



**SUSTAINABILITY
PERCEPTION INDEX
HUNGARY 2023**

COMPASS IN THE HUNGARIAN
BANKING SECTOR'S GREEN TRANSITION

REPORT

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FOREWORD

Sustainability Perception Index Hungary: COMPASS IN THE HUNGARIAN BANKING SECTOR'S GREEN TRANSITION



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When it comes to climate change, the right time to act was years ago, but the second-best time is now. Our actions today create a ripple effect that fundamentally impacts the life of future generations. As such, all of us should feel a moral obligation to do our utmost to sustain life on Earth as it is.

Sustainable development to transition to a greener society and economy requires an all-hands-on-deck approach from the business sector, and financial services is no exception. Financial institutions play a critical role in society's sustainability journey by bringing awareness to issues of sustainability through their funding, promotion and communication choices. While roadblocks exist on the road to a sustainable future, it is a journey humanity needs to take.

Mastercard is committed to supporting the financial sector in this crucial green transition; thus, we created

the Sustainability Perception Index. This comprehensive study provides a multi-faceted analysis of the environmental sustainability perception of the Hungarian banking sector. By examining and summarizing the market's needs, prospects and potential, Mastercard is supporting banks on their journey towards a more sustainable and green future.

In the Index, we examine the Hungarian financial sector's environmental sustainability perception through three perspectives: banks' perceptions of their sustainable operations and initiatives, consumers' perceptions of banks' sustainability performance and last, financial institutions' transparency through their disclosure activity. With the Sustainability Perception Index, our goal is to provide an up-to-date picture of the Hungarian financial sector's environmental sustainability status to everyone interested in this vital issue.



INTRODUCTION



United Nations defined sustainability in 1987 as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 2023).

The UN Sustainability Development Goals (SDG) form a framework of seventeen interconnected goals to improve the lives of populations around the world and to reduce the effects of climate change, however, with the increasing threat of global warming, concentrated efforts are needed in this area (United Nations, 2023).

Since its first official definition, sustainability has become a fundamental topic for stakeholders around the world, from the CEOs of large, multinational corporations to conscious-minded consumers. As of 2023, almost all of the world's major firms publish sustainability reports and approximately one-third of Europe's largest public companies have vowed to achieve net zero emissions by 2050 (Harvard Business Review, 2022). Consumers across all generations, from Baby Boomers to Generation Z, are increasingly willing to spend more on products that are sustainable and they are more loyal to corporations committed to sustainability (Forbes, 2022).

While sustainability is a complex and constantly evolving issue, it is obvious that urgent and comprehensive actions are needed to achieve society-wide sustainable development and a green transition, which is a shift towards economically sustainable growth resulting in an economy not based on fossil fuels and the overconsumption of natural resources (Finnish Ministry of the Environment, 2023). As a result, more treaties

and alliances have been initiated to spur governmental bodies and corporations to act against climate change. One of the most well-known is the Paris Agreement, which is a legally binding treaty that aims to limit the global temperature increase to 1.5 °C above pre-industrial levels (United Nations, 2015).



Financial institutions play a fundamental role in the fight against climate change by influencing customer habits and corporate funding. Thus, climate neutral banking is a crucial step in preventing a climate crisis, one that also offers potential advantages to banks.

Climate neutral banking not only creates additional business opportunities for financial institutions (e.g., new clients, new markets, new green products etc.), but also enables more efficient risk management while ensuring compliance with pertinent sustainability-related regulations. Prioritizing environmental sustainability can also decrease information asymmetry throughout the value chain and within the financial services industry, helping to increase transparency and reduce data availability challenges. Furthermore, sustainable brands are more attractive to consumers and to potential employees and investors, thus increasing brand value in the long run (Forbes, 2022).

Data disclosure is essential to sustainable development. Sustainability-related reporting requirements are becoming stricter by the day due to regulations such as the Sustainable Finance Disclosure Regulation (SFDR) and the

Corporate Sustainability Reporting Directive (CSRD). These and other directives send the message that each entity in the corporate sector must proactively do their part in the fight against climate change by putting an emphasis on sustainable operations. Although reporting requirements are constantly evolving to increase transparency, climate neutrality is voluntary at present and not mandated by European Union and Hungarian legislation (Green Policy Center, 2022).

Supporting the Hungarian financial services sector's green transition through this report coincides with Mastercard's sustainability mission: doing well by doing good. Our mission is to empower people to reach their full potential, advance equitable prosperity around the world, and put innovative solutions to work protecting the planet. While all aspects of the ESG framework (environmental, social and governance) are equally important, this report focuses on environmental sustainability with topics that include greenhouse gas emissions, climate change, deforestation, biodiversity, waste, pollution and resource depletion. While all consumers are key for financial institutions – personal (individual or retail banking clients) and business (small

and medium-sized enterprises and corporates) – this report focuses on the B2C segment as they have a central role in driving sustainability outcome through evolving demand.



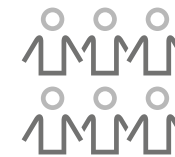
The Mastercard Sustainability Perception Index aims to provide a snapshot of the Hungarian banking sector's environmental sustainability performance based on perception.

The index assesses the current steps banks are taking towards environmental sustainability (based on self-reported data), consumer perception of the Hungarian banks' environmental sustainability performance and their transparency (based on banks' sustainability reports), using a set of objective criteria. The index measures the perception of environmental sustainability performance of the Hungarian banking sector through three main dimensions on a scale of 100.



BANK READINESS PERCEPTION

Hungarian banks' current environmental sustainability performance based on self-reported data (own perception)



CONSUMER PERCEPTION

Consumer perception of Hungarian banking industry's environmental sustainability performance



TRANSPARENCY

Public environmental disclosure assessment of Hungarian banks based on their sustainability reports

FIGURE 1: The three pillars of the Sustainability Perception Index

INTRODUCTION

KEY QUESTIONS DISCUSSED IN THE REPORT

Where does the Hungarian banking sector stand in environmental sustainability perception?

Which environmental sustainability initiatives are commonly present among Hungarian issuer banks?

What are the main gaps between banks' perceptions and consumers' perceptions about the Hungarian banking sector's environmental sustainability performance?

How could financial institutions further improve to be more environmentally sustainable based on consumers' opinion?

How do consumers perceive the banking sector from an environmental sustainability standpoint and what are their sustainability-related expectations?

Which good practices could Hungarian banks adopt to fine-tune their sustainability reporting?



This report summarizes the index results and discusses the main components and indicators that were considered when quantifying the environmental sustainability performance perception of the Hungarian banking industry. The study is structured as follows:

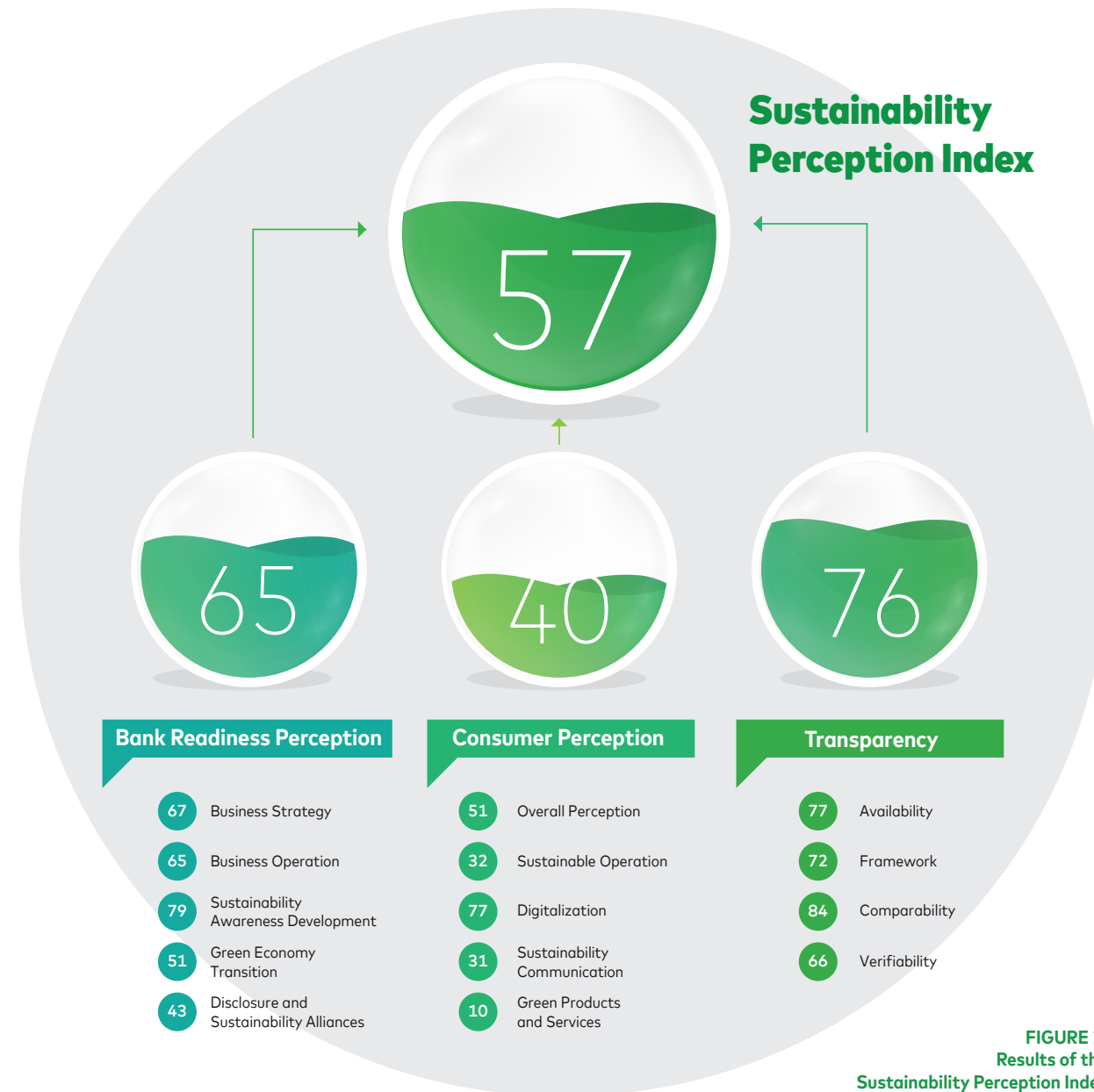
- 1 Summary of index results for 2023
- 2 Context summarizing key sustainability-related regulations and banks' main challenges regarding sustainability
- 3 In-depth discussion of individual pillars to provide additional insights on key drivers of the index
- 4 Overview of the Acquiring sector's environmental sustainability initiatives
- 5 Detailed sustainability context, the index methodology and the sources used

All of the analyses, insights and conclusions are the work and intellectual property of Mastercard.

SUMMARY OF INDEX RESULTS


“ The Sustainability Perception Index scored 57 on a scale of 100 in 2023.

This result is calculated from the individual scores for each pillar: 65 for Bank Readiness Perception, 40 for Consumer Perception and 76 for Transparency. The sub-indices together provide a multi-faceted assessment of the perception of Hungarian issuer banks' environmental sustainability performance. Moreover, they explore the individual details of each pillar and formulate future advancement opportunities for all three sub-indices.




BANK READINESS PERCEPTION:


The Bank Readiness Perception pillar, which scored 65, indicates that Hungarian banks have already initiated actions and steps to increase the environmental sustainability of their operations. The regulatory efforts, international initiatives and the innovation of competitors imply that this pillar will show development in the coming years.


 **Definition**


The Bank Readiness Perception sub-index pillar provides an **assessment of Hungarian issuer banks' perception of their environmental sustainability performance**


 **Sub-index results**


Result: The final score for the Bank Readiness Perception sub-index is **65**, outperforming the overall Sustainability Perception Index (57)
Implication: Hungarian banks are already taking active steps towards environmental sustainability, but there is still room for improvement


 **Component results**


Business Strategy:
67 points


Business Operation:
65 points



Sustainability Awareness Development:
79 points


Green Economy Transition:
51 points



Disclosure and Sustainability Alliances:
43 points

CONSUMER PERCEPTION:


The Consumer Perception pillar achieved a score of 40, which suggests two things. First, there is still a large gap between the perception of banks and consumers regarding the environmental sustainability performance of Hungarian financial institutions. Second, Hungarian consumers' knowledge of and attitude toward sustainability need development. Since knowledge acquisition is expected to occur over longer time horizons, there remains significant growth potential in this area.


 **Definition**


The Consumer Perception sub-index pillar provides a comprehensive and reliable picture of **consumers' perceptions and opinions** about the environmental sustainability activities of Hungarian banks. It also offers insights about consumer needs for sustainable products and services


 **Sub-index results**


Result: The Consumer Perception sub-index scored **40**, which is lower than the score of the Sustainability Perception Index (57)
Implication: Consumer perception of environmental sustainability is not yet well-developed in Hungary and there is large room for enhancement


 **Component results**


Overall Perception:
51 points


Sustainable Operation:
32 points



Digitalization:
77 points


Sustainability Communication:
31 points



Green Products and Services:
10 points

TRANSPARENCY:


The Transparency pillar achieved a score of 76, which suggests that the surveyed banks have already made great progress in their disclosure activity. Due to increasing disclosure requirements and investor expectations, this pillar is expected to continue developing in the future.


 **Definition**


The Transparency sub-index provides an **assessment of the public environmental disclosure quality of issuer banks**


 **Sub-index results**

Result: The Transparency sub-index reached **76** points, which is higher than the score of the Sustainability Perception Index (57) and is the highest of the three index pillars
Implication: Good progress in sustainability disclosure

 **Component results**


Availability:
77 points


Framework:
72 points


Comparability:
84 points


Verifiability:
66 points

The Bank Readiness Perception and Transparency pillars are expected to continue developing, partially due to regulatory requirements and increasing expectations from consumers and investors. By implementing the enhancement opportunities mentioned in the current report, Hungarian banks can further contribute to sustainable development. Consumer perception and knowledge regarding sustainability are expected to mature at a slower pace, however financial institutions can help accelerate awareness through enhanced communication and education.

3 INITIATIVES TO MOVE THE NEEDLE ON SUSTAINABILITY IN YOUR FINANCIAL INSTITUTION

We identified three key initiatives that can help your financial organization to improve environmental sustainability performance and its perception.

1. Offer additional green products and services:

Sustainable products and services create a business opportunity for financial organizations. While one-fifth of consumers would apply for at least one climate-linked product (e.g., virtual and green cards or green savings account), at the moment, only a limited number of solutions are offered by Hungarian banks. Furthermore, new corporate products can facilitate companies' green transition as they usually need external finance to carry out climate-related actions, while it can also improve banks sustainability performance through improved Green Asset Ratio and reduced financed indirect (Scope 3) emissions.

2. Educate customers on sustainability:

Customer education and communication about sustainability is key due to low awareness. Communication about organizations'

green business operation could increase sustainability-related perception, this way creating a more attractive brand. Meanwhile, helping clients understand existing green products could create a positive spiral, resulting in more knowledgeable and informed consumers demanding more sustainable solutions from banks and other organizations. Additionally, education of corporate consumers could also boost demand for (B2B) green products and increase number of eligible businesses for those, consequently, fostering sustainable finance.

