

Recommendation No 4/2021. (III. 30.) of the Magyar Nemzeti Bank on the digital transformation of credit institutions

I. Purpose and scope of the recommendation

The realisation of the digital transformation of credit institutions is a progressive and desirable development for several reasons. Through the implementation of innovative solutions and state-of-the-art technologies and the modernisation of the organisational culture and workflows, the quality of services offered to customers can be substantially improved, the institutions' operating expenses can be reduced, while the risk management mechanisms and work organisation processes can be made more efficient. Cost-efficient and agile operation also improves the stability and resilience of the sector, and in addition, the developments implemented by the credit institutions may also foster the appearance and acceleration of digital developments in other sectors, and thus they may exert positive effect on economic development also at macroeconomic level.

The purpose of this recommendation is to foster and accelerate the digital transformation of credit institutions in a safe environment. The recommendation is in line with the [FinTech Strategy](#) of the Magyar Nemzeti Bank (hereinafter: MNB). In accordance with this, the recommendation's key objectives include the extension of personalised and customer-focused digital services, the fostering of the financial innovation of domestic credit institutions, the improvement of the banking sector's competitiveness and stability, and finally the continuous maintenance of consumer protection interests. Further objectives of the recommendation include contribution to sustainable economic growth and the fostering of the environmentally conscious operation of the banking sector, which is in line with the [MNB's Green Programme](#). The MNB developed its recommendation for credit institutions based on these directions, the results of the bank digitalisation survey conducted at the end of 2019 and at the beginning of 2020 and the experiences gained from the personal follow-up interviews.

The addressees of this recommendation include the credit institutions falling within the scope of Act CCXXXVII of 2013 on Credit Institutions and Financial Enterprises (hereinafter: Credit Institutions Act) with the exception of the specialised credit institutions falling within the scope of Act XLII of 1994 on the Hungarian Export-Import Bank Corporation and the Hungarian Export Credit Insurance Corporation and Act XX of 2001 on the Hungarian Development Bank, and KELER Central Depository Private Limited Company (hereinafter: credit institution).

When formulating the principles and expectations, this recommendation makes no full reference to the legislative provisions. Nevertheless, the addressees of this recommendation are obliged to comply with the relevant legislative requirements.

This recommendation shall be applied jointly with the provisions of the MNB's other relevant regulatory instruments¹.

This recommendation formulates no guidance on data processing and data protection issues; further it contains no expectation whatsoever with regard to the processing of personal data and the requirements hereof shall not be construed in any way as an authorisation to process personal data. Data processing in relation to the fulfilment of the supervisory requirements set forth in the recommendation may only be performed in compliance with the provisions of the prevailing data protection laws.

Credit institutions should apply the supervisory expectations set out in the recommendation in line with and proportionately to the nature of their applied business model and the special features – including also the features resulting from the organisational structure and size of operations –, coverage and complexity of the services activity pursued by the credit institution or the group, their risk profile and role in the financial intermediary system, and the features of their customer base.

II. Definitions

1. The terms used in this recommendation – unless stipulated otherwise – shall be interpreted in accordance with the definitions of the Credit Institutions Act.

III. Development of the digital transformation strategy

2. The MNB expects the credit institution to develop a comprehensive and detailed local – i.e. Hungarian – group-level digital transformation strategy, where the credit institution aligns the implementation of certain objectives and plans with predefined milestones and measurable key performance indicators. The credit institution may satisfy this requirement by supplementing its already existing strategic document based on the provisions of this recommendation (the dedicated digital transformation strategy and any other strategic document supplemented based on this recommendation shall be jointly referred to as: digital transformation strategy). Furthermore, the MNB expects the credit institution to review the digital transformation strategy annually and prepare the report related to the progress and comparative analyses of the implementation of the plans and objectives outlined therein

¹ Including particularly, but not limited to:

Recommendation No 4/2017 (III. 13.) of the Magyar Nemzeti Bank on the treatment of clients with disability,
Recommendation No 4/2019 (IV. 1.) of the Magyar Nemzeti Bank on the use of community and public cloud computing services,
Recommendation No 8/2020 (VI. 22.) of the Magyar Nemzeti Bank on the protection of IT systems,
Recommendation No 9/2020 (VII. 14.) of the Magyar Nemzeti Bank to financial organisations on the application of consumer protection principles,
Recommendation No 12/2020 (XI. 6.) of the Magyar Nemzeti Bank on IT security requirements for remote working and remote access,
Management circular on the written contracts concluded and legal declarations made electronically (2019).

annually and submit it to the MNB by 31 December of the reference year until such time as the furthest objective of the digital transformation strategy is achieved.

