

NATIONAL REPORT ON AUTOMATION IN DECISION-MAKING IN PUBLIC ADMINISTRATION IN SLOVAKIA¹

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Abstract: The development of information technology and its use in everyday life must inevitably have an impact on public administration and its decision-making. Progress in artificial intelligence is also opening up wider opportunities for the use of automation of decision-making processes in public administration. Decision-making processes that once had to be handled by humans can now be automated. However, there must be a sufficient legal basis for this, setting out the legal limits of such automated decision-making. In this paper, the legal possibilities of automation of decision-making processes in the field of public administration in the Slovak Republic were examined, the obstacles that hinder the use of this tool were defined, as well as certain legal solutions eliminating or minimizing the consequences of these obstacles were outlined. The purpose of this paper was not to exhaustively describe and solve the problems with the automation of decision-making processes in public administration in the Slovak Republic. Rather, the purpose was to outline the problem areas that should be addressed in legal research in the coming period.

Keywords: public administration; automation; decision-making; decision; artificial intelligence

DOI: 10.14712/23366478.2024.28

INTRODUCTION

The last decades are marked by the rapid development of information technology and its implementation in everyday life. This applies both to the private sphere of individuals and to the sphere of business or state activity. Although the state is less flexible than the private sector in adopting new electronic trends, it cannot fail to respond to them in its activities. Recently, individual states have been faced with the requirement to ensure the electrification of the activities of the state apparatus and to ensure electronic communication between the state and the individual or legal entity.

Today, countries face a new challenge connected with the development and use of artificial intelligence. On the one hand, it will be necessary to establish the legislative framework for this instrument. On the other hand, it will be necessary to consider to

¹ This article was written under the umbrella of the project “Regulatory Sandboxes: Mirage and Reality in Public Law”, supported by Charles University’s 4EU+ Mini-grants Programme.

what extent it can also be helpful in the context of processes implemented by the state. That is, to what extent can artificial intelligence also be used in the context of state decision-making processes. Some countries are already tackling this challenge, others will have to start doing so. The Slovak Republic belongs to the latter category. Thus, in the near future it will be necessary to start addressing the possibilities of using artificial intelligence in decision-making processes in the judiciary, as well as in the field of public administration and other state activities. However, there is also a second aspect, which is the need to maintain legality in its use and to protect the fundamental rights and freedoms of individuals.

One of the ways of using artificial intelligence in decision-making processes is to automate decision-making processes. The use of automated decision-making (ADM) is on the increase not only within the private sector (banks, insurance companies, etc.), but also within the public sector, where it may be considered suitable for various decision-making processes within public administration.² When automation of decision-making is used in the service of public administration, the objective is to produce a decision that involves the exercise of public law in a manner that defines, for an individual or for a private legal entity, a particular right, duty or benefit on the basis of material legislation.³

The aim of this paper is to examine what are the legislative possibilities for the use of automation in decision-making processes in the field of public administration in the Slovak Republic, or what are the barriers to its effective use. Based on this, it is then possible to formulate certain recommendations for eliminating the barriers and pointing out the weaknesses related to the automation of decision-making processes within the Slovak Republic. The purpose of this paper is not to exhaustively address the problems identified, but only to identify them, while further research can be oriented towards finding appropriate solutions to those problems.

The concept of Artificial Intelligence (AI) has been a subject of scientific interest for several decades.⁴ It can be simplistically characterized as a replication of human analytical and/or decision-making capabilities.⁵ It can be differentiated between weak

² See details in SUKSI, M. On the openness of the digital society: from religion via language to algorithm as the basis for the exercise of public powers. In: LIND, A. S. – REICHEL, J. – ÖSTERDAHL, I. (eds.). *Transparency in the future – Swedish openness 250 years*. Tallinn: Ragulka Press, pp. 285–317.

³ SUKSI, M. Administrative due process when using automated decision-making in public administration: some notes from a Finnish perspective. *Artificial Intelligence and Law* [online]. 2021, Vol. 29, No. 1, pp. 87–110 [cit. 2023-12-07]. Available at: <https://link.springer.com/10.1007/s10506-020-09269-x>.

