accessibility and the European Union: citizenship, procurement and the proposed Accessibility Act. *International Review of Law, Computers & Technology*, *27*(1–2), 187–199. https://doi-org.zorac.aub.aau.dk/10.1080/13600869.2013.764135

European Commission. (2015). European Accessibility Act: Impact Assessment (SWD(2015) 110 final). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2015:0110:FIN

European Commission. (2025, May 14). AccessibleEU Spain – Strengthening inclusion through the EAA [News]. AccessibleEU. https://accessible-eu-centre.ec.europa.eu/news/spain-strengthening-inclusion-eaa_en

European Union. (2019). Directive (EU) 2019/882 of the European Parliament and of the Council of 17 April 2019 on the accessibility requirements for products and services. *Official Journal of the European Union, L* 151/70. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0882

European Union of the Deaf. (2022, September 30). *Deadline for EAA transposition period missed by many EU Member States*. https://eud.eu/deadline-for-eaa-transposition-period-missed-by-many-eu-member-states/

Felin, T., Gambardella, A., Stern, S., & Zenger, T. (2020). Lean startup and the business model: Experimentation revisited. *Long Range Planning*, *53*(4), 101889-. https://doi.org/10.1016/j.lrp.2019.06.002

Lazar, J., Goldstein, D., Taylor, A., Lawrence, L., & Harris, G. (2015). *Ensuring digital accessibility through process and policy* (T. Green, Ed.; 1st edition). Morgan Kaufmann.

Leong, K., Sung, A., Au, D., & Blanchard, C. (2021). A review of the trend of microlearning. *Journal of Work-Applied Management, 13*(1), 88–102. https://doi.org/10.1108/JWAM-10-2020-0044

Lu, W., Zhang, X., & Chang, Y. (2012). Building a vertical portal for knowledge management in construction. *Automation in Construction, 22*, 264–275. https://doi.org/10.1016/j.autcon.2011.09.001

Nguyen, T. (2024). Evaluating automated accessibility checker tools. *WWU Honors College Senior Projects, 805*. https://cedar.wwu.edu/wwu_honors/805

Nielsen Norman Group. (2021). Color accessibility guidelines. https://www.nngroup.com/articles/color-accessibility/

Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation : a Handbook for Visionaries, Game Changers, and Challengers.* John Wiley.

Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Crown Business.

Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign, 4*(1), 5–18. https://doi.org/10.1080/15710880701875068.

Santoki, S., & Patvardhan, N. (2021). An examination on 'website accessibility' for active engagement of visually impaired e-commerce customers. *Technology and Disability, 33*(1), 35-45. https://doi.org/10.3233/TAD-200293

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review, 26*(2), 243–263. http://www.jstor.org/stable/259121

Sarasvathy, S. D. (2003). Entrepreneurship as a science of the artificial. *Journal of Economic Psychology, 24*(2), 203–220.

Siskevica, E. (2025). The european accessibility act risks becoming just a box-ticking exercise. Amsterdam: Newstex. Retrieved from https://www.proquest.com/blogs-podcasts-websites/european-accessibility-act-risks-becoming-just/docview/3179189102/se-2

Sohaib, O., & Kang, K. (2017). E-commerce web accessibility for people with disabilities. In J. Goluchowski, M. Pankowska, H. Linger, C. Barry, M. Lang, & C. Schneider (Eds.), *Complexity in Information Systems Development* (Lecture Notes in Information Systems and Organisation, Vol. 22, pp. 55–68). Springer, Cham. https://doi.org/10.1007/978-3-319-52593-8_6

TPGi. (2022). Colour Contrast Analyser. https://www.tpgi.com/color-contrast-checker/

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. https://doi.org/10.2307/30036540

W3C. (2018). Web Content Accessibility Guidelines (WCAG) 2.1. https://www.w3.org/TR/WCAG21/

W3C. (2021). Making content usable for people with cognitive and learning disabilities: Supplement to WCAG 2. https://www.w3.org/WAI/WCAG2/supplemental/#cognitiveaccessibilityguidance

WebAIM. (2023). Color Contrast Checker. https://webaim.org/resources/contrastchecker/

WebAIM. (n.d.). WAVE Web Accessibility Evaluation Tool. Retrieved May 29, 2025, from https://wave.webaim.org/

Wimmer, H., Du, J., & Rada, R. (2019). Knowledge portals: A review. *International Journal of Knowledge Management*, 15(1), 18. https://doi.org/10.4018/IJKM.2019010101

York, J. M., & York, J. L. (2019). The limits to lean startup for opportunity identification and new venture creation. *Archives of Business Administration and Management*, 2, 131. https://doi.org/10.29011/2642-3243.1000131

Stark. (n.d.). Stark plugin for Figma, Sketch and Adobe XD. https://www.getstark.co/¨