3. The MNB expects key content elements of the digital transformation strategy to cover at least, but not exclusively, the following objectives:
 - a) the current range of products and services available in digital form and the expanding thereof;
 - b) encouraging the use of various digital channels;
 - c) consumer-centric digitalisation of the branch network;
 - d) transformation of the corporate culture;
 - e) enhancement of digital competency
 - f) improvement of cooperation and external communication channels in terms of digitalisation;
 - g) improvement of the data asset management strategy in terms of digitalisation;
 - h) enhancement of the risk management strategy in terms of digitalisation;
 - i) transformation of the corporate IT system;
 - j) enhancement of IT security.
4. The MNB expects the credit institution to elaborate the individual content elements of the strategy considering the expectations, recommendations and good practices set out in the relevant sections hereof.
5. The MNB expects the digital transformation strategy prepared based on this recommendation and the credit institution's IT strategy to be harmonised.

IV. Expanding the range of products and services available in digital form

6. It is the MNB's key objective to strengthen the stability of the banking sector, increase its competitiveness and improve its adaptability. To this end, in line with its FinTech Strategy, the MNB encourages the actors of the banking sector to make an increasing range of their products and services available on their digital platforms and online channels. To this end, the MNB makes the following recommendations to be presented in the credit institution's digital transformation strategy.
 - 6.1. The MNB regards it as good practice if the credit institution makes account opening available fully online for all account packages where the legislative environment permits this. The MNB regards it as good practice if all this is available both through online platforms and mobile applications.
 - 6.2. The MNB expects the credit institution to offer account packages where the available administration options relevant for the account services – taking into consideration the volume, cost, and feasibility (depending on its nature) of using the given type of administration and services – are also available digitally.

- 6.3. The MNB regards it as good practice if the credit institution sends a reminder and notice – through electronic channels, in separate notification or on paper-based statement – related to the possibility and process of changeover to digital bank account statement to all clients not yet using digital account statements.
- 6.4. Taking into consideration and managing the potential risks, the credit institution should identify a customer base to which it recommends the sending of the informative notification – not capable of producing legal effects – on outstanding credit liabilities in digital form where the law or the MNB’s recommendation do not provide differently. Furthermore, the MNB expects the credit institution to send a reminder and notice – in separate notifications or on paper-based reminder – related to the possibility and process of changeover to digital notification to all clients not yet using digital notification. If the notification is sent at the client’s request, the credit institution is expected to do so through the channel stipulated in the request.
- 6.5. With reference to the provisions of sub-point 6.4, the MNB regards it as good practice for the credit institution to prepare and present to the MNB a sub-strategy for the digitalisation of the process related to the collection of outstanding credit liabilities, including the development of digital forms of cooperation with natural persons or legal entities acting on behalf of or replacing the credit institution.
- 6.6. The credit institution should, considering and managing the potential risks, identify the customer base to which it proposes to deliver the informative notification – on its own not producing any legal effect – on overdrawing the credit line in digital form. Furthermore, the MNB expects the credit institution to send a reminder and notice related to the possibility and process of changeover to this digital notification form to all clients not yet using digital notification.
- 6.7. The MNB regards it as good practice if the credit institution develops a solution that enables clients to monitor the application and administration processes related to credit products for small and medium-sized enterprises and other corporate clients digitally on a continuous basis in the case of those standard (non-customised) credit products and administration processes where the loan assessment or administration process exceeds 2 working days on average.
- 6.8. The MNB expects the credit institution to assess the feasibility of developing a solution that enables customers to monitor the application and administration processes of retail credit products – including particularly the process of pre-qualification, administration related to the application (submission of loan application documents), the submission of loan application and its acceptance and assessment by the credit institution – digitally on a continuous basis where the application and administration process exceeds 2 working days on average.
- 6.9. The credit institution should examine the possibility of sending automatic digital notifications on the changes in the status of product application and administration processes, taking into consideration the volume and cost of administration and the use of the service.