⁴ E.g., MINSKY, M. L. *Computation: Finite and Infinite Machines*. Englewood Cliffs, N. J.: Prentice Hall, 1967; TURING, A. M. I. Computing Machinery and Intelligence. *Mind* [online]. 1950, Vol. LIX, No. 236, pp. 433–460 [cit. 2023-12-07]. Available at: <https://academic.oup.com/mind/article/LIX/236/433/986238>; FINLAY, S. *Artificial Intelligence and Machine Learning for Business: a No-nonsense Guide to Data Driven Technologies*. Great Britain: Relativistic Books, 2017; MAINZER, K. *Künstliche Intelligenz – Wann übernehmen die Maschinen?* Technician im Focus. Berlin, Heidelberg: Springer, 2016; BAKOŠOVÁ, L. Climate Action Through Artificial Intelligence: International Legal Perspective. *Studia Iuridica Cassoviensia* [online]. 2022, Vol. 10, No. 2, pp. 3–24 [cit. 2023-12-07]. Available at: <https://zenodo.org/record/7115298>; BAKOŠOVÁ, L. Ethical and Legal Aspects of the Use of Artificial Intelligence in Health and Nursing Care. *Studia Iuridica Cassoviensia* [online]. 2020, Vol. 8, No. 2, pp. 3–18 [cit. 2023-12-07]. Available at: <https://zenodo.org/record/5115457>.

⁵ FINLAY, c. d.

AI, strong AI, and sometimes even super intelligence. Weak AIs are usually developed and used for a specific type of applications, including expert systems, speech recognition, navigation systems, and translation services.⁶ Applications based on weak AI are already widely used today; they even gained entry in the everyday life in the form of intelligent search suggestions or optimized route calculations. Within the theory of multiple intelligences, weak AIs are primarily the replication of linguistic and logical-mathematical intelligence.⁷ By contrast, strong AIs describe systems that are able to independently think, plan, learn and make logical decisions under uncertainty.⁸ The concept of super intelligence is based on a system that is intellectually superior to any human being. Such a system should therefore be able to map all dimensions of multiple intelligences better than any human being.⁹

Taking into account such a distinction of artificial intelligence, we proceed from the hypothesis that in the conditions of the Slovak Republic under the current legal situation, the use of weak AI in the automation of decision-making processes in public administration, i.e., automation consisting in the simulation of human thinking based on linguistic and logical – mathematical intelligence, comes into consideration. At the same time, we also assume that the current legal framework does not allow for the automation of the entire administrative decision-making process, but only in its partial phases, while the human element is indispensable.

The research, the results of which are contained in this paper, mainly uses basic research methods typical for legal sciences. First of all, the method of analysis is used, especially in the form of analysis of legal regulation of legal provisions setting the limits for the application of automation in decision-making processes in public administration. On the basis of the results of the analytical stage, the knowledge obtained is synthesized into certain units in the form of drawing conclusions on the extent of the permissibility of such decision-making. In addition, it is necessary to apply the methods of explanation and description in order to describe the institute under research more adequately.

1. LEGAL BASIS FOR AUTOMATION OF DECISION-MAKING PROCESSES IN PUBLIC ADMINISTRATION

One of the prerequisites for decision-making processes in public administration to be automated is the existence of a proper legal basis. This is a requirement arising from the principle of legality, which is the essence of the rule of law. In the Slovak Republic, this principle is defined in Art. 2(2) of the Constitution of the Slovak Republic,¹⁰ according to which “[s]tate authorities may act only on the basis of the

⁶ MAINZER, *c. d.*

⁷ ETSCHIED, J. Artificial Intelligence in Public Administration. In: LINDGREN, I. – JANSSEN, M. – LEE, H. – POLINI, A. – RODRÍGUEZ BOLÍVAR, M. P. – SCHOLL, H. J. – TAMBOURIS, E. (eds.). *Electronic Government* [online]. Lecture Notes in Computer Science, Vol. 11685. Cham: Springer, 2019, p. 250 [cit. 2023-12-07]. Available at: https://link.springer.com/10.1007/978-3-030-27325-5_19.

