Effectiveness of the e-Residency programme

Do the revenues of the e-Residency programme exceed the expenses, and are the participants in the programme law-abiding?

Report of the National Audit Office to the Parliament (Riigikogu) Tallinn, 23 July 2020

Dear readers,

The e-Residency programme is one example of how the public sector can also create something completely new and innovative on a global scale. This requires leaders who think outside the box and their enthusiasm which are not easy to find in the world of old habits, paragraphs, strict budget rules, public procurement, auditors, etc.

Unfortunately, the public tends to show intolerance for public sector failures, and therefore the public sector is inherently cautious and sometimes timid in implementing new solutions. It is safer and more convenient not to take any chances. But Estonia needs new and original ideas and initiatives for development and increasing the well-being of its society. This is the only way to break through the glass ceilings or actually catch up with those countries we want to draw level with. Be it the Nordic countries or Switzerland. Fortunately, there were such leaders, who created the e-Residency programme that has made Estonia more internationally known.

Apart from being an innovative endeavour, this project has paid its way on a direct cost-revenue basis. At the end of 2019, e-residents had also created more than 1,300 jobs in Estonia, the average salary of which was in the order of the average Estonian salary.

It is difficult to express the wider positive impact of this project on Estonia's reputation in terms of money. Many know Estonia and are acquainted with it just because of the e-Residency programme, and this programme is one of the reasons why Estonia is considered to be one of the most developed digital countries in the world. At the same time, it is essential to remember the risks associated with a good reputation, i.e., the more well-known the e-Residency programme is, the more stakeholders are reached by information in the event of problems. In other words, similarly to the positive aspects, the problems are also exacerbated. This, however, can damage Estonia's reputation, which takes time to recover. The White Paper describing future plans for the e-residency emphasises, as well: “A small country’s greatest enemy is a poor reputation, whether it’s being considered to be a tax haven or a refuge for criminals, which then harms the country’s ease of doing business globally“.

One of the main prerequisites for avoiding problems is that the state knows who the Estonian e-residents are and to whom it has issued the Estonian digital identity. Of course, it is not a question of the e-resident's name or other basic personal data, but of their background – whether the e-residents are law-abiding, and whether they do not have a business ban in another country or have been punished for crimes that expectedly would preclude granting obtaining the e-resident status. Do we know who the Estonian e-residents are and what is their past – their background, which should be important for granting the e-resident status? Unfortunately, not always.

For example, the audit revealed that the ex-ante control of the e-residents does not ensure that only law-abiding foreigners obtain the e-resident status. The Police and Border Guard Board (the PBGB) is able to identify the offenses committed in Estonia, but the PBGB cannot in any way ascertain whether the applicant has a valid criminal punishment in a foreign country. We made an inquiry against the Finnish Criminal

Register, and it turned out that 48 of the e-residents with the Finnish citizenship had a valid criminal penalty in Finland at the time of applying for the digital ID. A quarter of them were sentenced to a real prison confinement, and a fifth of them were penalised for economic crimes. Evidently, among them, there were people who would not have been granted the e-resident status if this information had been available.

The PBGB's problems in ascertaining the convictions are objective from the Board's point of view, and the PBGB has drawn attention to these problems earlier as well. The PBGB is unable to make inquiries into the European Criminal Register, as the latter provides access to information on convictions, first and foremost, in the context of criminal proceedings. The administrative procedure for issuing the digital ID, on the other hand, does not entitle the PBGB to make such a request. During the audit, the PBGB indicated that the Ministry of the Interior is working to ensure that the regulation necessary to mitigate the risks related to digital identity would also be included in international documents. Unfortunately, the possibilities here are also limited, because access to international databases does not provide confidence regarding persons from third countries either. One of the solutions as seen by the PBGB is a political decision, according to which e-residency is offered only in countries with which Estonia has co-operation in the field of justice and security.

There are similar problems in identifying foreigners with a business ban during the ex-ante control. In the case of business bans, the Tax and Customs Board (the TCB) confines itself to making requests into the Estonian databases, and therefore the e-resident status can be obtained by those who have a business ban or a disqualification from the practice of commercial activities in another country. Here, too, when comparing data on the e-residents to the Finnish registers, the auditors have found several Finnish citizens who had become an Estonian e-resident during the period of their business ban. Identifying business bans is all the more important as a large number of the e-residents have applied for the e-residency with the express aim of leading business.

Of course, the lack of information on valid penalty and business bans abroad does not only affect the e-residents. There are also probably other entrepreneurs with foreign backgrounds who operate in Estonia and have not applied for the e-resident status, but who may also have a valid criminal penalty or business ban in another country. A number of other risks indicated in the audit report, such as those related to virtual currency licenses, can also be considered as an issue which is not specific for the e-Residency programme. But from the point of view of the country's reputation, there is a big difference whether the organiser of possible fraud or other misconduct is a person who can say "I am an e-resident of the Republic of Estonia" or not, and whether the e-residency has somehow facilitated organising frauds.

In the case of the e-Residency programme, one of the most difficult challenges is how to mitigate the risks associated with the programme so that it continues to benefit – how to adapt the programme to remain positive (new business models, innovation, the Estonian fans, and the image of the digital state), so that possible abusive participants of the programme would not erode Estonia's reputation or be detrimental to our internal security and business climate.

The Ministry of Justice emphasised in the memo describing the risks when launching the e-Residency programme: "In addition, it should be analysed whether and to what extent an enterprise that does not operate in Estonia at all and has no connection whatsoever with Estonia after its registration in the Estonian company register, brings revenues to the Estonian state." More than five years have passed since this topic was raised. We have been looking at the e-residency for more than a year now, and this issue continues to be important.

The issue is all the more important because during the audit it became clear that the TCB does not know anything about the activities of most of the e-residents’ enterprises that are registered in the Estonian register, but not engaged in any economic activities here. Do they pay taxes in the right country? Do they pay taxes anywhere at all? What is their business, after all? Due to the large number of enterprises operating abroad, the Estonian institutions (the Enterprise Estonia, the TCB, the PGPB, etc.) make expenses every day and figure out how to get more information about such enterprises. The question arises as to whether it is reasonable to bear the risks and costs inherent in the current solution, or whether a systemic solution can be found to mitigate the risks.

The White Paper on the e-residency presented at the end of 2018 also adequately addresses several issues identified in the audit, and the proposals in this paper to make the e-residency more cost-effective, convenient, and secure are also relevant. These proposals should now be implemented, too. These are not separate issues of the Ministry of Economic Affairs and Communications, the Ministry of the Interior, or the Ministry of Finance. This requires the joint commitment and efforts by all relevant agencies of the central government, as well as by other parties.

Janar Holm
Auditor General 23 July 2020

Effectiveness of the e-Residency programme

Do the revenues of the e-Residency programme exceed the expenses, and are the participants in the programme law-abiding?

Summary of the audit results

What did we audit?

In the audit, the National Audit Office assessed whether

- the e-Residency programme encourages the e-resident companies to bring income to Estonia;
- control systems ensure that the participants in the e-Residency programme are law-abiding;
- sufficient platforms for business and services have been created for e-residents, and
- whether the major risks involved in the implementation of the e-Residency programme have been mitigated.

Why is this important to taxpayers?

During the first five years of the e-Residency programme (2014–2019), Estonia has granted e-Residency digital ID cards to more than 63,000 foreigners from 174 countries. Digital ID allows e-Residents to use the public e-services of both Estonia and other EU countries and create an Estonian company. It is important that the e-Residents using the e-services and pursuing commercial activities be law-abiding and that they bring income to Estonia. It is also essential that the risks involved in the implementation of the programme are mitigated.

In the first five years, 15.7 million euros have been spent on the e-Residency programme.

What did we find and conclude from the results of the audit?

In the opinion of the National Audit Office, the revenues of the e-Residency programme have started to exceed the expenses by the end of the first five years of operation. However, control systems are deficient because foreigners with a valid criminal penalty and business ban can participate in the programme.

- **The revenues of the e-Residency programme exceed the expenses by almost 10 million euros**, but 95% of the revenue is paid by 6% of the enterprises. Thus, the income of the programme depends on a small number of companies. E-Residency programme has introduced new entrepreneurs to the Estonian business landscape, and the taxes paid by their enterprises have helped to bring the programme into profit. However, neither Enterprise Estonia, the governing body of the programme, nor any state agency, have a consistent and uniform overview of the total revenue and expenses of the programme, which makes it difficult to manage.

- **The ex-ante and ex-post controls do not ensure that the participants in the e-Residency programme are law abiding.** The Police and Border Guard Board (PBGB) has issued digital IDs to foreigners with valid criminal penalties abroad. They have also not revoked the documents of some e-residents who have committed a crime in Estonia during the validity of the digital ID. According to the PBGB, one of the reasons for this is that there are no IT solutions which would allow making mass inquiries to the Criminal Records Database and identifying the foreigners convicted in Estonia. In administrative proceedings, the PBGB is unable to identify persons convicted in a foreign country if the information has not been entered in international databases.

- **The ex-ante and ex-post controls do not protect Estonian entrepreneurs against e-residents with a business ban.** The PBGB has issued digital IDs to foreigners with a valid business ban abroad and they have not revoked digital IDs for e-residents who have received a business ban abroad during the validity of the document. As a result, the e-residents with business bans are board members in Estonian companies. According to the PBGB, they cannot make necessary inquiries into Finnish business bans during the follow-up inspection due to a lack of IT solutions. With other countries there is no existing exchange of data on business bans. As explained by the Tax and Customs Board, they have no means and options for assessing a person’s tax behaviour, including the existence of business ban, which is why inquiries are made to Estonian databases only. At the same time, most of the e-residents have never been to Estonia or engaged in business here. Thus, the use of Estonian databases only is not sufficient to assess the law-abidingness of the applicants and e-residents regarding taxes and business.

- **The digital ID is issued without an obligation for foreigners to contribute to the development of the Estonian economy, education, science or culture, even though it is the legal purpose of issuing the document.** Also, the renewal of the digital ID does not depend on whether the foreigner has contributed to Estonia or not. Introduction of the obligation to contribute to Estonia would allow to ensure that the activity of the e-residents complies with the purpose for which the digital ID is issued. In other words, it would allow to assess, in the issue of the digital ID and during follow-up control and renewal, whether the e-resident’s activity promotes to the development of Estonian economy, science, education or culture.

- **The amendment to the law due to the e-Residency programme has increased the risk of reputational damage to Estonia.** Due to the e-Residency programme an amendment was made to the Commercial Code, allowing the company’s management board to be located abroad. Together with the incomplete requirements for applying for licenses of virtual currency service providers, a situation has occurred in which several Estonian companies were established operating abroad and licensed by Estonia in a field that the Financial Intelligence Unit has assessed to be at high risk for money laundering and terrorist financing. The PBGB was unable to monitor the companies due to their location abroad. Even though the management board of a virtual currency service provider is no longer allowed to be located abroad, this possibility was available for two years. If Estonian-licensed virtual currency service providers committed fraud and it becomes public, it could damage Estonia's reputation.

- **Services are as a rule available to e-residents, except for banking services.** According to e-residents, they do not have significant problems finding public e-services or private sector services, and most of the e-residents (90%) are satisfied with the services. However, the e-residents allege insufficient access to banking services to be an important shortcoming. For example, banks are closing the accounts of e-residents and it is difficult for new e-residents to open a bank account in Estonia. The main reason why banks refuse to open accounts is that there is no certainty that the e-residents and their companies will be operating in Estonia. If the business is done in another country, this does not allow banks to monitor the activities of the e-residents to the required extent and ensure that the bank account is only used for lawful activities. If a company's activity had a relevant connection to Estonia, it would reduce the risks for banks.

- **Few e-residents who have had the option, have renewed their digital IDs.** The digital ID has been renewed by every tenth e-resident (nearly 1,900 e-residents) whose digital ID card had expired. The results of the survey held among e-residents showed that the e-residents justified the non-renewal with the fact that the e-Residency programme did not meet their expectations. Problems with opening a bank account were mentioned the most.

What did we recommend as a result of the audit?

The main recommendations by the National Audit Office:

- consider the use of reverse burden of proof for e-Residency applicants and e-residents more often. Therefore, it would be possible to request evidence of valid criminal records and absence of business bans during the application or, where appropriate, during follow-up inspection;

- establish a condition for the issue of an e-resident's digital ID, which obliges the applicant to contribute to Estonia as well as verifying it upon extension of the ID or if required in follow-up inspection;

- provide IT solutions for the PBGB for more efficient control procedures for the e-residents to allow making mass inquiries to the necessary registers (e.g., the Criminal Records Database);

- maintain as accurate an overview as possible of the total expenses and revenues of the e-Residency programme so that Enterprise Estonia and the Ministry of Economic Affairs and Communications can make informed decisions in managing the programme;

- explain the conditions for starting a company and opening a bank account in Estonia when marketing the e-Residency programme and at the beginning of the digital ID application process (e.g., in the application form for the digital ID).

Response of the Auditees: the Minister of the Interior and the Minister of Justice agreed to the need to provide the PBGB with the required IT solutions that would allow making mass queries to the necessary registers. The Director General of the PBGB noted that the making of mass queries is also exacerbated by the restrictions arising from administrative proceedings. Also, as stated by the Director General, it is particularly difficult to obtain information on third-country nationals. One of the solutions as seen by the Director General of the PBGB is a political decision according to which, e-Residency would only be offered in countries doing judicial and security cooperation with Estonia.

The Minister of the Interior explained that he does not find it necessary to establish a condition for e-Residency applicants to contribute to Estonia and verify the contribution at the renewal of the digital ID.

The Director General of the PBGB agreed that the requirement to provide evidence on the absence of punishments and business ban contributes to the mitigation of risks but added that it is difficult to verify the accuracy of such evidence.

The Minister of Foreign Trade and Information Technology agreed that in the interests of better management decisions, it is important to keep consistent and uniform overview of the revenues and expenses of the e-Residency programme. The Minister also agreed that it is important to adequately explain the conditions for opening a bank account in Estonia to those applying for e-Residency and take these into account in marketing the programme.

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Control systems do not ensure that the participants in the e-Residency programme are law-abiding.

The ex-ante control does not ensure that the digital ID of an e-resident will not be issued to a foreigner who has been convicted of a crime abroad

"e-Residency 2.0. White Paper" – 49 proposals from public agencies and private enterprises for the development of the e-Residency programme. They were published at the end of 2018.

E-resident – a foreigner to whom Estonia has created a digital identity and issued a digital identity document, i.e., the e-resident's digital ID.

E-resident's digital ID – a digital document that can be used only in an electronic environment to identify a person and provide a digital signature.

Source: E-resident's digital ID, the PBGB

1. According to the Identity Documents Act, the issuance of the e-resident's digital ID can be refused if the foreigner has been penalised for an offense, i.e., a minor offense or a criminal offense.[1, 2] "e-Residency 2.0. White Paper" states that law-abiding foreigners are welcome to participate in the programme.[3] A longer overview of the e-Residency programme can be found in Annex A.

2. The NAO assessed the grounds for issuing digital ID and the objectives of the e-residency programme as a whole and presumed that the foreigners who do not have a valid criminal penalty in Estonia or another country will become the e-residents.

3. According to the Identity Documents Act[4], the state supervision over the use of the e-resident's digital ID (hereinafter also the digital ID) is performed by the Police and Border Guard Board (the PBGB), the Tax and Customs Board (the TCB), and the Security Police Board (the SPB)[5].

Procedures of the ex-ante control by the PBGB

Ex-ante control – procedures by which the PBGB, the TCB, and SPB make sure that the applicant does not endanger public order or national security and meets other conditions required by law before being granted the digital ID.

4. In the ex-ante control, the PBGB checks the foreigner's previous connection with Estonia, as well as his or her identity, assesses the information submitted with the application, examines whether the applicant has committed a criminal offense in Estonia or another country, and performs other procedures based on the applicant's profile. At the same time, the PBGB determines whether the applicant is a suspect in money laundering. If necessary, the PBGB asks the applicant additional questions to ascertain the person's intentions.

5. The PBGB decides on the issuance and revocation of the e-resident's digital ID based on discretion[6]. In particular, the PBGB decides whether

- to issue the digital ID;
- to reject the digital ID application if significant deficiencies have been identified in the application which have not been eliminated by the applicant;
- to terminate the proceedings based on the applicant's request (withdrawal);
- to refuse to issue the digital ID.

For your information

In the case of substantial public interest (e.g., in recognition of excellence of heads of the state by the Republic of Estonia), the e-resident's digital ID may also be issued by the PBGB based on a decision by the Minister of the Interior.

Source: " Identity Documents Act, § 20^{11}.

[1] Identity Documents Act, § 20^6 (3) 1).
[2] Aliens Act, § 124 (1), paragraph 5).
[3] e-Residency 2.0. White Paper. Enterprise Estonia, 2018, page 19.
[4] Identity Documents Act, § 20^8 (1).
[5] The audit focuses on the control activities of the PBGB and the TCB, and it does not cover the SPB's activities related to the e-residency.
[6] Identity Documents Act, § 20^6 (3).

Reasons for refusing to grant the e-residence

6. The NAO investigated how many applicants have not been issued a digital ID as a result of the above-described procedures and for what reasons.

7. The results showed that, in the period 1/12/2014–1/12/2019, the PBGB had refused to grant the e-residency to a total of 301 foreigners, i.e., to about 0.5% of applicants. The main reason for the refusal was the applicant's being a threat to public order or national security, which accounted for almost two thirds of all refusals (see Figure 1).

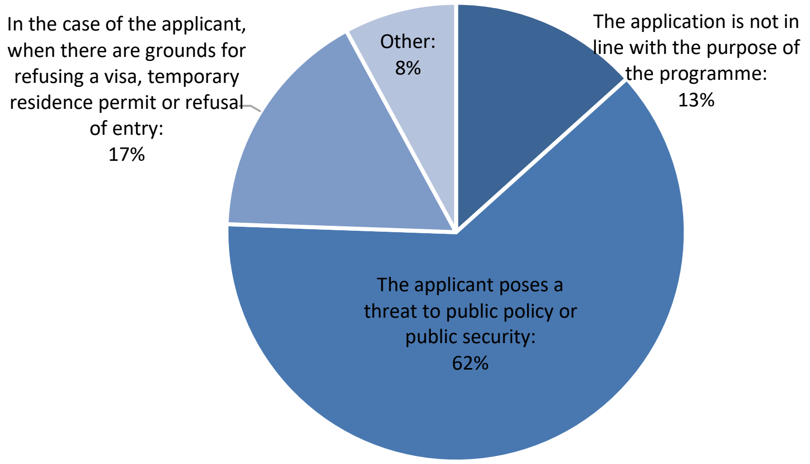
For your information

From December 2014 to December 2019, 65,254 people applied for the e-residency, of whom:

- 63,142 people were issued a digital ID (approximately 97% of applicants);
- 1066 applications were rejected (approximately 1.6% of applicants);
- 487 people withdrew their applications (approximately 0.7% of applicants);
- In 301 cases, the issuance of a digital ID was refused (approximately 0.5% of applicants).

Source: The PBGB

Figure 1. Reasons for refusing to issue the e-resident's digital ID in 2014–2019[7]



Source: the NAO on the basis of the data of the PBGB

Offenses by the e-residency applicants in Estonia

8. The PBGB has specified that an application for the e-residency will not be approved if the person has a valid criminal penalty according to the PBGB's data. In the case of minor offenses, the PBGB takes into account their recurrence and the type of offense. For example, a traffic offense does not have the same weight as a drug-related offense. Possibility for violence, danger to other persons, causing economic damage, etc., which accompany the offense are also assessed. Expunged misdemeanours or expired unpaid fines are not grounds for refusing to issue a digital ID.

9. In order to clarify whether the ex-ante control by the PBGB is functioning, the NAO examined whether law-abiding foreigners, i.e. the people who did not have a valid criminal penalty in Estonia at the time of applying for a digital ID, have become the e-residents. For this purpose, the NAO made an inquiry[8] both in the Criminal Records Database, and in the database managed by the PBGB.

10. As a result of the comparison of data of the Criminal Records Database and the PBGB's data, the NAO did not identify any digital ID applicants whose application had been approved, even though they had a valid criminal penalty in Estonia. At the same time, there were confirmed cases in which the application of a foreigner with a valid criminal penalty was not approved.

[7] Exact period: 1/12/2014–1/12/2019.

[8] The inquiry contained both valid and archived penalties as of June 2019.

Offenses by the e-residency applicants in foreign countries

For your information

In previous audits, the NAO has also drawn attention to problems arising from the development debt of the PBGB's personal identification and procedural information system.

The information system also includes the processing of applications of the e-residents, and the IT and Development Centre (ITDC) of the Ministry of the Interior is responsible for its development.

See more details, for example, in the audit report "Project Management in Software Development of Public Sector".

For your information

The Finnish citizens form the largest group of the e-residency applicants (7% of all applicants).

In the period 1/12/2014–31/3/2019, the PBGB had issued the e-resident's digital ID to 4,188 Finnish citizens.

Source: The PBGB

In 36 cases, the e-residents had been sentenced to suspended imprisonment in Finland (1 month to 2 years).

Source: data from the Finnish Criminal Register

11. For example, the PBGB did not issue a digital ID to a foreigner who, at the time of the application, had a valid criminal penalty for illicit handling of large quantities of narcotic drugs and psychotropic substances. Thus, in ex-ante control, the PBGB is able to determine if the applicant for the e-residency has a valid penalty in Estonia, and, upon establishing this, the PBGB refuses to issue a digital ID.

12. At the same time, the PBGB indicated that the IT developments related to the ex-ante control have not taken place to the extent and pace required for the effective ex-ante control. For example, the automated data exchange between the PBGB's database and the Criminal Record Database started operating only on 30/9/2019. According to the PBGB, this is due to the ITDC's inability to ensure the necessary developments in a timely manner. Until then, the PBGB had been making manual inquiries into the Criminal Record Database.

13. The ITDC has admitted to having trouble completing the IT solutions related to the e-Residency on time. The main cause of the problem has been the lack of qualified workforce, including failed recruitments and people's leaving work. At the same time, there have been a large number of other development requests in the administration area of the Ministry of the Interior.[9]

14. As a large number of the e-residents have never been to Estonia, in addition to the violations committed in Estonia, it is important that the PBGB also has an overview of the offenses committed by digital ID applicants abroad. This allows a reasoned decision to be made on whether or not to issue a digital ID.

15. The PBGB becomes aware of the offense committed abroad if it is entered in the international databases used by the PBGB. Additionally, the PBGB can obtain information from public sources. Thus, if the offense committed by the applicant in another country (e.g., an economic crime) is not reflected in the international databases and information about it cannot be found in public data, then this information will not reach the PBGB.

16. The NAO investigated whether the PBGB is able to establish the legal compliance of the digital ID applicants in foreign countries during the ex-ante control. For this purpose, the NAO made an inquiry to the Finnish Criminal Register to investigate whether the Finnish citizen applicants for the e-residency had a valid criminal penalty in Finland at that time.

17. The results showed that 48 of the e-residents with the Finnish citizenship (above 1% of the Finnish e-residents) had a valid criminal penalty in Finland at the time of applying for the digital ID.[10] For example, 12 foreigners who became the e-residents were sentenced in Finland to a real imprisonment (4 months to 12 years). The e-residents were also convicted of fraud, drunk driving, attempted murder, rape, possession of child pornography, and sexual abuse of a child. One-fifth of the penalties were imposed for economic crimes.

[9] Reply from the ITDC dated 17/3/2020 to the inquiry of the NAO.

[10] Reply from the Finnish Criminal Register (*Oikeusrekisterikeskus*) dated 6/2/2020 to the inquiry of the NAO.

For your information

The security police have identified the persons involved in extremism and terrorism among the e-residency applicants. There is no effective co-operation in the field of justice, law enforcement and security between Estonia and most of these countries. Failure to take these circumstances into account would, in addition to crime and security threats, damage the e-Residency programme, the Estonian economy and the country in general.

Source: Security Police Yearbook, 2019, page 44

Obligation of reverse verification – as the e-residency is a benefit and the applicant does not have a subjective right to receive a digital ID,[11] foreigners can be required to prove that they meet the requirements of the e-Residency programme. The e-residents have a legal obligation to prove or substantiate the circumstances based on which the e-resident's digital identity card is issued.

Source: Identity Documents Act, § 20[7] (1).

Procedures of the ex-ante control by the TCB

Business ban means a prohibition to be an entrepreneur, a member of the management board or a substituting body of a legal entity, a liquidator of a legal entity, and a procurator during its bankruptcy proceedings.

Source: Bankruptcy Act, § 91

The purpose of a business ban is the preventive protection of third parties meant to prevent a person with a business ban from committing new possible offenses or causing harm to third parties.

Source: Supreme Court Regulation No. 3-2-1-124-09, paragraph 15

18. The NAO points out that the described penalties were imposed on foreigners in Finland, with which Estonia generally has a good data exchange capacity compared to other countries. The e-resident's digital ID has been issued to foreigners from 174 countries, and Estonia does not have any exchange of criminal records with many if these countries.

19. International exchange of information on penalties usually only takes place in criminal proceedings and not in administrative matters (such as issuance of an e-resident's digital ID) and achieving this would require amendments to international agreements. Estonia cannot implement such a large-scale change alone.

20. One way to alleviate the problem is to impose, more frequently than previously, obligation of reverse verification on the e-residency applicants, i.e., to ask digital ID applicants to provide a proof of existence or absence of criminal penalties based on nationality or country of residence. Although it may be difficult to verify the accuracy of documents in some cases, the use of the reverse verification would help to reduce the interest of non-compliant foreigners in the e-residency.

21. In summary, during the ex-ante control, the PBGB is able to identify cases when a digital ID applicant has a valid penalty in Estonia. At the same time, the PBGB is unable to identify if a person has a valid criminal penalty in a foreign country that has not been entered in the international databases. As a result, a digital ID has also been issued to persons who have been convicted of crimes abroad.

The e-resident's digital ID has been issued to the foreigners who have a business ban

22. Two thirds of the e-residency applicants want to do business in Estonia or abroad.[12] Thus, it is important to know, among other things, whether the applicant has a disqualification from the practice of commercial activities or a business ban[13] in Estonia or in another country. The White Paper on the e-Residency also states that it is important to detect problems (including the business ban of applicants) at the earliest stage possible.[14]

23. The NAO has presumed that the foreigners who have a valid business ban in Estonia or another country cannot become the e-residents.

24. The purpose of the ex-ante control by the TCB is to clarify whether the applicant for the e-residency has a connection (as a shareholder or member of the management board) with an enterprise registered in Estonia. In the course of the control, the applicant's tax compliance (e.g., the existence of debts for tax), the timeliness of submitting declarations

[11] Explanatory Memorandum to the draft laws of the Identity Documents Act and the Act of Amendments to the State Fees Act, 2014, sections 6 and 23.