3. Strive for maximum transparency:

Since sustainability is an important topic for consumers, employees and investors, it is in an organization's best interest to be transparent regarding their environmental sustainability performance. Hungarian financial institutions could further improve their green performance and transparency by defining, tracking and publishing the most important sustainability KPIs in their local (subsidiary bank) sustainability report, while they could also publish their sustainability strategy and green impact within the annual (financial) report as an integrated report.

SUMMARY OF SUSTAINABILITY CONTEXT

This chapter summarizes the regulatory context of sustainability affecting financial institutions (as of June 2023) and the main challenges they face. More details about the regulatory context and the challenges can be found in the Sustainability Context chapter.

REGULATION SUMMARY



Financial institutions have a fundamental role in the fight against climate change and in the reduction of global warming through their influence on customer habits and corporate funding. Several regulations and guidelines have been passed that urge financial institutions to operate more sustainably and to disclose their environmental impacts.

Table 1 summarizes the main pertinent regulations that drive the economy and financial institutions towards a more sustainable future.

	NFRD	SFDR (Level 2)	CSRD
SUMMARY	The Non-Financial Reporting Directive (NFRD) requires large companies to publish information related to environmental and social matters, the treatment of employees, respect for human rights, anti-corruption, bribery, and diversity within companies' leadership	Compared to Level 1 of the Sustainable Financial Disclosure Regulation (SFDR), Level 2 is the mandatory implementation of the SFDR's Regulatory Technical Standards, which specifies the exact content, methodology and presentation of the information to be disclosed, thereby improving comparability	The Corporate Sustainability Reporting Directive (CSRD) replaces NFRD and strengthens companies' (including listed SMEs) sustainability reporting requirements. Companies will have to report according to the European Sustainability Reporting Standards (ESRS) and provide third-party verification of the report
COMPANIES IN SCOPE	Large companies with over 500 employees including: - Listed companies - Banks - Insurance companies	Financial services providers with over 500 employees (e.g., banks, insurers, investment firms, etc.)	- Listed companies - Banks - Insurance companies - Listed SMEs
ENTRY INTO FORCE	5 December 2014	1 January 2023	5 January 2023
REPORTING OBLIGATION DEADLINE	2018 (for FY 2017) (No future deadlines due to being superseded by CSRD)	30 June 2023 (Final date for financial services providers to disclose their performance under SFDR standards)	For corporations subject to NFRD: 2025 (for FY 2024) For corporations not subject to NFRD (excluding listed SMEs): 2026 (for FY 2025) For publicly listed SMEs: 2027 (for FY 2026) (Earlier adoption could be expected of providers to larger firms)

TABLE 1: Important ESG-related regulations faced by the financial services sector | Source: European Commission, 2023b

SUMMARY OF SUSTAINABILITY-RELATED CHALLENGES

Since sustainable financing and climate neutral banking will define the future of the financial sector, financial institutions will have to implement significant operational changes to improve their environmental sustainability performance. These changes come with notable challenges that might delay banks in taking steps towards more environmentally sustainable operations. Figure 3 summarizes the main challenges banks face based on our interviews.

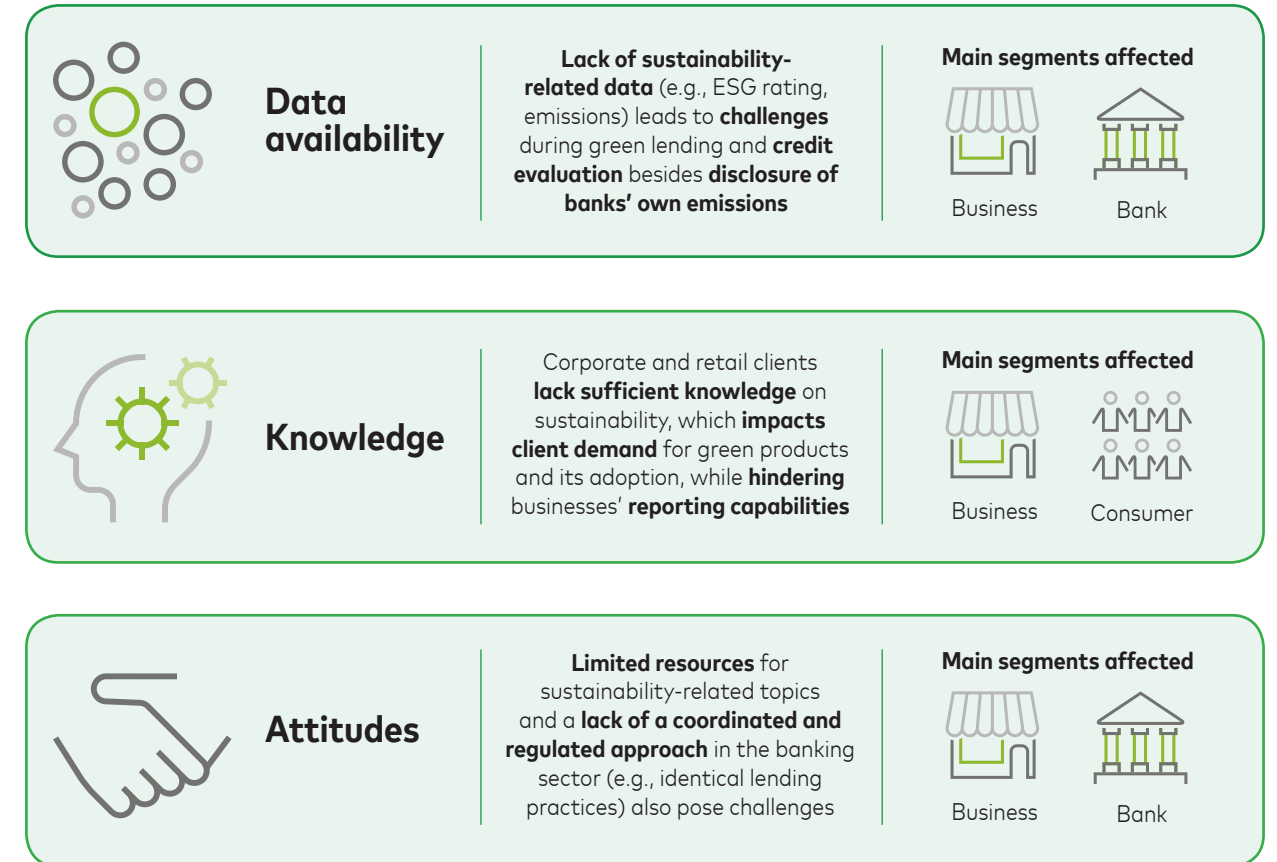
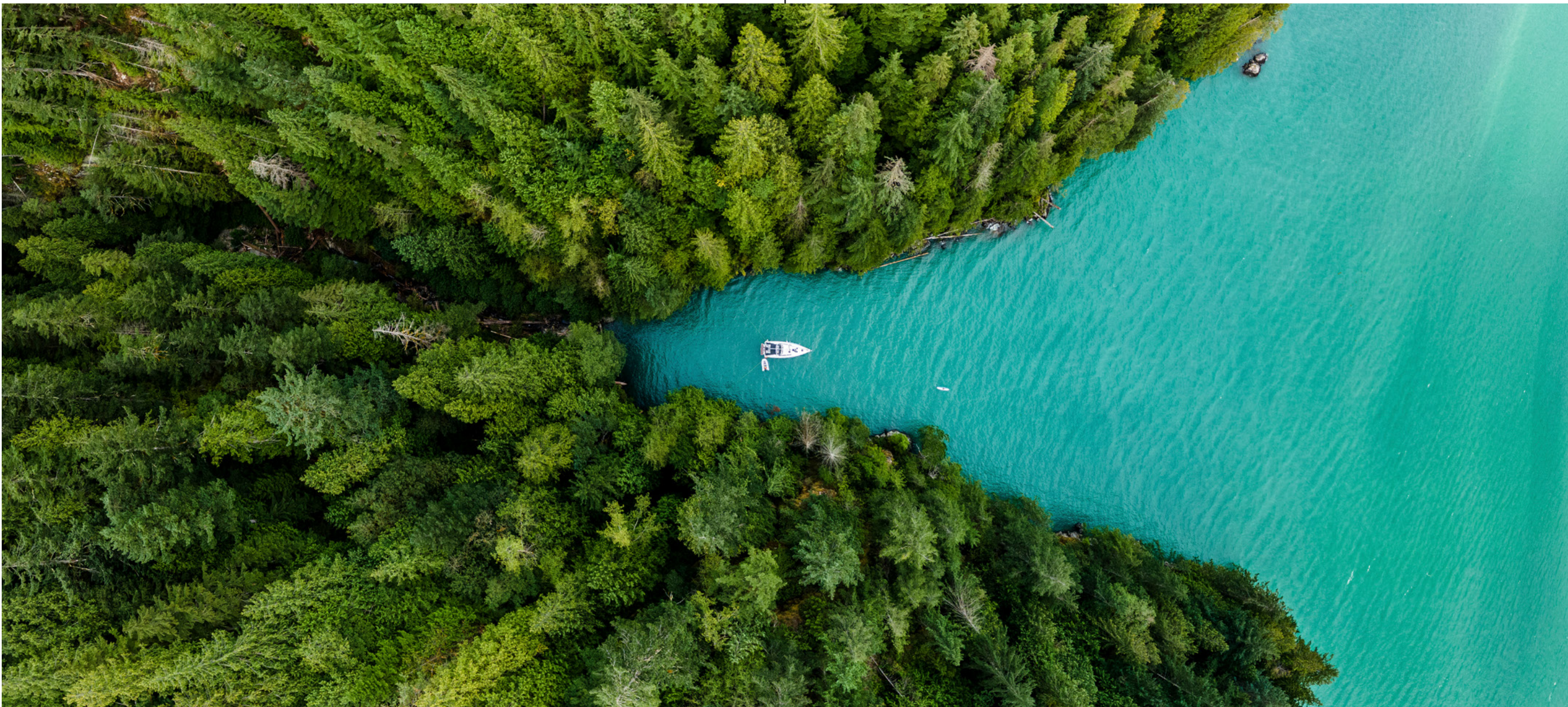




FIGURE 3: Main sustainability-related challenges of the Hungarian banking sector



RESULTS OF SUSTAINABILITY PERCEPTION INDEX

BANK READINESS PERCEPTION

Sub-index summary

 <p>Definition</p>	<p>The Bank Readiness Perception sub-index pillar provides an assessment of Hungarian issuer banks' perception of their environmental sustainability performance</p>
 <p>Sub-index results</p>	<p>Result: The final score for the Bank Readiness Perception sub-index is 65, outperforming the overall Sustainability Perception Index (57) Implication: Hungarian banks are already taking active steps towards environmental sustainability, but there is still room for improvement</p>

DEFINITIONS AND OBJECTIVE

The Bank Readiness Perception sub-index pillar provides an assessment of the current environmental sustainability performance of Hungarian issuer banks based on self-reported data. This pillar has five components:

Business Strategy: Summarizes the extent to which surveyed banks include sustainability in their business strategy and financial planning.

Business Operation: Explores how strategy translates to business operations; whether action plans and sustainability KPIs have been determined, monitored and audited; and whether sustainability aspects are considered when choosing financed entities and suppliers.

Sustainability Awareness Development: Examines the steps banks are taking internally (for employees) and externally (e.g., for consumers) to promote environmental sustainability's importance.

Green Economy Transition: Investigates how banks consider environmental sustainability during their lending process (including credit assessment) and evaluates banks' green products and services offering.

FIGURE 4: Key takeaways of the Bank Readiness Perception pillar

Disclosure and Sustainability Alliances: Looks at the issuer banks' sustainability-focused alliance memberships, disclosure activity (beyond sustainability report) and compliance with the pertinent ESG regulations.

Throughout this overview, Mastercard leveraged data and insights from primary research (interviews and surveys with participating banks), besides public studies and reports (e.g., MNB, CDP).

The primary objective of this sub-index is to assess how surveyed Hungarian banks perceive their own environmental sustainability readiness. This section can provide insights into such questions as:

- What is the Hungarian banking sector's perception about their sustainability readiness?
- Which environmental sustainability initiatives are commonly present among Hungarian issuer banks?
- In what aspects are Hungarian banks performing the best and which hold the most development potential?



FIGURE 5: Results of the Bank Readiness Perception pillar

RESULTS OF SUSTAINABILITY PERCEPTION INDEX

BUSINESS STRATEGY

The Business Strategy component scored 67 points, slightly outperforming the Bank Readiness Perception sub-index score of 65. This indicates that while the performance of the surveyed banks is better than average concerning environmental sustainability strategic planning, there is still room for improvement.

Approximately nine out of ten surveyed Hungarian issuer banks have determined an ESG strategy that is in line with their business goals and the Paris Climate Agreement. Aligning the sustainability strategy with the UN Sustainable Development Goals (SDGs) and the Paris Agreement is

one of the expectations determined by the United Nations Principles for Responsible Banking framework (UNEP Finance Initiative, 2019), which indicates that most Hungarian banks are taking steps to adhere to the Principles.

All the participating banks have a summary of their sustainability strategy on their websites, where clients can easily get information on the topic. The surveyed banks focus on distinct aspects of environmental sustainability in their strategy. In almost all cases, banks detail their greenhouse gas emission plan, which shows commitment to decrease direct and indirect emissions (Scope 1, 2 and 3).

EMISSION SCOPE TYPES	DEFINITION
SCOPE 1	Direct greenhouse gas emissions from sources owned or controlled by an organization (e.g., office, company car)
SCOPE 2	Indirect emissions from the purchase and use of electricity, steam, heating and cooling for own use (e.g., office)
SCOPE 3	All other indirect emissions that occur in the upstream (e.g., employee commute, business travel, purchased goods and services) and downstream (e.g., investments, end-of-life treatment of sold products) activities of an organization

TABLE 2: Emission scope definitions

Source: Carbon Trust, 2021

Approximately two out of three surveyed banks have energy efficiency and carbon offsetting plans. One possible development area is to determine less common environmental sustainability plans as well, such as a circular economy, water conservation or biodiversity protection plan. This would show further commitment to sustainability despite banks having less direct impact on these areas.

Three-quarters of Hungarian banks have a commitment to reach net zero emissions. Commonly, they aim to reach net

zero direct emissions by 2030 and portfolio-related net zero emissions by 2050, in line with the EU Green Deal (European Commission, 2020a). Banks are more conservative in committing to indirect emissions since that metric includes all financed companies whose environmental impact is challenging to measure due to data availability constraints and client awareness limitations. Lastly, most Hungarian banks have already set aside specific financial resources on a subsidiary bank level to achieve the goals detailed in their sustainability strategy.

BUSINESS OPERATION

The Business Operation component scored 65 points, which is equal to the score of the Bank Readiness Perception sub-index. This suggests that they could take further steps to improve operational outcomes by determining and monitoring target values, or requiring sustainability practices when choosing providers, partners and financed entities.