- 6.10. The MNB regards it as good practice if the credit institution develops customer-friendly personal financial management service suitable for categorising expenditures and revenues, offering time series-based and cross-sectional revenue and expenditure analysis.
- 6.11. The MNB regards it as good practice if upon the development of digital channels the credit institution ensures that those are accessible to customers with disabilities, giving due consideration to the limitations and requirements prescribed by the relevant laws for the legal declarations of the given clientele.
- 6.12. The MNB regards it as good practice if the credit institution – in line with its business policy – ensures the availability of digital channels in English and publishes the contact details of its customer service premises online (hereinafter: bank branch, branch) where administration is possible in English.
- 6.13. The MNB regards it as good practice – where the laws and regulations so permit – if corporate credit product applications can be submitted via a digital interface without the personal presence of the client’s representative, the person authorised to act on behalf of the client or the client’s proxy in the branch.
- 6.14. In the case of those credit institution products and services where the laws permit the performance of the application and administration process fully online, without the client’s personal presence in the bank branch, depending on the credit institution’s risk-based assessment of the products and services, the MNB regards it as good practice if this option is effectively available both to new and existing clients.
- 6.15. The MNB regards it as good practice if the credit institution ensures that where administration fully online is restricted by the legislative framework, the online sub-processes of the administration processes which are permitted by the law (e.g. application, attaching documents) can take place without the personal presence of the customer.
- 6.16. In the case of those sales where the credit institution acts as an intermediary, the MNB regards it as good practice if upon inquiring for the offered products the credit institution initiates the provision of the processes and administration fully online without the personal presence of the customer in the branch. Where the complexity of the product generates other, consulting and information duties, the MNB regards it as good practice for the credit institution to provide an online video-banker channel.
- 6.17. The MNB expects the credit institution to identify within the value chains of the individual products the sub-processes requiring improvement with a view to diverting the entire product process to digital channels. The MNB regards it as good practice if the credit institution develops its plans for the digitalisation of the identified sub-processes.

6.18. The MNB regards it as good practice if the credit institution facilitates the submission of complaints through electronic interface for all transaction types and their answering via the same (digital) channel².

V. Encouraging the use of digital channels

7. In addition to expanding the offering of digital products and services, the MNB deems it important to apply incentives that support the steering of customers towards digital channels. To this end, the MNB makes the following recommendations to be presented in the credit institution's digital transformation strategy.
 - 7.1. The MNB regards it as good practice if in order to foster the use of digital channels the credit institution applies more favourable pricing – compared to application and administration in person – for the products and services available digitally.
 - 7.2. The MNB regards it as good practice if the credit institution makes efforts to foster the gradual spread of online customer information channels.
 - 7.3. The credit institution should elaborate its plans related to the development of the process of reporting and managing customer complaints digitally, including the processes from the receipt of the complaint until the closing of the case.
 - 7.4. The MNB expects the credit institution to develop its plans both for retail and corporate customers with regard to creating the possibility of concluding contracts electronically and making electronic legal declarations in the case of legal declarations to be made in written form.
 - 7.5. The credit institution should prepare brief informative and educational contents (e.g. educational videos) presenting the advantages of its digital financial services and distribute it among the customers.
 - 7.6. The credit institution should outline its plans to explore the opportunities stemming from the active use of digital marketing activity and within the framework of this it should assess the risk of data phishing connected to the more intensive online presence.
 - 7.7. The MNB regards it as good practice if a UX (user experience) strategy also forms integral part of the digital transformation strategy of the credit institution. This also takes into consideration, in addition to formulating the business and IT strategy, the requirements, typical activities and expectations of existing and prospective customers with regard to the digital services of the credit institution. Furthermore, the MNB regards it as good practice if the credit institution uses appropriate UX resources in proportion to the business and IT resources from the very beginning of the projects, in accordance with the international standards.