[12] The data of the PBGB

[13] In Estonia, a distinction is made between a business ban and a disqualification from the practice of commercial activities. The regulation of the business ban comes from the Bankruptcy Act and the regulation of the disqualification from the practice of commercial activities comes from the Penal Code (determined as an additional penalty). In other countries, terms and regulations may differ. Therefore, the report hereafter refers to such business bans and disqualifications from the practice of commercial activities throughout the text as business bans.

[14] e-Residency 2.0. White Paper. Enterprise Estonia, 2018, page 47.

and reports, the existence of a business ban in Estonia, and previous controls during which any violations have been identified are investigated.

25. The ex-ante control by the TCB is performed automatically and is based on mass data. The matches found are checked, if necessary, by officials of the Information Department and the Tax Audit Department, who give approval or propose to refuse to grant the e-residence. It is also possible to grant a conditional approval, i.e., the approval is conditional on the applicant remedying a specific deficiency, e.g., paying a debt for tax.

26. If the approval is not granted, the TCB additionally includes the content of the deficiency together with a proposal to eliminate it when granting the justification and the conditional approval. The inclusion of the justifications by the TCB is important for the PBGB, because, without an explanation, it is difficult for officials to make a decision to issue or refuse to issue a digital ID, because the PBGB does not have the competence to assess tax risks. The PBGB has the ultimate responsibility for issuing or refusing to issue a digital ID.

Business bans of the e-residency applicants in Estonia and abroad

27. The NAO investigated whether only those foreigners who do not have a valid business ban in Estonia have become the e-residents.

28. The comparison of data on business bans from the Registers Information Systems Centre and data on the e-residents received from the PBGB, which was made during the audit, showed that, as of 10/7/2019, there were no foreigners with an Estonian business ban among those who received the e-resident’s digital ID.

29. The NAO also investigated whether the foreigners who have become the e-residents do not have a valid business ban abroad. The NAO has clarified this on the example of Finland and investigated whether the foreigners who had not had a valid business ban in Finland at the time of their application had become the e-residents.

For your information

Estonia has been recognizing Finland's business bans since 2009. Finland is also the only foreign country whose business bans are recognised by Estonia.

Source: the regulation of the Minister of Justice dated 27/5/2009, named “Recognition of the business bans imposed abroad in Estonia".

30. The NAO could perform such an analysis, as the data on the Finnish business bans have been available to the Estonian state agencies via the X-road since 2009,[15] and the Finnish business bans are directly applicable in Estonia. In Estonia, the exchange of data on the Finnish business bans is coordinated by the Centre of Registers and Information Systems (CRIS).

31. The comparison of the data of the CRIS and the lists of people who received the e-residency from the PBGB during the audit showed that from the beginning of the programme until 31 March 2019, the PBGB had not checked whether the applicants had a valid business ban in Finland. Thus, the PBGB did not refuse to issue a digital ID to any foreigner who had a valid business ban in Finland at the time of the application. There were nine such foreigners, two of whom are also members of the management board of an Estonian enterprise. At the same

[15] Reply from the CRIS dated 4/12/2019 to the inquiry of the NAO.

time, one of them became a member of the management board of an Estonian enterprise when having a valid business ban in Finland[16].

32. The TCB admits that they do not have access to the mass data of commercial registers of other countries (except Finland), which would allow them to find out more about a person's background. Among other things, it is therefore impossible to perform an automatic risk analysis of the e-resident's digital ID applicants to identify their possible business bans.

The **European Business Register** is a database where you can search for data on the enterprises registered in the EU countries, Iceland, Liechtenstein or Norway.

Source: the European e-Justice Portal

33. The TCB can make inquiries into the European Business Register, but this does not include business bans or debts for taxes of legal entities. Only the existence of the enterprise, its legal form, and the members of its management board can be verified. According to the TCB, the data in the European Business Register is insufficient to assess tax risks.

34. The exchange of information with the EU tax administrations takes place only through individual inquiries in the course of a specific procedure, with a deadline of three months. It cannot be used as a preventive measure to examine the background of individuals. Thus, the exchange of information between tax authorities regarding tax risks is functioning, but, according to the TCB, it cannot be used to check the background of the e-residency applicants.

35. As mentioned above, the exception is Finland, with which Estonia has a functioning data exchange on business bans. However, due to the lack of necessary IT solutions, neither the TCB, nor the PBGB have used this information in the ex-ante control from the beginning of the programme until April 2019. Since then, the PBGB has made inquiries to the CRIS about the Finnish business bans during the ex-ante control.

36. According to the explanation by the PBGB, a business ban may not always preclude the issuance of the e-resident's digital ID to foreigners. For example, if a foreigner applies for a digital ID as a fan or for the purpose of promoting education and does not express an interest in doing business in his or her application. According to the PBGB, a business ban does not always mean a threat to public order or non-compliance with the purpose of the e-residency.

For your information

17% of the e-residents, who applied for a digital ID as a fan, to promote the development of the Estonian science, education and culture or to use secure authentication technology, are shareholders and / or members of the management board of an Estonian enterprise.

Source: The PBGB and the TCB

37. At the same time, all the e-residents can establish or buy an enterprise in Estonia and become a member of its management board, regardless of the reason for applying. This means that in the case of the foreigners who stipulate business as the reason for their application, a business ban may become grounds for refusing the e-residence. However, not in the case of applicants for other reasons. But both categories of applicants can do and do business.

[16] Since April 2019, the PBGB checks the Finnish business bans within the ex-ante control of the e-residency. Additionally, the Supreme Court has stated in its analysis of case law on business bans (p. 6) that, in Estonia, it is impossible to register the person banned in Estonia or Finland as a member of the management board, as the Commercial Register's information system reflects both the Estonian business bans, and the Finnish ones to a judge assistant who registers a member of the management board. However, the audit by the NAO shows that in at least one case this described audit procedure did not work either.

38. The ex-ante control by the TCB is limited to making inquiries into the Estonian databases. However, most of the e-residents have never been to Estonia or engaged in business here.

39. The situation would be improved if the TCB would start using the international databases containing data on the risks of financial activities. This would allow to put the e-residency applicants to additional background checks and to identify possible penalties for financial crimes. The PBGB has also pointed out that the TCB should use the international databases for the ex-ante control.

40. Also, in the case of foreigners applying for the e-residence, their obligation of reverse verification regarding the absence of a business ban in the applicant's country of residence may be applied more than before.

Co-operation of the PBGB and the TCB

41. The co-operation between the PBGB and the TCB significantly affects the correctness of the decisions made in the ex-ante control. Both agencies said during the audit that their cooperation within the control of the e-residents had improved in 2018. This has been facilitated by a renewed co-operation agreement, which has set shorter deadlines as well as specified several procedures. For example, unlike before, the position of the TCB states the reason why it would be unadvisable to issue a digital ID to the applicant. Also, the PBGB has an accurate overview of the stage at which the TCB is in a specific procedure.

42. Until the renewal of the cooperation agreement in 2018, the PBGB had not been checking whether the TCB had received and reviewed all applications. The PBGB considered the application to be approved by default unless the TCB had submitted its position by the deadline. Therefore, the PBGB admits that in the past there may have been foreigners against whom the TCB had not carried out the ex-ante control. According to the TCB, the control was functioning, but the TCB agreed that the PBGB did not have the necessary overview.

43. For the 2018 cooperation agreement, the PBGB’s information system was changed so that it could be seen whether the TCB had entered its response. The new co-operation agreement also stipulates a shorter deadline (one instead of the previous three working days) for the TCB's ex-ante control replies and an option of its conditional approval.

44. In summary, there are no foreigners among the applicants for the e-residency who have a business ban in Estonia, but the PBGB nor the TCB are unable to determine by the ex-ante control activities whether the foreigner has been banned from doing business in some foreign country. Although Estonia has data on the Finnish business bans, due to the lack of necessary IT solutions, a digital ID has been issued to foreigners who have a valid business ban in Finland.

Due to the lack of IT solutions, in the ex-post control, the PBGB is unable to identify the e-residents who have been convicted of a crime

45. The PBGB is obliged to check the use of a digital ID and to revoke it in case of justified suspicion of misuse.[17]

[17] Identity Documents Act, § 20^7 and 20^8.

46. Ensuing from the above, the NAO has presumed that the foreigners who participate in the e-residency programme are law-abiding, and that a digital ID would be declared invalid if a valid criminal penalty had been discovered.

Procedures of the ex-post control by the PBGB

47. Similar to the procedures of the ex-ante control for the e-residency applicants, the NAO investigated how the PBGB and the TCB conduct the ex-post control of the e-residents with a valid digital ID.

Ex-post control consists of procedures being taken by PBGB, the TCB, and the SPB to verify the law abidance and tax compliance of the e-residents during the validity of their digital IDs.

48. The PBGB's ex-post control is divided into targeted follow-up controls and total ex-post controls. The latter is done for all the e-residents with a valid digital ID at certain intervals.

49. During the detailed ex-post control, the PBGB makes additional inquiries. For example, the PBGB makes individual inquiries into the Criminal Records Database and checks the data in the Commercial Register, including the existence of a business ban in Estonia and Finland. If necessary, the PBGB examines the digital ID usage logs in more detail and performs other monitoring procedures.

50. As a result of the ex-post control, the PBGB decides whether to keep the digital ID for the person, revoke it or suspend the validity of the digital ID certificates.

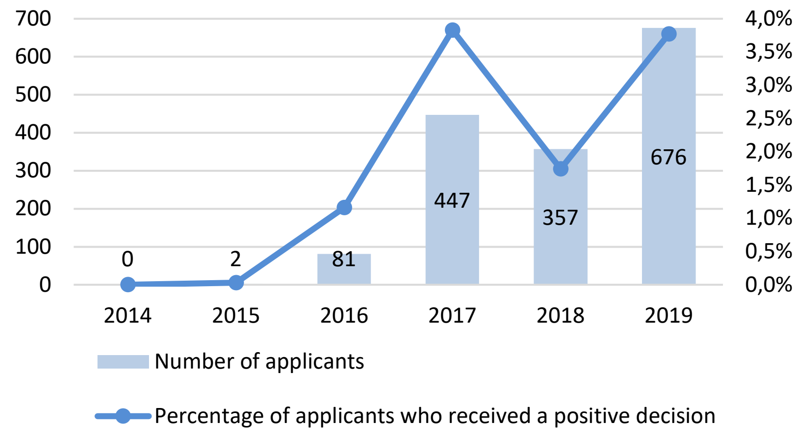
51. The NAO examined the number of the e-residents for whom the PBGB has identified a risk and directed them to a more detailed ex-post control, and how many e-residents' digital IDs have been revoked.

The e-residents directed to ex-post control and reasons for revoking a digital ID

52. The results showed that in the period 1/12/2014–1/12/2019, 1563 e-residents, or 2.6% of all recipients of the e-resident's digital ID had been included in the targeted follow-up control. Compared to the beginning of the programme, percentage of those directed to the ex-post control has increased from 0.03% in 2015 to 3.8% in 2019 (see Figure 2).

53. As a result of the total ex-post controls and the targeted follow-up controls, as well as controls for other reasons, 21,011 e-resident's digital IDs had been revoked in the period 1/12/2014–1/12/2019.

Figure 2. Number and percentage of the e-residents directed to the ex-post control in years 2014–2019[18]



Source: the NAO on the basis of the data of the PBGB

[18] Exact period: 1/12/2014–1/12/2019.

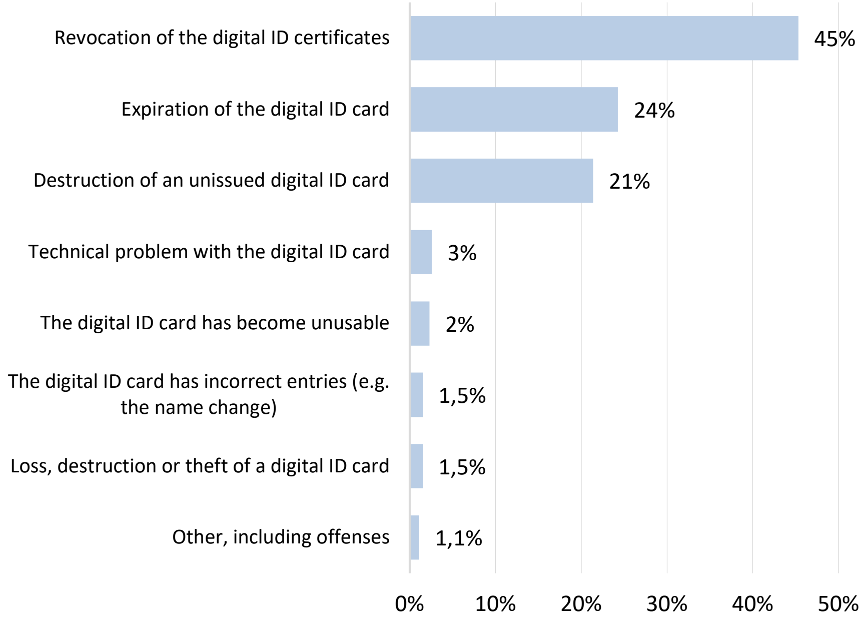
For your information

An important reason why a large number of digital ID certificates have been revoked is the security risk discovered in 2017 on the ID card chip. To fix this, the digital ID had to be remotely updated.

9520 e-residents did not use the remote renewal option, and the certificates of these digital IDs were revoked in April 2018.

54. The three main reasons for revoking a digital ID are the revocation of digital ID certificates, the expiration of the digital ID card, and the destruction of an unissued digital ID card. Percentage of the remaining reasons is significantly smaller (see Figure 3).

Figure 3. Reasons for revoking the e-residents' digital IDs in the period 2014–2019[19]



Source: the NAO on the basis of the data of the PBGB

55. As Figure 3 shows, there few cases when digital IDs were taken away due to offenses[20]. Specifically, the digital ID has been confiscated from 32 persons, including 27 of them in the targeted follow-up control. The PBGB has confirmed that if the e-resident is found to have a valid criminal penalty, his or her digital ID is generally declared invalid.[21]

Offenses of the e-residents in Estonia and abroad

56. In order to verify whether the PBGB's ex-post control is functioning, the NAO investigated whether the PBGB has revoked the digital IDs of all the e-residents who have received a criminal penalty in Estonia.

57. The comparison of the e-residents' data of the Criminal Records Database and the PBGB showed that the PBGB has failed three times to revoke the digital ID of the e-residents who committed a crime during the validity of their digital ID.

58. The e-residents were convicted of physical abuse, intimidation and large-scale drug trafficking. The court sentenced all of them to suspended imprisonment. The length of their penalties ranged from half a year to three and a half years.

59. The PBGB has clarified that if a separate inquiry is made to the Criminal Records Database during the targeted follow-up control, the

[19] Exact period: 1/12/2014–1/12/2019.

[20] The exact reason was a threat to public order and national security.

[21] The procedure for revoking the e-resident's digital ID is a discretionary procedure. For example, if the PBGB discovers in the ex-post control that the e-resident has a valid criminal penalty abroad, but the e-resident has also been issued an EU citizen's ID card after the digital ID and has registered his or her residence in Estonia, the ID will not be revoked, as the EU citizen's ID card enables the further usage of all e-services.

PBGB will not make a mass inquiry to the Criminal Records Database in the total ex-post control. The reason is a lack of necessary IT solutions.

60. This means that if an e-resident commits a criminal offense in Estonia during the validity of his or her digital ID, the unit of the PBGB dealing with the ex-post control of the e-residents will not find out about it in the total ex-post control. The PBGB has clarified that it relies on the obligation of other parties (e.g., service providers) to notify when they notice an offense by the e-residents and on the exchange of information between public agencies and within the PBGB. However, as the previous examples illustrate, this cannot always be relied on, as the exchange of data on the e-residents' violations is not precisely agreed upon.

61. The PBGB also acknowledges that, in the ex-post control until 2020, registration of cues about the e-residents' violations was not mandatory. This may have made it more difficult for the PBGB to revoke the digital ID of the e-residents who received a criminal penalty.

62. Similarly to the ex-ante control, in the ex-post control, the PBGB does not have information on cases when the information on a foreigner's criminal penalty is not reflected in the international databases. Therefore, there is no certainty that the digital ID has been revoked for those foreigners who have received a criminal penalty in a foreign country while participating in the e-Residency programme.

63. If necessary, obligation of reverse verification could also be used for the renewal of the digital ID and in some cases for the ex-post control.

64. In summary, the PBGB has repeatedly failed to revoke the digital ID of the e-residents who have committed a crime in Estonia during its validity during the ex-post control. To prevent this in the future, IT solutions are needed, which would allow the PBGB to make mass inquiries into the Criminal Records Database on all the e-residents in the ex-post control.

The ex-post control does not allow to identify the e-residents who have been banned from doing business in another country, nor to assess the contribution of the e-residents to Estonia

65. Similarly to the ex-ante control, in the ex-post control, it is important that supervisory authorities are capable to identify cases where an e-resident has been banned from doing business. Identifying business bans is all the more important because of the large number of the e-residents who have applied for the e-residency for business purposes.

66. Ensuing from the above, the NAO has presumed that the e-resident’s digital ID would be revoked for a foreigner who has been banned from doing business in Estonia or another country.

67. The ex-post control by the TCB is conducted on the same basis as the ex-ante control (see paragraph 24). In the decision on the ex-post control, the TCB submits to the PBGB a description of the factual circumstances together with an expert assessment on tax law whether the foreigner is still welcome in the Estonian economic and legal area or not. This includes the check of business bans.

Procedures of the ex-post control by the TCB

For your information

The tax auditors of the TCB are obligated to inform the tax authority of the country of residence of the e-resident if it becomes clear during the proceedings that the activities of the enterprise do not concern Estonia and the actual place of business is the e-resident’s country of location which is where the enterprise should pay their taxes.

If it turns out that an enterprise has evaded taxes in the country of location, this may be the grounds for revoking the digital ID of the e-resident related to the enterprise.

Source: the TCB

68. The NAO investigated whether the e-resident's digital ID is revoked if the e-resident has received a business ban in Estonia or Finland.

69. The results showed that there were no foreigners with an Estonian business ban among the e-residents. Similar to the ex-ante control, the detection of foreign business bans is problematic in the ex-post control. The PBGB has also taken on this task in the ex-post control.

Business of the e-residents in Estonia and abroad

70. The comparison of data on business bans from the Registers Information Systems Centre and data on the e-residents received from the PBGB, made during the audit, showed that, from the beginning of the programme until 31 March 2019, the PBGB had not revoked the digital ID of any e-resident who had received a business ban in Finland when he or she was an e-resident. There were eleven of them in total. The NAO's analysis has also shown that five of these e-residents were members of the management board of the Estonian enterprises during the period of their Finnish business ban. The e-residents may also include those foreigners who have been banned from doing business in other countries.

71. According to the explanations of the TCB, the Board does not have the tools and possibilities to assess a person's tax behaviour, including receiving a business ban abroad. Additionally, the TCB has stated that their primary area of responsibility is the Estonian taxes and customs.

72. According to the PBGB, they cannot make necessary inquiries into Finnish business bans during the ex-post control due to a lack of IT solutions presently. The PBGB admits that, as a result, the e-residents may include those who have a Finnish business ban.

73. Thus, the current ex-post control system does not allow to react to situations when a foreigner who has received the e-residence gets banned from doing business in Finland or in another country during the validity of his or her digital ID. While appropriate data exchange is already taking place with Finland and only the necessary IT solutions are missing, it is much more complicated and time-consuming to establish such data exchange with other countries.

Management of the e-Residency programme

74. According to the PBGB, the government launched the e-Residency programme in December 2014, leaving the PBGB without supportive IT developments. This, in turn, has hampered the PBGB's ability to conduct the ex-ante and ex-post controls.

75. According to the explanation of the Ministry of Economic Affairs and Communications, in July 2015, the Ministry launched a call for proposals with the support of the European Structural Funds to finance implementation of service development projects for the e-residents with up to 4 million euros. Thus, in the opinion of the Ministry of Economic Affairs and Communications, the PBGB was given the opportunity to apply for money for the necessary IT developments.

76. According to the PBGB, the IT developments were not realised due to the lack of money. The reason for the situation was the management and staffing problems of the ITDC (see paragraphs 12 and 13).

77. The Ministry of Justice also refers to the insufficient preparation for launching the e-Residency programme in the memorandum submitted to the Cabinet of Ministers in December 2014, in which it was suspected that it would be impossible to prepare a draft of fundamental changes in the Estonian legislation in such a short time. The memorandum stated that the time of entry into force of the bill could depend on the chosen legal solutions and the need for IT developments.[22]

78. As mentioned above, the PBGB and the TCB do not have the possibility to make sure that foreigners participating in the e-Residency programme do not have a valid criminal penalty or a business ban abroad (except in the case of Finland).

79. Thus, it is difficult to find data on the activities of the e-residents in the ex-post control. If the issuance and renewal of a digital ID were related to the e-residents' contribution to Estonia, this would make it easier to collect data in the ex-post control, but it will not help to identify the penalties or business bans received abroad.

Contribution of the e-residents to Estonia

80. Since most of the e-residents have no previous connection with Estonia (e.g., a residence permit or right to residence, an enterprise operating in Estonia), then there is no information about them in the Estonian databases either. This makes it difficult to conduct the ex-ante and ex-post controls. It would help to improve the situation if the digital ID of an e-resident is issued only to those foreigners who plan to contribute to the Estonian economy, science, education or culture, and if it is monitored. Contributing to Estonia is also the legal purpose of issuing a digital ID to an e-resident.[23]

81. In such a case, when applying for and renewing a digital ID, foreigners should clarify in more detail how they intend to contribute or have contributed to Estonia.

82. The PBGB plans to take a step in this direction by reducing the number of reasons listed to become an e-resident from seven[24] to three (doing business or working in Estonia, promoting the Estonian education, science and culture, and being a member of the e-resident community) in the digital ID application form. At the same time, when answering the specific questions, the foreigner must clarify how he or she will contribute to Estonia in the case of becoming an e-resident.

83. Specifically, a foreigner is asked to clarify how his or her activities promote or have promoted the development of the Estonian economy, science, education, and culture. The changes are scheduled to take effect on 31/12/2020.[25]

84. Changes to the e-resident's digital ID application form should give the PBGB a better idea of the applicant's intentions. At the same time, the Identity Documents Act does not clearly establish a requirement that a digital ID is not issued to a foreigner who does not intend to contribute to

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[22] "Extending the e-residency initiative – launching a programme for 10 million of the e-Estonians", a memorandum by the Minister of Justice compiled for a meeting of the Cabinet of Ministers on 4/12/2014.

[23] Identity Documents Act, § 20^5 (2).

[24] Doing location-independent international business, bringing business to Estonia, being an e-residency fan; promoting the development of the Estonian economy, promoting the development of the Estonian science, education or culture, using secure authentication technology, etc.

[25] Reply from the PGPB dated 12/3/2020 to the inquiry of the NAO.

Estonia. The lack of such a requirement does not allow the control of the contribution to Estonia both in the ex-post control, and in the process of the renewal of the digital ID.

85. At the same time, it is possible for a foreigner to do business in Estonia, being both a member of the management board, and a partner without having an e-resident's digital ID. For example, a foreigner who does not have an Estonian electronic document can establish an enterprise with the help of a notary. More frequent procedures (e.g., submission of declarations and reports) can be performed on paper, at the TCB service point or with the help of a service provider.

86. An important difference between a foreigner with and without the digital ID is that if the applicants and the e-residents are subject to the ex-ante control and the regular ex-post control, other foreigners are not subject to such background checks when setting up or buying an enterprise.

87. In conclusion, the PBGB and the TCB are unable to establish in the ex-post control whether the e-resident has been banned from doing business abroad. Therefore, digital IDs have repeatedly not been revoked for foreigners who had been banned from doing business in Finland. There were no foreigners with an Estonian business ban among the e-residents.

Conclusions and recommendations of the National Audit Office

88. **In the opinion of the NAO,** the control procedures of the PBGB and the TCB do not ensure that foreigners without a valid criminal penalty become the e-residents, and that the digital ID of the e-residents who have committed a violation is revoked.

89. The PBGB is able to determine in the ex-ante control whether the applicant for the e-residency has a valid criminal penalty in Estonia but is unable to do so in the ex-post control due to the lack of IT developments. In both ex-ante and ex-post controls, the PBGB is unable to determine whether a foreigner has a valid business ban or penalty abroad if it has not been entered in the international databases. As a result, the persons who have a business ban abroad or who have been convicted of crimes abroad have a digital ID.

90. The ex-ante and ex-post controls by the TCB are limited to making inquiries into the national databases. However, most of the e-residents have never been to Estonia or engaged in business here. Thus, it is not enough that only the Estonian databases are used in the ex-ante control to assess the applicants' law abidance related to taxes and business.

91. The ex-ante and ex-post controls are complicated by the lack of obligation for the applicants and the e-residents to contribute to Estonia. The introduction of this obligation would not improve the capacity of the ex-ante control, but would allow, within the ex-post control or when renewing the digital ID, to assess whether the activities of the e-residents meet the purpose of issuing the digital ID – to promote the development of Estonian economy, science, education or culture.

92. **Recommendations of the NAO to the Minister of the Interior in co-operation with the Director General of the PBGB and the Minister of Justice**: to enable PBGB to make mass inquiries into necessary registers (e.g., Criminal Records Database and the database of the CRIS, with the help of which it is possible to ensure whether a foreigner has a business ban in Finland) for improving the efficiency of the e-Residency programme's control procedures.

The answer of the Minister of the Interior: I agree with the proposal, and it will be taken to task as soon as possible. I agree that the ability to make mass queries to various registers must be established as soon as possible. It is currently not possible to predict the specific date when the corresponding developments will be completed, as this requires planning the money for the development works and depends on the completion of the pending IT developments.

The answer of the Director General of the PBGB: in the case of the e-resident's digital ID procedures, the lack of the IT solutions necessary for making mass inquiries in the ex-post control of the e-residents, as well as the restrictions arising from administrative procedures, are a pain point. Although the IT solutions can ensure more effective control of the persons penalised in Estonia or banned from doing business in Finland, the IT developments do not solve the problem which is related to obtaining data from certain international databases.

For example, the PBGB does not have the possibility to query the European Criminal Register (ECRIS) within the proceedings related to the e-resident's digital ID, as this register is designed for judicial cooperation and provides access to information on convictions, first and foremost, within the criminal proceedings. For example, our neighbouring country, Finland, refuses to provide the PBGB with the information requested through the ECRIS on the sentencing of the e-residents for the purpose of monitoring the e-residents.

It is also not possible to request data from the Visa Information System between the Schengen Member States within the e-resident's digital ID procedures, as the Statute of the Visa Information System does not legally allow it. At the same time, one of the grounds for refusing to issue an e-resident's digital ID or revoking an e-resident's digital ID is, inter alia, the record of a circumstance which is a ground for refusing to issue a visa.