⁸ MAINZER, *c. d.*

⁹ Ibid.

¹⁰ Constitution of the Slovak Republic No. 460/1992 Sb. As amended.

Constitution, within its limits and to the extent and in the manner prescribed by law". It therefore follows that any automation of decision-making processes in public administration must have its basis in law.

Furthermore, the requirement for a legal basis for the automation of decision-making processes is also inferred from Art. 22(1) & (2) of the General Data Protection Regulation.¹¹ According to par. 1 of this provision: "*The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her.*" The following paragraph sets out exceptions to the rule, one of which is that such decision-making "*is authorised by Union or Member State law to which the controller is subject and which also lays down suitable measures to safeguard the data subject's rights and freedoms and legitimate interests*".¹² Although this Regulation applies to the protection of personal data, it will be relevant for all decision-making processes, as the addressees are always the persons holding their personal data.¹³ Therefore, this requirement for the existence of a legal basis is also essential.

In the Slovak Republic, the general regulation governing the procedure in which administrative authorities decide on the rights, legally protected interests, or obligations of natural persons and legal entities in the field of public administration is the Administrative Procedure Code.¹⁴ In addition, there are other specific procedural acts that regulate decision-making processes in certain defined areas,¹⁵ or supplement or modify the general legal regulation in the Administrative Procedure Code for the purposes of decision-making processes in certain areas.¹⁶ On the basis of a review of these legal provisions, it can be concluded that none of the laws regulating decision-making in the field of public administration provides for the possibility of automating the process with the exclusion of human interference. The legal requirements in these processes are based on the fact that the decision is taken by an administrative authority acting through the staff of that administrative authority. Thus, in the current state, it is not possible for the entire decision-making process from its beginning to its end to be fully automated without human intervention, i.e., full automation in administrative decision-making processes is not possible.

However, it is not excluded, and is used in practice, that automation exists within a certain stage, a phase of the decision-making process. However, it is inevitable under

¹¹ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

¹² Other exceptions are that the decision-making is necessary for entering into, or performance of, a contract between the data subject and a data controller and that the decision-making is based on the data subject's explicit consent.

¹³ Details in HUČKOVÁ, R. Zásady spracovania osobných údajov podľa GDPR so zreteľom na oblasť poskytovania zdravotnej starostlivosti. *Studia Iuridica Cassoviensia* [online]. 2020, Vol. 8, No. 2, pp. 30–44 [cit. 2023-12-07]. Available at: <https://zenodo.org/record/5115470>.

¹⁴ Act No. 71/1967 Sb., on Administrative Proceedings (Administrative Procedure Code), as amended.

¹⁵ E.g., Act No. 563/2009 Sb., on tax administration (Tax Procedural Code), No. 9/2010 Sb., on complaints, as amended.

¹⁶ E.g., Act of the National Council of the Slovak Republic No. 372/1990 Sb., on offences as amended, Act No. 50/1976 Sb., on urban planning and building regulations (Building Act) as amended.

the current legal basis that the decision is ultimately taken by a specific person acting on behalf of the administrative authority, even though part of the process has been automatic. Administrative decisions are primarily legal decisions. If the general psychological model of decision-making is adapted to a legal case, the administrative procedure can be divided into seven main phases (whereby said phases can be subdivided into several partial decisions): i) Recognition of the problem, ii) Fact-finding, iii) Norms finding and norms concretization, iv) Application of law and subsumption, v) Legal consequence analysis, vi) Realization, and vii) Evaluation.¹⁷ Automation can essentially cover each of the above phases. Although most often it will be in the first or second stage.¹⁸ For example, the information system will automatically assess which new property owners have not filed a tax declaration based on data from the Land Registry. This identified the problem, i.e., failure to file a tax declaration in case the person was required to do so. Thus, the prerequisite for the initiation of sanction proceedings was given. As a result, it can be concluded that under the current legal situation, “partial” automation of decision-making processes in public administration is possible, with automation taking place at some stage of the process, while preserving the interference of human influence on the overall outcome of the decision-making process.