All surveyed Hungarian banks have a sustainability officer who oversees the bank's sustainability actions. More than 60% of surveyed banks also have a sustainability team, while in some cases the manager is not only responsible for sustainability-related topics but other areas as well (e.g., risk, strategy, etc.).

There is division among the surveyed banks regarding their action plans, which are essential to achieve the goals of their sustainability strategy. Half of the participating banks have identified specific steps and plans to implement their environmental sustainability strategy and its components. The other half have determined some of the necessary steps and activities, but still do not have a comprehensive action plan – an area for potential development. However, overall, there is commitment from the banks to implement the environmental sustainability goals stated in the strategy. Three out of four surveyed banks have started implementing their greenhouse gas emission reduction plan, which further shows their commitment toward achieving their net zero emission goals. An additional step would be to start implementing plans in other areas of environmental sustainability, such as energy efficiency, water conservation, biodiversity, and circular economy.

Around 60% of the surveyed banks have set precise target values based on scenario and other analyses. Most already monitor their Scope 1 and Scope 2 emissions, but have more difficulties with determining and monitoring Scope 3 (indirect) emissions, especially financed emissions: as of this research, only four out of ten banks are monitoring their Scope 3 (financed) emissions. However, most banks monitor their energy efficiency, waste management and paper usage values. This indicates that while Hungarian banks are taking

active steps to monitor their impact on the environment, it is still a challenge to oversee exact indirect emissions, especially financed ones due to data availability challenges in the corporate sector (especially among SMEs).

Most of the surveyed banks audit the monitored target values through either an internal or external process. Three out of four surveyed banks audit their KPIs of Scope 1 and 2 emissions, energy efficiency, and waste management, either internally or externally. The participating banks are more likely to only internally audit their Scope 3 financed emissions compared to other environmental sustainability KPIs. Another step forward would be to audit other, less frequent KPIs (e.g., water conservation), currently audited by only around 40% of banks.

Monitoring the environmental sustainability practices of suppliers is a significant differentiator among surveyed banks. Only about 40% ask for supporting documentation from suppliers about their sustainability practices and actions. This points to the difficulty of obtaining the necessary data (both in terms of quantity and quality) to make decisions and monitor progress. On the other hand, most of the surveyed banks ask for documentation about the sustainability operation of potential financed entities. Consequently, companies might face more challenges during credit application processes if they are not compliant with sustainability-related guidelines. Additionally, banks tend to have lending restrictions for industries not considered ESG-compliant, showing that most surveyed banks take active steps to decrease their portfolio's emissions (financed Scope 3 emissions).

Regarding risk management, almost nine out of ten surveyed issuer banks have processes in place to identify key operational risks. Despite this, only 40% can point to climate change's impact on their operations and have determined their main operational risks by following internationally recognized good practices such as scenario analyses and mitigation plans. Meanwhile, half of the banks do not yet observe climate change's impact on their operations, but have processes in place to identify possible and existing operational risks.

RESULTS OF SUSTAINABILITY PERCEPTION INDEX

SUSTAINABILITY AWARENESS DEVELOPMENT

Out of the five components, the surveyed banks scored highest in Sustainability Awareness Development, reaching 79 points. This shows that banks already promote sustainability by communicating about it internally and externally. Based on the results of the Consumer Perception sub-index, it is crucial that banks continue and improve on this practice, since sustainability awareness among banking clients is still relatively low (both within the retail and corporate segment).



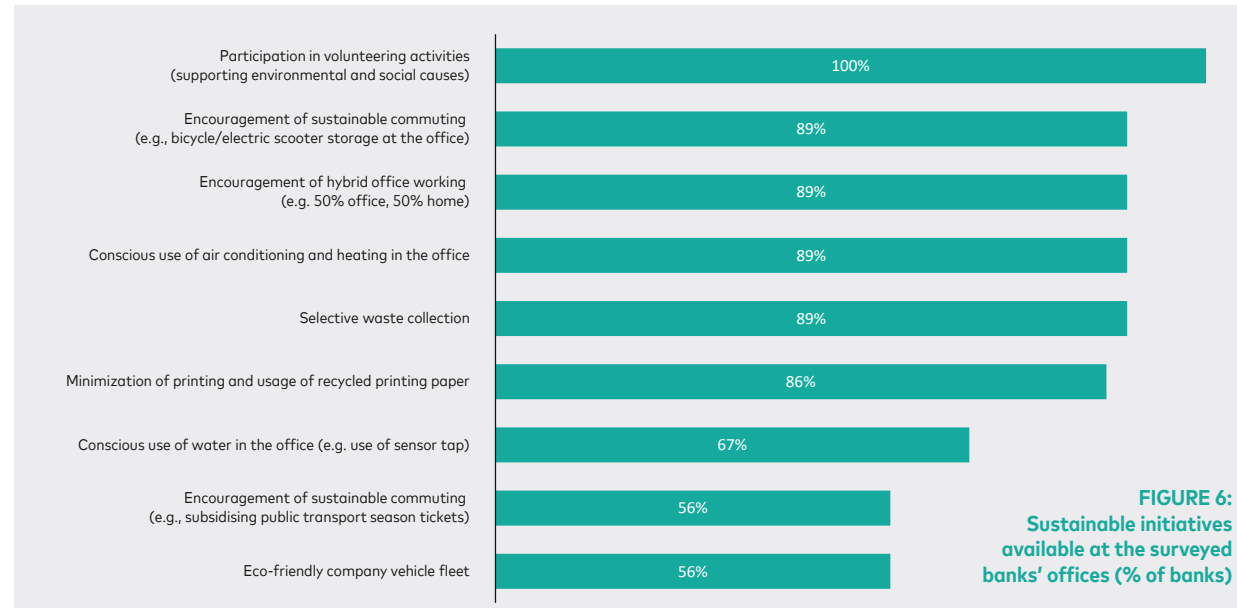
According to our representative consumer research, 35% of respondents do not know what sustainability means, and 10% have not even heard the term before



40% of Hungarian consumers believe that the financial sector has a significant responsibility in educating and informing the public on sustainability-related topics,

(Mastercard and Impetus Research, 2023). Financial institutions can play a vital role in growing awareness; according to the survey conducted for this research,

besides others such as corporates, NGOs and governmental organizations (Mastercard and Impetus Research, 2023).



In general, the surveyed banks have implemented various environmentally sustainable initiatives in their office operation (Figure 6), such as participation in volunteer opportunities for employees and encouragement of sustainable commuting to reduce the company's carbon footprint in relation to traveling to the office (Scope 3).

Sustainability Awareness Development is also visible in banks' internal communication. All surveyed banks have trainings about environmental sustainability. About nine out of ten regularly communicate on sustainability topics through internal newsletters and surveys, and incorporate environmental targets into management's performance evaluation. On the other hand, according to our research, only a few banks in Hungary have processes to implement internal carbon pricing, which involves attributing a monetary value to climate risks and creating a uniform metric so that financial decision-makers can make the low-carbon transition an integral part of their business strategy (CDP, 2021).



Digitalization is key to sustainability development along with improving operational effectiveness.

A digitalization-sustainability convergence can create new opportunities for companies, such as using digital tools to map their environmental impact or offering both digital and sustainable solutions to consumers (MIT Sloan, 2018). In the banking industry, digitalization can be used to optimize internal operations and to offer more convenient, innovative, and modern products and services to clients, allowing banks to perform better in sustainability while creating new revenue streams. The surveyed banks are on a good track towards digital transformation as they offer a wide range of digital services to clients. All banks in our sample offer digital

invoices and statements for customers, digital administration (e.g., loan management, money transfer, bank account opening, etc.) and video banking services (e.g., end-to-end digital services, remote consulting on mortgages and loans, opening and closing bank accounts, purchasing government bonds, etc.). Additionally, some banks encourage branch employees to incentivize clients to use digital channels for banking products and services.



Digitalization is well-perceived by customers, as almost half of respondents believe that banks' digital solutions significantly contribute to sustainability.

While more than half of the surveyed banks communicate about environmental sustainability on social media, through events (e.g., conferences, lectures, etc.) and marketing or PR campaigns, there is a difference in the frequency of the communication. About half of the banks communicate about sustainability at least on a quarterly basis, while others inform their customers only occasionally. In contrast, 60% of the consumers surveyed reported that they have not seen their main bank communicate on environmental sustainability – a significant gap between bank activity and consumer perception and awareness.



More effective communication to banks' consumers about sustainability is needed. This would create a positive cycle, with more knowledgeable and informed consumers demanding green solutions from banks and other organizations (Sustainable Brand Index, 2023).

RESULTS OF SUSTAINABILITY PERCEPTION INDEX

GREEN ECONOMY TRANSITION

The Green Economy Transition component scored 51 points, which is lower than the total score of the Bank Readiness Perception sub-index. This indicates that

“Hungarian banks have opportunities to improve in the inclusion of environmental sustainability features in their credit assessment process, and in offering green products and services to retail and corporate banking consumers.

These actions are crucial as financial institutions have a significant role in transitioning to a green(er) economy through their lending activity and product offering.

Three-quarters of the surveyed banks include environmental risks during their credit assessment process to help determine the creditworthiness of potential corporate clients. All the surveyed banks consider environmental risks when analyzing their potential financed entities' activity (e.g., products or service offering). According to our survey, three-quarters of banks also consider these risks during customer due diligence (collection and assessment of relevant information on potential clients' environmental risks). Lastly, roughly half of the surveyed banks also consider environmental risks during collateral assessment, risk rating and loan pricing, thus incentivizing sustainability goals for businesses through discounts. However, in many cases, they consider environmental risks above a certain credit amount threshold, since large corporations have a more substantial impact and are more efficient in supplying data. The consideration of environmental factors in lending suggests that the

“banks are actively trying to prioritize more sustainable clients to decrease their Scope 3 financed emissions. To adapt, companies will need to implement more sustainable practices in the future.

However, surveyed banks reported that their Green Asset Ratio is currently low, according to MNB (2023), at the end of 2022, the green loan portfolio accounted for 2.62 percent of the total corporate loan portfolio. Thus, sustainable finance has a large growth potential, for example in areas such as the energy efficiency improvement of the real estate sector and the development of renewable energy production and sustainable mobility (MNB, 2023).

Lack of data availability also affects banks' lending practices. Some of the surveyed banks prefer to reward sustainable businesses with discounts, instead of penalizing companies who are lagging. Others assess companies based on industry-level environmental risk information. Moreover, the surveyed banks commonly have restrictions in financing companies that operate in industries not considered ESG-compliant. Other banks, however, are more reluctant to stop financing corporations in non-sustainable industries, as they believe that firms in almost any industry could operate sustainably. Banks can contribute to helping businesses make the green transition with education, emulating existing good practices from other financial institutions.

“Some banks advise potential corporate clients on how to improve their sustainability performance in order to receive a more favorable credit assessment score, while others provide a toolkit for potential corporate clients with recommendations on how to address sustainability within their organization.

All the surveyed banks offer green products and services to consumers, and they continuously plan to innovate in this field by launching new products and services. While there is growing interest from clients in green products and services, and consumers across all generations are willing to spend more on sustainable products (Forbes, 2022), our consumer survey showed that

“approximately half of consumers are not aware of their main bank's green product and service offering

(Mastercard and Impetus Research, 2023). This indicates that banks could emphasize their existing green portfolio to customers by more frequent and targeted communication campaigns.

For retail banking customers, the most common green products and services offered by surveyed banks are green mortgages and home loans, sustainable investment funds, virtual cards and tree plantation activities. For businesses, green loans are commonly offered to support their sustainable

activities. Other international good practices include innovative green products for retail banking customers such as green debit or credit cards (rewarding consumers or donating for charities after sustainable purchases), green savings accounts, green loans (e.g., for eco-friendly vehicle or renewable energy solution purchase), green bonds, consumer educational solutions (e.g., carbon calculator), consumer donation opportunities for sustainable causes (e.g., at bank's webpage, mobile app or during POS terminal payments) and supporting a charity or a sustainability goal with each account opening. Furthermore, open banking and application programming interfaces (APIs) can be leveraged to design new green financial products in collaboration with partners (Platformable, 2022). Only a few surveyed Hungarian banks offer these products and services despite a significant consumer appetite for them.

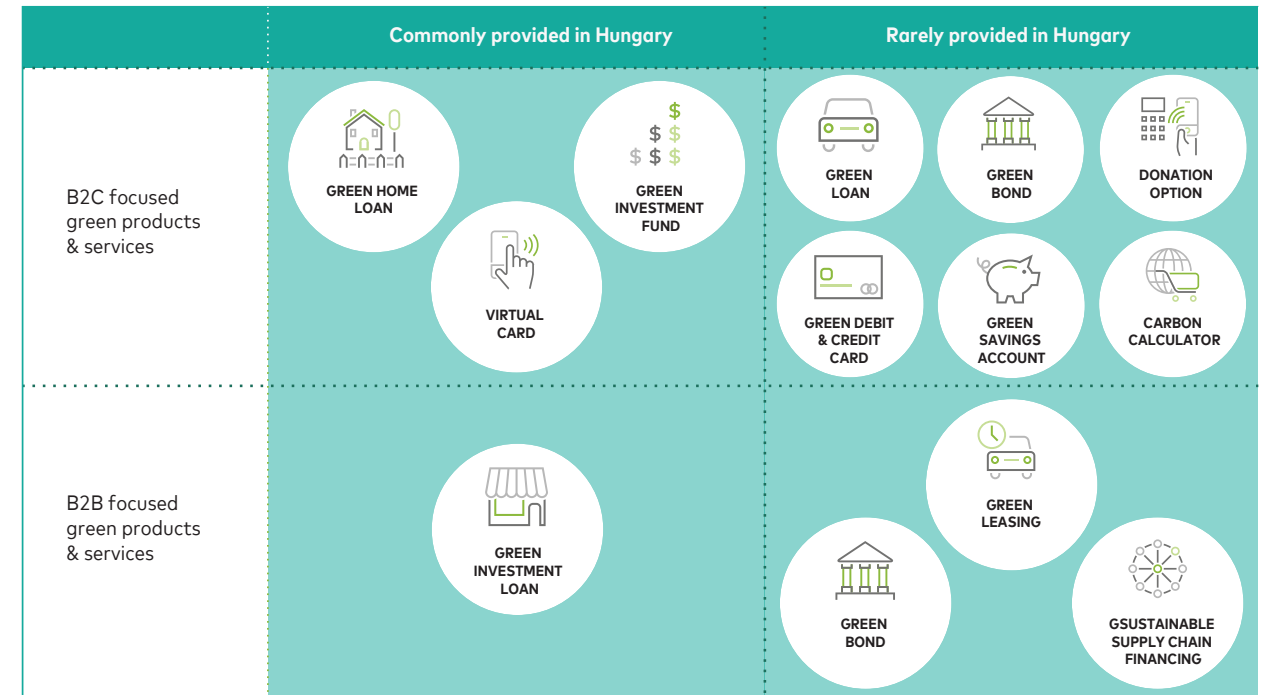


FIGURE 7: Green product and service offering in Hungary



Based on our consumer research, more than half of consumers consider such offerings important and would apply for a green product in the future.