The PBGB has previously drawn the attention of the Ministry of the Interior to the risks ensuing from these restrictions. The Ministry of the Interior has acknowledged this problem and, to the PBGB's knowledge, intends to work on introducing the regulation necessary to mitigate the risks related to digital identity international law.

The PBGB considers it important to note that access to existing international databases helps to better manage the risks related to the e-residency but it does not provide complete assurance that the persons convicted abroad will not become the e-residents and will not act as the e-residents. This is especially difficult to ensure for third-country nationals. This risk has also been repeatedly pointed out by the PBGB both when creating the concept of the e-residency, and later on. One of the mitigation measures as seen by the Director General of the PBGB is a political decision according to which, the e-residency would only be offered in countries where Estonia has doing judicial and security cooperation.

With regard to the mass inquiries required for the ex-post control of the e-residents, the PBGB wishes to emphasise that the PBGB has the resources required to order and coordinate the corresponding IT solutions, but the problem is primarily the capability of the PBGB's partner in development, the ITDC. The ITDC has had difficulties in timely fulfilling IT development orders related to the e-residency, the main reason for which, according to them, is the lack of qualified workforce, including failed recruitments and people leaving work. The PBGB considers it important to note that, in addition to automating the ex-post control, the ITDC's team responsible for the e-residency-related IT developments must also execute other e-residency-related development orders, including, for example, the developments related to internal security tasks of the Ministry of the Interior. In 2020, such tasks include: 1) Developments required for the implementation of e-residency 2.0 risk-based ex-ante and ex-post control (changes in the application environment); 2) implementation of external service providers issuing the e-resident's digital ID. Based on the ITDC's development capacity, the deadline for creating an automation solution for the ex-post control is 31/12/2021, according to the PBGB's project plan.

The answer of the Minister of Justice: we confirm that we are ready to co-operate with both the Minister of the Interior, and the Director General of the PBGB to ensure the possibility to make mass inquiries to the necessary registers.

93. **Recommendation of the NAO to the Minister of the Interior:** establish a condition for issuing of an e-resident's digital ID, which obliges the foreigner to contribute to the Estonian economy, science, education or culture; verify such a contribution to Estonia when renewing the digital ID or if required in the ex-post control (e.g., in the case of the applicants whose explanations in their application raise doubts).

The answer of the Minister of the Interior: I would like to note that § 20^5 (2) of the Identity Documents Act currently provides that the purpose of issuing a digital identity card to an e-resident is to promote the development of the Estonian economy, science, education or culture, by providing access to e-services with an Estonian digital document. Hereby I clarify that it is a value norm where the e-residents as a whole, not each individual personally, contribute to the achievement of the goal set. Applicants for the e-resident's digital ID are also currently being asked for explanations for what purpose and how they intend to use the e-resident's digital ID. At the same time, it is not expedient to assess each person's individual contribution to the development of the Estonian economy, science, education or culture – the person's contribution can also be indirect, for example, by raising Estonia's image as an e-state, creating a network and thus helping the Estonian enterprises export their e-services.

I also would like to notice that, apart from the fact that the assessment of each e-resident's personal contribution is inconvenient, it would be inexpedient or disproportionate to make this requirement a precondition for obtaining the e-resident's digital ID, as it would be very difficult, subjective and resource-intensive because it cannot be automated in any way. It is also extremely difficult to determine evaluation criteria (which business plan is viable, and which is not; how many research articles, etc. must be published by the person in order to contribute to the development of science; which criteria should serve as grounds to evaluate the contribution to cultural development, etc.). It is therefore a condition for which it is almost impossible to determine the criteria for its evaluation, and its implementation would be so resource-intensive that the benefits would be disproportionate to the resources expended, and the PBGB has no competence to make such assessments. It is also difficult to develop and assess these criteria within the ex-post control (e.g. how much taxes must be paid by the e-resident's enterprise to make a sufficient contribution to the Estonian economy, and how long the enterprise must be able to pay the required tax money; whether and what sanctions should be applied if, after certain months, the enterprise has not paid the required amount of tax money or has not published a scientific article, etc.). I would like to note that the e-Residency programme was created with the aim that the e-residents as a whole would promote the development of the Estonian economy, science, education or culture, and that it would not be assessed on case-by-case basis. Therefore, I do not consider it justified to impose such a condition for obtaining or renewing the e-resident's digital ID, as this requirement would not be purposeful, it would not add value to the e-Residency programme and would be unreasonably resource-intensive to assess.

Comment of the NAO: pursuant to § 20^5 (2) of the Identity Documents Act, the purpose of issuing a digital identity card to an e-resident is to promote the development of the Estonian economy, science, education or culture. Compliance with provisions and purposefulness written in the law must also be assessed. The National Audit Office does not find it a reasonable that Estonia is issuing digital IDs to foreigners whose activities, including contribution to Estonia, are completely unknown to the state.

The main reason to apply for the e-residency is the establishment of a location-independent enterprise. This does not imply that the e-resident will promote the development of the Estonian economy, science, education or culture. For example, the TCB does not have data on the tax behaviour of most of the enterprises established in Estonia by the e-residents but operating abroad. The TCB does not know whether these enterprises pay taxes in the right country or whether they pay taxes somewhere at all. There is also no overview of the contribution of the e-residents to the promotion of the development of the Estonian economy, science, education or culture. Gaining an overview of individuals' contribution is a prerequisite for receiving a contribution of all e-residents.

The NAO agrees that contributing to Estonia can also be indirect, but it is also possible to ask the e-resident to clarify it and later to investigate the correctness of the explanations in more detail by means of random controls.

94. **Recommendation of the NAO to the Director General of the PBGB:** as an option, in the case of the e-residency applicants and the e-residents, to consider whether to implement more of the reversed burden of proof which allows for the request for evidence of the absence or existence of both current criminal penalties, and business bans, when applying for the e-residency and, where appropriate, in the ex-post control.

The answer of the Director General of the PBGB: The PBGB agrees with the NAO that requiring the e-residency applicants and the e-residents to provide proof of absence of penalty and / or business ban helps to mitigate risks, but it is often difficult to verify the certainty and accuracy of such evidence, especially for third-country nationals. For example, a certificate from one state does not confirm that the person has not been convicted in another state, and it may be difficult to assess the competence and credibility of the issuing authority. Besides, an electronically submitted evidence can be very easily forged.

The e-resident's digital ID procedure is a fully digital procedure, and, according to the law, the PBGB has 30 days to make a decision to issue an e-resident's digital ID. Requiring any e-residency applicant or e-resident to provide original evidence by post, verifying its correctness, i.e. extension of the procedural deadline depending on the country of location in compliance with the requirements for confirmation of apostille / legalisation / translation and renewal would be an unreasonable resource expense for the PBGB.

In the opinion of the PBGB, the requirement for such original evidence is justified from the point of view of resource use only for the e-residency applicants and the e-residents belonging to certain risk groups. To better define the risk group, the PBGB has so far implemented and planned various activities for the future. Since the establishment of the e-residency, percentage of the requirement to submit a certificate of absence of penalty has been increasing every year. At the same time, in the course of the established procedural practice the PBGB relies upon risk profiles of the e-residency applicants and the e-resident’s digital ID users. Since 1/7/2020, the PBGB will create an additional position, the main task of which will be the preparation of the e-residency-specific threat assessments and procedural tactical instructions. The input provided by this position should further support a risk-based approach, including the need to require documentation of penalties and / or the absence of a business ban.

Additionally, the PBGB considers it important to note that the control of the absence of a business ban is only an additional option for the PBGB in assessing the background of an e-residency applicant or an e-resident, but is not an imperative basis for refusing or revoking an e-resident’s digital ID. The e-residency procedure is a procedure requiring the discretion of an official, and a business ban may not be a sufficient basis for each person to refuse to issue or revoke an e-resident's digital ID. It must be taken into account that a person with a business ban is not permitted to be a sole proprietor, a member of the management board of a legal entity, a liquidator and a procurator, but is not prohibited from being a partner in a private limited company, for example. To sign shareholders' resolutions or perform other obligations of a shareholder, a foreigner may need an e-resident's digital identity card.

If the person's business ban is not related to a criminal penalty, then the procedure of the e-resident's digital ID application may not end with a negative decision. Therefore, in the opinion of the PBGB, the absence of a business ban must be verified primarily by commercial registrars and notaries, whose task is to ensure that persons with a business ban do not become self-employed / members of the management body, regardless of the existence of a digital ID. The PBGB only issues a tool in the form of a digital ID, and the PBGB is not obliged to assess the person's compliance with the requirements for the company's management board.

95. **Recommendation of the NAO to the Director General of the TCB:** analyse the possibilities of introducing international databases in the ex-ante and ex-post controls. If possible, the TCB should start using them to better evaluate the background and economic legal compliance of the e-residency applicants and the e-residents.

The answer of the Director General of the TCB: According to the explanations received from the Ministry of Justice, the exchange of data between countries can take place at two levels, where in the first stage only a yes / no answer is received, and in the second stage additional information on the scope, period, basis, of the business ban etc. is provided (but disclosure is optional for countries). The exchange of information on business bans will go through the European Business Registers Interconnection System (BRIS), so no one other than registrars will have access to it. Transposing the Directive thus guarantees the most important thing for the state, that the registrar will at least be able to obtain information about valid business bans in the EU countries, as a result of which the registrar can refuse to perform procedures and prevent the persons banned from doing business to act as entrepreneurs in Estonia.

The TCB has analysed possible international databases to find out what information they contain, what value such data may have, and whether it could be the basis for not issuing a digital ID to a non-resident private person, based on the legal grounds for refusal in the Identity Documents Act.

As a result of the analysis, the TCB has established that the information contained in the databases known to the TCB cannot be used for background research of private persons in the automatic ex-ante and post-ante control processes of the e-residents. The main reasons are the fact that most databases only allow individual queries; contain the data mainly information on legal entities, not private persons, and the TCB also has no legal basis for integrating international mass data into the TCB systems in combination with the TCB data.

The revenues of the e-Residency programme exceed the expenses, but most of the revenues are paid by a small amount of the enterprises.

No institution has a consistent and uniform overview of the total costs or revenues of the e-Residency programme

Costs or revenues of the e-Residency programme

96. When launching the e-residency, the government set the goal of creating services and a business and operating environment in Estonia that would bring nearly 10 million e-residents to Estonia by 2025. The government clarified the benefits of fulfilling the goal of the programme

by the fact that the new enterprises created by the e-residents will grow the economy and bring additional income to the state budget.[26]

97. The NAO has assumed that the Enterprise Estonia's (EAS) e-Residency team responsible for the e-Residency programme would keep an overview of the achievement of the goal set by the government, i.e., bringing additional income to Estonia (including both costs, and revenues of the programme). The NAO also assumed that the revenues of the e-Residency programme would exceed the expenses as a result of the five years of operation.

New e-resident entrepreneurs – the e-residents who have no previous connection with the Estonian companies and who have applied for the e-residency no later than six months after the creation or purchase of the enterprise.

98. When calculating the income of the e-Residency programme, the NAO proceeded from the fact that additional income can be brought into the Estonian economy by new e-resident entrepreneurs, i.e., the foreigners who have no previous connection with Estonia and who have started doing business in Estonia after becoming the e-residents.[27]

For your information

The institutions that have incurred expenditures within the e-Residency programme are as follows: the PBGB, the TCB, the Centre of Registers and Information Systems, the State Information System Board (SISB), the Ministry of Foreign Affairs, the ITDC, the Chamber of Notaries, the State Chancellery, and the Land Board.

99. At the beginning of the audit by the NAO, it became clear that the e-residency team of the Enterprise Estonia and the Ministry of Economic Affairs and Communications do not have a uniform and consistent overview of the total costs of the e-Residency programme. For example, there is no overview of all expenditure or agencies that have incurred expenditure due to the programme.

100. Additionally, the internal audit conducted by the Enterprise Estonia in 2018 stated that the methodology for measuring the results of the programme, including the types of enterprises included in the consolidated number of the programme, needs to be specified.[28] For example, non-profit associations and apartment associations related to the e-residents were also included in the consolidated number.

101. It also turned out that the e-residency team of the Enterprise Estonia also reflect the state fees for applying for the e-residency and establishing an enterprise as revenues.[29]

102. These circumstances suggest that there is also no uniform overview of the programme's total revenues with a precise methodology. Therefore, during the audit, the NAO decided to clarify the total costs and revenues of the e-Residency programme.

103. To get an overview of the costs of the programme, the NAO approached each agency which incurred expenses due to the e-Residency programme, and the NAO has investigated what expenses these have incurred from public sources that they would not have incurred without the e-Residency programme.

[26] "Expansion of the e-residency initiative – launching a programme for 10 million of the e-Estonians", a memorandum by the Minister of Foreign Trade and Entrepreneurship dated 28/11/2014 and compiled for a meeting of the Cabinet of Ministers on 4/12/2014.

[27] See the methodology in the "Characteristics of audit" for more details.

[28] Anu Alber, Janika Veermäe, Laura Lätt. "Audit of the e-Residency programme" („E-residentsuse programmi audit"), Enterprise Estonia, 2018.

[29] Ott Vatter, CEO of the e-residency project, Enterprise Estonia. "e-Residency 2.019" („e-Residentsus 2.019"). Presentation at the conference "e-Residency 2.0. New risk and quality management model", 5/11/2019.

For your information

direct corporate taxes are those that are levied on enterprises. The main ones are corporate income tax and labour taxes.

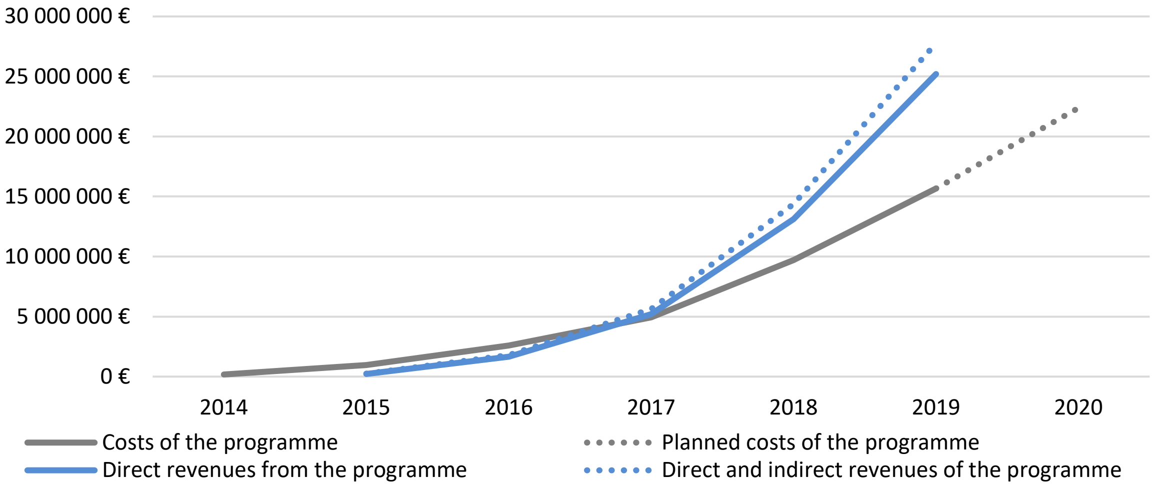
Indirect corporate taxes are those that are levied on the consumer and passed on to the state by the enterprises. The main ones are the VAT and various excise duties.

104. The NAO considered the direct total revenues of the e-Residency programme[30] to be direct taxes paid by new e-resident enterprises, i.e., corporate income tax and labour taxes[31]. To clarify the programme's total revenues,[32] the NAO made inquiries to the TCB, the PBGB, and the Centre of Registers and Information Systems.

105. In addition to direct revenues, the NAO also has reviewed indirect revenues for which purpose the [33]online survey[34] was performed among the e-residents' service providers. Within this framework, there was clarified the total amount of taxes paid in Estonia on the income received from servicing the e-residents and the salaries spent on servicing.

106. The comparison of the five-year costs and direct revenues of the e-Residency programme revealed that the programme has spent a total of 15.7 million euros and the state has received 25.2 million euros in direct revenues. This means that the direct revenues of the programme exceed the costs by 9.5 million euros. Along with the increase in revenues, the costs of the programme also increase, for example, together with the costs planned for 2020, the total costs of the programme will increase to 22.4 million euros (see Figure 4).

Figure 4. Cumulative costs and revenue of the e-Residency programme[35] in years 2014–2019



Source: the NAO, based on data of the PBGB, the TCB, the Centre of Registers and Information Systems, the SISB, the Ministry of Foreign Affairs, the ITDC, the Chamber of Notaries, the State Chancellery, and the Land Board.

107. If indirect revenues are added to the direct revenues of the programme, the total revenues of the programme will be 27.8 million euros, i.e., the revenues will exceed the costs by 12.1 million euros. The

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[30] The NAO did not take into account the state fee for applying for the e-residency or for starting a business in the cost-benefit analysis of the e-Residency programme, because, according to § 4 (1) of the State Fees Act, the fee rate is established on the basis of the costs related to the operation.

[31] Read about the social tax for the e-residents in Annex C.

[32] See the methodology in the "Characteristics of audit" for more details.

[33] See more in the chapter named "The e-residents use the Estonian e-services, but few of them renew their digital IDs".

[34] See the methodology in the "Characteristics of audit" for more details.

[35] Revenue as of 30/11/2019.

revenues of the e-Residency programme started to visibly exceed the costs in the fourth year of operation of the programme, i.e., in 2018.

Corporate tax revenue by origin of the new e-residents

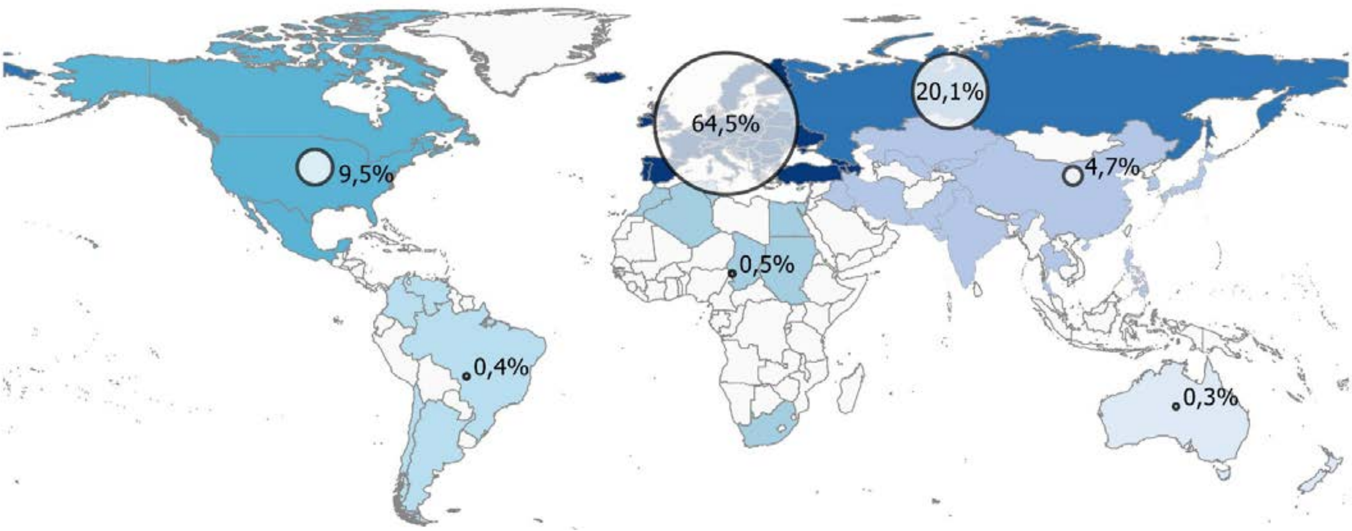
108. The NAO also compared the taxes paid by new e-resident companies in Estonia according to the citizenship of the shareholders of the enterprises. The aim was to get an overview[36], from which countries the new e-resident enterprises pay taxes.

109. The analysis of the NAO showed that during the first five years of the e-Residency programme, the most taxes have been paid by those enterprises the shareholders of which are new e-resident entrepreneurs with Russian, Finnish, and Ukrainian citizenship. In years 2015–2019, the enterprises with shareholders from these three countries have paid just over half (52%) of the total direct income of the programme.

Neighbouring countries of the EU – members of the European Economic Area and the European Free Trade Association, the EU candidate and potential candidate countries, and the EU's Eastern Partnership countries.

110. If we look at the total amount of taxes paid by the e-resident enterprises in Estonia on a global scale, it can be observed that 65% of taxes come from the European Union and its neighbouring countries (see Figure 5). If Russia is also included in this calculation, the same figure is 85%. Thus, the total amount of taxes paid by the new e-resident enterprises from the rest of the world represents 15% of the direct revenue of the programme.

Figure 5. Taxes paid by new e-resident enterprises in Estonia by citizenship of e-residents in 2014–2019[37]



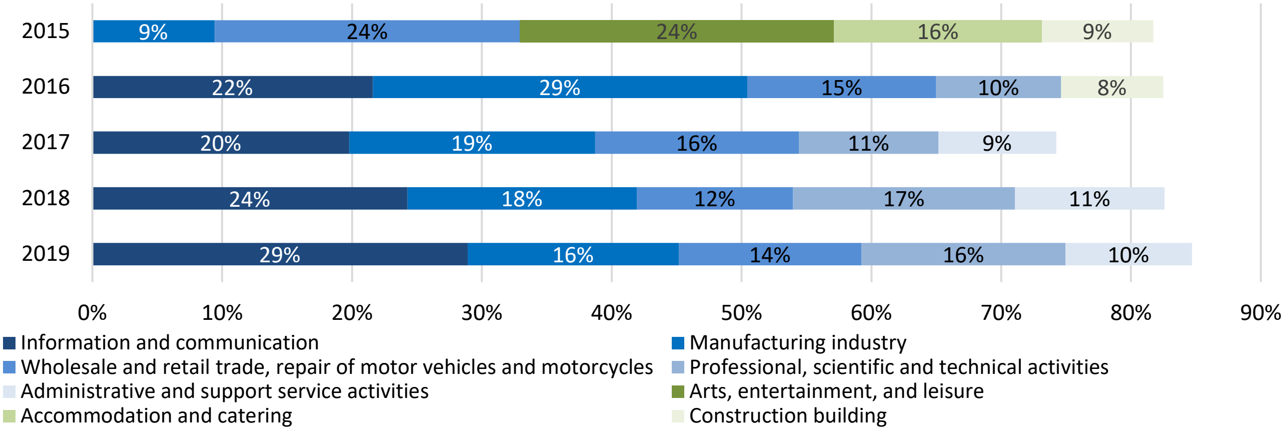
Source: the NAO based on the data of the PBGB, the TCB, and the CRIS

111. Looking at the areas of taxes paid by new e-resident enterprises, it can be observed that, since 2017, the IT and communications have emerged the most, accounting for more than a quarter of the amount of the taxes paid (see Figure 6). These are followed by the manufacturing industry; professional, scientific, and technical activities; wholesale and retail trade, repair of motor vehicles and motorcycles, as well as administrative and support service activities.

[36] See the methodology in the "Characteristics of audit" for more details.

[37] Exact period: 1/12/2014–30/11/2019. Enterprises of citizens of the countries not marked in color have not paid direct taxes to Estonia.

Figure 6. Distribution of the taxes paid by the new e-resident enterprises by the five largest areas in years 2015–2019[38]



Source: the NAO on the basis of the data of the PBGB, the TCB, and the CRIS

112. In summary, the revenues of the e-Residency programme have exceeded the costs, i.e., the programme has brought additional income to Estonia and helped to achieve the set goal. However, neither the team of the Enterprise Estonia, which is the governing body of the programme, nor any state agency, have a consistent and uniform overview of the total revenues and expenses of the programme.

Most e-resident entrepreneurs are new to the Estonian business landscape

113. When launching the e-residency, the government clarified the benefits of achieving the goal of the programme by the fact that the new enterprises created by the e-residents will grow the economy and bring additional income to the state budget.[39]

114. The NAO has assumed that new foreign entrepreneurs, i.e., new e-resident entrepreneurs, have joined the e-Residency programme.

New foreign entrepreneurs, i.e., new e-resident entrepreneurs

115. Analysis by the NAO[40] has shown that the majority (82.5%) of the more than 12,000 e-resident entrepreneurs can be considered as new. The remaining e-residents (17.5%) have had a previous connection with the Estonian enterprises or have applied for the e-residency more than half a year after starting or buying an enterprise, i.e., they are not expected to have started a business in Estonia due to e-residency.

116. As of November 2019, the new e-resident entrepreneurs were shareholders in a total of almost 9,300 enterprises (see Table 1). At the same time, 15% of them paid direct taxes in Estonia. Besides, during the first five years of the programme, 6% of the new e-resident enterprises have paid most of the direct taxes (95%). Consequently, the revenue of the programme depends on a small number of enterprises. Most of the new e-resident enterprises do not pay taxes in Estonia.

[38] Exact period: 1/12/2014–30/11/2019. Only the main areas of activity of the e-residents are shown in the figure.

[39] "Expansion of the e-residency initiative – launching a programme for 10 million of the e-Estonians", a memorandum by the Minister of Foreign Trade and Entrepreneurship dated 28/11/2014 and compiled for a meeting of the Cabinet of Ministers on 4/12/2014.

[40] Data on the enterprises added in the period 1/4/2019–30/11/2019 are only for those who had paid direct taxes in Estonia during the same time. The information of the previous period is universal.

Table 1. Enterprises with the participation of the new e-residents and percentage of those who paid taxes on them in 2015–2019[41]

Indicator	2015	2016	2017	2018	2019[42]
Number of enterprises with new e-residents	533	1758	4072	8268	9269
... percentage of the enterprises that paid direct taxes	11%	13%	14%	13%	15%
… percentage of the enterprises that paid 95% of these direct taxes	6%	5%	6%	6%	6%

Source: the NAO based on the data of the PBGB, the TCB, and the CRIS

Jobs created by the enterprises, which are majority-owned by the new e-residents

117. In addition to paying taxes, the NAO reviewed the jobs created by the enterprises, which are majority-owned[43] by the new e-residents. Read more in Annex B.

118. The survey revealed that an average of 9% of the e-resident enterprises had created jobs during the first five years of the e-Residency programme. As of the end of October 2019, the e-resident enterprises had more than 1,300 jobs in more than 700 enterprises, more than half of which were so-called one-man companies. At the same time, the number of jobs has been growing at a similar pace to the growth of the number of enterprises.

119. During the first five years of operation of the e-Residency programme, the new e-residents' enterprises have increasingly moved in the direction where an ever-increasing number of them have employees every month when the enterprise has been operating during the year. If, in 2015, 10% of enterprises with employees had permanent employees every month when the company had been operating, then, as of October 2019, the same indicator was 41%.

120. As of October 2019, the average salary in the e-resident enterprises was slightly over 1,400 euros, and the median salary was almost 780 euros. Both indicators have increased significantly over the years of the programme.