If full automation of the decision-making process were to be allowed, a legislative change would be necessary to establish the legal basis. The legal basis for full automation can be constructed either generally or specifically for a given decision-making process. In the case of general regulation, it would be possible to take inspiration from the German model. The Federal Administrative Procedure Law basically permits the full automation of all administrative procedures if there is no necessity for assessment or discretion and if a specific legal regulation has been made for the individual process.¹⁹ Thus, following the German model, it would be possible to add a general provision in the Administrative Procedure Code stating that: “*Proceedings under this Act may also be carried out by automated tools using information technologies, except in cases requiring administrative discretion, while more detailed conditions for such proceedings to be determined by law.*”

At the same time, it would be possible to establish a legal basis for full automation for each specific decision-making process in the public administration. Thus, a procedural rule regulating the specific decision-making would both provide for the possibility of full automation of this decision-making process and would also set out the conditions for its implementation. Of course, in that case, there would be specific conditions for each automated decision-making process, which could lead to differences in regulation.

It should also be pointed out that the Artificial Intelligence Act has recently been approved at European Union level and has taken the form of a regulation.²⁰ On 13 March

¹⁷ ERBGUTH, W. – GUCKELBERGER, A. *Allgemeines Verwaltungsrecht: mit Verwaltungsprozessrecht und Staatshaftungsrecht*. 9. Aufl. Baden-Baden: Nomos, 2017.

¹⁸ See also ETSCHIED, c. d.

¹⁹ BRAUN BINDER, N. *Weg frei für vollautomatisierte Verwaltungsverfahren in Deutschland* [online]. Zurich Open Repository and Archive, University of Zurich, 2016, pp. 2–12 [cit. 2023-12-07]. Available at: https://www.zora.uzh.ch/id/eprint/141625/1/Braun_Binder_Jusletter-IT_weg-frei-fur-vollaut_56bc7ccb4c_de.pdf.

²⁰ Regulation of the European Parliament and of the Council laying down harmonized rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain union legislative acts. Proposal is available

2024, European Parliament agreed on the final version of what is claimed to be the world's first-ever comprehensive legal framework on Artificial Intelligence. This regulation will also significantly affect the possibilities of using artificial intelligence in the automation of decision-making processes in public administration. These automated processes will generally be among the so-called high-risk AI systems. In relation to them and their operation, the Regulation imposes extensive obligations on their operators, e.g., in the form of event logging, thus ensuring a level of traceability of their operation that is proportionate to the intended purpose of the system. Given that the regulation in question has not yet been approved by Council of the European Union, nor has it entered into force, as well as the fact that the examination goes beyond the intended goal of this article, it will not be analyzed in detail. However, it will be a challenge for further research on the issue.

2. BARRIERS TO FULL AUTOMATION OF DECISION-MAKING PROCESSES IN PUBLIC ADMINISTRATION

Assuming that the legal basis for the full implementation of automated decision-making in public administration is established, it will not be possible to apply such automated decision-making to all decision-making processes. Not all decision-making in public administration is capable of automation. Both legal and factual circumstances hinder this, i.e., there are barriers to full automation. In the following, I try to identify some of the barriers in the Slovak Republic, but this is not an exhaustive list.

Each decision-making process internally consists of a greater or lesser number of partial processes corresponding to the different decision-making phases, which build on and influence each other. The realization of one of the sub-processes triggers another, thus creating a kind of process cycle. The individual sub-processes are different in their properties and effects.²¹ Some sub-processes are characterized by their programmability and conditionality (this is the case of if-then). But other sub-processes are characterized by their openness in terms of the exercise of discretion and free assessment. If we start from the current state of the possibilities of applying weak intelligence in decision-making processes in public administration, then automation comes into consideration especially in relation to such processes, which are characterized by programmability and conditionality. Although, automation will be difficult or even impossible for processes based on discretion.

However, it is possible that automation may also be possible in the future for such discretion-based decision-making processes. But that would no longer be a weak artificial intelligence, but a strong artificial intelligence based on machine learning. However,

online in: *EUR-Lex: Access to European Union Law* [online]. [cit. 2024-03-25]. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0206>.