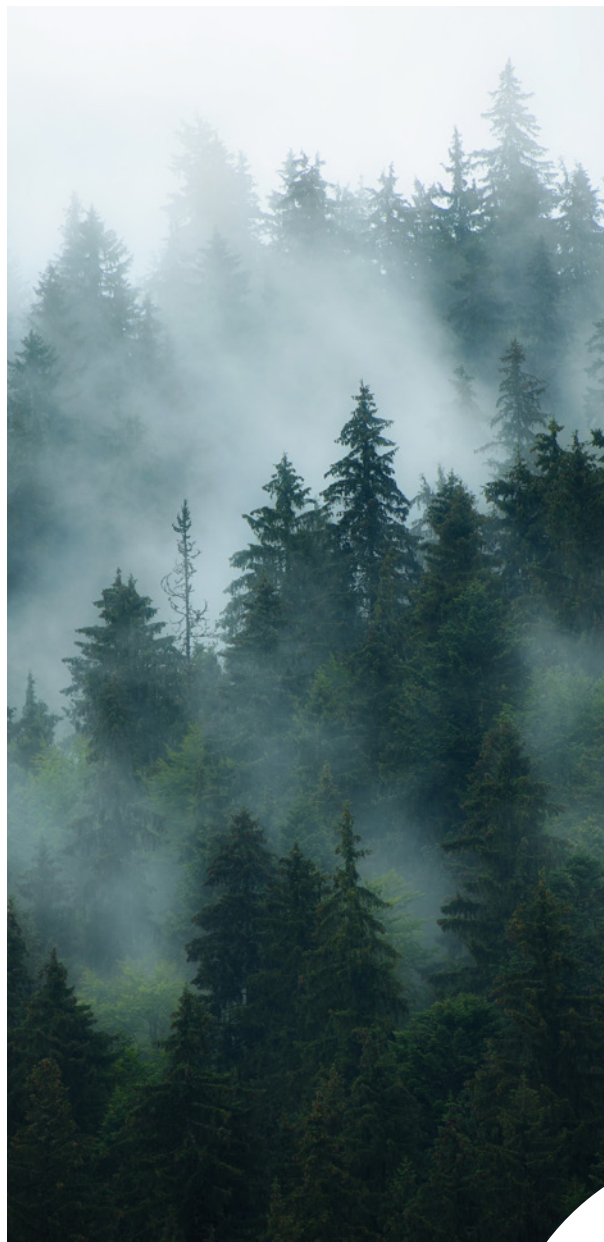
Within the business segment, other existing green solutions include sustainable supply chain financing, green leasing (e.g., to finance eco-friendly corporate vehicles) and green bonds, among others.



The offering of green products for businesses is key, as approximately 70% of SMEs need external finance to carry out climate-related actions to reduce their environmental impact (SME Climate Hub, 2022).

Education of corporate consumers is also imperative as Hungarian companies generally deal with environmental topics if there is a direct operational benefit for them (K&H, 2022).

While this study focuses on environmental sustainability, the surveyed banks also have innovative initiatives when it comes to social sustainability (e.g., financial inclusion, gender equality, etc.), which is particularly important for financial institutions. Some banks are active in impact financing, which is an investment or financing strategy that aims to accelerate the just and sustainable transformation of the economy, by providing evidence of its beneficial effects (Paris Financial Impact Task Force, 2021). Some of the good practices in impact financing include donating to NGOs or charities after each card purchase, while other social sustainability good practices include mentoring programs focused on social issues (e.g., shortage of female entrepreneurs), donation from banks' profits, or social lending.



RESULTS OF SUSTAINABILITY PERCEPTION INDEX

DISCLOSURE AND SUSTAINABILITY ALLIANCES

Surveyed banks scored lowest – 43 points – in Disclosure and Sustainability Alliances component within the Bank Readiness Perception sub-index. This indicates that most Hungarian banks still have room for improvement in complying with ESG-related regulations and joining sustainability-focused alliances, such as the UN Principles for Responsible Banking framework.

Concerning regulatory compliance, about 40% of the banks reported that they are fully compliant with CSRD and the EBA ESG Pillar 3, and approximately half of the banks feel positive about their progress toward compliance and believe that they will be fully compliant with the CSRD, EU Taxonomy and EBA ESG Pillar 3 regulations within one year.

Currently, only a minority of Hungarian banks share their sustainability-related performance through CDP, an organization whose global disclosure system is considered as a strong standard for environmental reporting to manage companies' environmental impacts (CDP, 2023). However, disclosure on CDP is on the agenda for more than half of the surveyed banks, which is consistent with the fact that many are already transparent about their environmental impact on a parent bank level.

Most surveyed banks are signatories of the UN Principles for Responsible Banking framework (at least on a bank group level). This framework urges banks to align their core strategy, decision-making, lending and investment with the UN Sustainable Development Goals and international agreements such as the Paris Agreement (UNEP Finance Initiative, 2019). However, only one-third are members of the UN Net Zero Banking Alliance, an initiative of the Principles for Responsible Banking framework aiming to bring together banks that are committed to achieve net-zero emissions in their lending and investment portfolios by 2050 (UNEP Finance Initiative, 2021). A minority of Hungarian banks also belong to the Global Alliance for Banking on Values, which is a network for independent banks delivering sustainable economic, social and environmental development (Global Alliance of Banking on Values, 2009).

FUTURE OUTLOOK

The Bank Readiness Perception sub-index, with a final score of 65, suggests that the Hungarian Banking sector has already taken steps to shape their environmental sustainability initiatives and are active contributors to Hungary's green transition. However, there are several prime development areas for banks to facilitate a smooth transition into a more sustainable economy and society.



Based on the index results, two areas hold the most improvement potential: green economy transition and disclosure and sustainability alliances. Business strategy and business operation could also be developed in the future.

Banks could improve their sustainability performance by considering environmental sustainability and environmental risks during all stages of the credit assessment process. Further, they could offer and promote more green products and services to retail and corporate banking consumers, which would have a positive effect in banks' green asset ratio and environmental impact (e.g., reduced financed Scope 3 emissions). In addition, increased transparency (e.g., disclosure through CDP) and participation in an international sustainability-focused alliance (e.g., Net Zero Banking Alliance or the Principles for Responsible Banking framework) would further improve banks' environmental sustainability performance.


In conclusion, financial institutions are already taking action to advance environmental sustainability. Due to regulatory tightening (e.g., CSRD) and increased pressure from customers, investors and other stakeholders, their climate-related performance is expected to improve in the future. Meanwhile, banks are well-positioned to shape retail and corporate banking customer needs by increasing and improving their education efforts.



RESULTS OF SUSTAINABILITY PERCEPTION INDEX


CONSUMER PERCEPTION

Sub-index summary



Definition

The Consumer Perception sub-index pillar provides a comprehensive and reliable picture of **consumers' perceptions and opinions** about the environmental sustainability activities of Hungarian banks. It also offers insights about consumer needs for sustainable products and services



Sub-index results

Result: The Consumer Perception sub-index scored **40**, which is lower than the score of the Sustainability Perception Index (57)
Implication: Consumer perception of environmental sustainability is not yet well-developed in Hungary and there is large room for enhancement

FIGURE 8: Key takeaways of the Consumer Perception pillar

DEFINITIONS AND OBJECTIVE

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 The Consumer Perception sub-index pillar provides a comprehensive and reliable picture of consumers' perceptions and opinions about Hungarian banks' environmental sustainability activity and offers insights about their needs for sustainable products and services.

It is composed of five components:

Overall Perception: Summarizes overall perception (e.g., how respondents feel about the environmental sustainability of their main bank, and the trustworthiness of banks' sustainability communications).

Sustainable Operation: Reflects how consumers perceive the operation of Hungarian banks from an environmental sustainability perspective, focusing on visible elements (e.g., paperless banking, green branch operation, etc.).

Digitalization: Examines the channels banks use to communicate with customers and the channels consumers

use to manage their banking administration (e.g., availability of digital channels such as video banking service).

Sustainability Communication: Reflects how consumers perceive Hungarian banks' communication from an environmental sustainability perspective.

Green Products and Services: Reflects the awareness level of consumers regarding Hungarian banks' green product and service offering.

“
 Consumers are key in driving the transition towards a more sustainable economy through their demand for sustainable products and services,

which financial institutions can increase through education and effective communication. While all consumers are key for all financial institutions – personal (individual or retail banking clients) and business (small and medium-sized enterprises and corporates) – our focus is on the B2C segment.

This chapter is based on the results of the Sustainability Perception Index consumer survey (Mastercard and Impetus Research, 2023), which was launched to gain timely and relevant insights on environmental sustainability-related topics useful for industry participants (e.g., financial institutions).

“
 Understanding the nature of consumer attitudes can help stakeholders identify the differences between consumers' and banks' perceptions of bank industry performance and pinpoint opportunities for closing the gap.

This can also help strengthen consumer trust towards sustainability solutions.

The primary objective of this sub-index is to assess consumers' perception about the Hungarian financial sector's environmental sustainability. This section can provide insights into such questions as:

- How do consumers perceive the banking sector from an environmental sustainability standpoint and what are their sustainability-related expectations?
- How familiar are consumers with their main bank's sustainable operation, communication and product offering?
- How could financial institutions further improve to be more environmentally sustainable based on consumers' opinion?



FIGURE 9: Results of the Consumer Perception pillar



RESULTS OF SUSTAINABILITY PERCEPTION INDEX

OVERALL PERCEPTION

Based on our survey results, only half of the Hungarian population know the meaning of sustainability, 10% have not heard the term, and roughly one third know the term but not the exact meaning. Similarly, 58% of Hungarians report that they discuss sustainability in their everyday lives with family and friends (either often or sometimes), but only 14% talk about this topic often. This result is similar to Denmark and Norway (59% and 57% respectively), but lower than in the Netherlands (73%), Sweden (68%) and Finland (65%) (Sustainable Brand Index, 2023).

The score of 51 in this component, although being above the average sub-index score (40), suggests there is still development potential. Environmentally-conscious, young (under 30), and lower-educated customer segments living outside the capital perceive banks' sustainability activity as better than other consumer segments.

“ Consumers with less favorable sustainability perceptions attribute their assessments to the lack of marketing or communication and to extensive paper usage. Respondents with favorable perceptions mostly highlighted banks' digitalization efforts.

When asked about the environmental sustainability of their main bank, 50% of respondents believed that their main bank takes active steps to protect the environment, while more than 40% did not have an opinion, suggesting low awareness. Although banks state that they communicate with consumers about environmental sustainability, the frequency, channels and content of that messaging may need to be enhanced since many consumers are not aware of the sustainability steps and measures being taken by banks.

Consumers need trustworthy communication about environmental sustainability as inaccurate communication might lead to greenwashing allegations and mistrust. Therefore, banks should be careful in how they present their services and initiatives so their eco-friendly actions remain credible. However, Hungarian banks are performing well in this aspect, as

“ 60% of respondents perceive their main bank's environmental sustainability communication as trustworthy and credible,

while one-third were neutral.



SUSTAINABLE OPERATION

The score of 32 in this component, suggests that there is still a large development potential in this area. Segments that report above-average results include consumers who are young (under 30), highly educated, affluent, and environmentally-conscious as well as less-educated customers living in urban areas.

The perception of sustainable operation has an effect on customer loyalty and might influence the decision to switch banks. Four out of ten respondents are more loyal to banks taking steps towards a more sustainable operation, while more than half of affluent, young (under 30) and environmentally-conscious consumers have higher loyalty towards green banks. On the other hand, due to high switching costs (including monetary, time and effort considerations), only one-third of

consumers would be willing to change to another financial institution which operates more sustainably. Here too, the youth segment is more willing to switch banks for sustainability reasons probably due to having less complex banking products (e.g., loans). Not surprisingly, environmentally-conscious consumers also report higher willingness to switch banks.

The majority of respondents (more than eight out of ten) state that their main bank offers internet banking and has a mobile banking application, while almost two out of three customers are aware of an electronic signature option at their main bank's branch, which is in line with the high score of the digitalization component. The availability of electronic signature is considered critical for an environmentally sustainable bank branch as almost six out of ten consumers

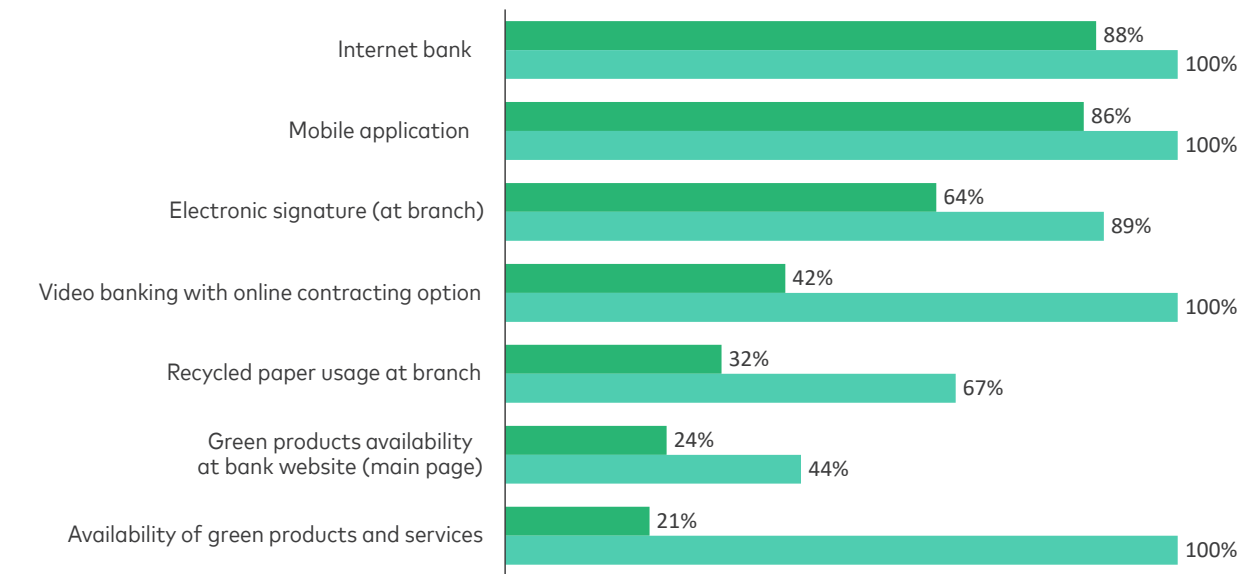


FIGURE 10: Perception of main bank's sustainability-related offerings and actual offerings by Hungarian banks (% of respondents and % of Hungarian surveyed banks)

■ Offered by bank based on consumer perception (% of respondents)
 ■ Offered by bank (% of Hungarian surveyed banks)

highlighted this feature. On the other hand, video banking with online contracting is less known, as only about 40% of customers were aware of this feature although it is offered by all surveyed banks.