121. In summary, the e-Residency programme was entered mostly by new foreign entrepreneurs, and the taxes paid by their enterprises have helped to bring the programme into profit. Besides, during the first five years of operation the programme, just 6% of the new e-resident enterprises have paid most of the direct taxes (95%). 85% of the direct revenues of the programme for the same period have come from the enterprises whose e-resident shareholders are from the EU or neighbouring countries.

Conclusions and recommendations of the National Audit Office

122. According to the NAO, the e-Residency programme has brought new entrepreneurs to the Estonian business landscape, whose activities have brought additional income to Estonia. At the same time, there is no consistent and uniform overview of the programme's costs and revenues,

[41] Exact period: 1/12/2014–30/11/2019.

[42] The data for 2019 are as of 30 November. Data on the enterprises added in the period 1/4/2019–30/11/2019 are only for those who had paid direct taxes in Estonia during the same period. The information of the previous period is universal.

[43] See the methodology in the "Characteristics of audit" for more details.

which makes it more difficult for the Enterprise Estonia's e-residency team and the Ministry of Economic Affairs and Communications to make informed decisions in managing the programme.

123. **Recommendation of the NAO to the Minister of Foreign Trade and Information Technology:** keep as accurate an overview as possible of the total costs and revenues of the e-Residency programme so that the Enterprise Estonia and the Ministry of Economic Affairs and Communications can make informed decisions in managing the programme. At the same time, provide the council of the e-Residency programme with a regular overview of the status of the programme's costs and revenues.

The answer of the Minister of Foreign Trade and Information Technology: we agree that in the interests of better management decisions, it is important to keep consistent and uniform overview of the revenues and expenses of the e-Residency programme; we have already implemented the corresponding methodology.

In 2018, a clear methodology was developed for all parties involved in the e-Residency programme to calculate the total costs and revenues of the programme. Among other things, based on this, an overview of the costs and revenues of the programme, as well as forecasts for the following year, are submitted to the Council of the e-Residency programme, together with the respective objectives and planned activities. The above-mentioned methodology has been used since 2018 and will be updated as necessary as new circumstances arise.

Comment of the NAO: according to additional explanations by the Enterprise Estonia, the costs related to the programme started to be collected systematically in 2018. The data submitted to the NAO show that there is no overview of the costs of the previous years on a uniform basis. As there is no precise overview of the costs of the first years of the programme's activity, it is impossible to get an accurate overview of the total costs of the programme.

The NAO also does not agree with the statement that, since 2018, the clear methodology for calculating the total costs and revenues of the programme is in place for the parties. The audit has shown that the calculation made by the e-residency team for 2018 does not include all the costs incurred due to the e-Residency programme. For example, the costs of the Ministry of Foreign Affairs and the TCB, which have been incurred due to the e-Residency programme, have been completely excluded from the calculation. If the costs of the TCB are lower, the Ministry of Foreign Affairs has confirmed to the NAO that the costs related to the e-residency programme in 2018 were nearly one million euros. In the period 2015–2019, the Ministry of Foreign Affairs had spent almost 3 million euros in connection with the programme.

The e-residents use the Estonian e-services, but few renew their digital IDs

The e-residents perform digital ID-based operations and use the public e-services necessary for business to an extent comparable to the Estonian residents

Digital operations

E-services – services provided in the Internet environment and the possibility to perform electronic operations, such as viewing and transmitting data.

Source: e-Services Design Handbook. 2014

Digital ID-based operations include personal identification, or authentication when securely logging into e-services, and digital signing.

Smart ID – an electronic identity solution created by SK ID Solutions AS, which enables authentication and digital signatures.

124. Enabling the use of the Estonian e-services for e-residents is one of the main objectives of the e-Residency programme.[44]

125. Consequently, the NAO has presumed that the e-residents use the Estonian e-services and perform the digital ID-based operations.

126. In order to find out whether the e-residents perform digital operations and which ones exactly, the NAO requested the digital operations log statistics managed by SK ID Solutions AS[45].

127. E-residents can identify themselves electronically and provide digital signatures using the e-resident's digital ID and the Smart-ID. SK ID Solutions AS has no obligation to forward the logs of operations performed using Smart-ID to the PBGB, so this information is not reflected in the statistics of digital procedures.

128. Electronic identification statistics show that the average[46] percentage of the e-residents who had authenticated at least once a month in the period 1/12/2014–28/2/2019 was 14%. The average number of authentications by the e-residents per month during the aforementioned period was 7. Percentage of digital signatories throughout this period was 12%, and the average number of digital signatures per month was 6 (see Annex D for details).

Use of the public e-services necessary for business

Company Registration Portal – an environment where applications for registration of a new enterprise, change of its register data, its liquidation and deletion can be submitted.

e-Reporting Environment – an environment that enables the preparation, signing, and submission of annual financial reports to the Commercial Register.

129. Ensuing from the focus of the programme business-related e-services (e.g., the Company Registration Portal and the e-Reporting Environment) are important for the e-residents. According to the PBGB, the reasons for the e-residents to join the programme are also mainly the desires to establish a location-independent enterprise (41%) and to bring their enterprise to Estonia (27%). Thus, when using e-services, it is reasonable to look at how the e-residents use business-related e-services.

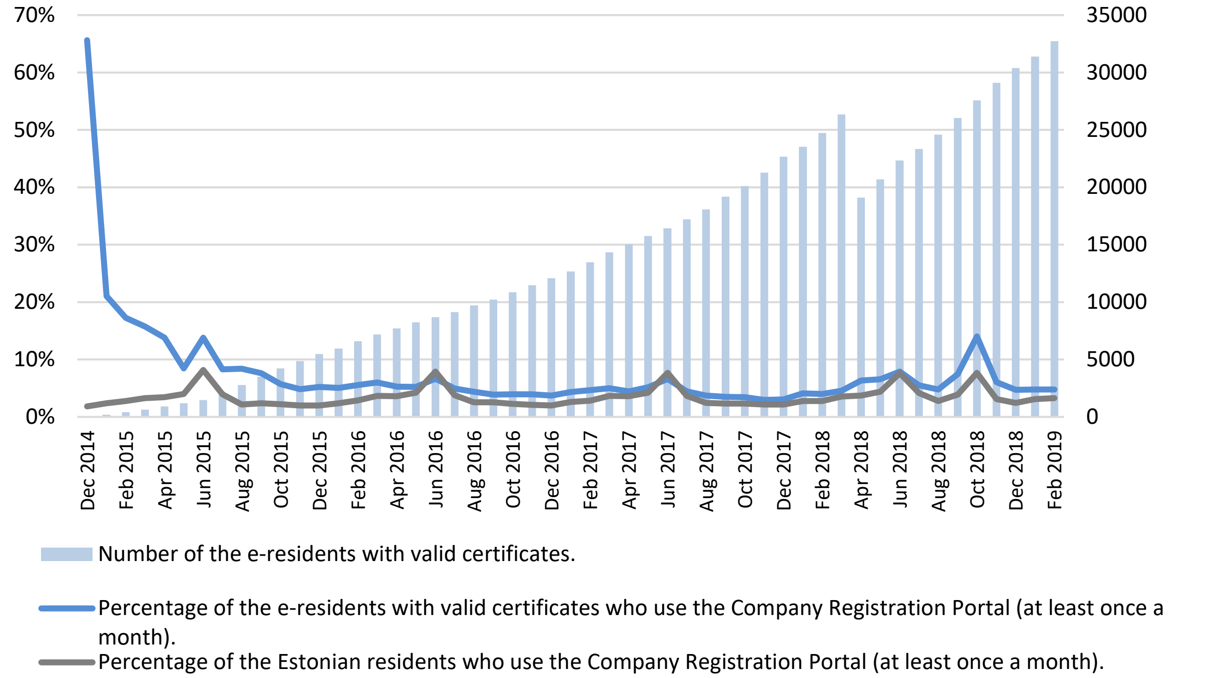
130. Statistics on the use of the Company Registration Portal show that, compared to the Estonian residents, a slightly larger share of the e-residents used the Company Registration Portal (see Figure 7). The average percentage of the e-residents who used the portal was 5% during the whole period, and the percentage of the Estonian residents was 3%.

[44] Issuance of a digital identity card to non-residents: creation of the e-residence, Draft of Bill on Amendments to the Identity Documents Act and the State Fees Act no. 699 SE, Annex 1, 2014.

[45] SK ID Solutions AS manages the issuance of the Estonian identity documents, including digital ID certificates.

[46] All summarised results for the overall period are presented as weighted averages.

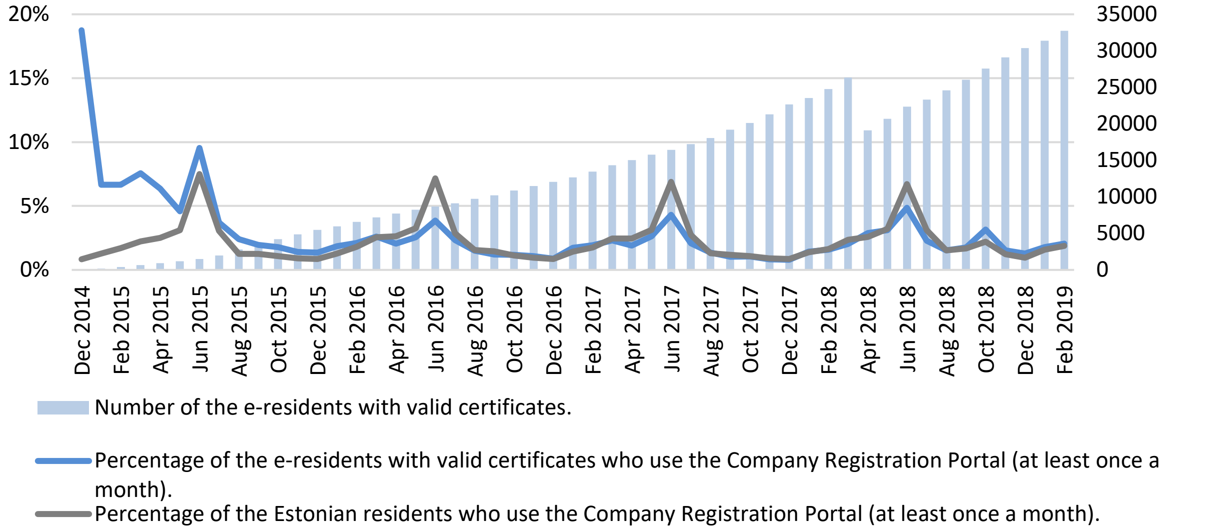
Figure 7. Proportion of the Company Registration Portal's users among the e-residents and the adult residents of Estonia in the period from December 2014 to February 2019[47]



Source: the NAO based on the data of the CRIS, the PBGB, and the Statistics Estonia

131. According to the statistics on the use of the e-Reporting Environment (see Figure 8), the environment was used by essentially the same percentage of the e-residents as among the Estonian residents. Percentage of the e-residents who used the environment was 2% during the whole period, and percentage of the Estonian residents was 2.2%.

Figure 8. Proportion of the e-Reporting Environment's users among the e-residents and the adult residents of Estonia in the period from December 2014 to February 2019



Source: the NAO on the basis of the data of the CRIS, the PBGB, and the Statistics Estonia

[47] The decrease in the number of valid certificates in April 2018 presented in Figures 7 and 8 is due to the fact, that at that time the certificates that were not renewed by the e-residents by the remote renewal expired. The need for the remote renewal was caused by the ID card crisis in autumn 2017.

Commercial Register – compiles data on all the legal entities registered in Estonia. Data on business corporations and non-profit associations can be viewed in the information system.

E-tax services (the e-MTA) – an environment where private persons and legal entities can submit various declarations, such as declarations of income tax and social tax, as well as mandatory funded pension and unemployment insurance contributions. It is also possible to use various e-customs services. Employers can also register their employees in the e-MTA.

132. The Commercial Register was used by almost 2% of e-residents and slightly more than 1% of the Estonian residents. 2% of e-residents used e-tax services (the e-MTA). The NAO could not compare the use of the e-tax services with the Estonian residents, because the TCB was unable to provide the relevant information due to the excessive volume of data[48].

133. In summary, the e-residents perform digital operations and use business-related public e-services on an equal footing with the Estonian residents. However, despite the business orientation of the e-Residency programme, percentage of users of the business-related e-services is not higher among the e-residents than among all the adult Estonian residents.

According to the e-residents, public e-services are generally accessible and user-friendly

134. In addition to enabling the use of e-services, the e-Residency programme also aims to make the use of public e-services more convenient for the e-residents.[49]

135. The NAO presumed that the e-residents would find the public e-services easily, and that these services were user-friendly.

Frequency of use of public e-services

136. In order to clarify the assessment of the e-residents, the NAO conducted an online survey among the e-residents through the Enterprise Estonia.[50]

137. The results showed that the majority of the e-residents who responded to the survey (64%) have used at least one public e-service once.[51] Based on the results of the survey, the e-residents do not have major problems in finding the public e-services. 8% of the e-residents who responded to the survey and had used public e-services indicated that it was difficult or rather difficult for them to find the public e-services. The rest respondents had no problems.

User-friendliness of public e-services

138. More than half of the surveyed e-residents (56%) considered the public e-services to be user-friendly and a third (34%) rather user-friendly. Those who found that the public e-services were not user-friendly cited the complexity of the e-service, the excessive time required to use it, and insufficient instructions and customer support as the main reasons.

139. Respondents from e-residents 72% did not need help using public e-services. 16% of the respondents needed help and asked for it directly from the service provider. 12% needed help but did not ask for it directly from the public e-service provider, but from another (e.g., virtual office) service provider.

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[48] Reply from the TCB dated 17/4/2019 to the inquiry of the NAO.

[49] Memorandum for the meeting of the Cabinet of Ministers on 8/8/2019.

[50] See the methodology in the “Characteristics of audit” for more details.

[51] The survey covered 11 business-related public e-services: The Estonian State Information Portal (eesti.ee), the Company Registration Portal, the Commercial Register, the e-tax services, the Register of Economic Activities, e-services by Statistics Estonia, the Estonian Education Information System, e-Apostille, the data collection portal of Bank of Estonia and the Financial Supervision Authority, the electronic strategic goods information system (Stratlink).

Availability of customer support of public e-services

For your information

Among the public e-services, the e-residents lack insurance-related services (health and pension insurance) and would like to apply for an Estonian visa more easily.

The members of the management board who are the e-residents are obliged to pay social tax on the remuneration of the members of the management board of the enterprise, and this entitles the e-residents to both health and pension insurance. Read more about the social tax paid by the e-residents in Annex C.

The Parliament (Riigikogu) passed an amendment to the Aliens Act, which created opportunities to apply for a visa for teleworking.[53] This expands the possibilities for applying for a long-term Estonian visa also for the e-residents.

140. The e-residents who responded to the survey needed help the most when using the e-tax services (44% of service users) and the Company Registration portal (29%). Most respondents (82%)[52] who asked for help directly from the service provider received a reply to their request. Percentage of those who did not receive assistance was the largest in the case of the Statistics Estonia (33% of those who asked for assistance) and the ID card helpline (26%).

141. The main reason for not receiving help was time – customer support is open at an inconvenient time for the e-residents. For example, a quarter of the e-residents were left without help when contacting the ID card helpline. According to the SISB, this may be related to a change of the helpline service provider, which has reduced the availability of customer support. Since 1/7/2018, the ID card helpline will receive calls on working days from 8 am to 7 pm, when it was separated from the 24-hour telephone number intended for suspending certificates.[54]

142. The e-residents come from 174 countries located in different time zones. Additionally, there is the growing percentage of the e-residents joining the programme from outside the EU. As the working hours in Estonia and the working hours in the e-resident's country of origin may not overlap, it may sometimes be difficult for the e-residents to contact customer support.

143. As the operation of a digital ID card is a prerequisite for the use of all other e-services, it is important that the e-residents receive prompt and appropriate assistance from the ID card helpline. The working hours of the ID card helpline should take into account the needs arising from the increase in the number of the e-residents.

144. In summary, according to the e-residents, there are no significant problems in finding the public e-services, and most of the e-residents consider these to be user-friendly. The vast majority of the e-residents who needed help using the e-services have received it. In the case of those who did not receive assistance, an important obstacle was the unsuitable working hours of the ID card helpline, because the working hours of many e-residents in their country of origin differ from those in Estonia. With the addition of the e-residents, this problem may affect more people.

Private sector services are generally available to the e-residents, but the use of banking services is complicated

145. At the beginning of the e-Residency programme, the government set a goal to create the business and operational environment required for the e-residents.[55] In addition to the public e-services, private services play an important role in creating the business and operating environment.

[52] Percentage is taken from 16% of the respondents who needed help using the e-service.

[53] Aliens Act, § 62^5.

[54] On Sunday, the ID card helpline number changes. ID card website, 28/6/2018.

[55] "Expansion of the e-residency initiative – launching a programme for 10 million of the e-Estonians", a memorandum by the Minister of Foreign Trade and Entrepreneurship dated 28/11/2014 and compiled for a meeting of the Cabinet of Ministers on 4/12/2014.

146. The NAO has presumed that the private sector services are available to the e-residents, and that barriers to doing business have been removed.

147. The National Audit Office, through the Enterprise Estonia, studied the assessments of the e-residents in relation to private sector services. For this purpose, an online survey was conducted.[56]

Access to private sector services

148. The online survey results[57] show that the Estonian private sector services are generally available to the e-residents. Half of the e-residents who responded to the survey have used at least one private sector service, and the majority (90%) are satisfied or rather satisfied with the private sector services.

149. At the same time, the survey demonstrate that the e-residents often use the assistance of private service providers when using the Estonian e-services. According to the CRIS, the reasons lie in both user comfort, and orientation in digital infrastructure, which is not as easy for foreigners and local residents.

Provision of banking services for the e-residents

150. Despite the general satisfaction with the private services, the lack of access to banking services is a challenge. For example, the respondents of the survey pointed out that banks are closing the accounts of e-residents and it is difficult for new e-residents to open a bank account in Estonia.

151. For banks, the e-residents are one part of all non-resident customers. Due to stricter anti-money laundering rules, percentage of non-residents' deposits in the banks operating in Estonia has significantly decreased.[58] According to the Estonian Banking Association, one of the main reasons why they refuse to open accounts for the non-residents (including the e-residents) is the lack of connection to Estonia.

152. The e-Residency programme enables location-independent business. The programme team have done explanatory work on the requirements for opening a bank account, but the digital ID applicants and the e-residents still have the expectation that they will be able to open a bank account in Estonia.

153. According to the Commercial Code, when registering or having an already registered enterprise, there must a payment account.[59] As an alternative, since 2019, in addition to an Estonian credit institution (e.g., a bank), it may also be a credit or payment institution of the European Economic Area. At the same time, the services provided by payment institutions are especially suitable for freelance and individual entrepreneurs. Among other things, payment institutions do not provide loans, and do not allow earning interest on the money in the account or distribute capital among investors.[60]

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[56] See the methodology in the “Characteristics of audit” for more details.

[57] The survey mainly covered five groups of the private services: banking and payment institutions; virtual office; tax and legal advice; sales and marketing services; recruitment and relocation services, insurance.

[58] The Estonian financial services market as of 31 December 2018. Financial Supervision Authority, 2019.

[59] Commercial Code, § 520 (4).

[60] Digital Banks To Operate With Your Company In Estonia. Your company in Estonia, 21/5/2018.

154. The initial concept of e-Residency was to make administration easy for foreigners and enterprises operating in Estonia.[61] According to the initial concept, e-resident enterprises would have had a connection with Estonia, their activities would also have been better controlled, and banks would generally have had no reason to refuse to open an account.

155. However, the government altered the original concept in 2016 by abolishing the requirement of a connection to Estonia and thereby expanded the circle of the e-residency applicants. The change was reasoned to be due to the fact that the requirement of a connection to Estonia increases the workload and time required for processing applications to determine the connection.[62] This change is one of the reasons why e-residents face difficulties in opening a bank account in Estonia.

156. In addition the Money Laundering and Terrorist Financing Prevention Act was updated in 2017, [63] and in 2018 the Financial Supervision Authority issued new guidelines on the implementation of due diligence measures, which specify lack of connection to Estonia as a separate risk.[64] Therefore, the banks are more concerned about managing their risks and mitigating them in a way that complies with the rules of the Financial Supervision Authority. Thus, a bank account is opened in Estonia for those the e-residents whose business activities are related to Estonia, and an enterprise established in Estonia alone is not enough.

157. The e-residents may not often realise that they cannot open a bank account in Estonia and will only find out about it after they have already been issued a digital ID. It would help to improve the situation if the e-residents were explained at the time of application what the exact conditions for opening a bank account are.

158. In summary, the private sector e-services are predominantly available to the e-residents. The main problem, according to the e-residents, is insufficient access to banking services. Banks often justify not opening an account for the e-residents on the grounds that activities of the latter have no connection with Estonia, which makes it more difficult to ensure that the account is used only for legal activities.

Few e-residents who have had the option have renewed their digital IDs

159. The council of the e-Residency programme has set the goal of increasing the number of the e-residents and the enterprises established by them.[65] In addition to the increase in new e-residents and their

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[61] Issuance of a digital identity card to non-residents: creation of the e-residence, Draft of Bill on Amendments to the Identity Documents Act and the State Fees Act no. 699 SE, Annex 1, 2014.

[62] Explanatory Memorandum to the draft laws of the Identity Documents Act, Credit Institutions Act, and Money Laundering and Terrorist Financing Prevention Act, 2016, page 7.

[63] Money Laundering and Terrorist Financing Prevention Act.

[64] Advisory instructions of the Financial Supervision Authority named “Organizational solution for credit and financial institutions, and preventive measures against money laundering and terrorist financing”, Annex 2, page 3, decision of the Management Board of the Financial Supervision Authority dated 26/11/2018 No. 1.1-7/172.

[65] Materials of meetings on the e-Residency programme on 28/4/2015, 20/6/2017, and 10/1/2018.

enterprises, the fact that as many e-residents as possible renew their digital IDs upon the expiration also helps achieve the goal.

Renewal of the e-resident's digital ID

160. The NAO presumed that the digital IDs would be renewed by as many e-residents as possible who do not have a valid criminal penalty.

161. The NAO investigated how many e-residents have renewed their digital IDs and whether they include foreigners who have a valid criminal penalty in Estonia. At the time of conducting the audit, the majority of the e-residents (approx. 70%) had their first digital ID, i.e., they have not had to decide whether or not to keep using their digital IDs.

162. According to the PBGB data, in the period 1/12/2014–1/12/2019, 10% of those who had the opportunity to renew their digital IDs had done that[66] (1880 foreigners). The rest have given up the possibility of renewal.

163. At the same time, a survey of the e-residents showed that the majority of them (72% of the respondents) are planning to extend their digital ID, nearly a quarter (24% of the respondents) had not decided yet at the time of the survey, and a little over 4% is not planning to do so.

164. The reasons for applying for renewal of the digital ID are related to business activities. 37% of the e-residents who had renewed their digital IDs wanted to bring their enterprise to Estonia, and 27% wanted to establish a location-independent enterprise.[67]

165. The main reasons why the e-residents do not want to renew their digital IDs were the changes in their business plans, as well as the fact that the e-Residency programme did not meet their expectations. The latter was mainly related to difficulties in opening a bank account.

166. The respondents to the survey also included those who had applied for the e-residency out of curiosity, but also those who had moved to live in Estonia and no longer needed the e-resident's digital ID.

Legal compliance of those who renewed their digital IDs

167. Examining the legal compliance of digital ID extenders, the NAO compared the data of the Criminal Records Database and the PBGB and identified a case of an e-resident who committed a criminal offense in Estonia during the first digital ID validity period and had a valid criminal penalty at the time of renewal. The PBGB did not revoke this digital ID, renewed the digital ID, so it was valid as of 1/12/2019.[68]

168. In summary, most of the e-residents who have been able to renew their digital IDs have not yet done so. At the same time, the survey conducted among the e-residents suggests that there will be more digital ID renewals in the future.

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[66] It includes those who applied for a new document after their digital ID card expired. It does not include the documents re-issued for technical reasons, remote renewals or those whose digital ID was revoked because the e-resident endangered public order or national security, there were grounds for refusing to issue a visa / temporary residence permit or imposing an entry ban, the e-resident had died, acquired Estonian citizenship, etc.

[67] The data of the PBGB.

[68] The procedure for revoking the e-resident's digital ID is a discretionary procedure. In this example, the e-resident was also issued an EU citizen's ID card after the digital ID, so this digital ID was not revoked, because with the EU citizen's ID card the e-resident can continue to use all e-services.

Conclusions and recommendations of the National Audit Office

169. **In the opinion of the NAO,** the e-Residency programme has generally facilitated the creation of the necessary business and operating environment for the e-residents. According to the e-residents, the services are mostly accessible and user-friendly. The exception is banking services, the use of which is considered insufficient by the e-residents.

170. The main reason why banks refuse to open accounts for non-residents (including the e-residents) is that they have no connection with Estonia, and therefore the banks cannot control their activities to the necessary extent. A large number of the e-residents who have had the opportunity to renew their digital IDs have not done so.

171. **Recommendation of the NAO to the Director General of the State Information System Board (SISB):** take into account the changing number of the e-residents, their needs and the times of e-residents' access to the ID card helpline, as well as, if necessary, to change the working hours of the ID card helpline accordingly.

The answer of the Director General of the SISB: The SISB procures the e-ID customer support as the ID card helpline service by an external partner, and the agreement is valid until the summer of 2021. Within the framework of this agreement, the service time of the ID card helpline is 8–19, and it is primarily based on the needs of the Estonian users. Before limiting the service hours, we reviewed the statistics of calls to the helpline, and the number of calls outside its working hours was very minimal. Changing the service time entails additional costs that cannot be covered by the budget of the State Information System Board. We will soon start preparing for the end of the current agreement and review how supporting the e-ID users will continue from the summer of 2021, and whether it is possible to improve the service times for the e-residents.

In addition to the ID card helpline, we are about to come out with the new www.id.ee environment, which offers new and better opportunities for electronic identity users to solve problems independently, using a convenient and easy-to-use self-help environment. We are also considering using a chat bot to support the user in resolving issues.

172. **Recommendation of the NAO to the Minister of Foreign Trade and Information Technology:** explain the conditions for starting a company and opening a bank account in Estonia when marketing the e-Residency programme and at the beginning of the digital ID application process (e.g., in the application form for the digital ID). This will allow foreigners to better assess their expectations and the opportunities offered by the digital ID before joining the programme.

The answer of the Minister of Foreign Trade and Information Technology: we agree that an adequate understanding of the circumstances related to starting a business and opening a bank account is important to ensure a positive user experience of an e-resident. We have followed this recommendation since the beginning of the programme and are considering further steps as necessary, especially based on feedback from the e-residents as customers.