²¹ JAKAB, R. Verejnospprávny cyklus v správnych procesoch. *Public administration and society*. 2010, Vol. XI, No. 2, pp. 12–8.

there are a lot of downsides to this, particularly from a legal perspective.²² An automated decision-making system would have to be constantly maintained, updated by a human. Changes in law or case law would have to be periodically inserted as new software rules.²³ At the same time, it would be difficult to ensure the transparency of an automated decision-making system based on machine learning in order to provide an individual with a relevant explanation of how and on what information the system reached a particular conclusion.²⁴ And finally, machine-learning techniques in ADM for making administrative decisions cannot work in a rule of law situation because machine-learning is actually based on predictions, where a new decision is made on the basis of a data pool of previous decisions.²⁵

Another obstacle to the full automation of decision-making processes in public administration is the degree of structuring of information used in the decision-making process. The latter represents the readability of information for “machines”. If the information is contained in a uniform form allowing the selection of multiple alternatives or in the completion of predefined information, then it is structured information understandable by weak AI systems. Information that is solely available in unstructured forms, such as oral statements or informal texts, however, poses a difficulty. In the context of fact-finding, unstructured information must already be brought into a structured form so that the information can be used in the upcoming steps of the process.²⁶ It is necessary to state that in the conditions of the Slovak Republic in the field of public administration there are not many so-called form application submissions. It is rather an exception (e.g., it exists in the field of tax administration, trade business, etc.). Thus, one of the barriers to be eliminated or at least minimized is to ensure a higher degree of structuring of the information used in administrative proceedings.

Information contained in public administration information systems is used in many cases and extensively for public administration decision-making. Therefore, another condition for the implementation of automated decision-making in public administration is to ensure the interconnectivity of individual public administration information systems (e.g., register of inhabitants, real estate cadastre, health and social insurance system, tax information system, etc.). In the next step, information systems from the private sphere, e.g., banking, insurance, postal, telecommunication, etc., should join in. At present, there is no interconnection of public administration’s own information

²² See also FILIČKO, V. – SOKOL, M. Elektronizácia a digitalizácia ako prostriedok odňatia práva na súdnu ochranu – vybrané aspekty. *Studia iuridica Cassoviensia* [online]. 2021, Vol. 9, No. 2, pp. 34–42 [cit. 2023-12-07]. Available at: <https://zenodo.org/record/5526192>.

²³ BENCH-CAPON, T. – GORDON, T. F. Isomorphism and argumentation. In: *Proceedings of the 12th International Conference on Artificial Intelligence and Law*. New York: Association for Computing Machinery, 2009, pp. 11–20 [cit. 2023-12-07]. Available at: <https://dl.acm.org/doi/10.1145/1568234.1568237>.

²⁴ BRANTING, K. – WEISS, B. – BROWN, B. – PFEIFER, C. – CHAKRABORTY, A. – FERRO, L. – PFAFF, M. – YEH, A. Semi-Supervised Methods for Explainable Legal Prediction. In: *Proceedings of the Seventeenth International Conference on Artificial Intelligence and Law*. New York: Association for Computing Machinery, 2019, pp. 22–31 [cit. 2023-12-07]. Available at: <https://dl.acm.org/doi/10.1145/3322640.3326723>.

²⁵ SUKSI, *Administrative due process when using automated decision-making in public administration*, p. 103.

²⁶ ETSCHHEID, c. d., p. 256.

systems within the Slovak Republic. The interconnection of these information systems also entails an additional requirement – to ensure the security of such interconnection.²⁷ Therefore, in order to enable the automation of decision-making in public administration, it is necessary to increase the degree of interconnectivity of public administration information systems while ensuring their security.

The automation of public administration decision-making also requires that the public administration information systems used contain up-to-date and complete information. In the conditions of the Slovak Republic, this may be another obstacle to enabling automation. That is, information systems may not contain complete information, especially from the period before the information system was established (e.g., older data proving fulfilment of the conditions for social insurance benefits, i.e., data on employment, duration from 40 years ago, etc.). The solution to this problem would be to continuously update this data. Or this problem can also be solved by the passage of time, when the missing data will no longer be relevant.