Availability of green products and services performed lower, as only one out of five consumers stated that their main bank has a sustainability-related product offering, while a slightly higher share of respondents (24%) mentioned, that those services are easy to find in their main bank's webpage (main page). In comparison, all surveyed banks offer at least one green product or service and those are accessible from the main page of banks' websites in more than 40% of the cases. Based on this finding, banks could enhance the promotion and demonstration of these products to their consumers to increase awareness.

Figure 11 summarizes consumers' opinions about ways their main bank could improve their journey towards environmental sustainability.

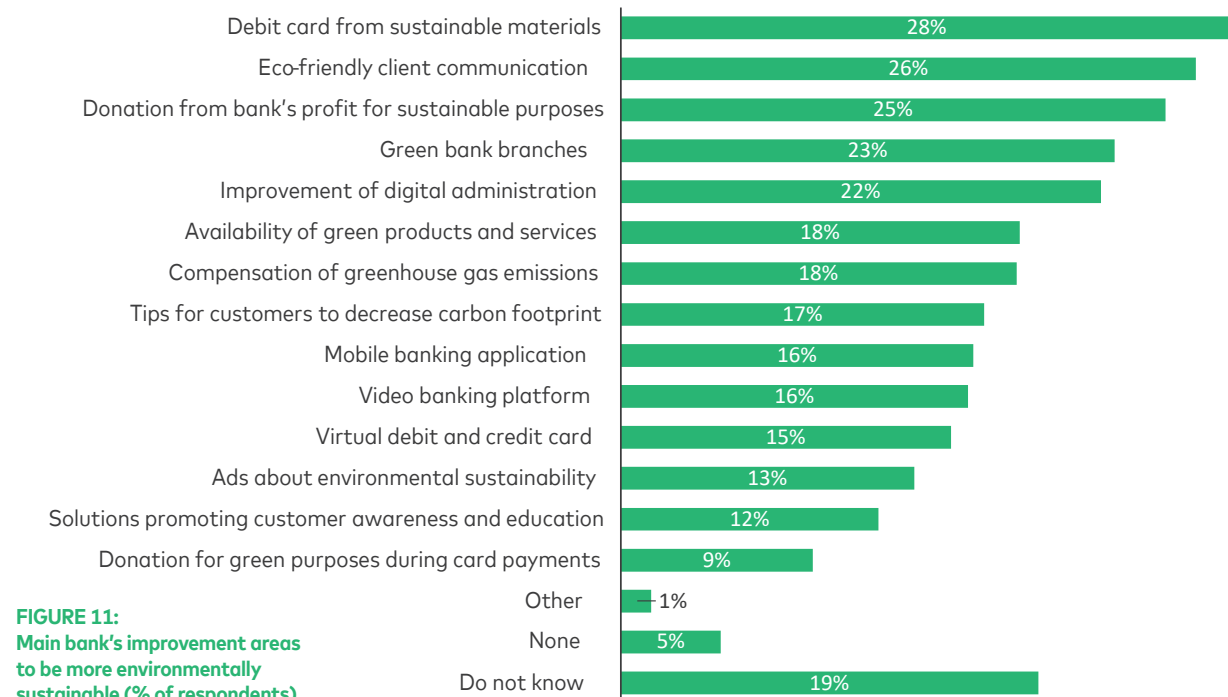


FIGURE 11:
Main bank's improvement areas to be more environmentally sustainable (% of respondents)



The most important development areas chosen by more than 20% of consumers are: debit and credit cards made from sustainable materials (e.g., recycled plastic, cornstarch etc.), environmentally-friendly customer communication (e.g., via digital channels), donations from bank's profit for sustainable purposes, green bank branches and improvement of digital administration.

Availability of green products and services, compensation of greenhouse gas emissions, tips for customers to decrease carbon footprint, mobile banking application and video banking platform were also highlighted by almost one-fifth of respondents as essential elements.

RESULTS OF SUSTAINABILITY PERCEPTION INDEX

DIGITALIZATION



The Digitalization component performed the best within the Consumer Perception sub-index with 77 points, revealing the strength of Hungarian banks in this aspect.

This component examines the channels banks use to communicate with customers and the channels consumers use to manage their banking administration (e.g., bank account opening, bank transfer, etc.). Not surprisingly, the component scores above average with the affluent, highly educated and environmentally-conscious segments as well as those living in urban areas. The high score shows that customers highly value the availability of digital channels (such as the internet or mobile banking) for banking purposes.

More than four out of five customers indicate they only receive their monthly settlement or account statement online (via email or internet bank), while one out of ten get it by post alone. Also, 60% responded that banking administration can be done solely or mostly online (or by phone), while 30% said that it can be done both online and physically in a branch. Only a minority said that banking administration is limited to visiting a branch. Those responses are in line with banks' effort to channel customer interactions to the digital space.



Digitalization is considered environmentally sustainable by half of the respondents (mainly through paper minimization) and an aid in operational effectiveness.

SUSTAINABILITY COMMUNICATION

Sustainability Communication, with an average score of 31, reflects how consumers perceive Hungarian banks' communication from an environmental sustainability perspective. We asked respondents about availability of green communication in their main banks from two aspects: communication related to a bank's green operation and communication drawing attention to environmental sustainability in general (e.g., overconsumption, renewable energy usage, etc.). We also asked consumers about the frequency of communication about their main banks' steps towards sustainability. The score of 31 suggests the need for greater development in this area, as the score is below the average sub-index score. Banks' green communication campaigns were more effective and memorable for the environmentally-conscious segment as they tend to be interested in green innovations and products.

Consumers seem to have low awareness about banks' green communications. Six out of ten respondents report they have never seen an advertisement or press release from their main bank about sustainable operation or sustainability in general. One-quarter have seen such communications once or twice, while the remaining 15% say they see those announcements repeatedly. On the other hand, the majority of banks stated that they communicate about sustainability (e.g., on social media, via email, events, marketing and donation campaigns, etc.) at least once annually. Banks' impact in this field could be further improved leveraging popular communication channels (e.g., website, social media, email etc.) and by using a data-driven sustainability communication approach targeting specific customer groups (e.g., by product type, customer value, tenure etc.) with a personalized and relevant content sent frequently. Besides, constant monitoring of its effectiveness is essential to design successful communication about sustainability.

RESULTS OF SUSTAINABILITY PERCEPTION INDEX

GREEN PRODUCTS AND SERVICES

Banks lag the most in this area according to the public's opinion, scoring only 10 points out of 100 – far below the main sub-index score of 40. We measured slightly higher scores for the affluent, environmentally-conscious and younger customer segments, as well as those with a higher level of education. Except for the youth segment, these banking customers use more sophisticated products and they are more familiar with the banks' offerings, so they notice new green innovations more readily.



Green products and services are essential for consumers across demographic groups (e.g., income levels, age, educational levels and location) as those were stated to be important by every second bank customer. Sustainable product offerings are especially important for older (over age 60), younger (under age 30), and affluent segments.



Almost half of the consumers are unaware of sustainable products available at their main bank, despite all surveyed banks having existing green products or services.

The most known green product is the virtual debit or credit card (almost 30% awareness), while only slightly more than 10% are familiar with green loan and donation products from their main bank. This shows fairly low awareness, since the majority (~90%) of banks offer green loans to retail banking customers, and more than 40% offer virtual cards to customers. This result indicates the need to raise awareness levels among consumers, particularly about the availability of green cards, green loans, donation solutions and green investment opportunities. Nonetheless, Hungarian banks could also enrich their green product portfolio so that their solutions are accessible to a wider public.

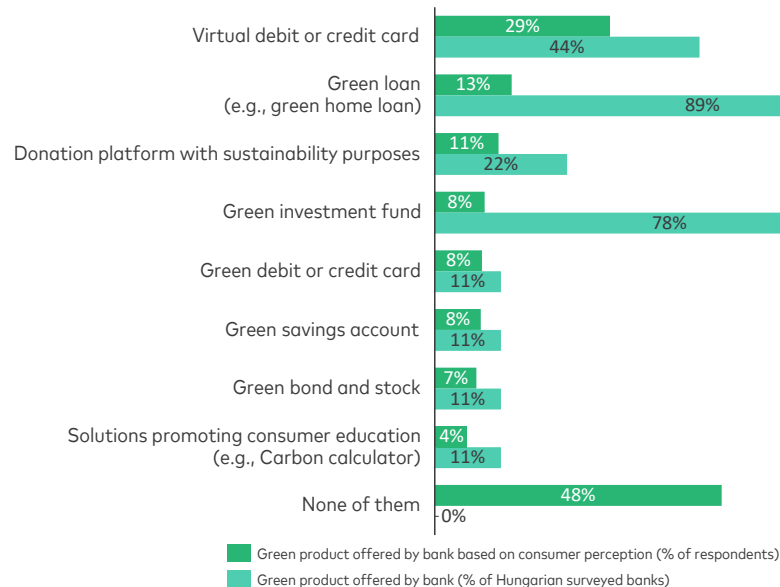


FIGURE 12:
Green products offered by customers' main bank based on consumer perception and green products offered by Hungarian banks (% of respondents and % of Hungarian surveyed banks)



Sustainable card solutions are the most popular sustainable products as they are simple and have a wide target audience.

Almost three out of ten customers would use a virtual debit or credit card, with a higher ratio for digitally savvy segments such as affluent and young consumers. Every fifth consumer is interested in a green debit or credit card, which is made from eco-friendly material and rewards sustainable purchases (e.g., by giving extra cashback). Almost the same share of bank customers is open to having a green savings account, and every sixth customer would consider applying for a green home loan. Typically, 10% of customers are interested in other sustainable products (e.g., donation and green investment products), while 29% would not choose any sustainable banking products. Affluent and environmentally-conscious segments as well as customers with a higher level of education show above average interest in such products.

While all Hungarian banks offer some climate-linked products, our findings suggest they should consider widening their portfolio.

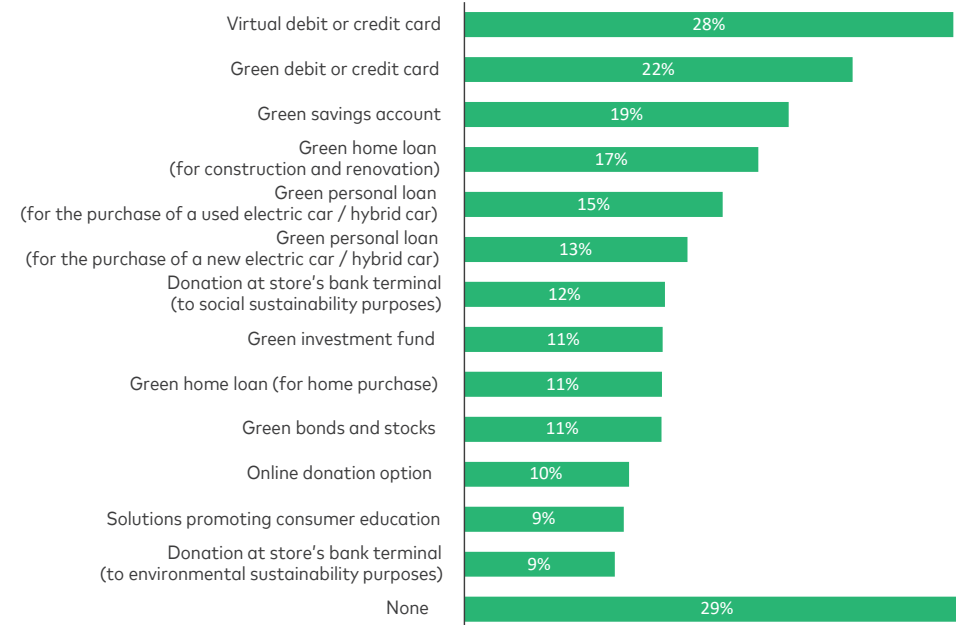


FIGURE 13:
Consumer willingness to use climate-linked financial products and services (% of respondents)

Also, consumers need more education about existing green financial products as current awareness is fairly low. Education would help clients understand existing green products (e.g., main benefits, impact on sustainability, cost implications, etc.) and identify which ones fulfill their needs. Financial institutions could increase awareness and drive demand by paying more attention to customer education.



Availability of sustainable products and services also creates a business opportunity for banks in the future.

Our research shows that three out of ten customers would pay a higher fee to a financial institution taking steps towards sustainability with its products or services, while this ratio rises to almost 50 percent among young and environmentally-conscious customers. Similarly, consumers across demographic groups show willingness to realize lower yield from green investment products (e.g., green bond, investment fund, etc.). Based on our research, four out of ten consumers would be willing to achieve lower yields, whereas this share is almost 60 percent within the young and eco-friendly consumers.

RESULTS OF SUSTAINABILITY PERCEPTION INDEX

FUTURE OUTLOOK

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Consumer awareness and perception of environmental sustainability is not yet well-developed in Hungary, but there is large potential.

Fields such as awareness of green products, environmental communication and bank operation could be enhanced, while digitalization is advanced and appreciated by customers. Our findings suggest that consumers need more education about sustainability in general; financial institutions can take a significant role in this effort, especially by offering and promoting climate-linked products and services.

“
We believe that a shift in awareness and knowledge takes considerable time to achieve, thus additional efforts are needed.

It is critical to maintain a continuous focus on customer education with genuine communication that resonates with customers (e.g., paperless banking, digitalization, etc.) to support consumer perception development, showcase financial institutions' impact on environmental sustainability and strengthen consumer trust. This would create a positive cycle of more knowledgeable consumers demanding further sustainable solutions from financial institutions, resulting in a more attractive business opportunity.



RESULTS OF SUSTAINABILITY PERCEPTION INDEX

TRANSPARENCY

Sub-index summary

Definition The Transparency sub-index provides an **assessment of the public environmental disclosure quality of issuer banks**

Sub-index results **Result:** The Transparency sub-index reached **76** points, which is higher than the score of the Sustainability Perception Index (57) and is the highest of the three index pillars
Implication: Good progress in sustainability disclosure

DEFINITIONS AND OBJECTIVE

There exists much information that a bank could disclose in its sustainability report, such as environmental targets, main operational risks, sustainability-related collaborations and initiatives, green products and services, and data on the bank's emissions.

The informative value and transparency of reporting are crucial to the perception of a bank's sustainability performance because investors demand ESG-related information, as this has become a core part of their investment analysis. A transparent, descriptive and clear sustainability report serves as the 'mirror' of banks' sustainability efforts, attracting investments (London Stock Exchange Group, 2021).

The Transparency sub-index provides an assessment of the public environmental disclosure characteristics of issuer banks.

“The data publication requirements of corporations, including financial institutions, are becoming stricter due to regulatory development. As such, examining financial institutions' publicly available information about their environmental impact is crucial when discussing the perception of environmental sustainability performance.

Mastercard leveraged publicly available bank sustainability reports to assess this sub-index. This pillar has four main components:

FIGURE 14: Key takeaways of the Transparency pillar

Availability: Summarizes basic information concerning the sustainability reports of issuer banks: covered time period, publication location, and report type (e.g., integrated report, standardized report, etc.).

Framework: Examines the organization's sustainability strategy and action plans.

Comparability: Investigates whether the published data is comparable to previous years and peers, and if quantitative data is used to describe the main environmental impacts.