For example, a special section for important questions and answers has been created at the e-resident’s digital ID application portal, where issues concerning the Estonian banking, tax system, and the establishment and administration of an enterprise are also set out as separate topics. The e-residency team constantly works to bring important information to potential and existing e-residents through other convenient channels in addition to the application portal.

Since the beginning of the programme, the Estonian government agencies and the programme team have been consistent in their communication to clarify what the e-residents can receive and expect as services. At the same time, the e-residency communication has always emphasised the fact that the organic part of becoming an e-resident is a thorough preliminary work by the person applying for an e-resident's digital ID, including getting acquainted with the Estonian tax system and the e-resident's business legislation. This includes explaining to the e-resident that, if desired and possible, the person can also choose a suitable service provider to represent him or her, who will advise the person throughout the enterprise's life cycle, for example on the selection of payment service and financial service providers.

Comment of the NAO: in the course of the audit, the NAO got acquainted with the e-residency application environment and materials introducing the programme, as well interviewed various e-resident service providers who deal with the e-residents' issues on a daily basis. Additionally, the NAO conducted a survey among the e-residents through Enterprise Estonia and monitored the public discussions of the e-residents on social media. As a result, it became clear that many e-residents still do not understand that they cannot open a bank account for their enterprise in Estonia without an Estonian connection. It also turned out that there is a common understanding among the e-residents that, due to the e-residency, they can pay all taxes to Estonia even if all their enterprise's activities and value creation actually take place in another country.

Therefore, the NAO considers that in the process of both marketing the e-Residency programme, and applying for a digital ID, the conditions for starting an enterprise and obtaining a bank account in Estonia need to be clarified.

The risks involved in the implementation of the e-Residency programme

An amendment to the law due to the e-residency allowed enterprises to operate in high-risk activities without supervision

173. The e-residency concept attached to the draft of amendments to the law for launching the e-residency states that the implementation of the e-residency does not bring new risks, but rather amplifies the existing ones, making the conditions for their realisation simpler and more accessible. The concept also states that, in justified cases, it is possible to impose restrictions or preconditions on the e-residents that help to mitigate the risks associated with the e-residency.[69]

174. Since the launch of the e-residency, several amendments of the law have been made due to the programme. Among other things, there has

[69] Issuance of a digital identity card to non-residents: creation of the e-residence, Draft of Bill on Amendments to the Identity Documents Act and the State Fees Act no. 699 SE, Annex 1, 2014.

been adopted an amendment to the law, which allows the enterprise's management board to be located abroad since the beginning of 2018.[70]

Virtual currency service providers

Virtual currency service provider licenses – the Money Laundering Data Bureau (MLDB) issues two types of licenses: licenses for virtual currency exchange services and virtual currency wallet services.

For your information

In addition to the licenses of the virtual currency service provider, the MLDB also issues licenses on the same grounds to the enterprises that provide the establishment of an enterprise, its location, business address or contact person.

The rules for the supervision of these service providers have also proved to be formal and allow the provision of services to the e-residents (e.g., undercover agent services) that are prohibited in Estonia.

175. The NAO has presumed that the risks amplified by the launch of the e-Residency programme and subsequent amendments to the law had been mitigated.

176. An examination of the risks associated with the e-Residency programme revealed that, in May 2019, the MLDB had issued licenses of the virtual currency service provider to approximately 800 enterprises. There were issued about 1,500 to 1,600 licenses, about a hundred of which were issued to the enterprises related to the e-residents.

177. At the same time, the main requirement for issuing the license by the MLDB was that the member of the management board, the owner, and the actual beneficiary should not have a criminal penalty. In fulfilling this requirement, the MLDB had no legal grounds to refuse to issue a license.

178. The e-residency is intended for foreigners, and one of the main goals of the programme is for foreigners to establish new enterprises that would bring additional income to Estonia.[71] Together with the amendment to the law allowing the enterprise's board to be located abroad, the result was the creation of several the enterprises licensed by the MLDB on the grounds of minimum criteria in the area where the risk of money laundering and terrorist financing is high.

179. At the same time, these enterprises belong to foreigners, and, according to the law, the boards of many of them can also be located abroad. Therefore, a period of more than two years arose when the Estonian agencies did not have the possibility to exercise real supervision over these enterprises.

180. Among other things, this meant that real enforcement, as in the case of the persons located in Estonia (to enter the premises, impose a penalty payment, and collect it on the existing property with the help of a bailiff), could not be applied to them. The PBGB did not have any possibility to conduct on-site controls of such enterprises, which is the main ground for the anti-money laundering supervision.

181. According to the MLDB, there was a very high risk of fraud by virtual currency service providers, and it is possible that some of these licenses were fraudulently applied for. The fraud was probably not committed in Estonia, but in foreign countries, where it was justified by the license obtained from the anti-money laundering agency of Estonia as a digitally advanced country.

Legislative amendments related to the Money Laundering and Terrorist Financing Prevention Act

182. In 2019, to improve the situation, the Riigikogu approved amendments to the law, which entered into force in March 2020.[72] For example, the applicant must now submit the documents containing his or

[70] Commercial Code Amendment and Related Acts Amendment Act, entered into force on 15/1/2018.

[71] "Expansion of the e-residency initiative – launching a programme for 10 million of the e-Estonians", a memorandum by the Minister of Foreign Trade and Entrepreneurship dated 28/11/2014 and compiled for a meeting of the Cabinet of Ministers on 4/12/2014.

[72] Money Laundering and Terrorist Financing Prevention Act Amendment and State Fees Act Amendment Act No. 8 SE, passed on 11/12/2019.

her education, a complete list of jobs and positions, as well as his or her area of responsibility. The applicant must also prove his or her credibility and the fact that he or she has good business reputation.

183. The obligation was also established that the registered office of the enterprise, the location of the management board, and the place of business must be in Estonia. At the same time, the law allows for the revocation of a license if the enterprise does not meet the required conditions within six months after the issuance of the license [73]– for example, if the enterprise has not started operating in Estonia.[74]

184. However, according to the MLDB, malicious license applicants may seemingly comply with the requirements at the time of application, e.g., by using undercover agents. Additionally, the ex-post control of all licenses represents a significant increase in the administrative burden for the MLDB.[75]

185. According to the MLDB, in addition to the amendments to the law, it is necessary to solve the problem of the absence of an appropriate procedure in Estonia to force virtual currency service providers to comply with the law. There is also the problem that there is no financial supervision over the virtual currency service providers. Establishing appropriate procedures and financial supervision would reduce the scope for fraud.

186. During the period when the licensing requirements for the virtual currency service providers were incomplete, according to the MLDB, licenses were also issued to persons from countries with a high terrorist threat. Among them, there were the e-residents, too.

187. According to the MLDB, it may not matter whether the e-residents were behind a particular case when potential terrorist financing incidents or other fraud came to light, as the public, especially in the international press, will still associate virtual currency service providers with the e-residency. However, it usually takes years for fraud to become apparent, so it may take longer for problems to become publicly known.

188. In summary, the launch of the e-Residency programme and the resulting amendments to the law, in combination with the incomplete requirements for applying for licenses of the virtual currency service provider, have amplified the risk of reputational damage to Estonia.

189. Even though the management board of an enterprise applying for a license as a virtual currency service provider is no longer allowed to be located abroad, this option was available for two years. As a result, a number of enterprises were established, to which Estonia issued a license in the area where the risk of money laundering and terrorist financing is high. It was impossible to supervise these enterprises due to their location abroad. If the Estonian-licensed virtual currency service providers have

[73] In the case of the licenses already issued, the six months start after the entry into force of the amendment to the law.

[74] Money Laundering and Terrorist Financing Prevention Act, § 75 (3).

[75] Money Laundering and Terrorist Financing Prevention Act Amendment and State Fees Act Amendment Act No. 8 SE, passed on 11/12/2019, page 10.

committed fraud and it becomes public, it could damage Estonia's reputation.

The need for the e-residency depends on the introduction of electronic identity in the rest of the EU

e-ID – electronic identity, the carriers of which in Estonia are the ID-card, the residence permit card, the diplomatic identity card, the digital-ID, the mobile-ID, the e-resident's digital ID, and the smart-ID.

For your information

There are three levels of e-ID authentication: high, significant, and low.

eIDAS has established an obligation to ensure public access to public e-services for all the EU citizens on equal terms with the population of the own country. Thus, if, for example, a high-level authentication solution is required from its resident to use an e-service, then equivalent authentication solutions from other EU member states, which have been officially notified by the EU member states, must also be accepted.

Source: eIDAS authentication levels, State Information System Board

Most of the EU countries that have notified about the e-ID use or plan to use the e-ID with a high level of authentication. The exceptions are Denmark and the United Kingdom.

Source: Overview of pre-notified and notified e-ID schemes under eIDAS, European Commission

Impact of the eIDAS Regulation on the e-Residency programme

190. The concept of the e-residence annexed to the draft amendments to the law on the launch of the e-residency states that the Regulation on Electronic Identification, Authentication and Trust Services (eIDAS) adopted in the EU must be considered when creating the programme. According to this, all the EU member states must mutually recognise other countries' e-IDs and the trust service providers, as well as to allow access to their own e-services with other countries' e-IDs.[76]

191. The concept states that, in the long run, eIDAS may reduce the interest of people from other EU countries in the Estonian e-residency if secure e-ID solutions are introduced in these countries. This, in turn, may affect the bringing of additional income to the state.

192. Thus, the NAO has assumed that the potential impact of eIDAS on the e-residency had been considered when launching and further managing the e-Residency programme.

193. According to the eIDAS Regulation,[77] residents of the EU member states can identify themselves when using the e-services and provide digital signatures both with the e-ID carrier of their home country, and with the e-ID carrier of another EU member state, such as the Estonian e-resident's digital ID.

194. Thus, the need of the EU residents for the Estonian e-resident's digital ID depends on how quickly the other EU countries can adopt their e-IDs. The more there are the EU countries that reach the e-ID level, the fewer there are the EU residents who have the Estonian e-resident's digital ID needed for using the Estonian public e-services, because, according to the eIDAS regulation, they must also be able to use these with their country's e-ID.

195. According to the European Commission, as of November 2019, there were six EU countries capable to use cross-border public e-services under the eIDAS Regulation. These countries were Germany, Italy, Estonia, Spain, Croatia, and Luxembourg.[78] The reliability of the e-ID authentication solution in these countries is high. The list of the EU countries that have adopted or are in the process of adopting their e-ID is constantly evolving.[79, 80]

[76] Issuance of a digital identity card to non-residents: creation of the e-residence, Draft of Bill on Amendments to the Identity Documents Act and the State Fees Act no. 699 SE, Annex 1, 2014.

[77] Regulation (EC) No 910/2014 of the European Parliament and of the EU Council no. 910/2014, 23/7/2014.

[78] National e-IDs of six countries available for the EU citizens to use cross-border. Website of the European Commission, 7/11/2019.

[79] See more details at: State Authentication Service, State Information System Board.

[80] Overview of pre-notified and notified e-ID schemes under eIDAS, European Commission.

Cross-border e-ID

196. Additionally, the introduction of e-ID in more countries poses additional challenges. If an Estonian resident has several e-ID carriers (ID card, digital ID, mobile ID, smart-ID), he or she can be identified when using the Estonian e-services, regardless of which e-ID carrier he or she is currently using.

197. However, if a foreigner, in addition to the ID card of his or her home country, has an Estonian e-resident's digital ID (i.e., e-ID carriers of two countries with different certificates), according to the explanation of the SISB, in the case of the e-services of the EU countries (including Estonia), it is impossible to reconcile that the foreign ID card and the Estonian e-resident's digital ID represent the same person. This is an EU-wide problem, which it not caused by the e-residency, but, due to the e-residency, it reached Estonia on a larger scale earlier than other EU countries.

198. The main reason for the problem is that there is no EU-wide register where each document can be issued indicating which country's document and e-ID have been issued to a particular person. The register would allow service providers in the EU member states to check whether the same person is behind different documents. At the same time, this is an EU-wide problem that Estonia cannot solve alone.

199. The more EU countries adopt e-IDs, the more it complicates the situation, according to the SISB. Solving these problems is costly and difficult. Due to opposition from the major EU countries, a pan-European register is not expected to materialise soon.

200. Following the statement in the initial concept of the e-residency that the eIDAS Regulation must be considered when creating the programme, to the NAO's knowledge, the ministries and agencies responsible for the e-residency have not prepared any plan to be done in a situation where the EU citizens' need for the Estonian e-residency decreases.

201. In summary, the need of the EU residents for the Estonian e-residency in the future will be influenced by how quickly other EU member states adopt e-IDs. This in turn can affect the revenues of the e-Residency programme.

Conclusions and recommendations of the National Audit Office

202. **According to the NAO**, Estonia's international reputation may be damaged in the event of fraud by virtual currency service providers, and, in the future, the EU residents' need for the e-Residency programme will depend on the implementation of e-IDs in other EU countries.

203. **Recommendation of the NAO to the Minister of Finance in co-operation with the Minister of the Interior:** develop a suitable procedure for ensuring the law obedience of virtual currency service providers and establish financial supervision over these service providers.

The answer of the Ministry of Finance: The Ministry of Finance prepares a draft which sets additional requirements for the business activities of the virtual currency service provider and the members of the management bodies, and which intends to transfer the supervision over these service providers to the competence of the Financial Supervision Authority. This draft is scheduled to be published in July 2020. However, we would like to notice that the issues related to the virtual currency service are not directly related to the e-Residency programme. As noted in the control report, among 1500–1600 licenses related to provision of the virtual currency services about one hundred have been issued to the enterprises related to the e-residents.

The answer of the Minister of the Interior: I agree with the proposal and would like to add that, although the conditions of the authorisation procedure for the virtual currency services were clarified by the amendment adopted at the end of 2019, the issue also needs a broad analysis of the implementation of general financial supervision. The Ministry of the Interior is ready to cooperate fully with the Ministry of Finance to improve this area. I would like to notice here that in the Estonian legal system we have also created a secure way for the e-residents to operate in an Estonian credit institution and financial institution (creating an account with an IT tool). For this purpose, a solution has been created where the identification and verification of data by means of information technology use the document for digital identification issued by the Republic of Estonia or another high-reliability e-identification system listed in the Official Journal of the European Union pursuant to Article 9 of Regulation (EU) No. 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC (OJ L 257, 28/8/2014, pp. 73–114). As far as I know, the Estonian credit institutions and financial institutions have not widely adopted the respective secure system in their practice, and it is necessary to ensure other secure ways of identifying and verifying data, if possible. The Bill on Amendments to the Money Laundering and Terrorist Financing Prevention Act and Other Acts (130 SE), in which case the implementation of additional secure information technology means is being considered, is currently being evaluated by the Riigikogu.

204. **Recommendations of the NAO to the Minister of the Interior in co-operation with the Minister of Foreign Trade and Information Technology:**

- Participate in the development of an action plan at the EU level on how to integrate the e-ID provided to an e-resident with the e-ID of another EU country to enable the e-services to identify whether the same person is behind two or more different e-IDs. If this is impossible, consider terminating the issuance of the e-resident's digital ID to those residents of the EU countries who can use the Estonian e-services with the e-ID of their home country (with the highest level of authentication).

- Monitor the impact of EU countries' e-ID implementation on the e-residency applications of the EU citizens and on the renewals of digital IDs and consider the actions according to the situation and necessity in case the need for e-residency starts to decrease.

The answer of the Minister of the Interior: I would like to explain that this is not an e-residency problem, but a much larger one for dual nationals and the EU citizens living in another EU member state (e.g. if a person has the German and Dutch nationalities, he or she can use the e-ID means of both countries of nationality; e.g. if the German citizen lives in Estonia, in addition to a German ID card, he or she also has an Estonian

ID card and has the right to use both). Estonia alone cannot find a solution to this problem, as it requires the co-operation of all the EU member states and is being addressed in the relevant technical working groups of the EU.

I also would like to explain that, according to the e-residency concept, the target group of the e-residency are all the persons who need a digital identity document in the Estonian public or private e-business, if they are not the Estonian citizens, or they are the foreigners living in Estonia based of a residence permit or right of residence. In addition, the persons who do not have public or private law connections in Estonia, but who wish to use the Estonian digital services in good faith, are also welcome to become the e-residents. In view of the above and based on the fact that ending the issuance of the e-resident’s digital IDs to the EU citizens and residents who can use the e-ID of their country of residence or origin, does not solve the problem you have raised, so I do not consider your proposal to be justified.

I would like to notice that the e-residency is aimed not only at the EU citizens but also at the third-country nationals. Thus, the need for the e-residency may not decrease, as more and more third-country nationals may want an e-resident's digital ID to start their business in Estonia and thus enter the EU market. I also confirm that a similar risk has been mapped and presented in the e-residency risk table, but the possible reasons for the realisation of the risk are so complex that they cannot be foreseen, and therefore no corresponding action plan has been developed, but it has been decided that the problem will be addressed based on specific circumstances.

The answer of the Minister of Foreign Trade and Information Technology: in essence, we agree with the course of the recommendations, but not with the proposed activities. As the NAO has also stated in the draft audit report, this is an EU-wide problem and not directly related to the e-residency or to the challenge caused by the latter. Therefore, it is planned to solve this issue more comprehensively and not only from the point of view of the e-residency. The Estonian representatives have actively participated in working groups and submitted proposals at the EU level to find possible solutions and will continue to co-operate and negotiate for this purpose. The aim is to find a suitable solution for the owners of electronic identity tools in all the EU member states, including the persons with several e-ID tools (for example, persons with dual citizenship) to use the Estonian e-services and harmonise electronic identities – in a way that clearly identifies people and prevents fraud.

However, we see no rationale for considering the termination of the issuance of the e-resident’s digital IDs to the EU citizens, who may at the same time be able to use the Estonian e-services also with their home country’s e-ID tool. We can see from the results of the programme so far and from its users feedback that the demand for the e-residency stems significantly more than just the introduction of electronic identity in the rest of the EU. It should be borne in mind that, although the Estonian e-ID tools (including the e-resident’s digital ID) are also qualified electronic signature tools that are recognised throughout the EU, this is not the case for eID tools in other countries.

The possibility of issuing a globally recognised electronic signature and the possibility of comprehensive use of the Estonian bureaucracy-free e-government ecosystem is an important value that is also highly valued by users of e-ID tools in other member states of the EU. The convenience of applying for and using various e-ID tools must also be taken into account, which has so far spoken in favour of e-residency, despite the small number of issuance points. In short, it is unreasonable for Estonia not to use the corresponding market potential, especially since the risks referred to by the NAO can and must be managed differently and more broadly.

Comment of the NAO: The NAO had to consider terminating the issuance of the e-resident's digital ID to those residents of the EU countries who can use the Estonian e-services with the e-ID of their home country with the highest level of authentication, i.e., with the same level as the Estonian digital ID.

The NAO points out that the market potential does not depend on the issuance of the eID or on the country with the highest security level of eID, but on the interest of entrepreneurs in doing business in Estonia.

/signed digitally/

Ines Metsalu-Nurminen
Director of Audit at the Audit Department

Recommendations of the NAO and replies of the auditees

Based on the audit, the NAO issued a number of recommendations to the Ministry of Economic Affairs and Communications, the Ministry of the Interior, the Ministry of Finance, the Police and Border Guard Board, the Tax and Customs Board, the State Information System Board, and the Ministry of Justice. The Minister of Justice and the Director General of the Tax and Customs Board submitted their answers to the recommendations of the NAO on 29.05.2020. The Director General of the Police and Border Guard Board sent the reply on 1/6/2020, the Director General of the State Information System Board on 2/6/2020, the Minister of Foreign Trade and Information Technology on 9/6/2020, the Minister of Finance on 10/6/2020, and the Minister of the Interior on 20/6/2020.

General comments regarding the audit report

Reply from the Minister of Foreign Trade and Information Technology: at the same time, we would like to emphasise that the Estonian e-residency was the first of its kind in the world when calculating the total costs and revenues of the programme. This meant that the e-residency team and the relevant public agencies had to play a pioneering role in which it was impossible to take into account foreign practices, and certain solutions, including cost-benefit analysis and methodologies, could only be developed in the process of launching and promoting the programme. The e-residency team has quickly identified the services that create the most value for the e-residents, but also the markets that have the greatest need for the e-residency and potential new sources of revenue. In the first years after the launch of the programme, different revenue models were also tested, and the first more profitable services and target markets were identified.

The value that the e-residency can offer to the Estonian society in the coming years was agreed more specifically in 2019 with the vision document "E-residency 2.0. White Paper" and, based on the latter, the e-Residency 2.0 Action Plan approved by the Cabinet of Ministers in July 2019. According to this, one of the important goals that is already being implemented in practice is that the e-residency programme creates greater value growth for the Estonian economy than before. This means that, in addition to the rapid growth in the number of the e-residents, the number, activity and value of the enterprises established by the e-residents are seen as more important performance indicator.

Although the e-residency team uses the same source data as the NAO and the results are the same, the e-residency council and team use somewhat different but widespread methodology for identifying measuring costs, so-called net cash flow. It is important to mention here that in the calculation of the costs used by the e-residency team in recent years, only those costs that have been incurred due to the e-residency by various state agencies have been taken into account. In other words, according to this methodology, the costs do not include national development projects that have been made primarily for the Estonian citizens and residents and that would have been made regardless of the e-Residency programme, but from which the e-residents could also win (for example, if the highway Tallinn–Tartu is built to improve the movement of the Estonian people, but foreigners visiting Estonia can also drive along it, it would be wrong to say that the road construction budget was spent on servicing the foreigners).

It is also important to notice that, although the NAO has taken into account the value created through service providers as indirect income, it is not the only type of indirect income that the e-residency has brought. As one example, the media coverage related to the e-residency has been bringing considerable benefits to Estonia's reputation from the launch of the programme to the present day, which the e-residency team estimates as at least 20 million euros in monetary terms (if not significantly more).

Comment of the NAO: although the NAO agrees that the Estonian e-residency was the first of its kind in the world and the corresponding foreign practice was lacking, this cannot be a reason for not keeping records of costs and revenues. The NAO does not see a connection between the above-mentioned two statements. Being a pioneer or lacking international practice does not prevent overviewing the costs and revenues of the programme.

The NAO adds that the calculation of the costs of the programme was based on the costs incurred by various state agencies only due to the e-Residency programme. There are differences in the methodology for calculating the revenues of the NAO and the Enterprise Estonia. For example, the Enterprise Estonia includes state fees in the revenues of the programme. The NAO did not take into account the state fee as revenues, because, according to § 4 (1) of the State Fees Act, the fee rate is established on the basis of the costs related to the procedure.

In its audit methodology, the NAO has taken into account the indirect revenues of the programme as much as possible. At the same time, during the audit, the NAO repeatedly asked for documents showing which sources and how much indirect income the programme had brought to Estonia. However, neither the e-residency team, nor any institution related to the e-residency submitted the respective documents to the NAO.

In addition to the above, the NAO points out that, in addition to indirect revenues, indirect costs should be taken into account, including those that may be associated with the realisation of various risks (see, for example, the chapters on "Control systems do not ensure that law-abiding foreigners participate in the e-Residency programme" and "Risks associated with implementation the e-Residency programme").

Reply from the Minister for Foreign Trade and Information Technology: additionally, we would like to notice that the statement made in paragraph 154 of the draft audit report is misleading, so please correct it. According to this statement, the abolition of the requirement of connection with Estonia has been the reason why opening bank accounts by the e-residents is complicated. The main reason why it is more difficult for non-residents to open bank accounts both in Estonia, and elsewhere in Europe is due to the significant tightening of the KYC (the know-your-customer principle) requirements over time and the obligations imposed on financial institutions to be more conservative with all non-resident accounts. It is important to keep in mind that, during the planning period for this amendment, the anti-money laundering rules and situation were not comparable, both domestically, and internationally, to the situation that developed only a few years later, when there were significant negative developments in this area. Therefore, we believe that it would be accurate to express in paragraph 154 of the audit report the fact that the 2016 decision has caused difficulties only in combination with the subsequent tightening of rules and requirements both in Estonia, and internationally. It should also be borne in mind that, as the e-resident companies are largely microenterprises, for many e-residents it is not primarily necessary to have a traditional bank account and use banking services. As an alternative, since 2019, the e-residents can use, for example, both the Estonian credit or payment institutions, and the ones in the European Economic Area to manage their enterprise's financial affairs.

Comment of the NAO: The NAO agrees that one of the reasons why it is difficult for the e-residents to open bank accounts is due to the tightening of the KYC ("know your customer") requirements. However, the NAO points out that a significant part of the stricter requirements emphasises the need for a connection with Estonia. In 2018, the Financial Supervision Authority issued new guidelines for the implementation of due-diligence measures, in which the lack of connection with Estonia is highlighted as a separate risk. Therefore, the banks are more concerned with managing their risks and mitigating them in a way that complies with the rules of the Financial Supervision Authority. Thus, a bank account is opened in Estonia for those the e-residents whose business activities are related to Estonia, and an enterprise established in Estonia alone is not enough. The relevant information is provided in paragraphs 155 and 156, which should be considered in conjunction.

Reply from the Minister of Foreign Trade and Information Technology: additionally, we would like to notice that, according to the EU's eIDAS Regulation[81], the owner of an e-ID device in one Member State of the EU must only be able to access an e-ID service provided by another Member State with an e-ID device of an equivalent or higher level of reliability that the first Member State considers necessary to access its e-services. In the case of Estonia, this level is "high" in all e-services, which means that it is impossible to e-identify a person in the Estonian e-services with e-ID tools of other Member States, the reliability level of which has been assessed as "significant" and "low" according to the eIDAS Regulation. Based on current practice, it cannot be expected that e-ID resources in all Member States will be assessed at a "high" level of reliability in the notification process under the eIDAS Regulation.

We also would like to note that, despite Estonia's hopes and proposals for the implementation of the eIDAS Regulation and for the EU countries to offer the secure e-ID to their residents, to today's knowledge, it will take some time for the demand for the e-residency to decrease as a result. Therefore, we do not consider it justified to plan any replacement activities or risk scenarios in the near future, but we are still monitoring the results and demand of the e-Residency programme. However, if the decline in demand from the EU countries becomes more realistic in the future, we can plan further activities accordingly.

Comment of the National Audit Office: most of the EU Member States that have introduced the e-ID have implemented the highest level of authentication. So far, the exceptions have been Denmark and the United Kingdom. Looking to the future, no Member State has an interest in introducing e-IDs with a lower level of authentication.

Reply from the Minister of Foreign Trade and Information Technology: additionally, we consider it necessary to respond to the positions of the NAO on the topic of issuing licenses for virtual currencies. There is no reason to say that the e-residency is the reason why the services related to the virtual currencies can be provided in Estonia and elsewhere in the world today. Therefore, linking the e-residency to the regulation of the virtual currencies, including its challenges, is misleading and even potentially harmful, as presented in the draft audit report. It is noteworthy that almost 90% of the licenses of virtual currency service providers issued in Estonia have not been issued to the e-residents.