Finally, the automation of decision-making processes in public administration (but not only in public administration) also requires the existence of secure electronic communication between individuals and legal entities on the one side and the state on the other side and vice versa. In the Slovak Republic, there is a legal, but mainly technical basis for ensuring such electronic communication (through the central portal of public administration at www.slovensko.sk). However, the shortcoming of the current situation is that it is not sufficiently used by individuals and legal entities, and also not by the state. First of all, there is no general obligation to have activated electronic mailboxes for electronic delivery of documents (natural persons do not have this obligation). Second of all, there are only limited areas where is an obligation to communicate electronically (e.g., tax administration). And third, even public authorities themselves do not use electronic delivery of mail to entities that have activated the electronic mailbox (although they are obliged to do so). One way to eliminate this barrier to automation of decision-making processes is to extend mandatory electronic communication to other areas, to extend the obligation to have activated electronic mailboxes to other entities, and to comply with the currently existing electronic communication obligations.

On the other hand, it should also be pointed out that there are tendencies to remove these barriers. At this point, it is worth pointing out the efforts towards digitalization and automation (whether partial or complete) in the construction sector. The new construction legislation²⁸ foresees that all decision-making processes in the field of construction will be carried out electronically and, to the maximum extent possible, automated. According to the information available on the website of the Office for Urban Planning and Construction of the Slovak Republic, “*the system prepares documents based on the input data and the administrative staff validates the result. This is possible when digital processes are set up well and deliver correct, understandable data in consistent formats.*”

²⁷ For more details see ANDRAŠKO, J. Bezpečnosť informačných systémov verejnej správy vo svetle zákona o kybernetickej bezpečnosti a zákona o informačných technológiách vo verejnej správe. *Revue pro právo a technologie* [online]. 2019, Vol. 10, No. 20, pp. 3–40 [cit. 2023-12-07]. Available at: <https://journals.muni.cz/revue/article/view/12536>.

²⁸ Act No. 201/2022 Sb., on construction.

This creates a sophisticated jigsaw puzzle that can operate independently, which means much faster completion of cases. For example, if a client places a proposal for a small building in the correct format in the digital urban plan and all the necessary details are correct, i.e., in accordance with the urban plan and without the need for statements from other parties, the system automatically prepares the documents necessary for the building permit.”²⁹

3. OPTIONS FOR IMPROVING DECISION-MAKING AUTOMATION IN PUBLIC ADMINISTRATION

In the previous sections of this paper, some legal and factual obstacles to the implementation of full automation in decision-making processes in public administration in the Slovak Republic have been listed. It was not an exhaustive enumeration of these obstacles, nor was it a detailed analysis of them. This should be followed up by further research that focuses on the issue. However, it should also include examination of ways of eliminating or weakening them. It must be assumed that automation in this area is also a trend that will be unavoidable. It will therefore be necessary to be prepared for it and also for its consequences.

As mentioned above, one of the fundamental barriers is the lack of a legal basis for enabling full automation in decision-making processes. It is therefore necessary, as a first step, to adopt legislation to enable such processes to be automated. Ideally, this would be in the form of a general provision in the general regulation on administrative procedure (Administrative Procedure Code), which would be followed by more detailed regulation in specific regulations. This should include the regulation of legality guarantees in automated decision-making processes, not only *ex post* but also preventive guarantees – during the process itself. In fact, the classical preventive guarantees of legality in the course of administrative proceedings as they arise from the current legislation will not be applicable,³⁰ or will only be of limited application in automated decision-making processes (possibility to be heard at oral hearings, to raise objections, to look at files, etc.). In the case of *ex post* guarantees of legality, it will also be necessary to ensure that the algorithm on the basis of which the automated decision was generated is reviewable.