² In accordance with Section 3 (3)-(5) of MNB Decree 46/2018 (XII. 17.) on the Detailed Rules of Forms and Methods of Complaint Processing Procedures of Financial Organisations.

VI. Consumer-centric digitalisation of the branch network;

8. The banking sector has a wide branch network available throughout the country. The MNB continues to deem it important to ensure the accessibility of branches, however, digital solutions expand, make administrative proceedings in the branches more convenient and flexible. Due to this, the MNB deems it justified to improve the digitalisation of the branch network while maintaining fair cash supply for retail customers for the implementation of which it makes the following recommendations to be presented in the credit institutions' digital transformation strategy.
 - 8.1. The MNB expects the credit institution to assess the possibility of digital administration in the branches in addition to the personal assistance available by default, specifying the range of potential digital administration types.
 - 8.2. The MNB regards it as good practice if the credit institution provides opportunity for virtual queuing.
 - 8.3. The MNB regards it as good practice if the credit institution provides opportunity for administration methods in the branches that significantly reduce direct physical contact.
 - 8.4. The credit institution should ensure that appointments can be made in advance online for the planned administration in the branch. The MNB regards it as good practice to allocate the clerk in advance or, where possible, to collect the relevant documentation in advance through safe channels and complete it with data stored by the credit institution.
 - 8.5. The credit institution should elaborate its plans related to the development of digital applications that improve customer experience for small and medium-sized enterprises (e.g. feedback and evaluation through digital platform).

VII. Transformation of the corporate culture

9. For the successful implementation of digital transformation, it is of key importance that the corporate culture within the credit institution is aligned with the current and future challenges. To this end, the MNB makes the following recommendations to be presented in the credit institution's digital transformation strategy.
 - 9.1. The credit institution should have dedicated manager(s) in charge of financial digitalisation and digital transformation with sufficient powers and competence to carry out this duty, being the member(s) of the credit institution's Board of Directors.
 - 9.2. The credit institution should outline measures aimed at the development of corporate culture that supports digital transformation.
 - 9.3. The credit institution should present the project management tools used by it and its plans related to the methods used for efficient project management.
 - 9.4. The MNB expects the credit institution to examine in its digital transformation strategy the way to represent the goals outlined in this recommendation and in the credit institution's digital objectives in the performance assessment and incentive systems.

- 9.5. The credit institution should outline its plans related to the development of an internal framework which fosters the digital communication of employees.
- 9.6. The credit institution should establish the current home office framework and its plans for the future, the constraints related to home office arrangements and the plans to reduce such constraints.
- 9.7. The MNB regards it as good practice if the credit institution develops a framework for the testing of new external and internal communication solutions and for the related trainings of employees.

VIII. Enhancement of digital competency

10. The ongoing enhancement of the knowledge and skills of the labour force, the expansion thereof new types of information, as well as the recruitment of employees with relevant IT and digital professional competencies are essential for the efficient implementation of digital transformation. To this end, the MNB makes the following recommendations to be presented in the credit institution's digital transformation strategy.
 - 10.1. The credit institution should conduct job-specific internal surveys on a regular basis, at least every two years of its employees' relevant digital competencies and define, based on the results of such internal surveys, the employees' competence development plans.
 - 10.2. The credit institution should organise relevant, job-specific academic and practical courses on financial innovations influencing the operation of the credit institution at least annually.
 - 10.3. The credit institution should provide job-specific internal knowledge transfer forums for all current and new employees.
 - 10.4. The credit institution should organise job-specific practical trainings on software usage for all current and new employees.
 - 10.5. The MNB regards it as good practice if the credit institution examines the kind of tools it can and intend to use for the recruitment of potential new labour force with digital and IT competences.

IX. Improvement of co-operations and external communication channels in terms of digitalisation

11. In terms of digitalisation, it is important that both the existing and future communication methods and communication channels are enhanced and that the credit institutions strive for cooperation with FinTech firms newly appearing in the sector and capable of proper value creation. To this end, the MNB makes the following recommendations to be presented in the credit institution's digital transformation strategy.
 - 11.1. The MNB regards it as good practice if the credit institution is actively present on various digital channels and social media platforms by displaying content and messages related to the management of personal finances differentiated and relevant for different age and target groups.