Please take into account the explanations provided and complete the draft control report accordingly.

Comment of the NAO: the report does not say that the e-residency is the reason why the services related to the virtual currencies can be provided in Estonia and elsewhere in the world presently. The report highlights the fact that, due to the e-residency, an amendment to the law was made, which allows the enterprise's management board to be located abroad. This amendment combined with the inadequate requirements for virtual currency licenses, led to a corresponding risk.

Reply from the Minister of Foreign Trade and Information Technology: finally, we recommend that you consult with the Ministry of the Interior regarding the publication of the audit report or possible restrictions on access to it. In our opinion, the draft audit report contains information that is largely derived from restricted access documents, for which the Ministry of the Interior holds the information, and to which access restrictions are intended to protect the procedural tactics of law enforcement authorities. Therefore, please check whether it may be necessary to restrict access to the audit report or certain parts of it.

Comment of the NAO: The NAO believes that there is no formal or substantive ground for declaring the information contained in the audit report as information intended for internal use. The Ministry of the Interior and the Ministry of Economic Affairs and Communications are not the holders of information contained in the paragraphs specified by the Ministry of the Interior. The holders of the information have read the audit report, and the text of the report has been adjusted in accordance with their comments so that it does not contain information for internal use. The NAO also believes that the criteria based on laws and public sources, as well as the conclusions based on these, are information to which public access cannot and must not be restricted.

Reply from the Minister of Finance: we would also like to emphasise that it is important for the e-Residency programme that it brings additional revenue to the state budget. However, it is difficult to calculate the amount of revenue from the e-Residency programme. In addition to the state tax revenue received from companies established by the e-residents, it must also be taken into account that e-resident companies use the services of local companies, which also creates added value and tax revenue. We agree that the e-Residency programme involves risks that need to be mitigated, but we note that no mitigation measures can completely rule out the realisation of risks. Today, more extensive controls are conducted on the e-residents than, for example, on those who enter the territory of Estonia from another European Union Member State and start doing business in Estonia.

Reply from the Minister of the Interior: in addition to the above, please reword paragraph 75 of the audit report [76[82]], as this is an evaluative statement. Please word the second sentence of the paragraph as follows: The situation was caused by a lack of staff in the Information Technology and Development Centre (ITDC) of the Ministry of the Interior.

[81] Regulation (EU) No. 910/2014 of the European Parliament and of the Council dated 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.

[82] The numbering of the paragraphs in the audit report has changed, and the new numbering in square brackets is in line with the text of this report.

Comment of the National Audit Office: the wording of the paragraph has been changed based on the comments of the Ministry of the Interior and its Information Technology and Development Centre.

Reply of the Minister of the Interior: I would also like to point out that certain circumstances have changed from the beginning of the preparation of the audit report to its completion. Namely, the e-residency risk analysis (recognised as the information for internal use) has been prepared in cooperation with various parties, which reflects the risks related to the e-residency, mitigation measures, and those responsible. This analysis was approved on 29/4/2020 at the meeting of the e-residency council. Based on this table, the various parties draw up their own work plans and action plans, thus ensuring that the risks associated with the e-residency are managed constantly and on ongoing basis. As a result, the mitigation measures have also been developed for a number of challenges described in the audit report. In general, there have been several improvements in the exchange of data and information between the agencies, interoperability, clarification of the agencies' competences in procedural processes, improved methodologies, and guidelines. As a more specific example, the Bill on Amendments to the Money Laundering and Terrorist Financing Act and Amendments to Other Acts pending before the Riigikogu envisages the creation of automated central mechanisms that will allow timely identification of all private persons or legal entities holding or controlling payment accounts in a credit institution located on their territory.

Reply from the Minister of the Interior: in addition to the above responses to the proposals made in your audit report, I emphasise that, in my opinion, certain parts of the audit report "Effectiveness of the e-Residency programme" must be marked as the information for internal use (hereinafter the IFIU) on the basis of § 35 (1) 3^1) and 5^1 of the Public Information Act (hereinafter the PIA). The main task of the Ministry of the Interior is to ensure internal security, including the struggle against crime and its prevention. Certain parts of that audit report bring together information the disclosure of which enables individuals to plan the offense in such a way as to reduce the likelihood of its being detected. In essence, the action plan presented in the form of an audit is a gradual approach to obtaining a legal benefit that can be used by a malicious person to commit a possible offense. If information that facilitates and promotes the commission of offenses is publicly available, it is in any case a threat to national security. I propose to mark the following points of the control report as the IFIU: page 5, paragraphs 1, 2, and 4, as well as paragraphs 12, 15, 17, 18, 20, 23, 24, 25, 30–43, 48, 58–61, 63, 69–73, 77, 78, 86–89, and 183–186 of the control report. Also, in Annexes, the "Procedures of the ex-ante control" described on pages 45–46 and the "Procedures of the ex-post control" on pages 46–47 [page 5, paragraphs 1, 2, and 4, as well as paragraphs 12, 15, 17, 18, 21, 24, 25, 26, 31–44, 49, 59–62, 64, 70–74, 78, 79, 87–90, and 184–187 of the control report. Also, in Annexes, the "Procedures of the ex-ante control" described on pages 55–56 and the "Procedures of the ex-post control" on pages 56–57][83].

Comment of the NAO: The NAO believes that there is no formal or substantive ground for declaring the information contained in the audit report as information intended for internal use. The Ministry of the Interior and the Ministry of Economic Affairs and Communications are not the holders of information contained in the paragraphs specified. The holders of the information have read the audit report, and the text of the report has been adjusted in accordance with their comments so that it does not contain information for internal use. The NAO also believes that the criteria based on laws and public sources, as well as the conclusions based on these, are information to which public access cannot and must not be restricted.

The answer from the Director General of the TCB: During the audit, the TCB has explained to the NAO that it is impossible to identify possible business bans of the e-residency applicants in other countries, as the TCB does not have access to the mass data of commercial registers of other countries. The European Commercial Register, to which the TCB has access, does not contain information on business bans. The TCB has discussed the possibility of receiving information on foreign business bans at a meeting with the Ministry of Justice on 14/5/2020 and received an explanation according to which Estonia is transposing Directive No. 2019/1151 dated 20/6/2019 of the Council of Europe, which includes the sharing of business bans between the EU countries, but this directive allows the exchange of information only for the business registrar to make a decision based on individual inquiries and not for storing or sharing information with other agencies (including the TCB or the PBGB).

We also clarified during the audit that the exchange of information of the TCB with the tax authorities of the EU countries takes place through individual inquiries about specific tax risks within certain procedures, and the information obtained during the controls can also be used for decision-making in the ex-post control of the e-residents, but the exchange of information between tax authorities does not allow obtaining mass information as a preventive measure for background analysis of private persons applying for the e-residency.

Recommendations of the NAO	Responses of the auditees
Making mass inquiries and developing IT solutions **92. Recommendation of the NAO to the Minister of the Interior in co-operation with the Director General of the PBGB and the Minister of Justice:** enable PBGB to make mass inquiries into necessary registers (e.g., Criminal Records Database and the database of the CRIS, with the help of which it is possible to ensure whether a foreigner has a business ban in Finland) for improving the efficiency of the e-Residency programme's control procedures. **(paragraphs 59–60)**	**The answer of the Minister of the Interior:** I agree with the proposal, and it will be taken to task as soon as possible. I agree that the ability to make mass queries to various registers must be established as soon as possible. It is currently not possible to predict the specific date when the corresponding developments will be completed, as this requires planning the money for the development works and depends on the completion of the pending IT developments. **The answer of the Director General of the PBGB:** in the case of the e-resident's digital ID procedures, the lack of the IT solutions necessary for making mass inquiries in the ex-post control of the e-residents, as well as the restrictions arising from administrative procedures, are a pain point. Although the IT solutions can ensure more effective control of the persons penalised in Estonia or banned from doing business in Finland, the IT developments do not solve the problem which is related to obtaining data from certain international databases. For example, the PBGB does not have the possibility to query the European Criminal Register (ECRIS) within the proceedings related to the e-resident's digital ID, as this register is designed for judicial cooperation and provides access to

[83] The numbering of the paragraphs in the audit report has changed, and the new numbering in square brackets is in line with the text of this report.

Recommendations of the NAO	Responses of the auditees
	information on convictions, first and foremost, within the criminal proceedings. For example, our neighbouring country, Finland, refuses to provide the PBGB with the information requested through the ECRIS on the sentencing of the e-residents for the purpose of monitoring the e-residents. It is also not possible to request data from the Visa Information System between the Schengen Member States within the e-resident's digital ID procedures, as the Statute of the Visa Information System does not legally allow it. At the same time, one of the grounds for refusing to issue an e-resident's digital ID or revoking an e-resident's digital ID is, inter alia, the record of a circumstance which is a ground for refusing to issue a visa. The PBGB has previously drawn the attention of the Ministry of the Interior to the risks ensuing from these restrictions. The Ministry of the Interior has acknowledged this problem and, to the PBGB's knowledge, intends to work on introducing the regulation necessary to mitigate the risks related to digital identity in international law. The PBGB considers it important to note that access to existing international databases helps to better manage the risks related to the e-residency but it does not provide complete assurance that the persons convicted abroad will not become the e-residents and will not act as the e-residents. This is especially difficult to ensure for third-country nationals. This risk has also been repeatedly pointed out by the PBGB both when creating the concept of the e-residency, and later on. One of the mitigation measures as seen by the Director General of the PBGB is a political decision according to which, the e-residency would only be offered in countries where Estonia has judicial and security cooperation. With regard to the mass inquiries required for the ex-post control of the e-residents, the PBGB wishes to emphasise that the PBGB has the resources required to order and coordinate the corresponding IT solutions, but the problem is primarily the capability of the PBGB's partner in development, the ITDC. The ITDC has had difficulties in timely fulfilling IT development orders related to the e-residency, the main reason for which, according to them, is the lack of qualified workforce, including failed recruitments and people leaving work. The PBGB considers it important to note that, in addition to automating the ex-post control, the ITDC's team responsible for the e-residency-related IT developments must also execute other e-residency-related development orders, including, for example, the developments related to internal security tasks of the Ministry of the Interior. In 2020, such tasks include: 1) Developments required for the implementation of the e-Residency 2.0 risk-based ex-ante and ex-post controls (changes in the application environment); 2) implementation of external service providers issuing the e-resident's digital ID. Based on the ITDC's development capacity, the deadline for creating an automation solution for the ex-post control is 31/12/2021, according to the PBGB's project plan. **The answer of the Minister of Justice:** we confirm that we are ready to co-operate with both the Minister of the Interior, and the Director General of the PBGB to ensure the possibility to make mass inquiries to the necessary registers.
Monitoring contributions to Estonia 93. **Recommendation of the NAO to the Minister of the Interior:** establish a condition for issuing of an e-resident's digital ID, which obliges the foreigner to contribute to the Estonian economy, science, education or culture; verify such a contribution to Estonia when renewing the digital ID or if required in the ex-post control (e.g., in the case of the applicants whose explanations in their application raise doubts). **(paragraph 80)**	**The answer of the Minister of the Interior:** I would like to note that § 20^5 (2) of the Identity Documents Act currently provides that the purpose of issuing a digital identity card to an e-resident is to promote the development of the Estonian economy, science, education or culture, by providing access to e-services with Estonian digital document. Hereby I clarify that it is a value norm where the e-residents as a whole, not each individual personally, contribute to the achievement of the goal set. Applicants for the e-resident's digital ID are also currently being asked for explanations for what purpose and how they intend to use the e-resident's digital ID. At the same time, it is not expedient to assess each person's individual contribution to the development of the Estonian economy, science, education or culture – the person's contribution can also be indirect, for example, by raising Estonia's image as an e-state, creating a network and thus helping the Estonian enterprises export their e-services. I also would like to notice that, apart from the fact that the assessment of each e-resident's personal contribution is inconvenient, it would be inexpedient or disproportionate to make this requirement a precondition for obtaining the e-resident's digital ID, as it would be very difficult, subjective and resource-intensive because it cannot be automated in any way. It is also extremely difficult to determine evaluation criteria (which business plan is viable, and which is not; how many research articles, etc. must be published by the person in order to contribute to the development of science; which criteria should serve as grounds to evaluate the contribution to cultural development, etc.). It is therefore a condition for which it is almost impossible to determine the criteria for its evaluation, and its implementation would be so resource-intensive that the benefits would be

Recommendations of the NAO	Responses of the auditees
	disproportionate to the resources expended, and the PBGB has no competence to make such assessments. It is also difficult to develop and assess these criteria within the ex-post control (e.g. how much taxes must be paid by the e-resident's enterprise to make a sufficient contribution to the Estonian economy, and how long the enterprise must be able to pay the required tax money; whether and what sanctions should be applied if, after certain months, the enterprise has not paid the required amount of tax money or has not published a scientific article, etc.). I would like to note that the e-Residency programme was created with the aim that the e-residents as a whole would promote the development of the Estonian economy, science, education or culture, and that it would not be assessed on case-by-case basis. Therefore, I do not consider it justified to impose such a condition for obtaining or renewing the e-resident's digital ID, as this requirement would not be purposeful, it would not add value to the e-Residency programme, and would be unreasonably resource-intensive to assess. **Comment of the NAO:** pursuant to § 20^5 (2) of the Identity Documents Act, the purpose of issuing a digital identity card to an e-resident is to promote the development of the Estonian economy, science, education or culture. Compliance with provisions and purposefulness written in the law must also be assessed. The National Audit Office does not find it a reasonable that Estonia is issuing digital IDs to foreigners whose activities, including contribution to Estonia, are completely unknown to the state. The main reason to apply for the e-residency is the establishment of a location-independent enterprise. This does not imply that the e-resident will promote the development of the Estonian economy, science, education or culture. For example, the TCB does not have data on the tax behaviour of most of the enterprises established in Estonia by the e-residents but operating abroad. The TCB does not know whether these enterprises pay taxes in the right country or whether they pay taxes somewhere at all. There is also no overview of the contribution of the e-residents to the promotion of the development of the Estonian economy, science, education or culture. Gaining an overview of individuals' contribution is a prerequisite for receiving a contribution of all e-residents. The NAO agrees that contributing to Estonia can also be indirect, but it is also possible to ask the e-resident to clarify it and later to investigate the correctness of the explanations in more detail by means of random controls.
Use of the reversed of the burden of proof 94. **Recommendation of the NAO to the Director General of the PBGB:** as an option, in the case of the e-residency applicants and the e-residents, consider whether to implement more of the reversed burden of proof which allows for the request for evidence of the absence or existence of both current criminal penalties, and business bans, when applying for the e-residency and, where apropriate, in the ex-post control. **(paragraphs 20 and 63)**	**The answer of the Director General of the PBGB:** The PBGB agrees with the NAO that requiring the e-residency applicants and the e-residents to provide proof of absence of penalty and / or business ban helps to mitigate risks, but it is often difficult to verify the certainty and accuracy of such evidence, especially for third-country nationals. For example, a certificate from one state does not confirm that the person has not been convicted in another state, and it may be difficult to assess the competence and credibility of the issuing authority. Besides, an electronically submitted evidence can be very easily forged. The e-resident's digital ID procedure is a fully digital procedure, and, according to the law, the PBGB has 30 days to make a decision to issue an e-resident's digital ID. Requiring any e-residency applicant or e-resident to provide original evidence by post, verifying its correctness, i.e. extension of the procedural deadline depending on the country of location in compliance with the requirements for confirmation of apostille / legalisation / translation and renewal would be an unreasonable resource expense for the PBGB. In the opinion of the PBGB, the requirement for such original evidence is justified from the point of view of resource use only for the e-residency applicants and the e-residents belonging to certain risk groups. To better define the risk group, the PBGB has so far implemented and planned various activities for the future. Since the establishment of the e-residency, percentage of the requirement to submit a certificate of absence of penalty has been increasing every year. At the same time, in the course of the established procedural practice the PBGB relies upon risk profiles of the e-residency applicants and the e-resident's digital ID users. Since 1/7/2020, the PBGB will create an additional position, the main task of which will be the preparation of the e-residency-specific threat assessments and procedural tactical instructions. The input provided by this position should further support a risk-based approach, including the need to require documentation of penalties and / or the absence of a business ban. Additionally, the PBGB considers it important to note that the control of the absence of a business ban is only an additional option for the PBGB in assessing the background of an e-residency applicant or an e-resident, but is not an imperative basis for refusing or revoking an e-resident's digital ID. The e-residency procedure is a procedure requiring the discretion of an official, and a business ban may not be a sufficient basis for each person to refuse to issue or revoke an e-resident's digital ID. It must be taken into account that a person with a business ban is not permitted to be a sole proprietor, a member of the management board of

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	a legal entity, a liquidator and a procurator, but is not prohibited from being a partner in a private limited company, for example. In order to sign shareholders' resolutions or perform other obligations of a shareholder, a foreigner may need an e-resident's digital identity card. If the person's business ban is not related to a criminal penalty, then the procedure of the e-resident's digital ID application may not end with a negative decision. Therefore, in the opinion of the PBGB, the absence of a business ban must be verified primarily by commercial registrars and notaries, whose task is to ensure that persons with a business ban do not become self-employed / members of the management body, regardless of the existence of a digital ID. The PBGB only issues a tool in the form of a digital ID, and the PBGB is not obliged to assess the person's compliance with the requirements for the company's management board.
Use of international databases 95. **Recommendation of the NAO to the Director General of the TCB:** analyse the possibilities of introducing international databases in the ex-ante and ex-post controls. If possible, the TCB should start using them to better evaluate the background and economic legal compliance of the e-residency applicants and the e-residents. (paragraphs 38–39)	**The answer of the Director General of the TCB:** According to the explanations received from the Ministry of Justice, the exchange of data between countries can take place at two levels, where in the first stage only a yes / no answer is received, and in the second stage additional information on the scope, period, basis of the business ban etc. is provided (but disclosure is optional for countries). The exchange of information on business bans will go through the European Business Registers Interconnection System (BRIS), so no one other than registrars will have access to it. Transposing the Directive thus guarantees the most important thing for the state, that the registrar will at least be able to obtain information about valid business bans in the EU countries, as a result of which the registrar can refuse to perform procedures and prevent the persons banned from doing business to act as entrepreneurs in Estonia. The TCB has analysed possible international databases to find out what information they contain, what value such data may have, and whether it could be the basis for not issuing a digital ID to a non-resident private person, based on the legal grounds for refusal in the Identity Documents Act. As a result of the analysis, the TCB has established that the information contained in the databases known to the TCB cannot be used for background research of private persons in the automatic ex-ante and post-ante control processes of the e-residents. The main reasons are the fact that most databases only allow individual queries; contain the data mainly information on legal entities, not private persons, and the TCB also has no legal basis for integrating international mass data into the TCB systems in combination with the TCB data.
Consistent calculation of costs and revenues 123. **Recommendation of the NAO to the Minister of Foreign Trade and Information Technology:** keep as accurate an overview as possible of the total costs and revenues of the e-Residency programme so that the Enterprise Estonia and the Ministry of Economic Affairs and Communications can make informed decisions in managing the programme; At the same time, provide the council of the e-Residency programme with a regular overview of the status of the programme's costs and revenues. (paragraph 99)	**The answer of the Minister of Foreign Trade and Information Technology:** we agree that in the interests of better management decisions, it is important to keep consistent and uniform overview of the revenues and expenses of the e-Residency programme; we have already implemented the corresponding methodology. In 2018, a clear methodology was developed for all parties involved in the e-Residency programme to calculate the total costs and revenues of the programme. Among other things, based on this, an overview of the costs and revenues of the programme, as well as forecasts for the following year, are submitted to the Council of the e-Residency programme, together with the respective objectives and planned activities. The above-mentioned methodology has been used since 2018 and will be updated as necessary as new circumstances arise. **Comment of the NAO:** according to additional explanations by the Enterprise Estonia, the costs related to the programme started to be collected systematically in 2018. The data submitted to the NAO show that there is no overview of the costs of the previous years on a uniform basis. As there is no precise overview of the first years of the programme's activity, it is impossible to get an accurate overview of the total costs of the programme. The NAO also does not agree with the statement that, since 2018, the clear methodology for calculating the total costs and revenues of the programme is in place for the parties. The audit has shown that the calculation made by the e-residency team for 2018 does not include all the costs incurred due to the e-Residency programme. For example, the costs of the Ministry of Foreign Affairs and the TCB, which have been incurred due to the e-Residency programme, have been completely excluded from the calculation. If the costs of the TCB are lower, the Ministry of Foreign Affairs has confirmed to the NAO that the costs related to the e-Residency programme in 2018 were nearly one million euros. In the period 2015–2019, the Ministry of Foreign Affairs had spent almost 3 million euros in connection with the programme.
Availability of the ID card helpline 171. **Recommendation of the NAO to the Director General of the State**	**The answer of the Director General of the SISB:** The SISB procures the e-ID customer support as the ID card helpline service by an external partner, and the agreement is valid until the summer of 2021. Within the framework of this agreement, the service time of the ID card helpline is 8–19, and it is primarily

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Information System Board (SISB): to take into account the changing number of the e-residents, their needs and the times of e-residents' access to the ID card helpline, as well as, if necessary, to change the working hours of the ID card helpline accordingly. **(paragraphs 143 and 147)**	based on the needs of the Estonian users. Before limiting the service hours, we reviewed the statistics of calls to the helpline, and the number of calls outside its working hours was very minimal. Changing the service time entails additional costs that cannot be covered by the budget of the State Information System Board. We will soon start preparing for the end of the current agreement and review how supporting the e-ID users will continue from the summer of 2021, and whether it is possible to improve the service times for the e-residents. In addition to the ID card helpline, we are about to come out with the new www.id.ee environment, which offers new and better opportunities for electronic identity users to solve problems independently, using a convenient and easy-to-use self-help environment. We are also considering using a chat bot to support the user in resolving issues.
Clarification of the terms and conditions for starting a business and obtaining a bank account 172. **Recommendation of the NAO to the Minister of Foreign Trade and Information Technology:** clarify the conditions for starting a company and opening a bank account in Estonia when marketing the e-Residency programme and at the beginning of the digital ID application process (e.g., in the questionnaire for the digital ID). This will allow foreigners to better assess their expectations and the opportunities offered by the digital ID before joining the programme. **(paragraphs 152, 156–157)**	**The answer of the Minister of Foreign Trade and Information Technology:** we agree that an adequate understanding of the circumstances related to starting a business and opening a bank account is important to ensure a positive user experience of an e-resident. We have followed this recommendation since the beginning of the programme and are considering further steps as necessary, especially based on feedback from the e-residents as customers. For example, a special section for important questions and answers has been created at the e-resident's digital ID application portal, where issues concerning the Estonian banking, tax system, and the establishment and administration of an enterprise are also set out as separate topics. The e-residency team constantly works to bring important information to potential and existing e-residents through other convenient channels in addition to the application portal. Since the beginning of the programme, the Estonian government agencies and the programme team have been consistent in their communication to clarify what the e-residents can receive and expect as services. At the same time, the e-residency communication has always emphasized the fact that the organic part of becoming an e-resident is a thorough preliminary work by the person applying for an e-resident's digital ID, including getting acquainted with the Estonian tax system and the e-resident's business legislation. This includes explaining to the e-resident that, if desired and possible, the person can also choose a suitable service provider to represent him or her, who will advise the person throughout the enterprise's life cycle, for example on the selection of payment service and financial service providers. **Comment of the NAO:** in the course of the audit, the NAO got acquainted with the e-residency application environment and materials introducing the programme, as well interviewed various e-resident service providers who deal with the e-residents' issues on a daily basis. Additionally, the NAO conducted a survey among the e-residents through the Enterprise Estonia and monitored the public discussions of the e-residents on social media. As a result, it became clear that many e-residents still do not understand that they cannot open a bank account for their enterprise in Estonia without an Estonian connection. It also turned out that there is a common understanding among the e-residents that, due to the e-residency, they can pay all taxes to Estonia even if all their enterprise's activities and value creation actually take place in another country. Therefore, the NAO considers that in the process of both marketing the e-Residency programme, and applying for a digital ID, the conditions for starting an enterprise and obtaining a bank account in Estonia need to be clarified.
Supervision over virtual currency service providers 203. **Recommendation of the NAO to the Minister of Finance in co-operation with the Minister of the Interior:** develop a suitable procedure for ensuring the law obedience of virtual currency service providers and establish financial supervision over these service providers. **(paragraphs 185–186)**	**The answer of the Ministry of Finance:** The Ministry of Finance prepares a draft which sets additional requirements for the business activities of the virtual currency service provider and the members of the management bodies, and which intends to transfer the supervision over these service providers to the competence of the Financial Supervision Authority. This draft is scheduled to be published in July 2020. However, we would like to notice that the issues related to the virtual currency service are not directly related to the e-Residency programme. As noted in the control report, among 1500–1600 licenses related to provision of the virtual currency services about one hundred have been issued to the enterprises related to the e-residents. **The answer of the Minister of the Interior:** I agree with the proposal and would like to add that, although the conditions of the authorisation procedure for the virtual currency services were clarified by the amendment adopted at the end of 2019, the issue also needs a broad analysis of the implementation of general financial supervision. The Ministry of the Interior is ready to cooperate fully with the Ministry of Finance to improve this area. I would like to notice here that in the Estonian legal system we have also created a secure way for the e-residents to operate in an Estonian credit institution and financial institution (creating an account with an IT tool). For this purpose, a solution has been created where the identification and verification of data by means of information technology use the

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	document for digital identification issued by the Republic of Estonia or another high-reliability e-identification system listed in the Official Journal of the European Union pursuant to Article 9 of Regulation (EU) No. 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC (OJ L 257, 28/8/2014, pp. 73–114). As far as I know, the Estonian credit institutions and financial institutions have not widely adopted the respective secure system in their practice, and it is necessary to ensure other secure ways of identifying and verifying data, if possible. The Bill on Amendments to the Money Laundering and Terrorist Financing Prevention Act and Other Acts (130 SE), in which case the implementation of additional secure information technology means is being considered, is currently being evaluated by the Riigikogu.
Introduction of electronic identity in other EU countries **204. Recommendation of the NAO to the Minister of the Interior in co-operation with the Minister of Foreign Trade and Information Technology:** - participate in the development of an action plan at the EU level on how to integrate the e-ID provided to an e-resident with the e-ID of another EU country to enable the e-services to identify whether the same person is behind two or more different e-IDs. If this is impossible, consider terminating the issuance of the e-resident's digital ID to those residents of the EU countries who can use the Estonian e-services with the e-ID of their home country (with the highest level of authentication). - Monitor the impact of EU countries' e-ID implementation on the e-residency applications of the EU citizens and on the renewals of digital IDs and consider the actions according to the situation and necessity in case the need for e-residency starts to decrease. **(paragraphs 196–198, 200–201)**	**The answer of the Minister of the Interior:** I would like to explain that this is not an e-residency problem, but a much larger one for dual nationals and the EU citizens living in another EU member state (e.g. if a person has the German and Dutch nationalities, he or she can use the e-ID means of both countries of nationality; e.g. if the German citizen lives in Estonia, in addition to a German ID card, he or she also has an Estonian ID card and has the right to use both). Estonia alone cannot find a solution to this problem, as it requires the co-operation of all the EU member states and is being addressed in the relevant technical working groups of the EU. I also would like to explain that, according to the e-residency concept, the target group of the e-residency are all the persons who need a digital identity document in the Estonian public or private e-business, if they are not the Estonian citizens, or they are the foreigners living in Estonia based of a residence permit or right of residence. In addition, the persons who do not have public or private law connections in Estonia, but who wish to use the Estonian digital services in good faith, are also welcome to become the e-residents. In view of the above and based on the fact that ending the issuance of the e-resident's digital IDs to the EU citizens and residents who can use the e-ID of their country of residence or origin, does not solve the problem you have raised, so I do not consider your proposal to be justified. I would like to notice that the e-residency is aimed not only at the EU citizens but also at the third-country nationals. Thus, the need for the e-residency may not decrease, as more and more third-country nationals may want an e-resident's digital ID to start their business in Estonia and thus enter the EU market. I also confirm that a similar risk has been mapped and presented in the e-residency risk table, but the possible reasons for the realisation of the risk are so complex that they cannot be foreseen, and therefore no corresponding action plan has been developed, but it has been decided that the problem will be addressed based on specific circumstances. **The answer of the Minister of Foreign Trade and Information Technology:** in essence, we agree with the course of the recommendations, but not with the proposed activities. As the NAO has also stated in the draft audit report, this is an EU-wide problem and not directly related to the e-residency or to the challenge caused by the latter. Therefore, it is planned to solve this issue more comprehensively and not only from the point of view of the e-residency. The Estonian representatives have actively participated in working groups and submitted proposals at the EU level to find possible solutions and will continue to co-operate and negotiate for this purpose. The aim is to find a suitable solution for the owners of electronic identity tools in all the EU member states, including the persons with several e-ID tools (for example, persons with dual citizenship) to use the Estonian e-services and harmonise electronic identities – in a way that clearly identifies people and prevents fraud. However, we see no rationale for considering the termination of the issuance of the e-resident's digital IDs to the EU citizens, who may at the same time be able to use the Estonian e-services also with their home country's e-ID tool. We can see from the results of the programme so far and from its users feedback that the demand for the e-residency stems significantly more than just the introduction of electronic identity in the rest of the EU. It should be borne in mind that, although the Estonian e-ID tools (including the e-resident's digital ID) are also qualified electronic signature tools that are recognised throughout the EU, this is not the case for eID tools in other countries. The possibility of issuing a globally recognised electronic signature and the possibility of comprehensive use of the Estonian bureaucracy-free e-government ecosystem is an important value that is also highly valued by users of e-ID tools in other member states of the EU. The convenience of applying for and using various e-ID tools must also be taken into account, which has so far spoken in favour of e-

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	residency, despite the small number of issuance points. In short, it is unreasonable for Estonia not to use the corresponding market potential, especially since the risks referred to by the NAO can and must be managed differently and more broadly. **Comment of the NAO:** The NAO had to consider terminating the issuance of the e-resident's digital ID to those residents of the EU countries who can use the Estonian e-services with the e-ID of their home country with the highest level of authentication, i.e. with the same level as the Estonian digital ID. The NAO points out that the market potential does not depend on the issuance of the eID or on the country with the highest security level of eID, but on the interest of entrepreneurs in doing business in Estonia.