Verifiability: Looks at the indicated data sources and whether the sustainability report is audited.

The primary objective of this sub-index is to demonstrate the clarity and transparency of issuer banks' sustainability reports (either local subsidiary bank or parent bank (banking group)) based on a determined set of criteria, inspired by international reporting standards (e.g., Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) standards). This section can provide insights into questions such as:

- How is the Hungarian banking sector performing from the environmental transparency perspective?
- In what components are Hungarian banks performing the best and which hold the most development potential?
- Which good practices could Hungarian banks adopt to fine-tune their sustainability reporting?

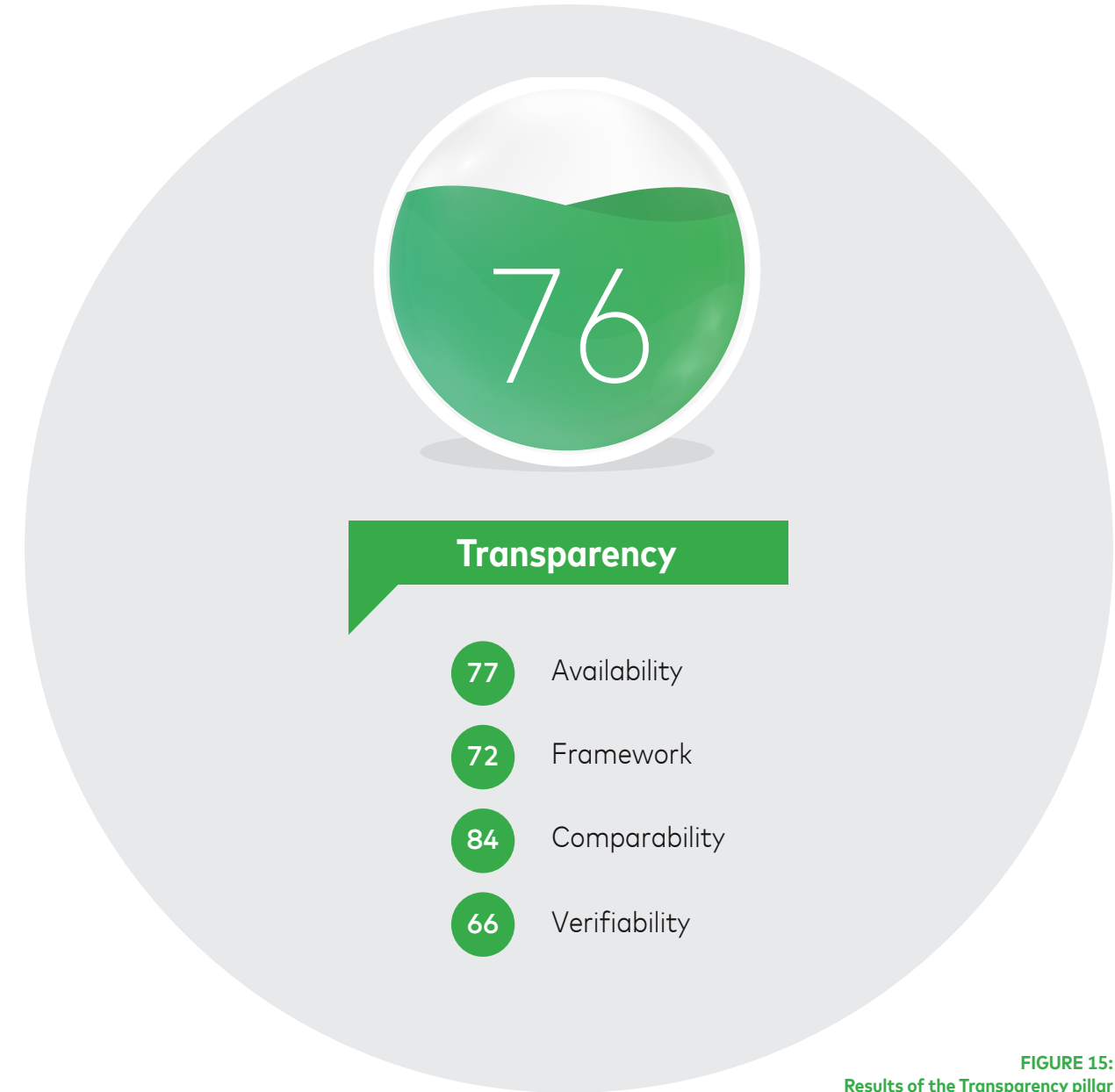


FIGURE 15: Results of the Transparency pillar

RESULTS OF SUSTAINABILITY PERCEPTION INDEX

AVAILABILITY

The Availability component of the Transparency sub-index scored 77, which shows that most of the examined banks already have a regularly (e.g., annually) updated sustainability report available to the public. While the score of this component is higher than the average of the sub-index (76), there are still areas for advancement.

Approximately two out of three banks disclose their main environmental targets and emission data on the parent bank level. A potential development area for these banks is to also disclose the most important target KPIs and action plans locally as well (on a subsidiary bank level), to provide easily accessible information to clients and investors in Hungary.

More than half of banks disclose their environmental sustainability targets and performance in the form of an integrated report. By summarizing their environmental, social and governance (ESG) performance together with the annual financial results, such a report increases transparency

and promotes a mindset of sustainability being an integral part of businesses performance (Integrated Reporting, 2021). Approximately half of the sampled banks also prepare their sustainability report based on one or more of the internationally-accepted reporting standards, such as the Global Reporting Initiative or the Sustainability Accounting Standards Board which facilitates comparison among financial institutions' green achievements.

Most of the examined banks, approximately two out of three, have prepared their Sustainability Report with 2022 as a reference period. Since regulation on disclosure expectations is continuously evolving, an important development opportunity for issuer banks is to (at least) annually update and publish their most significant sustainability data, such as emissions and environmental impact, target KPIs and sustainability initiatives. Finding and accessing existing reports is relatively effortless since most issuer banks in Hungary already publish Sustainability Reports on their websites.

Report type	Report definition
Integrated Report	An externally audited report that has been prepared based on one of the internationally accepted reporting standards (e.g., GRI, SASB, etc.), and defines the company's performance both from a financial and ESG point of view
Certified / Audited report	Reports that have been prepared based on internationally accepted reporting standards (e.g., GRI, SASB, etc.) and are also audited externally
Standardized report	Reports that have been prepared based on internationally accepted reporting standards (e.g., GRI, SASB, etc.), but are not audited externally
Simple Report	A non-financial report that contains information about environmental, social and governance issues that are important to the company, but are not aligned with any of the international reporting standards (e.g., GRI, SASB, etc.)

TABLE 3: Summary of report types for sustainability disclosure

FRAMEWORK

The Framework component of the Transparency sub-index scored 72, suggesting that the majority of the banks disclose their sustainability strategy and action plans, consider the main environmental impacts of their direct and indirect operations, and identify the operational risks they are facing due to climate change and global warming.

Approximately 80% of the sampled banks disclose their sustainability strategy in the report, publicly displaying their most important sustainability targets and ambitions. It is important to include a green strategy in the report visible for the public, because sustainability will continue to be important to banking customers as well as it influences loyalty. In some cases, when banks' sustainability strategy is not available to the public, an extract of their most important targets could be disclosed to highlight financial institutions' green priorities for consumers.

Around 90% of the examined banks publish their environmental action plans in their reports, indicating that they are committed to taking active steps to achieve their sustainability strategy targets. These findings are in line with our conducted interviews and surveys, as all the banks reported that they have determined at least some of the necessary steps to achieve sustainability strategy targets.

Regarding risk management, approximately half of the banks of the sample have disclosed the main operational risks the company is facing due to climate change. A

possible advancement opportunity for banks is to collectively consider and publish the main operational impacts and risks that climate change could mean for the bank. Some of the sampled banks already use some internationally recognized best practices such as climate stress tests or scenario analyses to determine impacts and risks. With physical and other operational risks related to climate change becoming more frequent and serious, detecting and reacting to them is more important than ever (MNB, 2022).

Another development area is to mention the bank's indirect impacts on the environment. Only about half of banks indicate the major impacts on the environment caused by their activity through the value chain (e.g., indirect emissions). It is important to disclose this information since most financial institutions' emissions are caused indirectly through their financed emissions or the value chain (HSBC, 2022). Furthermore, about 50% of banks name the harmful environmental sustainability KPIs and banks' negative impacts on the environment. Being fully transparent about concerning emissions is crucial, and thus, banks should commit to publishing all important aspects of their environmental sustainability performance in the future. This is important, since full transparency allows for banks to avoid allegations of greenwashing, since they are owning both positive and negative impacts. Furthermore, reporting on the negative impacts can redirect leadership's attention to topics of sustainability that have been neglected before.



RESULTS OF SUSTAINABILITY PERCEPTION INDEX

COMPARABILITY

The Comparability component of the Transparency sub-index scored 84, surpassing the average of the Transparency sub-index (76). This suggests that the sampled banks already disclose quantitative information on their sustainability performance and use internationally recognized standards (e.g., Sustainability Accounting Standards Board standards, Global Reporting Initiative standards, etc.). To do so, they state the calculation methodology of the KPIs, and show yearly comparisons to monitor changes and potential progress. This also suggests that environmental sustainability data can be found in the report without much effort and can be easily understood even by laypersons.

Approximately 90% of sampled banks include quantitative, measurable data on their environmental sustainability performance. Quantitative data and KPIs are crucial to appropriately measure and report banks' yearly impact and their sustainability performance. Prioritizing quantitative data in sustainability disclosure thus shows the banks' commitment to continuously monitor their progress and broadcast an accurate view of their direct and indirect emissions.

Another positive finding is that the majority of banks, almost 80%, have prepared their sustainability reports in accordance with major international reporting standards, such as the Global Reporting Initiative (GRI) standards or the Sustainability Accounting Standards Board (SASB) standards. The GRI standards enable organizations of diverse sizes and industries to understand and report on their impacts on the economy, environment and people in a comparable and credible way, thereby increasing transparency (GRI, 2023). Similarly, the SASB standards identify the subset of environmental, social and governance issues most relevant to financial performance in each industry (SASB, 2023). Thus, implementing these standards in a sustainability disclosure ensures that a financial institution's performance can be compared with those of peers and with their own former reports. On the other hand, only around half of the sampled banks publish industry-specific KPIs based on the SASB's suggestion (e.g., significant concentrations of credit exposure to ESG factors, including, but not limited to, carbon-related assets, water-stressed regions, and cybersecurity risks, number of loans for which a review of environmental or social risks was

performed, etc.) (SASB, 2023). This indicates an advancement opportunity, since using internationally recognized, specific KPIs helps increase transparency and comparison within the financial services sector.

Two-thirds of banks publish the year-over-year changes of their environmental sustainability data, which makes it easy both for the public and for the bank to observe their progress. Additionally, a few of the sampled banks also publish yearly comparisons of their data, but only partially.



Ensuring that the data displayed in the sustainability report can be compared with last year's performance is important since it can easily show improving metrics and can help banks focus more on the KPIs that are not progressing as planned.

On a positive note, around 90% of banks show absolute and normalized data (e.g., emission per unit), meaning that instead of only publishing information on changes (e.g., 5% decrease compared to last year), most show the actual quantitative data on their emission. Furthermore, two-thirds of issuer banks publish their expectations of how different environmental sustainability metrics could evolve in the future, suggesting that they have longer-term plans to decrease their environmental impacts.

Approximately 90% of banks additionally use internationally-accepted metrics for data representation, such as kt (kiloton) for CO2 emissions, kWh (kilowatt hour) for energy consumption, metric tons for water usage, or cubic meters for waste reduction. This makes the published data easily understandable and comparable. Also, roughly 90% indicate their main sustainability metrics (e.g., carbon emissions) in their report in an easy-to-find way, meaning that the data is highlighted visually in a table or graph to make it easily comparable and understandable. Another factor that increases transparency is that the majority of banks (90%) state their calculation methodology concerning their environmental sustainability performance.

VERIFIABILITY

The Verifiability component of the Transparency sub-index scored 66, which is the lowest score among the components of the Transparency sub-index. This indicates that banks could develop further in displaying the sources used for their calculations and assumptions, showing how main environmental risks might impact the company, and auditing the published KPIs by an external independent auditor to give further credibility to their reports.

Two-thirds of the sampled banks publish data to validate the statements about the environmental impacts of the bank, suggesting that they are taking active steps to monitor their footprint (e.g., by evaluating their direct and indirect emissions and other sustainability-related metrics). A possible development area for the sampled banks is connected to the operational effects of climate change, as only one-fifth have published data to validate the statements on the impacts that environmental risks have on the company. In comparison, based on our study, nine out of ten banks declared that they have processes in place to identify their key operational risks, while 40% can already sense climate change's impact on the bank's operations and use international best practices to determine these risks. As such, in the future, banks should disclose which are the main environmental risks that could influence their operations.

When it comes to data usage, two-thirds of banks list the sources (both internal and external) of used data, meaning that they refer to their own calculation methodology when publishing KPIs, and disclose which external studies or calculation methodologies were used. Around 80% of banks audit their sustainability reports externally, which validates and increases the credibility of their documents. This aligns to our research, as most of the surveyed banks replied that they audit their monitored target values through either an internal or external process (e.g., Scope 1 and 2 emissions, energy efficiency, and waste management).

FUTURE OUTLOOK

The Transparency sub-index achieved the highest score out of the three pillars of the Sustainability Perception Index. The final score of 76 indicates that the Hungarian Banking sector has already made progress in disclosing their environmental strategy and performance, thus increasing the transparency of their operations. This is a positive finding, since informing the public (both investors and consumers) on financial institutions' actions in sustainability is crucial for the green transition of the society and economy. It is an encouraging finding that the sampled banks are already publishing important KPIs on their performance; however, there are still advancement areas that could further increase the sampled banks' transparency and demonstrate commitment to sustainability.

We identified two main development areas for banks. Firstly, banks could publish their sustainability strategy and green impact within the annual (financial) report as an integrated report, thus giving a multi-faceted view of the organization's financial and ESG performance. This is a good reporting practice followed by other industries, such as in telecommunications. Secondly, Hungarian banks could have a similarly detailed sustainability report on a subsidiary bank level to highlight local green developments with Hungarian investors and customers since many of the examined banks disclose most of their sustainability performance information on a banking group level only. Other enhancements include displaying indirect impacts on the environment (e.g., Scope 2 and 3 emissions) and indication of the main environmental risks that the bank might face due to global warming by using internationally-recognized best practices such as a climate stress tests or scenario analyses.

In conclusion, while the examined banks have already showed great progress regarding their sustainability reporting, additional improvements could ensure that consumers, investors, and the public in general are well-informed on banks' sustainability efforts to further increase transparency.



In the coming years, emerging regulatory requirements (e.g., CSRD) and growing general interest about sustainability and evolving consumer habits will continue to drive financial institutions' journey towards more transparent sustainability reporting.



SUSTAINABILITY IN ACQUIRING OVERVIEW



Since acquirers are primarily in contact with business clients (e.g., SMEs and corporate merchants), their sustainable initiatives are less visible to retail banking consumers. However, acquirers have an indirect impact on consumers, and can influence their habits through digitalization and paperless initiatives. As such, acquirers have a significant role in innovating new sustainable payment options and in convincing merchants to adopt them.