At the same time, it will be necessary to specify the decision-making processes that are eligible for automation, either fully or after certain legislative changes. In particular, these are processes that operate on the basis of programmability and conditionality. Even today, they would be automatable if there were a proper legal basis (e.g., decision-making on administrative offences of motor vehicle operators for non-compliance with the maximum speed limit on the basis of objective liability). However, this category will not include decision-making processes that require discretion, the

²⁹ Digitalizácia. In: *Úrad pre územné plánovanie a výstavbu Slovenskej republiky* [online]. [cit. 2023-01-07]. Available at: <https://stavebnurad.gov.sk/digitalizacia>.

³⁰ More details in TEKELI, J. *Záruky zákonnosti vo verejnej správe*. In: SEMAN, T. – JAKAB, R. – TEKELI, J. *Správne právo hmotné: všeobecná časť*. Košice: ŠafárikPress, 2020, pp. 172–186.

evaluation of the evidentiary situation, the interrogation of witnesses, the drawing up of expert reports, or the application of discretion by the administrative authority.

For decision-making processes identified as eligible for automation, it will be necessary to implement an electronic form of mutual communication between the administrative authority and the natural or legal person on the other side, while the form and content of submissions and actions should be structured as much as possible (in standardized forms). For unstructured submissions and actions, it would be necessary to ensure their transformation into a structured form, which would require human intervention.

In these decision-making processes, it will also be necessary to ensure the interconnection of public administration (or other) information systems from which information will be taken for the purposes of the decision (e.g., in the case of decision-making on an administrative offence of a motor vehicle operator, this will be the information system of camera scanning of motorways and roads, the information system of motor vehicle operators, the information system of the register of inhabitants, the information system of the register of organizations, or the information system of offences, etc.). In addition to the interconnectivity of the systems, it will also be necessary to ensure the recentness and completeness of the information contained in the information systems, as only in this way will it be possible to issue a correct and lawful decision within the automated decision-making process.

4. CONCLUSION

The development of information technology and its use in everyday life must inevitably have an impact on public administration and its decision-making. Progress in artificial intelligence is also opening up wider opportunities for the use of automation of decision-making processes in public administration. Decision-making processes that once had to be handled by humans can now be automated. However, there must be a sufficient legal basis for this, setting out the legal limits of such automated decision-making. In this paper, the legal possibilities of automation of decision-making processes in the field of public administration in the Slovak Republic were examined, the obstacles that hinder the use of this tool were defined, as well as certain legal solutions eliminating or minimizing the consequences of these obstacles were outlined.

Under the current legal situation, automation is only possible within the individual phases of the decision-making process in public administration, while the human factor, which covers the entire decision-making process, must be preserved. In order to enable full automation, i.e., within all phases of the decision-making process, it would be necessary to adopt legislation to enable such automation in public administration decision-making processes. In addition to enshrining the possibility of automation, this legislation should also regulate preventive (*ex ante*) and consequent (*ex post*) guarantees of legality in automated decision-making processes in the public administration.

In addition, there are other legal and factual obstacles that hinder the implementation of automation of decision-making processes in public administration. For one, not all

processes are capable of automation. Processes that require discretion, free assessment, review of plausibility, evidential value, etc. are not those that are eligible for automation. It is therefore essential to identify the administrative processes where automation would be possible under the current legal status or with certain legislative changes. The processes identified in this way would need to ensure electronic communication between relevant subjects in structured forms with standardized content. In addition, it would also be necessary to ensure the interconnectivity of public administration information systems used in automated decision-making.

These factors would enable automation on the assumption that it will only use so-called weak artificial intelligence. The use of strong artificial intelligence based on machine learning would not be possible under the current rule of law and transparency setup. However, it will not be possible to avoid this form of artificial intelligence in the future, but there must also be a proper legal basis for it.

The purpose of this paper was not to exhaustively describe and solve the problems with the automation of decision-making processes in public administration in the Slovak Republic. Rather, the purpose was to outline problematic areas that should be addressed in legal research. This is also an indication of the direction in which the author's own research in this area will take. It should also be noted that legal research in this area cannot be isolated from the study of this issue from an information-technical, sociological, or even political science perspective.

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