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Recommendations for PSPs on fostering accessibility to electronic retail payments

1. Introduction

Supporting accessibility to retail payments is one of the goals of the Eurosystem's retail payments strategy[1]. In this context, the ESCB conducted a survey with national associations representing citizens in vulnerable positions, focused on the impact of digitalisation on access to retail payments. The survey aimed to gather the associations' perspectives on how increasing digitalisation has impacted individuals'ability to make payments, both in physical shops and online, and what factors make increasing digitalisation a challenge – or a benefit. A set of recommendations to PSPs for fostering accessibility to electronic retail payments has been developed at the level of the ESCB on the basis of key findings from this survey.

Acknowledging the limited representativeness of the survey[2], the proposed recommendations aim to provide flexible guidance grounded in key accessibility principles, as well as notable insights gained from the survey itself. Additionally, it is recalled that the European Accessibility Act (EAA) came into force on 28 June 2025, making accessibility to products and services for persons with disabilities a requirement.[3] National laws transposing the EAA may contain additional or stricter requirements. Hence, the recommendations proposed here do not aim to repeat what is already legally required.

Section 2 summarises the key insights from the survey. Section 3 recaps the relevance of the EAA and related technical standards for payment services, and in what way they already cater for accessibility improvements. Section 4 lists recommendations which may be implemented in addition to existing standards to help customers in vulnerable positions to get more acquainted with electronic payment services. These recommendations may be revisited and reviewed periodically, particularly given the EAA's transitional period and in light of findings from any future surveys. Finally, section 5 concludes.

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1 The Eurosystem's Retail Payments Strategy

2 It should be noted that the survey has certain limitations regarding its representativeness due to variations in the number of responses across countries and types of vulnerabilities and thus some caution should be exercised when drawing conclusions from its findings, particularly in quantitative terms.

3 Member states shall provide for a transitional period until 28 June 2030 for services and products that are already in place. See Article 32 of the EAA for the exact wording.

2. Key insights from the survey

One of the overall key message from the survey is that increasing digitalisation impacts people in vulnerable positions more profoundly than one might think, and that it may lead to a worsening of a non-negligible part of society's ability to make payments independently, if not addressed properly. Broadly, three key themes or challenges are mentioned repeatedly by associations representing these individuals. The messages are not entirely distinct from each other but partly overlap.

2.1 Lack of knowledge

One key message is that people often shy away from electronic payments and shopping because there is a lack of knowledge of how digital payments work. Not knowing how digital payments work and the need for help seems to be a major hurdle for a significant part of society, often seniors, making digital payments inaccessible for them. This includes not properly understanding how to set up a digital means of payments or how to initiate or complete a payment using a smartphone. More than half of associations report that their members are facing difficulties with payment confirmation. Lacking digital skills and understanding of digital payments poses an issue at the checkout of the point of sale, and even more so when making payments while shopping online. The lack of knowledge may be further reinforced by language barriers and disproportionately affects migrants and individuals with intellectual disabilities. People trying to make payments digitally often need help at the checkout. This finding is additionally supported by results from SPACE 2024[4], where 9% of respondents reported that they require assistance when paying online. In the 65+ age group, this figure rises to 10% while a further 8% state they do not make online payments at all.

2.2 Lack of accessibility features

Another frequently mentioned issue is that websites or digital interfaces are not accessible for many people with disabilities, and they do not cater for their specific needs, notably in e-commerce situations. This affects all disabilities/impairments across the board, but the survey results show that this issue is particularly pronounced for blind people and those with visual impairments. It should however be noted that associations representing people with visual impairments form a large share of the survey's respondents. Inadequate accessibility features also greatly impact other people in vulnerable positions, such as seniors, who may also experience deteriorating vision, reduced mobility and fine motor skills or issues with comprehension.

Visual impairments

People with visual impairments have difficulties interacting with touchscreens/PIN pads. This seems to have become worse due to the increased use of non-accessible touchscreens. Without accessibility features such as Braille stickers or audio or tactile feedback, entering a PIN code can be challenging or not possible at all.

Mobility impairments

Physical difficulties also seem to present a significant barrier, both when handling cards and interacting with PoS terminals, inhibiting confidential and secure access to payment services. As such, the location and position of such devices, as well as their adjustability, are deemed important factors for accessibility.

[4] See Box 4: Assistance needed for making online payments (with a card or a mobile phone) in SPACE 2024

Intellectual and cognitive impairments

The increased use of touchscreens also poses a challenge for people with intellectual disabilities and other cognitive impairments. Moreover, lacking clear and simple language makes it a struggle to understand on-screen instructions or verbal prompts provided by machines or staff. Feeling rushed when users need assistance or more time further discourages individuals from using digital tools.