Two distinct types of acquirers were assessed in our study: issuer banks with acquiring business and acquirer-only players offering POS terminals for businesses. Overall, acquirers can have a green impact through their business strategy, business operation, awareness building and green economy transitioning (e.g., digitalization, paperless strategy). Terminal provider acquirers have an additional layer of responsibility within green economy transitioning through terminal manufacturing, green transportation and waste management.

The surveyed acquirers have already taken measures to become more sustainable and to offer green(er) solutions to their corporate customers, thus influencing end-users as well. All the surveyed acquirers have an ESG strategy that aligns with their business goals, the Paris Agreement and the UN Sustainability Development Goals (SDG); however not all are committed to net zero emissions and a carbon neutral business operation. The majority of acquirers include a greenhouse gas emission decrease plan and an energy efficiency plan in their strategy, but other plans have not yet been developed according to our survey (e.g., circular economy plan, biodiversity protection plan, etc.), indicating a potential advancement area. Almost all acquirers have invested financial resources in environmental sustainability-related targets and initiatives locally, suggesting that acquirers are ready to take actual steps towards sustainability.

In terms of business operation, all the surveyed acquirers have a sustainability officer who oversees their sustainability performance, and most also have a sustainability team, which facilitates their green transition. Energy efficiency is also a key aspect for acquirers as they strive for green energy operation in their offices, but this view could be extended to wider business operation (e.g., energy used for electronic payment acceptance, etc.). Regarding partner selection, most surveyed acquirers take sustainability into consideration when choosing their suppliers and they even ask for pertinent documentation. Furthermore, the surveyed acquirers encourage suppliers to achieve their goals in sustainability (e.g., terminal manufacturing and transport). Similar to issuers, the surveyed acquirers also have challenges with monitoring their Scope 3 emissions; only a few monitor or audit this indicator, thus, suggesting an advancement opportunity for them.

In relation to sustainability awareness building, acquirers regularly offer sustainable initiatives to employees, such as volunteering opportunities, support for sustainable commuting, and minimizing paper usage, while the latter is also promoted to their corporate clients. Acquirers have already made great progress in communicating about sustainability both internally and externally. The vast majority of surveyed acquirers send sustainability-related communication (e.g., newsletters) to their employees. Similarly, sustainability is used in external communication to clients through social media, email, events and PR campaigns by most acquirers.



Although acquirers do not have a financing activity in most cases, they influence the transition towards a greener economy through their activities.

Since POS terminals are made from plastic and thus pollute the environment, acquirers have been developing and promoting innovative payment acceptance solutions such as SoftPOS, a technology that enables merchants to accept card payments directly on their phone devices, thus reducing POS terminal need. While the SoftPOS is not yet a widespread solution in Hungary, more and more entrepreneurs (especially in the SME segment) are adopting this solution to simplify card payment acceptance without a terminal. Acquirers also plan to increase the terminal lifecycle, which is beneficial from a sustainability perspective by decreasing plastic waste besides reducing costs.

Circular economy holds potential for acquirers, as they could manufacture and distribute terminals from recycled plastic and use recycled package materials for its distribution, as well as giving strategic priority to phone payment acceptance solutions (e.g., SoftPOS). Education efforts and incentives for business customers are additional improvement areas, as around six out of ten clients do not comply with terminal replacement recommendations by terminal providers, thus creating waste management challenges.

Digitalization and paperless efforts are well-received in general by end customers.



According to our consumer research, one in five never take a receipt after a debit or credit card purchase, while almost half of bank customers typically ask for it.

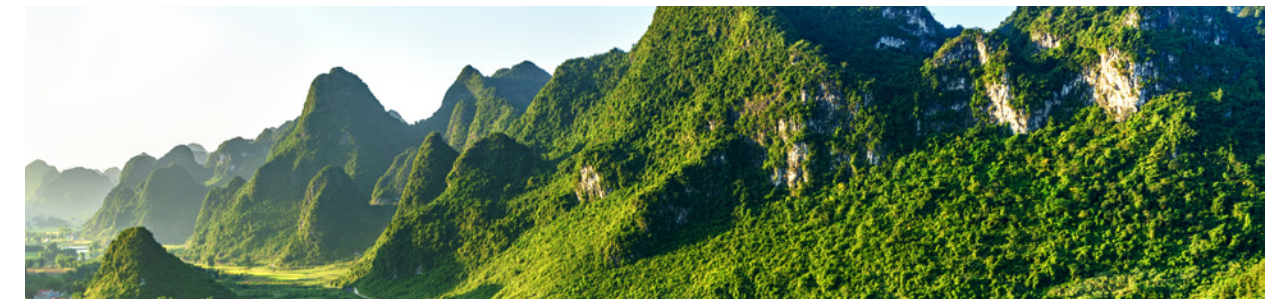
Customers with higher levels of education as well as affluent and environmentally-conscious clients are less likely to take a paper receipt, while older generations are more likely to do so when shopping in-store. Furthermore, even among those customers who commonly take a printed receipt, nine out of ten claim that a digital receipt would be sufficient (Mastercard and Impetus Research, 2023). This shows that there is already a shift in consumer mindset about paperless and digital payment solutions, but customer education about digital receipt alternatives is still needed.



In conclusion, although acquiring is less visible for end consumers, the surveyed acquirers have already made progress towards a greener economy by digitalization (e.g., SoftPOS) and paperless operation, which are visible and supported both by business clients and end customers.

In the future, acquirers could further develop their sustainability-related activities in three ways that would help the green transition in the Hungarian economy:

- Enhance business operation-related aspects (e.g., commitment to a net zero operation, improved KPI monitoring, etc.)
- Improve customer education (both business and individual consumers) to further adopt digital and paperless solutions (e.g., SoftPOS, digital receipts, etc.), creating higher demand
- Develop terminal-related activities (e.g., lengthen terminal lifecycle, enhance terminal transportation and waste management practices etc.)



SUSTAINABILITY CONTEXT

REGULATORY OVERVIEW



Financial institutions play a fundamental role in the fight against climate change and in the reduction of global warming through their influence on customer habits and corporate funding. Several regulations and guidelines have been passed that urge financial institutions to operate more sustainably and to disclose their environmental impacts.

In this section, we summarize the main pertinent regulations which drive the economy and financial institutions towards a more sustainable future.

Currently, climate neutrality is voluntary, since legislation in the European Union and in Hungary does not mandate or require it for banks (Green Policy Center, 2022). However, since disclosure requirements are becoming stricter, several reporting standards have been established that aim to support corporations in their journey towards transparency and sustainable development. The most used standards are the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) standards, which also determine industry- and sector-specific standards to further increase comparability (GRI, 2023) (SASB, 2023). It is important to emphasize that while these standards are not mandatory, they represent an important change in the general expectations towards businesses and their disclosure on environmental impact (e.g., emissions, water conservation, etc.). This also sends the message that each entity in the corporate sector has to proactively take their part in the fight against climate change.

The European Green Deal, approved in 2020, is a collection of policy initiatives (approved by the Europe Commission in 2020) to help achieve climate neutrality. A new sustainable

finance strategy, The European Sustainable Financial Action Plan, is one component designed to deepen the connection between sustainability and the financial system. The plan places much emphasis on the financial system's green transformation and the EU's long-term objective of financial climate neutrality by 2050. Connected to this, the Taxonomy regulation (a crucial component of the Action Plan) is a green classification system that transforms the EU's climate and environmental objectives into a list of environmentally-sustainable economic activities for investment reasons (European Commission, 2020b). It recognizes environmentally-friendly or sustainable economic activities that significantly advance at least one of the EU's environmental goals.

An important regulation on corporate sustainability reporting is the Non-Financial Reporting Directive (NFRD). Under the NFRD, large companies must publish information about social and environmental matters. These reporting rules apply to large public-interest companies with more than 500 employees and cover approximately 12,000 of the largest companies and groups across the EU, including banks and insurance companies, among others (European Commission, 2023a).

Another critical EU-wide regulation is the Sustainable Finance Disclosure Regulation (SFDR), which requires specific firm-level disclosures on how sustainability risks are addressed and directs financial services providers (e.g., banks, insurers, investment firms, etc.) on how to transparently communicate these sustainability risks (European Commission, 2023b). Level 2 of the SFDR entered into force as of January 2023, and supplements the Level 1 measures with technical standards and specifies the exact content, methodology and presentation of the information to be disclosed, thus improving comparability and quality (European Commission, 2023b). The SFDR

regulation also classifies funds as grey, light green or dark green, and specifies stricter regulation requirements for green funds (Capital Monitor, 2022).

Furthermore, The European Banking Authority (EBA) is implementing a new policy strategy (EBA Pillar 3) that aims to increase efficiency of institutions' disclosures and reinforce market discipline by developing a comprehensive framework (European Banking Authority, 2022). This is in response to recent updates to the regulatory frameworks for credit institutions and investment firms as well as the 2018 publication of the European Commission's action plan on sustainable finance. Moreover, the EBA seeks to encourage institutions to improve their management of environmental, social, or governance (ESG) risks and to raise awareness of their crucial role in the shift to a green economy and society.



In January 2023, the Corporate Sustainability Reporting Directive (CSRD) entered into force, modernizing and strengthening the rules about the social and environmental information that companies must report. This is a crucial step, which increases corporate transparency about sustainability.

CSRD will replace the NFRD and broaden its scope; about 50 000 large companies and listed SMEs will now be required to report on sustainability (European Commission, 2023a). As a result of the CSRD, investors and other stakeholders will have better access to the information they need to assess the investment risks arising from climate change and other sustainability issues, creating a culture of transparency about the impact of companies on people and the environment.

Companies subject to the CSRD will have to report according to the European Sustainability Reporting Standards (ESRS) (European Commission, 2023a). It will also be mandatory for companies to provide third-party verification of the sustainability information that they

report (European Commission, 2023a). The first companies (large public-interest corporations already in scope of NFRD with over 500 employees) will have to apply the new rules for the first time in the financial year 2024, with reports to be published in 2025. From January 2025, large companies not subject to NFRD (those with more than 250 employees) will have reports due in 2026, while publicly listed SMEs and other ventures are due in 2027 (European Commission, 2023a), although earlier adoption might be needed for suppliers to larger corporations, thus impacting their Scope 3 emissions.

In Hungary, the Hungarian Central Bank (Magyar Nemzeti Bank, MNB) received its green mandate in 2021, including the promotion of environmental sustainability in its statutory objectives (MNB, 2021b). As such, the Hungarian Central Bank is in a unique position in Europe to have its green ambitions backed by a green mandate. In 2022, MNB published the Zöld Ajánlás (Green Recommendations) to help banks prepare for the expected regulatory changes.



Besides the local regulatory environment, financial institutions' environmental sustainability performance is also influenced by the country where they operate,

as having different natural resources, infrastructures, and habits. According to internationally-accepted sustainability indicators, such as the Sustainable Development Report, Global Sustainable Competitiveness Index, Environmental Performance Index and the Planetary pressures-adjusted Human Development Index, Hungary's performance on environmental and social factors could be further enhanced in the future (Sustainable Development Solutions Network, 2023). The Hungarian Central Bank (MNB) has also published a Sustainability Report which ranked Hungary 15th out of the 27 member states based on performance in environmental and social progress, sustainable economic growth and sustainable ('green') finance (MNB, 2021a).

SUSTAINABILITY CONTEXT

SUSTAINABILITY-RELATED CHALLENGES



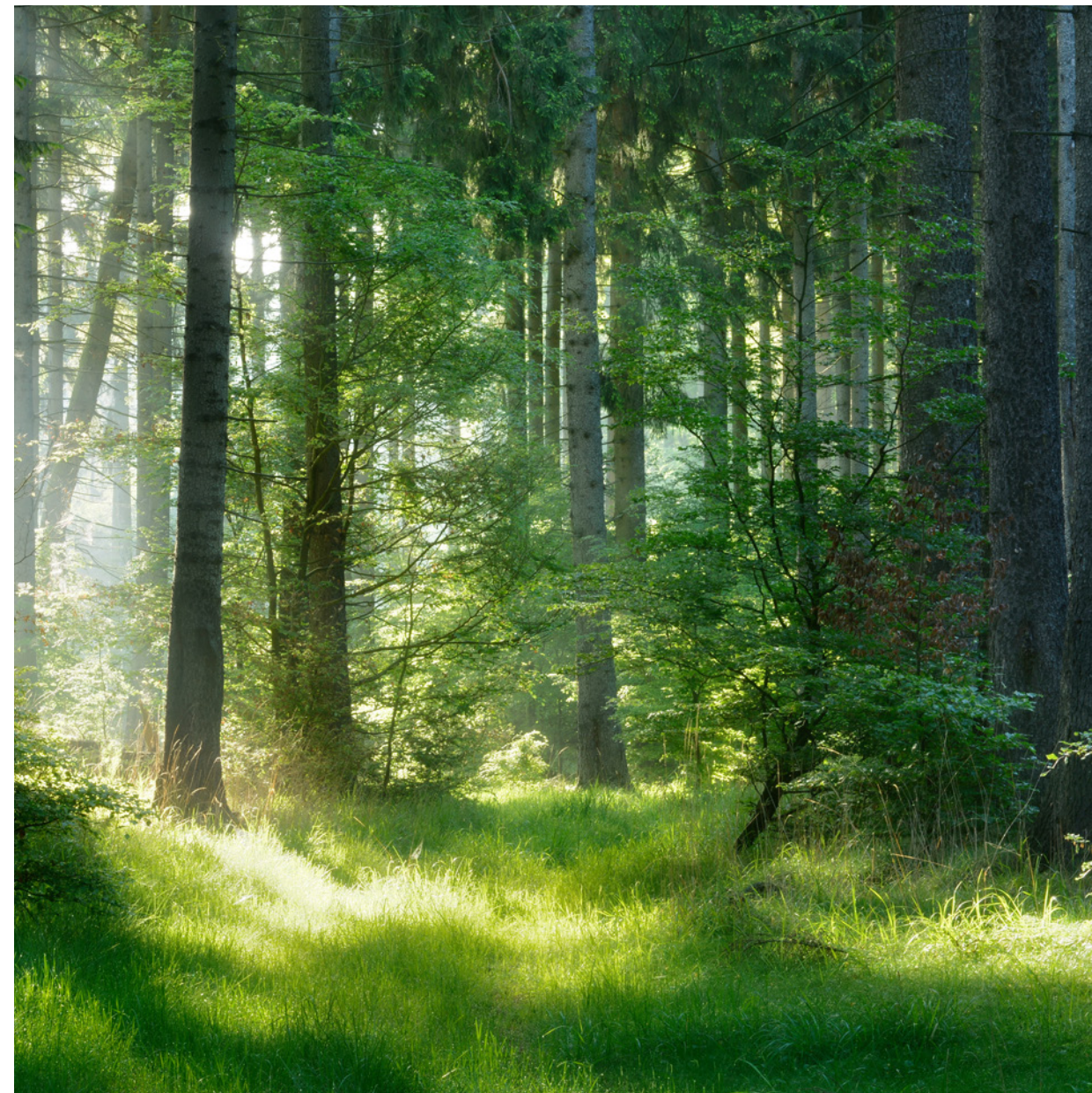
Since sustainable financing and climate neutral banking will define the future of the financial sector, financial institutions will have to implement considerable changes in their operations to improve their environmental sustainability performance. However, these changes come with notable challenges that might hinder the steps banks are taking towards more environmentally sustainable operations.

