

CHAPTER 4

ESTONIA

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I. Is there a national act containing a legal definition of Automated Administrative Decisions?

There is no legal definition as such, nor any one specific act on AI or automated decisions. The right to issue automated decisions is based on authorisation norms in the acts regulating the field of activity in question and the competence of the relevant administrative authorities¹. Estonia uses e-governance in many different forms (including automated decisions), and various definitions regarding the use of technology are found in different laws. It is a deliberate decision, since the introduction of e-governance in the late 1990s/early 2000s to normally not make legislation focused on forms of technology, but to see technology as a tool and integrate technological solutions into general legislation. In March 2018, the Estonian Government Office and the Ministry of Economic Affairs and Communications set up a cross-sectoral expert group for analysing and preparing for the introduction of AI in Estonia, including the development of a test environment and the determination of legal changes required. A 2019 study commissioned by the Government from Tallinn University of Technology advised against enacting a single, comprehensive AI law. The study concluded that the issues were too disparate and that, in many cases, the technology was not developed enough to be meaningfully regulated². As the European Commission in 2021 announced its plans for an AI Regulation, the Estonian Government

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¹ V. Zolkin, A. Chochia, T. Hoffmann, *Automated decision-making in the EU Member State's public administration: The compliance of automated decisions of the Estonian unemployment insurance fund with Estonian administrative procedure law*, 10 *European Studies - the Review of European law, Economics and Politics* 178 (2023)

² T. Kerikmäe *et. al.*, *1st Report on legal framework and analysis related to Autonomous Intelligent Technologies*, Riigikantselei/Estonian Government Office, 2019.

abandoned the idea of an Estonian general law and instead worked actively on the EU legislative process.

On the government website for AI, it is described as follows: “Artificial intelligence (AI) refers to a system based on an autonomous software algorithm capable of learning, allowing it to perform tasks that typically require human intelligence”³. Estonia is one of the few countries (and languages) that has a special word for AI: *kratt*. The word comes from Estonian folklore and signifies a mythological creature that could help people, but that you still had to keep an eye on. The idea behind using this metaphor is that “Since AI can seem extremely complex and mysterious to non-experts, familiar characters from folklore (in this case *kratt*) can help people understand this new realm of possibilities”⁴. From this word, the word ‘*bürokratt*’ has been derived for administrative AI, specifically for the idea of AI “helpers”. This refers to a network of interoperable chatbots embedded on public authorities’ websites that provides access to information and services, through which one can communicate with the State through a single channel.

Estonia has a strategy for 2024-2026. On the organisational side, the work on the strategies has been led by the Ministry of Economic Affairs and Communications and the Government Office⁵.

Estonian courts have had reason to define and explain AI in cases concerning whether decisions were taken by AI and if this was allowed in the specific situation. For example, the Tallinn Administrative Court in December 2022⁶ explained AI as, for example, the ability of a computer to mimic human mental activity resulting from brain processes; human-like abilities of a machine, such as thinking, learning, planning and creativity⁷.

II. Is there a general legal basis (either at the constitutional level or in the Administrative Procedure Act) for the use of algorithmic automation and/or artificial intelligence (AI) by public authorities (government, agencies, local authorities, and specialised bodies)? If no

³ <https://www.kratid.ee/en/tehisintellekt>.

⁴ <https://www.kratid.ee/en/mis-on-kratt>.

⁵ <https://www.kratid.ee/en/kratt-visioon>.

⁶ Tallinn Administrative Court, Case 3-22-206, 6 December 2022, see paragraph 16. Estonian case law (from all courts) is available at https://www.riigiteataja.ee/kohtulahendid/koik_menetlused.html.

⁷ The Court refers to a dictionary of Estonian language: “Eesti keele seletav sõnaraamat” from 2009, available at <https://www.eki.ee/dict/ekss/index.cgi?Q=tehisintellekt&F=M>.

such legal basis exists, are there any legislative provisions that permit public authorities to experiment with algorithmic automation or AI?

As mentioned above, the right to use automated decisions is provided for in different laws for different authorities and situations. There is no general rule but importantly there are no general restrictions. The Estonian Government has developed plans and strategies for the use of AI in society, in both the public and private sectors, since 2019 and has allocated quite significant resources to the use of AI for administration. A number of specific laws provide for the possibility of implementing automated solutions in certain decisions or actions of a public authority. The Estonian strategy for 2024-2026 contains various steps mainly for implementing existing law, with no major legislative work foreseen. Also, reforms to the Administrative Procedure Act will be then addressed, including a horizontal set of rules for automating administrative decisions and actions through algorithmic systems in order to promote automated administrative decision-making.