Characteristics of audit

Audit objective

The purpose of the audit was to find out whether the revenues of the e-Residency programme exceed the costs, and whether the risks associated with the implementation of the programme have been mitigated.

Criteria for giving an assessment

- The PBGB and the TCB check that foreigners who become the e-residents have no valid criminal penalty and no business ban in Estonia or another country.
- The PBGB revokes the digital ID if there is discovered a criminal penalty or a business ban valid in Estonia or another country.
- The e-Residency programme team of the Enterprise Estonia maintains a uniform and consistent overview of the additional income to Estonia by the programme.
- The e-Residency programme has attracted new e-resident entrepreneurs with Estonia who have not been doing business in Estonia before becoming an e-resident.
- The costs incurred by the e-Residency programme are lower than the revenues from the programme.
- The e-residents perform digital ID-based operations (authentication, digital signing) and use the Estonian e-services.
- According to the e-residents, the Estonian public e-services are easy to find and user-friendly.
- The e-Residency programme encourages the creation of sufficient platforms for business and activity of the e-residents.
- The e-Residency programme has created the preconditions that as many e-residents as possible renew their digital ID and they do not have a valid criminal penalty.
- The risks amplified by the launch of the e-Residency programme and subsequent amendments to the legislation have been mitigated.
- The launch and further management of the e-Residency programme has taken into account the potential impact of eIDAS (the EU's Regulation on Electronic Identification, Authentication and Trust Services) on the programme.

Scope and approach of the audit

The audited institutions were the Enterprise Estonia, the Ministry of Economic Affairs and Communications, the Police and Border Guard Board (PBGB), the Ministry of the Interior, and the Tax and Customs Board (TCB). The audited period was 01/12/2014–30/11/2019.

Audit methodology

The audit analysed the e-residency applications of foreigners; data of documents and enterprises of the e-residents; the presentations, audits, studies, risk and legal analyses on e-residency; laws and regulations concerning the e-residency, materials of the Government of the Republic, and the e-Residency programme council's materials.

Data from the Police and Border Guard Board, the Tax and Customs Board, the Centre of Registers and Information Systems, the Statistics Estonia, SK ID Solutions AS, and the Finnish Criminal Register (*Oikeusrekisterikeskus*) were used in the analysis. In addition, the audit team conducted several interviews (see Table 1 for details).

Further, the analyses made during the audit are reviewed.

New e-resident entrepreneurs

In order to find out how many e-resident entrepreneurs can be considered new to the Estonian business landscape, and how many were engaged in business in Estonia before becoming the e-residents, the NAO made inquiries to the Police and Border Guard Board (PBGB), and the Tax and Customs Board (TCB). The PBGB gave the NAO the list of the applications and documents of all the people who had applied for the e-residency, and the TCB made an overview of all the enterprises that have or had a connection with the e-residents.
In the case of the TCB inquiry, the connections that had arisen before the e-Residency programme, i.e., before 1 December 2014 were separated from the connections that arose after the start of the programme. The data from the PBGB, and the TCB was requested twice, the first inquiry was made as of 31/3/2019, and the second inquiry was made as of 30/11/2019.

The second inquiry was made on the grounds that the results of the first query would have been somewhat outdated by the time the report was published. For faster processing of the data added from the second query of the TCB, only those enterprises that had paid taxes in Estonia in 2019 were examined. As the TCB's ability to issue information from the Commercial Register on the persons connected to enterprises proved to be incomplete, the NAO made an additional inquiry to the Centre of Registers and Information Systems (CRIS), which is the registrar of the Commercial Register.

The NAO considered foreigners to be new e-residents,

1) who were already the e-residents at the time of setting up or buying the enterprise (or had applied to obtain the e-residence no later than six months after the establishment of the connection with the enterprise), and

2) who had no connections with Estonia through entrepreneurship during the year before becoming an e-resident.

If the e-resident had submitted the application more than six months after the establishment of the connection with the enterprise, the NAO assumed that the e-residence was not the reason for the foreigner to start a business in Estonia. There were hundreds of cases where an entrepreneur had applied for the e-residence years later, and this rather indicates the need to use a digital ID for secure and convenient authentication and digital signing.

Direct revenues of the e-Residency programme

The NAO considered the direct total revenues of the e-Residency programme to be direct taxes paid by new e-resident enterprises, i.e., corporate income tax and labour taxes. The NAO treated as new e-resident enterprises those enterprises whose shareholder or shareholders were a new e-resident entrepreneurs or new e-resident entrepreneurs with at least a 10% share and who were connected to the enterprise for at least 31 consecutive days.

The direct taxes of new e-resident enterprises were multiplied by the coefficients assigned to these enterprises according to the calculations of the NAO, which were assigned to them in the respective year. The coefficient depended on the size of the new e-resident’s or new e-residents' share in the enterprise, and on how long they had been associated with the enterprise. For example, if the share of the new e-resident or new e-residents in the enterprise was 100% and he, she or they were connected with the enterprise throughout the period of the enterprise's existence in a given year, then the coefficient was 1. In this case, the total amount of direct taxes paid by the enterprise was taken into account. However, if the share of the new e-resident or new e-residents in the enterprise was 50% and he, she or they were associated with the enterprise throughout a half of the period of the enterprise's existence in a given year, then the coefficient was 0.25, i.e. 25% of the direct taxes paid by the enterprise.

Direct revenues of the e-Residency programme by country of nationality of new e-resident entrepreneurs

The NAO also compared the taxes paid by e-resident companies in Estonia by the country of citizenship of the shareholders of the enterprises to get an overview of the countries from which the e-resident enterprises pay taxes. When presenting the results of the taxes paid by enterprises, coefficients have been taken into account according to the enterprise's shareholders. For example, if a Finnish e-resident has a 100% participation in an enterprise and was associated with the enterprise for the entire period that the enterprise has been operating in a given year, then the coefficient was 1. In this case, the total amount of direct taxes paid by the enterprise was taken into account as paid from Finland. However, if there are two new e-residents in the enterprise considered, one with Russian and the other with Ukrainian citizenship, both held 25%, and they were connected to the enterprise half of the time the enterprise has been operating in a given year, both had a coefficient of 0.125. In this case, 12.5% of the total amount of the direct taxes paid by the enterprise was taken into account as paid from Russia, and 12.5% as paid from Ukraine.

Law abidance and key economic indicators of new e-resident enterprises

For the review of law abidance, activity, sustainability, and jobs of new e-resident enterprises, the NAO presented the results for years 2015–2019 in two forms:

1) as a consolidated overview of all new e-resident majority-owned enterprises, and

2) as a comparison between new e-resident enterprises and similar Estonian enterprises.

Consolidated overview includes enterprises with a majority participation of new e-residents, i.e the enterprises with a coefficient of at least 0.5 (see the subsection named “Direct revenues of the e-Residency programme” of “Characteristics of audit”). After the first five years of the programme, such enterprises had a weighted average of 96% of the total number of enterprises with participation of the e-residents.

For comparison, the NAO made an additional inquiry to the TCB, in which it asked about the consolidated results of the Estonian enterprises as similar as possible to the enterprises with the majority participation of the e-residents in terms of law abidance, activity, sustainability, and jobs. When selecting the reference group of the Estonian enterprises, four parameters (enterprise age, number of employees, turnover, and sector) were taken into account, which would cover as many enterprises with a majority share of new e-residents as possible for each comparable year in years 2015–2019. Most of them were characterised by the following indicators:

- created in 2015 or later;
- had up to five employees;
- enterprises with a turnover of less than EUR 200,000;
- operating in the fields of information and communication, wholesale and retail trade, repair of motor vehicles and motorcycles; professional, scientific, and technical activities.

For the sake of comparability, enterprises of new e-residents were excluded from the comparison, whose turnover and number of employees exceeded the indicators set for the reference group of the Estonian enterprises. Thus, enterprises with a turnover of EUR 200,000 or more and an average number of employees of more than five were excluded from the e-resident enterprises.

In order to get an overview of the investments of enterprises with a majority share of new e-residents, the NAO made an inquiry to the Registers Information Systems Centre based of the list of the enterprises connected to the e-residents received from the TCB. The SISB created an extract from the e-Reporting Environment of the Company Registration Portal based of the list transferred by the NAO about two circumstances:

1) which of these enterprises have filled in the line “Cash flows from investing activities” in the cash flow statement of the annual report to find out the amount of investments made, and

2) which enterprises' annual report includes the word "invest*" (which also includes the forms: investment, invested, investing, etc.) to clarify what investments were made.

Both details were asked for years 2015–2018. The Registers Information Systems Centre forwarded the inquiry to the NAO on 7 June 2019. As the deadline for submitting the annual report is six months after the end of the financial year, the deadline for most enterprises is 30 June. Therefore, the results of the query from the CRIS are complete for years 2015, 2016 and 2017. As the deadline for submitting the 2018 reports had not yet been reached for most enterprises, the data for 2018 is partial. This means that the data for 2018 covers only the enterprises that had submitted the report by the beginning of June, i.e., slightly less than a month before the deadline.

When comparing the data, all those enterprises were selected that had filled in the line “Cash flows from investing activities” in the cash flow statement of the annual report, i.e., which met the first of the two conditions of the query mentioned earlier. This was made a key condition for the selection of enterprises, as in this case the enterprise expressed its investment in a specific amount. The second condition of the previously mentioned query, i.e. enterprises whose activity report of the annual report contained a word “invest*”, remained an informative field and was not used in the selection of enterprises.

To obtain a more detailed overview of the investment activities of the selected enterprises, the cash flow statements and activity reports of the annual reports of all these enterprises were reviewed.

Online survey among the e-residents

The survey was conducted through the Enterprise Estonia in the period 8/7–12/8/2019. The questionnaire was sent to 16,422 e-residents who had consented to be contacted. 2,163 e-residents responded to the survey (13% of those who received the questionnaire).

The aim of the survey was to find out what is the experience and assessment of the e-residents when using e-services. The survey examined which public and private e-services are used by the e-residents, and how often they do so.

The survey covered 11 business-related public e-services: The Estonian State Information Portal (eesti.ee), the Company Registration Portal, the Commercial Register, the e-tax services, the Register of Economic Activities, e-services by Statistics Estonia, the Estonian Education Information System, e-Apostille, the data collection portal of Bank of Estonia and the Financial Supervision Authority, the electronic strategic goods information system (Stratlink).

In the case of public e-services, there were asked questions about findability and user-friendliness. The e-residents were also asked to explain whether they were satisfied with the use of the service, and those who were dissatisfied were asked to clarify what the problem with using the service was.

The survey also included questions about applying for and receiving an e-resident's digital ID. Respondents were asked to rate how satisfied they were with their participation in the e-Residency programme, and which services they were most lacking in.

Survey among e-resident service providers

The survey was conducted in the period 11/10–30/10/2019 in the online survey environment of the NAO. The service providers operating in Estonia, who had been mentioned by at least three e-residents as their own service providers in the survey conducted among the e-residents, were invited to respond to the survey, to which 2,163 e-residents responded, of whom 1,087 used the services of private service providers. This approach allowed to find more service providers than were indicated in the list of service providers on the e-Residency programme website at the time of compiling the survey. Thus, the information received from the e-residents made it possible to turn to those service providers whose services are actually used by the e-residents.

A total of 33 service providers were invited to respond to the survey, of which 22 responded. At the same time, most of the respondents were the service providers who had been named by most of the e-residents. In other words, those service providers who presumably have the most e-resident customers rather responded to the survey. Service providers providing virtual office and tax advisory, banking and payment institutions, insurance, recruitment and relocation services responded to the survey. No law firm or company providing marketing and distribution services responded to the survey. At the same time, the e-residents mentioned the latter as their service providers the least.

The service provider survey asked two things:

1) the number of jobs created in Estonia due to the e-Residency programme (annual average number of full-time jobs), and
2) the total amount of taxes paid in Estonia on the income received from servicing the e-residents and the salaries spent on servicing.

The NAO expected answers to both questions by years between in the period 2014–2019. As the e-Residency programme was launched in the last month of 2014, the programme was still unable to create indirect jobs or generate indirect income in 2014, therefore 2014 is not reflected in the results.

The answers received from the survey were compared with the information provided in the annual reports of the same service providers as well as with the open data of the TCB on the taxes paid and the number of employees. Comparing the data, the replies of some service providers revealed obvious discrepancies with the information provided in the annual reports or the opening data of the TCB. For example, one service provider claimed that their enterprise had 90 jobs created in 2018, and 85 in 2019 due to the e-residency, although according to the open data of the TCB, the enterprise had declared only one employee in the third quarter of 2019, and none before. In such cases, only the maximum common part of the service provider's reply was taken into account with the information declared in the annual report or with the open data of the TCB, i.e., with actual data. The same method was applied for the difference between the answers to the taxes paid and the actual data. In addition to the example above, the remaining differences between the service providers' replies and the actual data were significantly smaller.

The high participation rate of the service providers in the survey and the wide range of activities made it possible to calculate approximate results also for those service providers who did not respond to the survey. For this, the average results of service providers offering the same service and a similar number of mentioning by the e-residents were used. Similarly, to the survey respondents, the obtained results were compared with the information provided in the annual reports, as well as with the open data of the TCB on the taxes paid and the number of employees, and only the maximum common part with the actual data was taken into account.

Table 1. Persons interviewed in the course of the audit

Institution	Date	Name and position
Enterprise Estonia (EAS) Foundation	19/12/2018	Kaspar Korjus – Head of e-Residency Programme Victoria Saue – Head of Legal and Supervision Service of the e-Residency Project Ott Vatter – Head of Global Growth Strategy for the e-Residency Project
Estonian Banking Association	20/12/2018	Katrin Talihärm – CEO, Estonian Banking Association Indrek Tibar – Head of Financial Crime Prevention, Swedbank
Tax and Customs Board	4/1/2019	Kristi Veskus – Head of Unit III of the Tax Audit Department
Police and Border Guard Board	8/1/2019 2/7/2019	Margit Ratnik – Head of the Identity and Status Bureau Erkki-Ruben Vedder – Expert Advisor on e-Residency Domain of the Identity and Status Bureau Anita Sokolova – Chief Expert Advisor on e-Residency Domain of the Identity and Status Bureau Kati Luht – Senior Specialist of the Information Analysis Service
Ministry of the Interior	8/1/2019	Mariann Kirsipuu – Advisor of the Citizenship and Migration Policy Department
Proud Engineers OÜ	11/1/2019	Taavi Kotka – Chairman of the Council of the e-Residency Programme
Ministry of Finance	18/1/2019	Dmitri Jegorov – Vice-Chancellor of Tax and Customs Policy
Ministry of Economic Affairs and Communications	25/1/2019	Siim Sikkut – Vice-Chancellor of Communications and State Information Systems
LHV Bank	29/1/2019	Aivar Paul – Head of Money Laundering Prevention
e-Governance Academy (eGA)	28/2/2019	Arvo Ott – CEO Epp Maaten – Head of Cyber Security Domain
LeapIN Business Services OÜ	16/4/2019	Erik Mell – co-founder, Product Manager
Centre of Registers and Information Systems (CRIS)	22/4/2019	Aleksandr Beloussov – Head of the Business Information System Service Ingmar Vali – Head of the Court Registers Department Keiti Roosbaum – Head of the Criminal Records Service Tambet Artma – Head of the Commercial Register Service
1Office Estonia OÜ	24/4/2019	Ragnar Everest – CEO
Money Laundering Data Bureau (MLDB) of the PBGB	15/5/2019	Madis Reimand – Head of the MLDB
State Information System Board	30/5/2019	Tõnis Reimo – Product Manager of the Electronic Identity Department Tõnu Tammer – Head of the Incident Handling Department Jaak Liivik – Head of the Structural Support Department
Profia Arvestuse OÜ	25/10/2019	Simo S. Heinmaa – Member of the Management Board Helen Heinmaa – Chief Accountant

Time of completing the audit:

The audit procedures were completed in February 2020.

Audit team:

The audit team consisted of audit manager Mart Vain and auditors Eva-Maria Asari and Otti Eylandt.

Contact information

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Electronic copy (pdf) of the audit report is available on the website www.riigikontroll.ee.

Summary of the audit is also available in Estonian.

The number of the audit report in the internal records system of the National Audit Office is 2-1/80026/11.

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Annex A. Overview of the e-Residency programme

Making of the e-Residency programme

The e-Residency programme was launched in December 2014, and it gives citizens of other countries the opportunity to use the Estonian public and private sector e-services securely.[84]

The e-resident is a foreigner to whom Estonia creates a digital identity based on the identity of the country of its citizenship, and issues a digital identity card.[85] The owner of the e-resident's digital ID can digitally sign documents and log in to all portals and information systems that recognise the Estonian ID card. The e-resident's digital ID is not a private person's identity or travel document and does not have a photograph. The e-residence does not grant citizenship, tax residence, residence permit, or permission to enter Estonia or the European Union.

The goal of the e-Residency programme is to bring income to the Estonian economy. Initially, the prerequisite for becoming an e-resident was a connection with Estonia[86]. According to the clarifications, it could be the applicant's family relations (relatives in Estonia), economic relations (real estate, enterprise, etc. in Estonia) or social relations (participation in social activities in Estonia). The second assumption was that the applicant has a justified interest in using the Estonian public e-services, for example, the applicant's interest in starting or carrying out economic activities in Estonia (registration in the Commercial Register, forwarding a notice to the Register of Economic Activities or applying for a license, etc.). Since 2016, the circle of the e-residency applicants has been expanded, and the main emphasis is on connecting new e-residents, i.e. those not yet connected, with Estonia.

According to the Ministry of Economic Affairs and Communications, the management of the e-Residency programme is based on the principles of start-ups. This means that the programme started to offer a new service that had not yet been commercially proven, and the user base had not developed. It also means that the objectives of the programme are constantly changing in reply to changes in the environment. While, in the first years, the main goal was to get the primary community of the e-residents together, the goal was set for the e-residents to create enterprises and become active users who bring income to the Estonian economy. Later, the e-residency website also specified that the e-residency is intended primarily for digital nomads, freelancers, start-ups, and digital entrepreneurs.[87]

The operation of the e-Residency programme is managed by the Ministry of Economic Affairs and Communications, and the programme is implemented on a daily basis by the e-residency team established at the Enterprise Estonia (EAS) Foundation. The e-Residency programme is cross-governmental, and co-operation between ministries and other agencies is coordinated by the e-Residency programme council. The role of the Council is to set strategic objectives for the programme, monitor the implementation of the programme's action plan and budget, make proposals for the development of the programme, and prepare the policy decisions necessary for the implementation of the programme. The Ministries of the Interior, Finance, Foreign Affairs, Justice, and Economic Affairs and Communications, the PBGB, the TCB, the State Chancellery, the Enterprise Estonia, and the private sector are represented in the Supervisory Board. The Council is chaired by Taavi Kotka, who launched the programme, and the Deputy Chairman is the Vice-Chancellor of Communications and State Information Systems in the Ministry of Economic Affairs and Communications.

The Ministry of Economic Affairs and Communications coordinates the activities of the council of the e-Residency programme and mediates the financing of the programme. The Ministry of the Interior is responsible for developing the identity document and the identity management policy. The Ministry of

[84] Explanatory Memorandum to the draft laws of the Identity Documents Act and the Act of Amendments to the State Fees Act, 2014, page 16.

[85]E-resident's digital ID, the PBGB.

[86] Explanatory Memorandum to the draft laws on to the Identity Documents Act and the Act of Amendments to the State Fees Act, 2014, page 6.

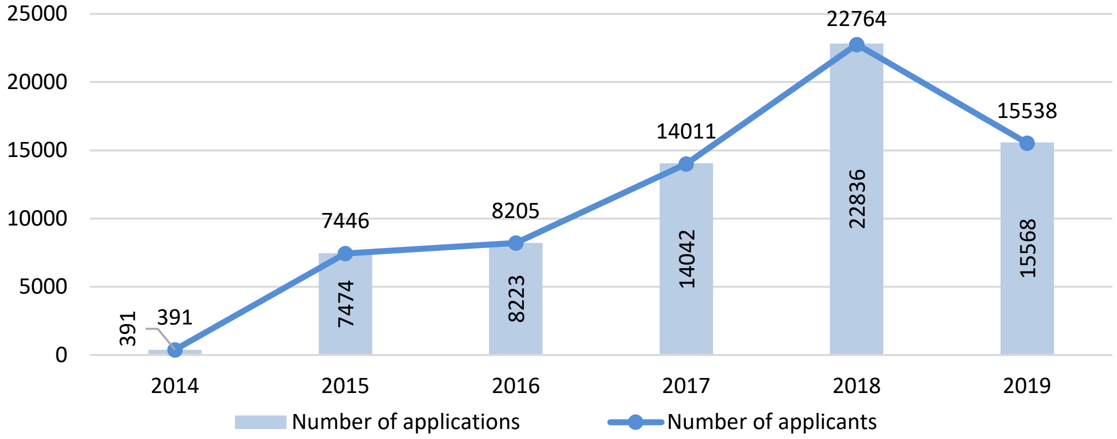
[87] "Who should apply?", Enterprise Estonia.

Finance is responsible for tax policy. The Estonian foreign missions issue the e-resident digital ID cards, and their activities are coordinated by the Ministry of Foreign Affairs. The PBGB and the TCB are responsible for the ex-ante and ex-post controls of the e-residents. The CRIS, which manages the Company Registration Portal and the Commercial Register, also comes into contact with the e-residents. The Ministry of Justice is responsible for the development of the corporate law, and its management sphere includes the CRIS.

The e-residency applicants and the e-residents

In years 2014–2019, 65,254 foreigners submitted 68,534 applications for the e-resident digital ID (see Figure 1). In the first two years of the programme, there were an average of 600 applicants per month. In years 2017–2019, the number of applicants has multiplied (on average, 1,200–1,500 applicants per month). In 2019, the number of applicants per month has slightly decreased.

Figure 1. The e-residency applicants and applications in years 2014–2019[88]



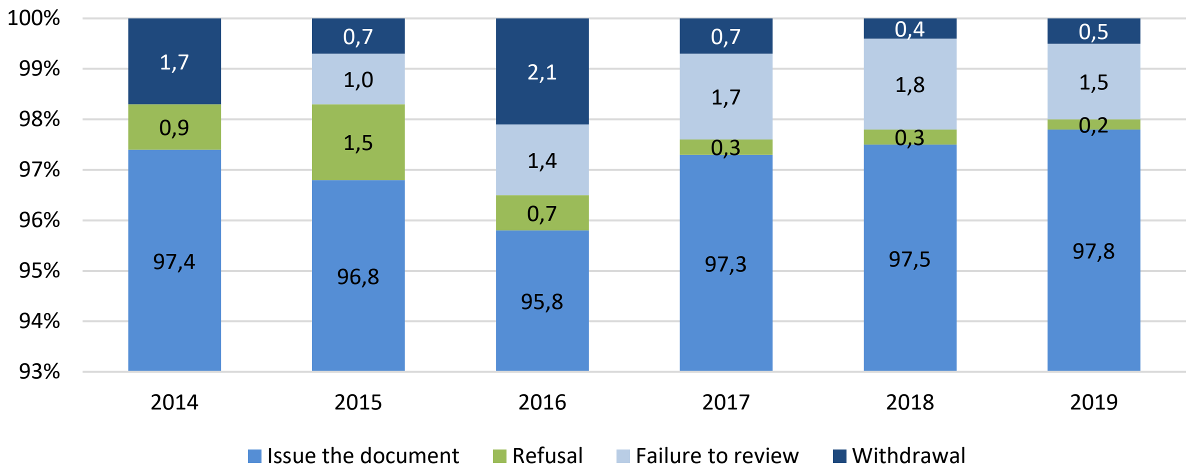
Source: the NAO on the basis of the data of the PBGB

63,149 foreigners (4,440 foreigners have had several digital IDs) have become the e-residents in the period 1/12/2014–1/12/2019[89]). Percentage of positive decisions is on average 97% per year (see Figure 2). Refusals accounted for 0.5% of all decisions in the period 1/12/2014–1/12/2019. The number of valid digital IDs in 2019 was 43,121 (approximately 68% of all digital ID recipients).