In this section, we summarize the main challenges banks face based on our interviews, grouped into three categories: data availability and education and attitudes.

Data availability: The first challenge is the lack of available sustainability-related data both in terms of quantity and quality. Corporates have a scarcity of environmental sustainability-related data (e.g., Scope 1-3 emissions, energy efficiency, water usage, biodiversity impact, etc.) due to a lack of internal resources and knowledge, although ESG-related regulations (e.g., CSRD) will improve companies' reporting capabilities. Data scarcity is an especially burning topic within the SME segment, while large corporations are in a slightly better position to provide accurate data. Similarly, only a minority of Hungarian companies have an internationally or nationally recognized ESG rating at present. High infrastructure costs further add to this challenge as companies must change their processes and products to become environmentally sustainable. Data constraints also affect banks' green aspirations for two main reasons. Reporting banks' own direct and indirect emissions (especially financed Scope 3 emissions) is one of the major challenges that the banking industry is currently facing due to data availability difficulties. Besides, financial institutions also face challenges during green lending and credit evaluation processes where they aim to accurately assess companies' sustainability performance and their environmental risks.

Education: Another substantial challenge Hungarian banks face is connected to education and mindset both for retail and corporate banking consumers. Individual (retail banking) clients lack sufficient knowledge on sustainability-related topics; based on our study, only half of the Hungarian population understand what sustainability means, while only 14% of consumers talk often about this topic with their acquaintances, family, and friends. Similarly, corporate consumers (especially the SME segment) are generally not aware of development and investment needs related to the green transition. This is supported by K&H Bank's study (2022 and 2023) which showed that while the majority of Hungarian executives find environmental sustainability to be important, they usually deal with environmental problems if there is a direct operational benefit to it. Also, only 14% of companies (with annual revenues above 300 M HUF) have a sustainability strategy (K&H, 2022; K&H, 2023). Lack of knowledge suggests that there is a serious educational need to inform both retail and corporate banking consumers about sustainability's importance, to boost businesses' reporting capabilities and to drive demand for green banking products, further enhancing the business opportunity and greening the economy. To achieve this, employee education for companies and financial institutions is also key.

Attitudes: Other challenges are related to limited internal resources both at corporations and banks and to financial institutions' attitudes towards environmental sustainability. Based on our bank interviews, one big roadblock is lack of consensus in goals and attitudes, as some banks see financial resources allocated for environmental purposes as an investment (seeking long-term business opportunity), while others as a cost by giving up business opportunities in the short term especially in an economic environment with high interest rates. Goal misalignment on sustainability is also noticeable across the value chain, not only among financial institutions. In order to achieve a greener and a climate neutral economy, there is a need for a regulated and coordinated approach (e.g., all banks following the same lending policies) so that every financial institution contributes similarly to sustainability goals.



METHODOLOGY

The Sustainability Perception Index is a metric designed to measure the environmental sustainability performance of the Hungarian banking industry, based on perception.

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This report analyses the environmental sustainability level of the Hungarian banking sector through quantitative and qualitative insights. Due to the limited availability of company level hard data on environmental sustainability, the index methodology had to be adjusted accordingly.

The index consists of three pillars which together provide the final score of the Sustainability Perception Index: Pillar 1: Bank Readiness Perception, Pillar 2: Consumer Perception, and Pillar 3: Transparency. The basis of the methodology is to examine how the players of the banking sector see their own sustainability performance (Pillar 1) compared to the perception of the consumers (Pillar 2) combined with Mastercard's evaluation on Transparency (Pillar 3).

Pillar 1 of the index (Bank Readiness Perception) is based on primary research conducted by Mastercard with the cooperation of the selected banks and assesses the environmental sustainability performance of the players through self-reported data. The goals of Pillar 2 (Consumer Perception) are, first, to explore the perception of consumers on the environmental sustainability of the banking industry in a measurable way and, second, to scale the general sustainability knowledge level of the Hungarian consumer groups. The dataset for this pillar has also been collected through primary research conducted by a third-party market research organization, Impetus Research. Pillar 3 of the index (Transparency) scores the selected banks based on their

sustainability reporting performance to help them to create trusted and informative sustainability reports which are aligned with the regulatory guidelines. This pillar of the index has been prepared based on desktop research conducted by Mastercard.

All indicators of the three pillars were indexed on a scale of 100 and aggregated into components to condense information from individual KPIs. All three pillars have a maximum of 100 points. This is then adjusted with weights (bank readiness perception and consumer perception with an equally high weight and transparency with a slightly lower weight as sustainability in the financial sector is mostly driven by banks and consumers) to form the final index number for the banking industry - from the three pillars - for which the top scale is also 100. Model sensitivity was tested to assess the overall reliability of the index model.

A total of 61 indicators were included in the index. Nine banks from the Hungarian financial sector have been included in the scope of the index.

An important phase of the index development process was the choice of indicators. KPIs were included based on the availability and quality of data as well as their ability to be measured, compared and differentiated.

Finally, the index was designed and structured to be replicable and easily expanded in the future, for example, to different parts of the ESG framework (currently we are only focusing 'environmental').

Data components

To construct this report two types of data sources have been leveraged:

Public sources: The Green Finance Report 2022 and 2023 (Zöld Pénzügyi Jelentés), Green Recommendation (Zöld Ajánlás) and Sustainability Report (Fenntarthatósági

Jelentés) 2021 published by the MNB (Central Bank of Hungary) and the Sustainable Brand Index served as a basis of designing our methodology and selecting the relevant indicators.

Primary research: Survey results were used to proxy poor or unavailable datapoints and add complementary insights to key findings – Impetus Research provided selected findings from Consumer Perception Survey while the Corporate Survey (Bank Readiness Perception) was prepared and evaluated by Mastercard.

The Bank Readiness Perception survey was designed and prepared by Mastercard with the help of internal and external experts to form a 30-40-minute questionnaire. The questionnaire was completed by the ESG Departments/ Leads of the selected nine players through in-person or online interviews. In addition to the quantitative metrics gained during the interviews, important qualitative insights were also disclosed to enrich our analysis.

The Consumer Perception survey was designed collaboratively with Impetus Research to form a 15-17-minute questionnaire which combined a series of self-assessment questions related to consumers' awareness of and attitudes towards environmental sustainability and its relation to the banking sector. The sample surveyed 1,000 consumers between ages 18 to 69. Quotas ensured that each of the large banks had at least 40 participants and each small bank had at least 5 participants in the survey. At the beginning of the survey, consumers were asked to identify their main bank and fill out the survey in reference to that.



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DEFINITIONS

■ CSRD

The Corporate Sustainability Reporting Directive (CSRD) modernizes and strengthens the rules about the social and environmental information that companies must report. CSRD will replace the NFRD and broaden its scope; therefore about 50,000 large companies and listed SMEs will now be required to report on sustainability.

■ EBA Pillar 3

The European Banking Authority (EBA) is implementing a new policy strategy that aims to increase the efficiency of institutions' disclosures and reinforce market discipline by developing a comprehensive framework. According to the EBA Pillar 3 package, banks should be able to show how climate change may exacerbate other risks within the institutions' balance sheets, and how institutions are mitigating those risks.

■ ESG framework

Covering three impact areas – Environmental (e.g., climate change, energy consumption, resource conservation), Social (e.g., diversity, inclusion and human rights), and Governance (e.g., business ethics, transparency) – ESG is a framework that helps stakeholders understand sustainability problems, while considering opportunities and managing risks.

■ EU Taxonomy

The Taxonomy regulation is a green classification system that transforms the EU's climate and environmental objectives

into a list of environmentally-sustainable economic activities for investment reasons. It recognizes environmentally friendly, or "sustainable" economic activities that significantly advance at least one of the EU's environmental goals.

■ Green Asset Ratio

A financial institution's assets financing sustainable economic activities (defined by EU Taxonomy) divided by its total assets.

■ Greenhouse Gas (GHG) emissions

The emission of greenhouse gases such as carbon dioxide, methane and nitrous oxide, produced by the burning of fossil fuels, industrial production and land use that contribute significantly to global warming.

■ Net Zero Banking Alliance

The industry-led, UN-convened Net-Zero Banking Alliance brings together a global group of banks, currently representing over 40% of global banking assets, which are committed to aligning their lending and investment portfolios with net-zero emissions by 2050.

■ NFRD

Under the Non-Financial Reporting Directive (NFRD), large public-interest companies with more than 500 employees must publish information about social and environmental matters. These reporting rules apply to and has covered approximately 12,000 large companies and groups across the EU, including banks and insurance companies.

■ SBTi

The Science Based Targets initiative is a collaboration between CDP, the United Nations Global Compact, the World Resources Institute and the World Wide Fund for Nature. Since 2015, more than 1,000 companies have joined the initiative, which sets science-based climate targets.

■ Scope 1 emissions

Direct greenhouse gas emissions from sources owned or controlled by an organization (e.g., office, company car).

■ Scope 2 emissions

Indirect emissions from the purchase and use of electricity, steam, heating and cooling for own use (e.g., office).

■ Scope 3 emissions

All other indirect emissions that occur in the upstream (e.g., employee commute, business travel, purchased goods and services) and downstream (e.g., investments, end-of-life treatment of sold products) activities of an organization.

■ SFDR

The Sustainable Finance Disclosure Regulation (SFDR) requires specific firm-level disclosures on how sustainability risks are addressed and directs financial firms on how to transparently communicate these sustainability risks. The SFDR applies to all EU investment management firms and advisors, including asset managers, banks, and insurers and became effective in March 2021.

■ SoftPOS

Solution that enables acceptance of contactless card payments on Android devices using only software (i.e. without terminal hardware).

■ Sustainability

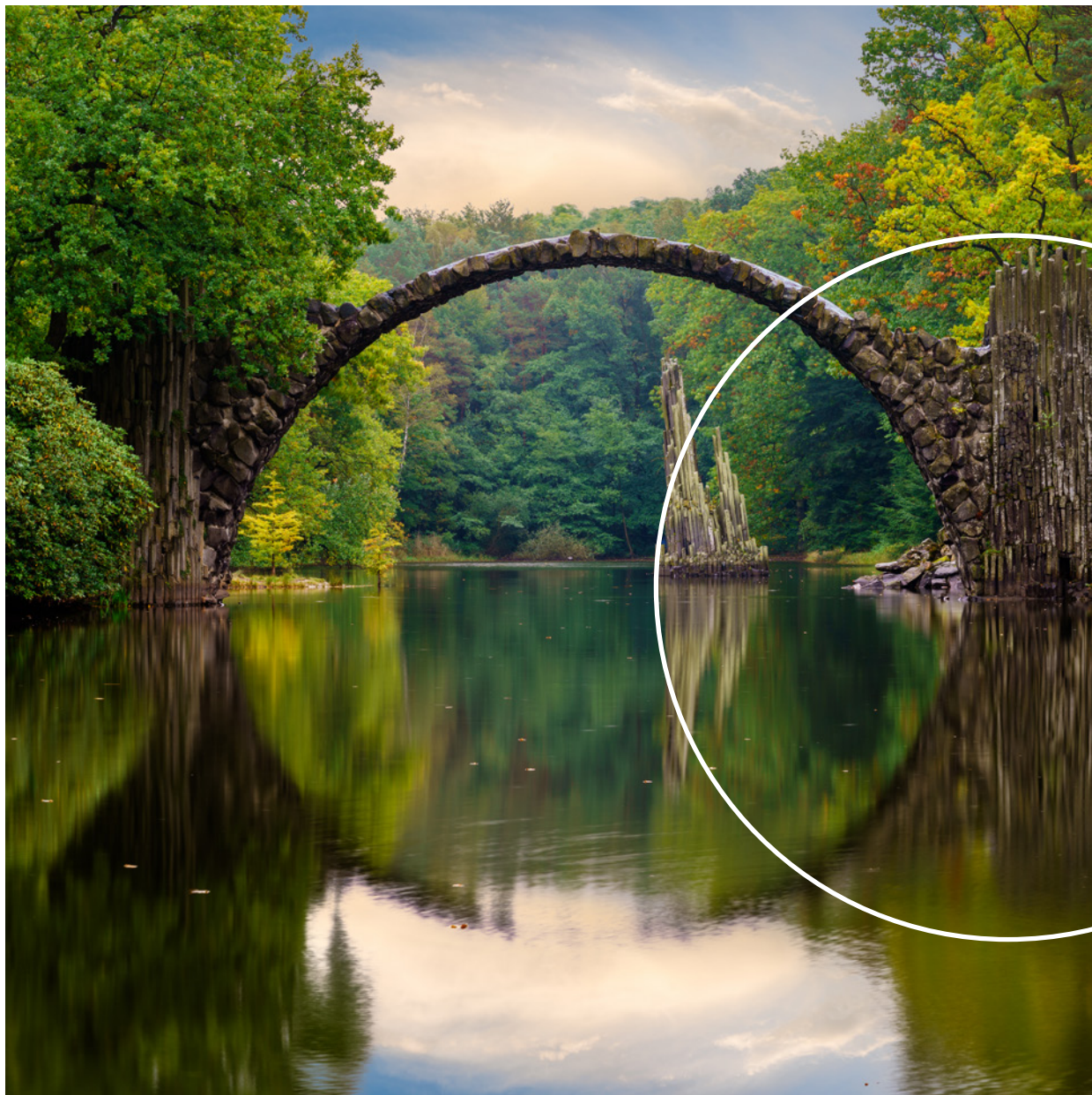
Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

■ Sustainable Development Goals

An integrated set of 17 goals that is adopted by the United Nation's member countries, and aims to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The 17 interconnected goals include environmental sustainability related topics too, such as climate action, life below water and life on land etc.

■ UNEP FI

The United Nations Environment Programme Finance Initiative (UNEP FI) is a large network of banks, insurers and investors that collectively catalyse action across the financial system to deliver more sustainable global economies.



About Mastercard

Mastercard is a global technology company in the payments industry. Our mission is to connect and power an inclusive, digital economy that benefits everyone, everywhere by making transactions safe, simple, smart and accessible. Using secure data and networks, partnerships and passion, our innovations and solutions help individuals, financial institutions, governments and businesses realize their greatest potential. Our decency quotient, or DQ, drives our culture and everything we do inside and outside of our company. With connections across more than 210 countries and territories, we are building a sustainable world that unlocks priceless possibilities for all. [mastercard.hu](https://www.mastercard.hu)

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**SUSTAINABILITY
PERCEPTION INDEX
HUNGARY 2023**

COMPASS IN THE HUNGARIAN
BANKING SECTOR'S GREEN TRANSITION

REPORT