The EU AI Act that entered into force on 1 August 2024 applies to Estonia, and the Estonian Government took an active interest in EU activities to create legal certainty for AI use, as stated in the AI plan. Too little time has passed since entry into force to be able to comment on any effect this may have. Work is ongoing in Estonia with the application of the EU AI Act in the form of determining relevant authorities and legislating on sanctions. This work should be ready by the third quarter of 2025.

The Estonian government actively promotes the use of AI and provides access to a number of open-source AI components. These are the base components of applications based on AI that all interested parties whether in the public or private sector, can reuse free of charge. The idea is that these base components can be further developed depending on the needs of the interested parties. All the open-source AI components are available in the eGovernment code repository and/or GitHub⁸. The code repository can be accessed by anyone with an Estonian digital ID, which all Estonian residents have⁹. There is no need to make a special request to access the database.

In several court cases where the legality of automated decisions has been challenged, the defendants have stressed that automated decisions are merely a means of exercising State authority and do not constitute separate institutions or authorities¹⁰. There is substantial case

⁸ <https://www.kratid.ee/en/kratijupid>.

⁹ https://koodivaramu.eesti.ee/users/sign_in.

¹⁰ Tallinn Administrative Court, case 3-22.369, 16 December 2022.

law confirming the legality of automated decisions, and the Chancellor of Justice has also done so¹¹.

III. Do public authorities rely on algorithmic automation/AI in their daily operations? If yes, to what extent? Which areas are most affected by automation (e.g., security, policing, immigration, transport, tax management, welfare, health and employment services, education, justice, or digital identity)?

AI solutions have been implemented in the public sector of Estonia around 170 times, with around 60 public authorities having implemented projects with an AI component. Completed AI projects are listed online with a brief overview of the technology used, the aim and area of the project, and other relevant information¹².

The Estonian Government has the stated aim of becoming an AI-driven personalised State, meaning that public services are targeted to individuals and largely automatic, so that contacts with authorities have to be made only when the individual does not want a regular service (like not wanting a designated place in school for a child or not wishing to retire when reaching retirement age). This ‘personalised’ State is under construction, with increasing numbers of services becoming fully automated. The AI use transgresses borders between different areas of administration. The *bürokratt* chatbot service is an example of how to make interoperable chatbots embedded on public authorities’ websites a practical and accessible tool for citizens.

Estonia has advanced e-governance that predates AI, indicative of the fact that the State is generally keen on automation and the use of technology in administration. The Government is attentive to how the most modern technologies can help to provide efficient public services in all areas. Because the organs of public administration have been digital for more than 20 years, it also means that people are generally positive about the use of technological tools. An international study made in June 2024, headed in Estonia by the Foresight think tank at the Estonian Parliament, showed that Estonian citizens were generally positive regarding the use of automated decisions¹³. For example, all Estonians have digital ID-documents and signatures, which are used widely in the

¹¹ <https://www.oiguskantsler.ee/en>. Statements such as these have been made in different contexts, publications or speeches.

¹² <https://www.kratid.ee/ai-use-cases>; <https://koodivaramu.eesti.ee/explore/projects>.

¹³ <https://arenguseire.ee/en/news/estonian-residents-support-using-artificial-intelligence-in-state-services/>.

public and private sectors, and people are comfortable with using these tools¹⁴. The fact that data in the public sector is always digital by default also makes it easier to progress with new technical solutions. At the same time, the fact that functioning and well-used digital solutions that use slightly older technology exist can also act as a brake on the introduction of the latest solutions.

There are numerous examples of legislation concerning the use of automated decision-making. For example, the Tax and Customs Board makes extensive use of this technology. A Decree by the Ministry of Finance specifies conditions and procedure for conducting electronic administration within the e-service environment of the Tax and Customs Board. It lists administrative acts and documents that are issued automatically, as well as declarations and other documents submitted electronically by State, rural municipality, and urban authorities¹⁵. Automated decisions include issues like adding or removing entities from VAT registration, repayment of excess taxes, and providing obligatory information about commercial heavy vehicles, among others. Another use of automated decisions is in the unemployment insurance fund, set up by the Unemployment Insurance Act¹⁶. This Act was amended in 2019 to add an explicit authorisation for automated administrative acts, ensuring compliance with the GDPR. The Fund has the authority to issue administrative acts automatically without direct human intervention if this is feasible, considering the circumstances of issue of the administrative act and the contents thereof¹⁷. The Fund's automated decisions contain references on how they can be contested. The Fund has been issuing automated unemployment insurance benefit decisions for granting benefits since October 2019 and for rejecting benefit applications since February 2023.