2.3 Fraud

The fear of fraud is another important reason why many people do not feel encouraged to make payments digitally. One of the biggest concerns seems to be that people find it hard to safely identify fraudulent websites. Fear of fraud is moreover one of the key reasons why shopping in a physical store is preferred, as many see human interaction as a source of trust, compared to digital interaction. Overall, fear of fraud may overlap with lack of knowledge of digital payments.

2.4 Other challenges

The survey highlights additional, rather specific challenges such as those of homeless people, who often do not have access to digital means of payments, due to lack of permanent residencies. Similarly, low-income individuals may be unable to afford the technological devices or internet required to access digital means of payment from their home.

2.5 Helpful features

The survey additionally reveals that digital payments are not only seen as a challenge but also as a benefit, as they offer innovative functions that help with certain disabilities and make payments easier and efficient. The below products/functions were highlighted by some associations:

- Card payments and contactless options (notably for visually impaired or blind)
- Invoices with scannable QR codes.
- Voice control (notably for visually impaired).
- Biometric authentication.
    - Voice recognition (notably for visually impaired).
    - Facial recognition (notably for mobility impaired).
    - Fingerprint recognition (notably for hearing and visually impaired).
- One-time-password via SMS.
- Near-field communication (NFC) technology.
- Mobile wallets and payment apps (e.g. Swish, Revolut, Payconiq, Apple Pay, Google Pay, and PayPal) for their convenience and accessibility features.

3. European Accessibility Act and accessibility standards

Many of the challenges highlighted in the survey may well be addressed by the EAA requirements once they are implemented, notably those related to inadequeate accessibility features. However, the EAA contains only high-level requirements. Stakeholders that need to become compliant with the EAA can either try to achieve compliance on their own, maybe with the help of a dedicated agency or consultant, or can follow available technical standards that would provide a presumption of conformity with the EAA.

In the EU, the technical standard EN 301 549 "Accessibility requirements for ICT products and services" already provides a presumption of conformity to the Web Accessibility Directive (WAD), having entered into force in 2021. The WAD aims to ensure accessibility of the websites and mobile applications of public sector bodies. Both WAD and EAA are part of the EU accessibility framework and are aligned, with the EAA covering private sector services and products. EN 301 549 is currently under revision to provide a presumption of conformity to the EAA, as well, presumably by early 2026.

EN 301 549 follows the global Web Content Accessibility Guidelines (WCAG), that provide technical accessibility standards for web content, websites, and web applications. EN 301 549 has a slightly broader scope, by targeting products and services based on information and communication technologies (ICT). Hence, it includes e.g. hardware.

Guided by four basic principles of accessibility, requiring services to be *perceivable, operable, understandable and robust* ("POUR") for people with disabilities[5], the WCAG defines three levels of conformance to web accessibility standards: Level A (lowest), Level AA (mid-range), and Level AAA (highest).[6] For each of these levels, success criteria are defined. The European standard EN 301 549 incorporates the WCAG 2.1 AA standard, hence it includes both A and AA success criteria. It defines how to make web content more accessible for people with disabilities, including visual, auditory, physical, speech, cognitive, language, learning, and neurological disabilities. Despite covering a wide range of issues however, they may not address the needs of people with all types, degrees, and combinations of disability, or do not cater for other people in vulnerable positions such as homeless people.

Despite not yet providing a presumption of conformity, the current version of EN 301 549[7] is still a good source guiding the implementation of the EAA requirements, according to accessibility experts associated with AccessibleEU[8]. This holds especially if the new success criteria at level A and AA of WCAG 2.2[9] are followed as well.[10]

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[5] *Perceivable* - Information and user interface components must be presentable to users in ways they can perceive. This means that users must be able to perceive the information being presented (it can't be invisible to all of their senses)

Operable - User interface components and navigation must be operable. This means that users must be able to operate the interface (the interface cannot require interaction that a user cannot perform)

Understandable - Information and the operation of user interface must be understandable. This means that users must be able to understand the information as well as the operation of the user interface (the content or operation cannot be beyond their understanding)

Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies. This means that users must be able to access the content as technologies advance (as technologies and user agents evolve, the content should remain accessible).

Source: https://www.w3.org/WAI/WCAG21/Understanding/intro#understanding-the-four-principles-of-accessibility

[6] https://www.wcag.com/

[7] https://www.etsi.org/deliver/etsi_en/301500_301599/301549/03.02.01_60/en_301549v030201p.pdf

[8] https://accessible-eu-centre.ec.europa.eu/about-accessibleeu_en

[9] https://www.w3.org/WAI/standards-guidelines/wcag/new-in-22/

[10] The was made clear in a written Q&A following an ERPB technical workshop on accessibility, held on 11 October 2024 (online).