- 11.2. The credit institution should assess in which cases customers can be provided with the opportunity of live video calls.
- 11.3. The MNB expects the credit institution to assess in its digital transformation strategy where – beyond the cases prescribed by law on a mandatory basis – it is possible to divert communication to digital platforms and survey the obstacles to digital communication and take initiatives to minimise these.
- 11.4. The MNB regards it as good practice if during the communication and liaison with external counterparties the credit institution gives priority – complying with the data security requirements – to digital solutions.
- 11.5. The MNB regards it as good practice if the credit institution automates the regular communication processes both in respect of business partners and customers.
- 11.6. The MNB regards it as good practice if the credit institution regularly evaluates its existing supplier and other business relations, including the examination of opportunities for digital improvement.
- 11.7. The MNB regards it as good practice if the credit institutions surveys, beyond the expectations that are based on the laws transposing Directive 2015/2366/EU of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation 1093/2010/EU, and repealing Directive 2007/64/EC (hereinafter: PSD2) into the Hungarian legislation [e.g. Act LXXXV of 2009 on the Pursuit of the Business of Payment Services, Act CCXXXV of 2013 on Payment Service Providers, MNB Decree 35/2017 (XII. 14.) on Payment Services Activities] the cooperation opportunities with other new, innovative actors.
- 11.8. The MNB regards it as good practice if the credit institution creates – beyond the expectations of the laws transposing PSD2 into the Hungarian legislation – a standard framework (e.g. dedicated organisational unit, working group or incubator lab) in order to explore and develop communication and cooperation with innovative market participants.

X. Improvement of the data asset management strategy in terms of digitalisation

12. Customer data bear utmost importance for all service providers, and thus the conscious processing and targeted use of the available data assets are extremely important. Through these processes the institutions of the banking sector are able to implement customer experience-improving developments efficiently, and they can materially strengthen their competitiveness relative to the internationally active innovative, digital service providers. To this end, the MNB makes the following recommendations regarding data asset management to be presented in the credit institution's digital transformation strategy.
 - 12.1. In line with the data protection regulations, the credit institution should regularly analyse transaction data on all platforms in order to elaborate and develop personalised offers.

- 12.2. The credit institution should outline its plans related to the development of a data asset management system and to the more efficient and comprehensive use of data assets.
- 12.3. The credit institution should outline its plan related to the enhancement of conscious use of data assets. In this context, the credit institution should present how it uses the available customer data for analysis, for the development of product schemes personalised or tailored to a specific range of customers, and how it plans to enhance, deepen and accelerate this.
- 12.4. The credit institution should outline its plans aimed at the automatic and ongoing update of customer databases, in compliance with the data protection rules.
- 12.5. The credit institution should outline its plan to create a data warehouse or, where the credit institution already has a dedicated data warehouse, increase the automation related to the use thereof.

XI. Enhancement of the risk management strategy in terms of digitalisation

13. In addition to the revised customer profile developed from more data, the MNB also deems it important to develop the related risk management strategy by assessing the possibilities of enhancing and automating the related processes and defining the relevant plans. The modernisation of risk management also supports the more efficient realisation of customer product and service developments. In order to enforce these criteria, the MNB makes the following recommendations to be presented in the credit institution's digital transformation strategy.
 - 13.1. The MNB expects the credit institution to use the extra information stemming from the personalised and more active use of the data assets also in its risk management methods.
 - 13.2. The credit institution should prepare its plans related to the automation of risk management controls and calculations in the following areas: treasury, back-office, customer data management, customer identification, customer due diligence.
 - 13.3. In connection with surveying, evaluating and managing the risks of fraud, the MNB expects the credit institution – in addition to complying with the relevant laws – to integrate in its risk management methods the potential fraud cases appearing anew in connection with the increasing digitalisation; furthermore, it regards it as good practice to develop cooperation among credit institutions.