Machine-processable documents are, in many cases, required by law, to allow automated decision making. This is the case for the Accounting Act which requires that source documents shall be machine processable and the use of methods for circulating source documents shall not need human assistance¹⁸. Additionally, there is a decree from

¹⁴ The Administrative Procedure Act recognises digital signatures and electronic delivery of administrative acts since 2002.

¹⁵ <https://www.riigiteataja.ee/akt/112072024003>.

¹⁶ <https://www.riigiteataja.ee/en/eli/509072014020/consolide>.

¹⁷ V. Zolkin *et. al.*, cit. at 1, 186.

¹⁸ Article 11 of the Accounting Act: "The guidelines on machine-processable source documents shall be based on the best practices and support user and environmentally-friendly and cost-efficient circulation of source documents without human assistance."

the Ministry of Finance on machine learning-based e-invoices, which includes a technical description of such invoices¹⁹. Accounting Act, Article⁷¹ (2) stipulates that “The inviolability of the private life of persons, national security and protection of business secrets and other restricted information shall be ensured in the handling of machine-processable source documents”. Thus, even with automation that operates without human intervention, the safeguarding of important values remains a priority.

Estonian legislation explicitly recognises that administrative acts can be undertaken without human intervention in many different contexts. This is possible because the data in the Estonian public administration is digital by default and there is an elaborate system of interoperable databases supporting automatic data handling. It is not necessary to transfer data between registries or for applicants to submit documents if the data already exists somewhere in the public administration. The exact wording varies but is generally similar to what is stated in the Commercial Pledges Act²⁰. “If a digitally signed application can be submitted directly to the commercial pledge register’s online information system, the application and the time of receipt thereof will be registered in the journal of the register automatically”. Other similar provisions exist in the Land Register Act²¹, the Law of Ship Flags and Ship Registers Act²², the Taxation Act, the Environmental Charges Act, and the Commercial Code²³. The legal provisions mention automatic registration without the need for human intervention but do not mention types of technology or refer to AI²⁴.

In the Code of Civil Procedure, Article 489², paragraph 2, the possibility for orders for payment in automated manner is provided. The Article states: “(2) The order referred to in subsection (1) of this section may also be made in an automated manner through the information system of expedited proceedings for orders for payment if the fulfilment

¹⁹ <https://www.riigiteataja.ee/akt/123042019008>.

²⁰ Article 16 (4¹ and 4²), Commercial Pledges Act (1996), in English at <https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/519062017010/consolide>.

²¹ Article 39 (3) and (4), Land Register Act (1993), in English at <https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/512122019012/consolide>.

²² See Law of Ship Flags and Ship Registers Act (1998), in English at <https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/512122019011/consolide>

²³ All Estonian legislation is available at <https://www.riigiteataja.ee/index.html>, and many acts are translated into English.

²⁴ T. Kerikmäe, K. Nyman Metcalf, *Machines are taking over - are we ready? Law and Artificial Intelligence*, 33 Singapore Academy of Law Journal 24 (2021).

of the prerequisites for making the order can be verified in an automated manner. In such a case, the order need not be signed²⁵.

IV. What legal requirements - e.g. in terms of privacy, cybersecurity, quality of the datasets, impact assessments, transparency obligations, access to codes, the right to explanations, compulsory human involvement, and the right to obtain a review or remedy - apply to the use of algorithmic automation or AI by public authorities? Are there sector-specific regulations on Automated Administrative Decisions (e.g., public procurement, taxation etc.)?

The view that automated decisions are just another way of performing administrative tasks supports the view that all guarantees and safeguards provided by law, like the Administrative Procedure Act, apply equally regardless of whether the decisions are automated or not. The same holds true for data protection and access to information provisions as well as any cybersecurity norms. It may be mentioned here that one of the Estonian open-source AI solutions is a data anonymiser – thus showing how technology can help to protect human rights²⁶.