Beyond legal requirements: WCAG AAA

While EN 301 549 incorporates the WCAG 2.1 AA standard to be compliant with the EAA, it should be noted that there is the possibility to go beyond what is legally required. WCAG 2.1 *AAA* Success Criteria are also listed in the EN 301 549 specification document (clause 9.5), although not part of the standard itself. The document encourages those implementing EN 301 549 to "consider whether any of the WCAG Level AAA success criteria offer suggestions that may be applicable and relevant to their project, as well as potentially beneficial to some users".[11]

One example, where it could be worthwhile for PSPs to consider implementing a AAA standard is the success criterion 2.2.5 on re-authentication shown below.[12] Lack of timing and the feeling of being rushed have been mentioned in the ESCB survey as a challenge for many when completing a payment. This is particularly relevant for people with cognitive issues, often seniors.

Figure 1: Example for WCAG AAA success criteria enhancing accessibility for payment services

Success Criterion 2.2.5 Re-authenticating

Understanding Re-authenticating|
How to Meet Re-authenticating

- (Level AAA)

When an authenticated session expires, the user can continue the activity without loss of data after

re- authenticating.

4. Recommendations for PSPs to improve accessibility to retail payments for people in vulnerable positions

The outcome of the survey makes it clear that a multifaceted approach is needed to ensure electronic payment methods and processes are designed and deployed in such a way that they can be easily used by all individuals, including those in vulnerable situations. Based on the key challenges highlighted in Section 2, the following actions are recommended to be implemented by PSPs to help ensure that digital retail payment services are inclusive and accessible to all.

4.1 Consider higher accessibility standards

Associations representing people in a vulnerable position in the EU have noted that retail payments often lack the appropriate accessibility features, presenting a clear barrier for individuals with various disabilities. The EAA and its accompanying technical standards should largely tackle this issue by mandating compliance to a minimum set of accessibility standards for payment services. Nevertheless, the EAA only sets out minimum requirements. PSPs are encouraged to consider accessibility not only from the compliance angle but as an opportunity for improving products and services that not only foster inclusion but would be beneficial for all other customers as well. Hence, PSPs are invited to strive to exceed

[11] It is not recommended that Level AAA conformance be required as a general policy for entire sites because it is not possible to satisfy all Level AAA Success Criteria for some content.

[12] https://www.w3.org/TR/WCAG21/#no-timing. See Annex 1 for a list of WCAG 2.1 Level AA Success Criteria.

standards aimed at meeting legal requirements, by adopting higher accessibility standards where appropriate and deemed helpful.

To this end, PSPs are recommended to

- **Consider implementing standards in line with the WCAG 2.1 AAA success criteria, where they seem to address challenges for customers with certain impairments at a significantly higher level.**

4.2 Involving your customers

While the survey conducted with associations representing individuals in vulnerable positions provided useful insights, it maybe even more helpful to get in contact with your customers directly to find out what may help them to make payments, considering their disability or impairment.

To this end, PSPs are recommended to

- **Invite customers to provide feedback, via adequate channels, on how accessibility could be improved or what already works well, and what doesn't, and what would make interfaces, and payment flows intuitive and accessible.**
    - Alternatively, invite associations representing different groups of people in vulnerable positions or representatives of local (rural) communities to provide aggregated feedback and help with identifying key obstacles.
- **Invite customers to usability testing of new functionalities, including those with assistive technologies.**

4.3 Enhancing educational support to address digital and accessibility knowledge gaps

The lack of digital and financial literacy is a significant barrier for many individuals, particularly seniors, in accessing and effectively using electronic payment services. PSPs should adopt proactive measures to educate and empower these groups. By addressing the knowledge gap, PSPs can empower people in vulnerable positions to use digital payments independently and confidently.

To this end, recommended actions include:

- **Taking proactive steps to increase awareness and education on topics related to (digital) retail payments, including informational campaigns related to accessibility measures.**
    - Partnering with community centres and associations representing people in vulnerable positions to deliver targeted training programmes (both onsite and online) related to digital payment methods, such as contactless payments, online banking and mobile wallets.
    - Assigning dedicated staff members to assist customers in vulnerable positions, both in-person[13] and through specialised customer support lines for customers with special needs.
    - Utilising mobile financial coaches to assist individuals with limited mobility banking and payments at home.
    - Offering didactic documentation or online demonstrations, including materials aimed at specific demographics.

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[13] Applicable only where physical branches are maintained as part of the service offering.

4.4 Mitigating Fraud Concerns

Fear of fraud is a major deterrent for many individuals when it comes to adopting digital payment methods. Building trust through clear communication and robust fraud prevention measures is essential to encouraging the adoption of digital payment methods among people in vulnerable positions.