XII. Transformation of the corporate IT system

14. The MNB deems it necessary to perform a comprehensive review of the credit institution's IT systems and survey the possibility of modernising them, which may ensure the more efficient operation of the credit institution's IT systems. To this end, the MNB makes the following recommendations to be presented in the credit institution's digital transformation strategy.
 - 14.1. The credit institution's digital transformation strategy shall be in accordance with Recommendation No. 8/2020 (VI. 22.) of the Magyar Nemzeti Bank on the protection of IT systems regarding the transformation of the corporate IT system

- 14.2. At all new projects that impact the internal operation, the credit institution should assess – where applicable – the possibility of realising the respective project objective fully digitally.
- 14.3. The MNB expects the credit institution to provide – even under increased data traffic – fast and stable data transmission capacities with proper ICT security and redundancy in the head office’s internal network, between the head office and the branches, for the data connections used to reach critical services or counterparties, and for remote work.
- 14.4. The credit institution should survey the possibilities of using cloud-based services and examine and evaluate the options of efficient use thereof in accordance with Recommendation No. 4/2019 (IV. 1.) of the Magyar Nemzeti Bank on the use of community and public cloud computing services.
- 14.5. The credit institution should develop a plan for measures to support paperless operation.
- 14.6. The MNB regards it as a good practice if the assessment of the experiences gained from the enterprise software implementations is part of the general practice of the credit institution.
- 14.7. The credit institution should outline its plans developed for the minimisation of the manual data transformation necessary for the management reports in the course of regular and ad hoc analyses.
- 14.8. The MNB regards it as good practice if the credit institution prepares a plan for the development of a digitalised management approval framework, also taking into consideration the risk management criteria.
- 14.9. The credit institution should present its plans related to the improvement of its existing redundant systems and the development of additional ones. In this plan, the credit institution should present its approach and practice related to the use of redundant systems and the justification for its relevant decisions, with special view to the areas where no redundant system is available and is not planned either.

XIII. Enhancement of IT security

15. In addition to their advantages, the increasing availability and use of digital interfaces and the spread of automation may also increase the risk of attacks against the institutions’ IT systems. To foster the improvement of IT security the MNB makes the following recommendations to be presented in the credit institution’s digital transformation strategy.
The MNB expects the development of the IT security of a credit institution to be in accordance with Government Decree No. 42/2015. (III. 12.) on protecting the information system of financial institutions, insurance undertakings, reinsurance undertakings, investment firms and commodity dealers, Recommendation No. 8/2020 (VI. 22.) of the Magyar Nemzeti Bank on the protection of IT systems and Recommendation No. 12/2020 (XV. 6.) of the Magyar Nemzeti Bank on IT security requirements for remote working and remote access.

XIV. Closing provisions

16. The recommendation is a regulatory instrument issued in accordance with Article 13 (2)i) of the Act CXXXIX of 2013 on the Magyar Nemzeti Bank, with no binding force on the supervised financial organisations. The content of the recommendation issued by the MNB expresses the statutory requirements, the principles proposed to be applied based on the MNB's law enforcement practice as well as the methods, market standards and practices.
17. During its audit and monitoring activity, the MNB monitors and assesses compliance with the recommendation by the credit institutions supervised by it in line with the general European supervisory practices.
18. The MNB highlights that the credit institution may make the contents of this recommendation part of its policies. In such case, the credit institution is entitled to indicate that the provisions of its policies comply with the relevant recommendation issued by the MNB. If the credit institution wishes to incorporate only certain parts of the recommendation in its policies, it should not make reference to the recommendation as a whole or should only do so in respect of the parts taken from the recommendation.
19. The MNB expects the respective credit institutions to apply this recommendation – with the exception of points 20 and 21 – from 15 April 2021.
20. The MNB expects the respective credit institutions to develop the digital transformation strategy in accordance with the recommendation and to submit it to the MNB for the first time by 31 October 2021.
21. The MNB expects the respective credit institutions to prepare the report on the progress achieved and on the comparative analyses of the realisation of the plans and objectives outlined in the digital transformation strategy and to submit it to the MNB for the first time by 31 December 2022.

Dr György Matolcsy

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