The Accounting Act quoted above requires machine processable documents and at the same time stresses the need to safeguard inviolability of the private life of persons, national security and protection of business secrets and other restricted information. Thus, automation without human intervention – which is encouraged – does not change the fact that important values need to be safeguarded. The court practice so far shows that if automated decision-making is unable to safeguard these values, human intervention may be needed. The courts recognise the responsibility of those who order AI solutions for the input based on which the algorithm is created. Estonian courts have stressed that different tools, including AI, can be used in administrative decision-making but the relevant authority remains ultimately responsible for the correctness of the decision. In a case on placement of pupils in schools (also discussed below), the court pointed out that IT solutions are procured by someone, who sets the parameters for what the tool should do. They are responsible for the correctness of the parameters provided to the algorithm. If the task description is wrong, based on

²⁵ Code of Civil Procedure, <https://www.riigiteataja.ee/en/eli/ee/Riigikogu/act/512122019004/consolide>.

²⁶ <https://www.kratid.ee/en/kratijupid>. This page also contains a link to a demo of the solution.

wrong facts or not in accordance with legal requirements, the result will be wrong and it is the responsibility of the authority to be correct it²⁷.

A number of court cases have dealt with the use of AI for decisions in relation to forestry administration. The claimants stated that the decisions taken about forest administration were illegal, as there is no clear legal basis in the constitution for using AI. Furthermore, as there was a question of discretion, AI cannot make such decisions. The Environmental Agency must consider all relevant circumstances when making a decision and act within the clear mandate given to them (which makes no mention of AI). The defence against this statement was that in the issuing of the decisions in question, AI was not used but an automated decision-making process using a semi-automatic form of data processing based on clear criteria set by the officials and with results controlled by them. The Court found that the possibility to move from simplified to full procedure in case not all parameters were clear was used irrespective of whether automated decisions were used or not and thus the rights of claimants could be protected. The full procedure includes human intervention²⁸.

V. Who builds the algorithmic technologies used by public authorities? Are these developed by public entities, private companies, or a hybrid body?

Technologies are mainly developed by the private sector in cooperation with the public sector. The Government offers an AI Support Toolbox that provides customised support services in collaboration between the public and private sectors. Workshops are offered by a public body at different levels for institutions that are interested in or have already launched AI projects, and there are also more advanced and specific support possibilities for analysis and project planning. For complex projects, there is assistance with risk assessment through collaboration with an expert advisory board and support in the practical execution of projects, focusing, for example, on ethical and responsible data processing²⁹.

²⁷ Tallinn Administrative Court, case 3-23-1142, 4 July 2023, see paragraph 10, page 6.

²⁸ Tallinn Administrative Court, case 3-22.369, 16 December 2022

²⁹ <https://www.kratid.ee/en/kratitoe-portfell>. Here there is an AI Support Toolbox, with lists of assistance possible.

VI. Is there a centralised infrastructure for digital data management, or are there several infrastructures? If the latter is true, is interoperability guaranteed, and to what extent? Are there any rules or procedures governing the exchange of information between different administrative bodies?

Estonian public sector data is fully interoperable in a system called X-road, which predates the latest AI. It is illegal to have the same information in more than one database, but instead access is provided to the core database to any body that has a legitimate need to use the data in question. The access is provided to individuals, not institutions, and is based on identification with the digital ID. The number of persons who shall have access and the determination of the extent of the access are specified in contracts (Service Level Agreements) between the body holding the database and those that want to use it. There is an authority responsible for common technical and other issues of the system, the State Systems Authority, but they do not deal with (or can access) the content of databases, which is handled by the institution responsible for each database³⁰.

This system means that public bodies seamlessly use data regardless of which authority or organisation that holds the database. There is no need to request anyone to send data, but access questions are dealt with in a general fashion to allow direct data access. Most of the queries through the system are fully automated updates etc. rather than requests by persons. The system ensures both that the once-only principle works and subjects do not have to give the same information twice and that there cannot be conflicting information in different databases.

It is important to note that the interoperability system does not provide greater data access than more traditional systems; quite the contrary, as the access is personal and requires personal identification for any data access. It is also necessary to show a legitimate need for any data use, before the access is granted in Service Level Agreements. Furthermore, each data access leaves a "footprint" by which it is possible to see who accesses what data and when, thus permitting data use to be monitored. This tool also shows where automated data access has taken place, and it is very easy for members of the public to use. They only need to log in (with their digital ID) to one website, eesti.ee, where they can see all data held concerning them in public databases as well as any access made to such data. Authorities are obliged to explain why the

³⁰ <https://e-estonia.com/solutions/x-road-interoperability-services/x-road/>.

access was made. Individuals can only see which authority made the query, but in the authority, it can also be seen which person initiated the query (whether made it themselves or set in motion the automatic query).