PSPs should take proactive steps to alleviate these concerns through:

- **Communication and awareness campaigns that educate customers on fraud prevention, the realities of fraud risks, and the security features of digital payment methods.**
  - Providing accessible educational materials on Strong Customer Authentication (SCA) processes for online payments, and verification of payee mechanism, and offering support to simplify these procedures.
  - Providing examples of possible fraud scenarios based on social engineering.
- **Enhancing fraud prevention tools, such as real-time transaction monitoring, instant notifications for suspicious activities, and simplified fraud reporting mechanisms.**
  - Considering the individual profile of users and the application of adequate sub-measures (such as blocking all online payments for users identified as never using the internet, lowering limits or blocking of specific payment channels, deactivation of SCA exemption, etc.).
  - Offering payment instruments that allow payments only after a check of sufficient funds as a priority to users in vulnerable circumstances to enable better control of expenses and to avoid the use of bank overdrafts.

4.5 Promoting flexibility and choice

Providing users with choices in payment methods and authentication processes, notably providing some options which do not rely solely on smartphones, is critical to addressing diverse needs and consumer preferences in retail payments.

In line with this, PSPs are encouraged to:

- **Offer alternative authentication methods to accommodate individuals with functional limitations or limited access to digital devices and network connection.**[14]
  - Enable an offline mode of authentication (e.g. through eID or codes generated via secure hardware tokens).
  - Provide at least one alternative means to perform SCA, which is not dependant on accessing a secured banking app on a smartphone, free of charge for users**.**
- **Design payment interfaces that are flexible and adaptable to overlapping vulnerabilities, such as individuals with both cognitive and motor impairments.**
- **Ensure that payment terminals offered to merchants are accessible, notably for people with visual impairments.**
- **Adapt authentication procedures to make them more user-friendly and inclusive while maintaining a high level of security.**

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[14] One example is the Danish eID solution MitID which offers a variety of alternatives including an audio code reader.

5. Conclusion

The survey on the impact of digitalisation on accessibility to retail payments showed that the ongoing digitalisation and increasing request to pay digitally can pose a challenge for many individuals affected by disabilities or impairments or in other vulnerable situations. Among the key reasons why electronic payments are a challenge for some are a lack of digital abilities and knowledge of how to use digital payments, insufficient accessibility features helping people with specific needs and fear of fraud.

In terms of potential recommendations for PSPs, that could be derived from those findings, it is noted that the European Accessibility Act applicable since June this year, may well address many of the challenges in relation to lacking accessibility features. While legal accessibility requirements are in place, they do not necessitate implementation of the highest accessibility standards, some of which may foster accessiblity of payment services further.

Therefore, recommendations to PSPs include considering implementing higher standards to increase usability, taking measures to close any knowledge gaps, engaging with people in vulnerable positions, contributing to mitigigating fraud concerns, and promoting flexibilty and choice.

The set of proposed recommendations may be revisited and reviewed in the future, pending future insights into market developments and progress on the acccessibility of electronic retail payments.

The ERPB is invited to

- **discuss the report on the impact of digitalisation on the accessibility of electronic retail payments in the EU and**
- **support the proposed recommendations for PSPs.**

Annex 1: WCAG 2.1 Level AA Success Criteria

Table 9.1: WCAG 2.1 Level AAA Success Criteria

No.	Guideline	Success Criterion Number	Success Criteria Name
1	Time-based media	1.2.6	Sign Language (Prerecorded)
2	Time-based media	1.2.7	Extended Audio Description (Prerecorded)
3	Time-based media	1.2.8	Media Alternative (Prerecorded)
4	Time-based media	1.2.9	Audio-only (Live)
5	Adaptable	1.3.6	Identify Purpose
6	Distinguishable	1.4.6	Contrast (Enhanced)
7	Distinguishable	1.4.7	Low or No Background Audio
8	Distinguishable	1.4.8	Visual Presentation
9	Distinguishable	1.4.9	Images of Text (No Exception)
10	Keyboard Accessible	2.1.3	Keyboard (No Exception)
11	Enough time	2.2.3	No Timing
12	Enough time	2.2.4	Interruptions
13	Enough time	2.2.5	Re-authenticating
14	Enough time	2.2.6	Timeouts
15	Seizures and physical reactions	2.3.2	Three Flashes
16	Seizures and physical reactions	2.3.3	Animation form Interactions
17	Navigable	2.4.8	Location
18	Navigable	2.4.9	Link Purpose (Link Only)
19	Navigable	2.4.10	Section Headings
20	Input modalities	2.5.5	Target Size
21	Input modalities	2.5.6	Concurrent Input Mechanisms
22	Readable	3.1.3	Unusual Words
23	Readable	3.1.4	Abbreviations
24	Readable	3.1.5	Reading Level
25	Readable	3.1.6	Pronunciation
26	Predictable	3.2.5	Change on Request
27	Input assistance	3.3.5	Help
28	Input assistance	3.3.6	Error Prevention (All)