[88] Exact time period: In the period 1/12/2014–1/12/2019, one applicant could submit several applications.

[89] Includes both renewals, and reissued documents for technical reasons.

Figure 2. Decisions on e-resident digital ID applications in 2014–2019[90]



Source: the NAO on the basis of the data of the PBGB

The number of refusals to grant the e-residence has so far been small. In the period 1/12/2014–1/12/2019, the PBGB refused from granting the e-residency to a total of 301 foreigners. Percentage of refusals has decreased in 2019 compared to the beginning of the programme. While in 2015 there were 1.5% refusals of all decisions, as of 1 December 2019, the same indicator was 0.2% (see Table 1). The main reason for refusing to grant the e-residence is the applicant's threat to public order or national security. Secondly, the applicant was refused on the grounds that he or she had grounds for a refusal to issue a visa / a temporary residence permit or a refusal of entry. In the third place, there is the non-compliance of the applicants with the aim of the programme (to promote the development of the Estonian economy, science, education or culture).

Table 1. Reasons for refusals in years 2014–2019[91], number of applicants (there may be several negative decisions per applicant)

Reason for refusal	2014	2015	2016	2017	2018	2019
The applicant poses a threat to public policy or public security	1	58	26	41	51	19
The applicant has grounds for a refusal to issue a visa / a temporary residence permit or a refusal of entry.	0	27	16	5	3	1
The application is not in line with the purpose of the programme	0	16	4	1	10	11
Other (e.g. there are grounds for prohibiting the economic activity, there is a suspicion of identity)	0	9	6	1	3	0
Percentage of all decisions	0.9%	1.5%	0.7%	0.3%	0.3%	0.2%

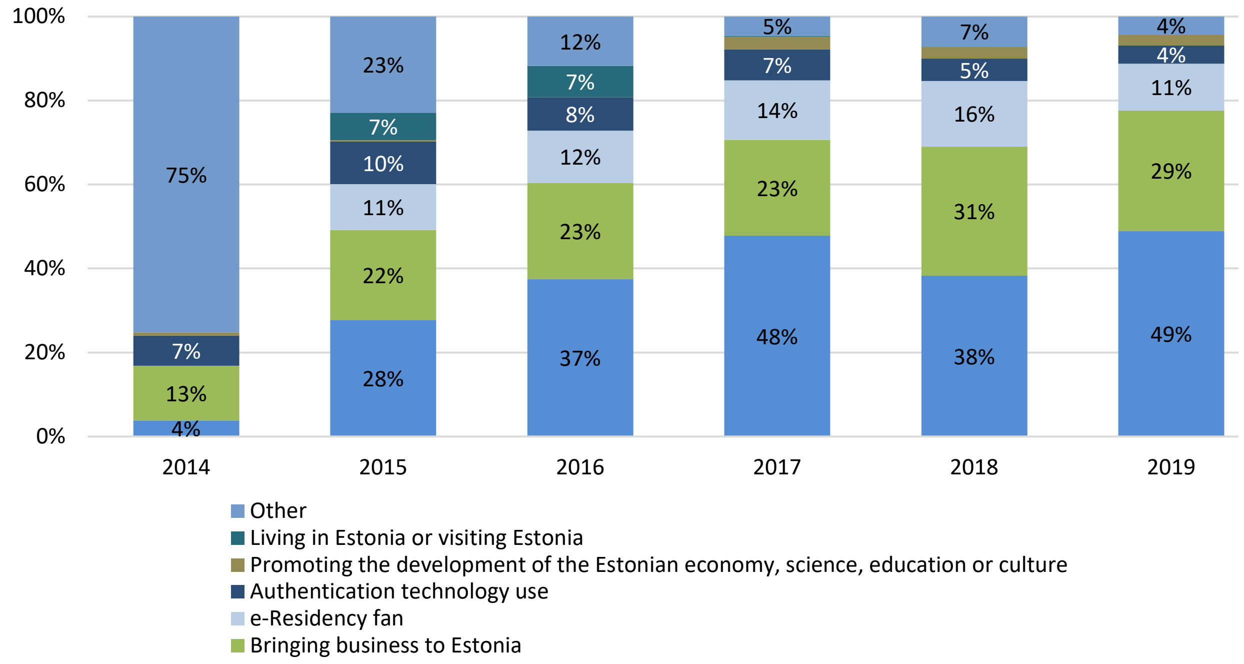
Source: the NAO on the basis of the data of the PBGB

The main reason for applying for a digital ID is the desire to establish a location-independent enterprise (41%). In second place, there is the desire to bring the own enterprise to Estonia (27%), and, in third place, there are the e-residency fans (13%). Entrepreneurship in Estonia or abroad accounted for 78% of the reasons for applying for the e-residency in 2019, and its percentage has increased significantly compared to the beginning of the programme (see Figure 3).

[90] Exact time period: 1/12/2014–1/12/2019. The decision "to issue a document" ranged from 1% to 93%. In order to differentiate other decisions, the scale starts at 93%.

[91] Exact time period: 1/12/2014–1/12/2019.

Figure 3. Reasons for applying for an e-resident's digital ID in years 2014–2019[92]



Source: the NAO on the basis of the data of the PBGB

The e-residents come from 174 countries. The largest number of the e-residents are Finnish, Russian and Ukrainian citizens (see Table 2). Two thirds (62%) of the e-residents come from Europe,[93] and a quarter (26%) from Asia. North America is in third place (6%). Most of the e-residents come from developed (59%) and high-income (62%) countries according to the UN classification. Over the years, percentage of the e-residents coming from outside the European Union has been increasing. While, in the early years of the programme, the majority were the EU and EEA countries, from 2017 most of the e-residents come from third countries. In 2019, third-country nationals accounted for 55% of those who received a digital ID. There is also a decrease in percentage of participants who are citizens of neighbouring countries (Latvia, Lithuania, Finland). The Russian citizens are the only ones to remain in the top three over the years.

Table 2. Citizenship of the e-residency applicants and the e-residents in years 2014–2019[94]

Citizenship	Number of e-residents	Percentage	Citizenship	Number of e-residents	Percentage
Finland	4,485	7.1%	Japan	2,869	4.5%
Russia	3,862	6.1%	United States of America	2,854	4.5%
Ukraine	3,656	5.8%	India	2,783	4.4%
Germany	3,500	5.5%	France	2,536	4.0%
United Kingdom	2,974	4.7%	Other	30,716	48.6%
China	2,914	4.6%	Total	63,149	100%

Source: the NAO on the basis of the data of the PBGB

2,165 e-residents had or have a residence permit or right in Estonia (approx. 3% of the e-residents): 38% of them had a residence permit or right before receiving the digital ID, 53% during the validity of the

[92] Exact time period: 1/12/2014–1/12/2019.

[93] The European Union and the European Economic Area.

[94] Exact time period: 1/12/2014–1/12/2019.

digital ID, and 10% after the expiry of the digital ID. 1,342 e-residents had a temporary residence permit or right. 12 e-residents had a permanent residence permit or a long-term resident's residence permit. 802 e-residents had an EU citizen's ID card.

Procedures of the ex-ante control

The Police and Border Guard Board (the PBGB), the Security Police Board (the SPB), and the Tax and Customs Board (the TCB) perform the ex-ante control of the e-residency digital ID applicants and the ex-post control of thee-residents[95][96], based on their main task. The PBGB is primarily and ultimately responsible for the ex-ante and ex-post control decisions.

The e-resident's digital ID is issued and revoked by the PBGB, and the digital ID may also be issued by the Ministry of Foreign Affairs or an external service provider.[97] Other institutions and service providers are obliged to provide the PBGB with information that may be the ground for revoking the e-resident's digital ID.[98]

In the ex-ante control, the PBGB mainly assesses the applicant's threat to public order and, more specifically, his or her possible criminal motives for obtaining the e-residence. When issuing the document, the PBGB must check the compliance of the applicant's motives with the purpose of the e-residency (to promote the development of the Estonian economy, science, education and culture) and ascertain his or her identity.[99] In the course of this, the PBGB verifies, inter alia, the data of the applicant and, if necessary, of the persons related to him or her.

In the ex-ante control, the PBGB also forwards the submitted applications for assessment to the TCB. In the ex-ante control of the e-residency applicants, the TCB focuses on tax and customs risks.

The ex-ante control by the TCB focuses on the control of tax compliance. It is controlled whether the applicant for the e-residency has a connection (shareholder, member of the management board) with an enterprise registered in Estonia, and whether the applicant has debts for tax, whether declarations and reports have been submitted timely, etc. As a result of the ex-ante control, the TCB decides as follows:

- provide a positive clearance. This means that the TCB did not identify any circumstances that could lead to a refusal to issue an e-resident's digital identity card;
- provide a negative clearance. This means that there is a circumstance that could lead to a refusal to issue an e-resident's digital identity card. The TCB attaches to the negative clearance the circumstances and justification being the grounds for making the assessment;
- provide a conditional positive clearance, accompanied by an explanation of the essence of the deficiency. The TCB provides a positive clearance under the condition that the applicant eliminates a specific deficiency (for example, pays a debt for tax).

The ex-ante control is completed by an official of the PBGB, who reviews each application and evaluates the information collected during the procedure, the information provided by the applicant, the assessment by the TCB, and, if necessary, by other agencies, and the background information collected during the online monitoring. As a result of the ex-ante control, the PBGB decides as follows:

- to issue the digital ID;

[95] Identity Documents Act, § 20^8 (1).

[96] The audit focuses on the control activities of the PBGB and the TCB, and it does not cover the SPB's activities related to the e-Residency programme.

[97] Identity Documents Act, § 15 and § 3^1.

[98] Identity Documents Act, § 20^8 (3).

[99] Identity Documents Act, § 20^9.

- to reject the digital ID application if significant deficiencies have been identified in the application which have not been eliminated by the applicant;
- to terminate the proceedings based on the applicant's personal request;
- to refuse to issue the digital ID.

Procedures of the ex-post control

The PBGB's ex-post control is divisible into two categories: specified ex-post controls and total ex-post controls. The latter is done for all the e-residents with a valid digital ID at certain intervals.

In addition to the databases that are inquired during the ex-ante control, the PBGB makes additional individual inquiries in the ex-post control, if necessary, and checks the usage logs made with the digital ID. In the international databases, the PBGB checks whether the identity document of the e-resident may have been stolen, lost or misappropriated, whether the e-resident has been banned from entering the EU or is suspected of terrorism or money laundering, etc.

The tax compliance of the e-residents having an enterprise in Estonia is checked by the TCB, whose ex-post control is conducted on the same basis as the ex-ante control and is based only on domestic data.

As a result of the ex-post control, the TCB can do the following:

- not to propose to the PBGB to revoke the digital ID of the e-resident;
- propose to the PBGB to suspend the validity of digital ID certificates, or
- propose to the PBGB to revoke the digital ID of the e-resident;
- propose the initiation of supervision proceedings (e.g. to give the e-resident an opportunity to fulfil his or her obligations to the state – to pay a smaller debt for tax, submit a tax return, etc.).

In the ex-post control, the TCB evaluates this as a whole and forwards the proposals to the PBGB if these give a reason to assess the activities of the person so seriously that in the opinion of the TCB the revocation of the e-resident's digital ID deserves consideration. In the decision on the ex-post control, the TCB submits to the PBGB a description of the factual circumstances together with an expert assessment as a matter of tax law why a certain person is unwelcome in the Estonian economic and legal area.

As a result of the ex-post control, the PBGB can do the following:

- not to revoke the e-resident’s digital ID (that is, there are no circumstances that may lead to the revocation of the e-resident’s digital ID);
- suspend the validity of the e-resident’s digital ID certificates, or
- propose to the PBGB to revoke the e-resident’s digital ID;

If an e-resident wishes to renew the digital ID, he or she must meet the same conditions as when applying for the first time. If the first-time applicant has chosen to engage in business as the reason for the application, the person processing the procedure shall compare the data of the first application and the repeated one. If the re-application reveals that the e-resident has not started the business, this does not mean refusing to renew the digital ID. The decision depends on the e-resident's explanations to the person conducting the proceedings.[100]

If the e-resident is found to have a valid criminal penalty, then his or her digital ID is declared invalid. Then the e-resident also loses the opportunity to perform digital operations – for example, use the Company Registration Portal to submit missing reports, etc. According to the Ministry of the Interior, the practice of revoking a digital ID has changed since 2017, and if problems arise, the e-resident will be given the opportunity to eliminate the damage or improve his or her behaviour as a first option.

Locations of issuance of the e-resident's digital ID

In addition to the PBGB services and the Estonian foreign missions, the e-resident's digital IDs are also issued by selected external service providers in third countries. As of 2019, the digital ID can be obtained through an external service provider in Seoul (South Korea), Tokyo (Japan), and San Francisco (United States).[101] In agreement with the Enterprise Estonia's e-residency team, the PBGB plans to expand the range of external service providers to the following countries:

1. Bangkok, Thailand
2. São Paulo, Brazil
3. Johannesburg, Republic of South Africa
4. Singapore, Singapore
5. Sidney, Australia
6. Istanbul, Turkey
7. Milano, Italy
8. Amsterdam, Netherlands
9. Zagreb, Croatia
10. Barcelona, Spain
11. Vancouver, Canada
12. Frankfurt, Germany
13. Kyiv, Ukraine
14. Paris, France
15. London, United Kingdom
16. Zürich, Switzerland
17. Brisbane, Australia

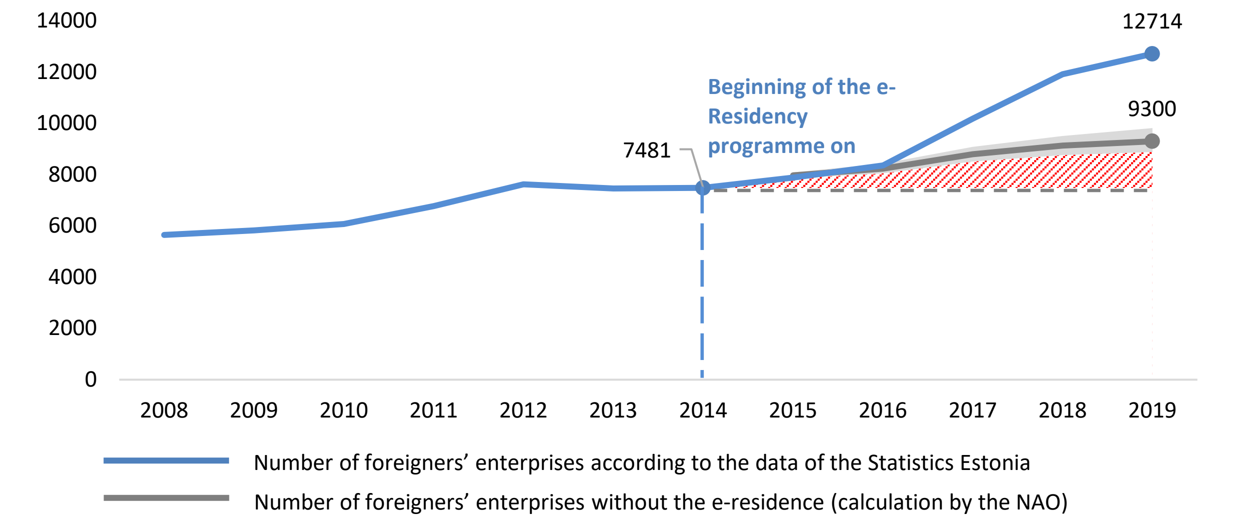
Foreigners' enterprises in Estonia before the e-Residency programme

Percentage of economically active enterprises of foreigners in all the Estonian private enterprises had been stable at 6–7% in years 2004–2016. This means that the absolute number of foreigners' enterprises grew at a pace similar to the number of other Estonian private enterprises. While in 2004 there were 3,513 enterprises of foreigners and 57,088 enterprises of the Estonian residents, by 2016 the absolute numbers had increased to 8,360 and 111,823 respectively. However, percentage of foreigners' enterprises started to grow in 2017 compared to the previous year, reaching 8%, and in 2019 already 9.5% of all the Estonian enterprises. Thus, based on general statistics, it can be concluded that due to the e-Residency programme launched at the end of 2014, percentage of economically active foreign enterprise and thus also the absolute number have been growing faster since 2017. At the same time, according to data from previous years, it can be assumed that the number of foreigners' enterprises would have been growing even without the e-Residency programme, but at a slower pace. If percentage of foreigners' enterprises in all the Estonian enterprises had remained at the previous level, i.e. close to 6–7%, according to the calculations of the NAO, these companies could have been over 9,300 by 2019 without the programme (see Figure 4).

[100] Reply from the PGPB dated 12/3/2020 to the inquiry of the NAO.

[101] E-resident's digital ID, the PBGB.

Figure 4. Foreign private persons'[102] economically active enterprises registered in the Commercial Register[103] in years 2008–2019



Source: the NAO on the basis of [the data of Statistics Estonia]

If the owner or one of the partners of an enterprise created or purchased after the start of the e-Residency programme is a new e-resident entrepreneur[104], the NAO was unable to exclude these enterprises from the calculation of the income of the e-Residency programme, i.e. direct taxes. Thus, according to the NAO's calculations, the number of the enterprises that have paid direct taxes to the e-Residency programme may include the enterprises that would have operated in Estonia and paid taxes without the e-Residency programme, but could not be excluded from the NAO's direct revenues analysis. Figure 4 shows with red stripes the possible number of enterprises calculated with on the basis of general statistics, which would probably have been added to Estonia without the e-Residency programme (if percentage of foreigners' enterprises in all the Estonian enterprises had remained at the previous level, i.e. between 6% and 7%), but not excluded from the analysis. The number of these enterprises is estimated to be between 1,400 and 2,300 as of 2019.

Solutions similar to the e-residency in other countries

Estonia was the first country in the world to start offering the e-residency, but, in 2018, Azerbaijan also started offering its e-residency, and m-residency in October of the same year[105]. Azerbaijan's e-residency and m-residency[106] are, in terms of explanations on their website, essentially the same things. The difference is that e-residents receive a card with a chip, but m-residents are given a SIM card that works on the principle of mobile ID. Hence the difference from the Estonian e-residency is that, by joining Azerbaijan's e-Residency programme, you can choose whether to start using their e-services with an ID card or with a mobile ID. There is no such choice when joining the Estonian e-Residency programme. In

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The source of legal units, i.e. the commercial register managed by the State Information Systems Centre, does not identify e-residents (e-residents do not have a public identifier as an e-resident), therefore it is not known exactly how many e-residents are among foreign private persons. As a country of private shareholders of enterprises, the Statistics Estonia considers the country indicated by the person in the Commercial Register as his or her country of residence. Thus, if an e-resident has indicated a country other than Estonia as his or her country of residence as a shareholder and he or she owns more than 50% of the enterprise's capital, this entity is considered to be a foreign private person's enterprise. If Estonia is indicated as the country of residence of the e-resident, the Statistics Estonia considers it an Estonian enterprise. Written explanation by the Statistics Estonia dated 12/12/2019 to the NAO.

[103] The entities that have the characteristics of activity in the respective year – sales revenue, employees, investments made – are considered active. The so-called vital signs identified on the basis of other sources are also taken into account. Definitions and methodology, the Statistics Estonia.

[104] See the methodology in the "Characteristics of audit" for more details.

[105] First mobile-Residency in the world issued in Azerbaijan, 29/10/2018.

[106] Azerbaijan's e- and m-residency programme website, viewed on 11/2/2020.

Estonia, only customers of a local mobile operator (Telia, Elisa or Tele2) can apply for a mobile ID, who in turn can only be residents. As the e-residency does not provide the Estonian residency, the e-residents cannot apply for a mobile ID. According to the data of 2019, about 100 people have joined the programme in Azerbaijan.[107]

Lithuania and Portugal intend to offer e-resident digital IDs similar to Estonian ones. The aim of the Lithuanian initiative is to enable foreigners to establish enterprises in Lithuania, run them from abroad with the possibility to declare taxes and sign documents digitally from 2021 onwards. The digital ID does not grant tax residence, physical residence or the right to travel to Lithuania.[108]

Portugal announced in March 2020 that it plans to start issuing digital identities to foreigners, which will allow them to set up a business in Portugal without visiting the country. The e-residence does not provide tax residence in Portugal, but provides access to, among other things, banking and public healthcare services. The programme is aimed at third-country nationals. At the same time, the programme's presentation states that all information on business-related services must first be translated into English, and services (both public, and private) must be created that could attract the e-residents to physically bring their corporate headquarters to Portugal.[109]

The e-residency is essentially similar to Dubai's virtual business license and the United States company's Stripe service called Atlas. Both allow you to start a business online. Atlas[110] allows you to open an enterprise (registered in the state of Delaware) online and manage it. Stripe also has a payment services platform[111], which means that Stripe participants do not have to open an account with a separate bank or payment service provider.

The main difference between Stripe and the Estonian e-residency is that Stripe does not offer an electronic identity (thus there is no possibility of digital signing and authentication), but is mainly focused on corporate administration services. Another important difference is that Stripe is designed for online enterprises (such as online stores, mobile apps, and software developers). Since 2019, the Stripe service is also available in Estonia.[112]

The Dubai Virtual Business License allows you to create an enterprise that can be managed digitally without visiting the United Arab Emirates, but it does not allow entry to country.[113] Similar to the e-resident's digital ID, the Dubai solution can provide digital signatures that are legally valid.[114] Owners of virtual enterprises must be nationals or taxable persons of approved countries. The license can be applied for by enterprises and freelancers working in the fields of programming, design (including fashion, jewellery design, interior design), printing, and advertising (e.g. promotional gifts, bookbinding) areas.

The Stripe and the Dubai Virtual Business License programme are more specifically targeted at entrepreneurs. The e-Residency programme is also focused on entrepreneurs, but non-entrepreneurs (e.g. the e-residency fans) are also expected to become the e-residents. Also Stripe and the Dubai License do not provide their customers or programme participants with a nationally recognised electronic identity, as the e-Residency programme does.

Website of [107] the Centre for Analysis of Economic Reforms and Communications, browsed on 14/3/2020.

[108] The Lithuanian Parliament approved the e-residency, BNS, on 16/7/2019.

[109] Startup Portuguese website, viewed on 14/3/2020.

[110] Turn your idea into a startup, Stripe.

[111] Billing and subscriptions for fast-growing businesses, Stripe.

[112] Stripe, one of the world's most important internet payment intermediaries, expanded to Estonia, 7/2/2019.

[113] Virtual Commercial City programme, viewed on 11/2/2020.

[114] Dubai: 'Virtual Company Licence' for non-resident business people and freelancers, 30/9/2019.

Since 1/8/2020, it is possible to apply for a visa in Estonia for the purpose of teleworking[115]. Malaysia has been issuing digital nomads' visas since 2019. It is a work visa programme for technical freelancers who want to work in Malaysia for a short period of time to meet the demand for blockchain professionals.[116]

[115] Aliens Act, § 62^5.

[116] Malaysia pilots visa program for blockchain freelancers, 6/8/2019.

Annex B. Overview of economic indicators and law abidance of new e-resident enterprises

The NAO provided an overview of the main economic indicators of new e-resident enterprises and the submission of their business-related reporting. These results are presented for the years 2015–2019 in two forms:

- as a consolidated overview of all new e-resident majority-owned enterprises,[117, 118]and
- as a comparison[119] between new e-residents' enterprises and similar Estonian enterprises.

Summary of economic indicators of new e-resident enterprises

Percentage of enterprises with a majority share of new e-residents having turnover averaged 31% in the first five years of the programme[120], and the average turnover of these enterprises was around 142,000 euros. Percentage of the enterprises with turnover has remained at the same level. The average turnover has also remained in the same range over the last four years without major changes.

On average, 9% of the e-resident enterprises had jobs (see Table 1). As of the end of October 2019, the e-resident enterprises had more than 1,300 jobs in more than 700 enterprises, more than half of which were so-called one-man companies. At the same time, the number of jobs has been growing at a similar pace to the growth of the number of enterprises.

During the first five years of operation of the e-Residency programme, jobs permanence in the new e-residents' enterprises have increasingly moved in the direction where an ever increasing number of the enterprises have employees every month when the enterprise has been operating during the year. If, in 2015, 10% of enterprises with employees had permanent employees every month when the company operated, then, as of October 2019, the same indicator was 41%.

As of October 2019, the average salary in the e-resident enterprises was slightly over 1400 euros, and the median salary was almost 780 euros. Both indicators have increased significantly over the years of the programme.

Table 1. Jobs at the enterprises, which are majority-owned by the new e-residents, in years 2015–2019[121]

Indicator	2015	2016	2017	2018	2019[122]
Number of the enterprises, which are majority-owned by the new e-residents	433	1,606	3,813	7,840	8,909
… percentage of enterprises with employees	9%	9%	10%	10%	8%
… percentage of one-man companies	25%	36%	37%	32%	51%
Number of jobs	52	241	602	1,097	1,332
Average number of employees in enterprises with employees	1.3	1.7	1.6	1.4	1.9
Average salary	€905	€1,200	€1,096	€1,206	€1,417
Median salary	€500	€630	€594	€625	€779

Source: the NAO on the basis of the data of the PBGB, the TCB, and the CRIS

117 New e-resident entrepreneurs – the e-residents who have no previous connection with the Estonian companies and who have applied for the e-residency no later than six months after the creation or purchase of the enterprise.

118 See the methodology in the "Characteristics of audit" for more details.

119 Similar Estonian enterprises have been selected according to the main parameters (age, turnover, sector, number of employees) of the majority of new e-residents' majority-owned enterprises. For the sake of comparability, there were excluded from the comparison the e-residents' enterprises, whose turnover and number of employees exceeded the indicators set for the comparison group of the Estonian enterprises.

120 All summarised results for the overall period are presented as weighted averages.

121 Exact time period: 1/1/2015-30/10/2019

122 The data for 2019 are as of 30 November. Data on the enterprises added in the period 1/4/2019–30/11/2019 are only for those who had paid direct taxes in Estonia during the same period. The information of the previous period is universal.

In years 2015–2018, 73 e-resident enterprises had made investments in the total amount of 8.5 million euros. Average percentage of the enterprises that have made investments in all active e-resident enterprises[123] in years 2015–2017[124] was 2.8%.

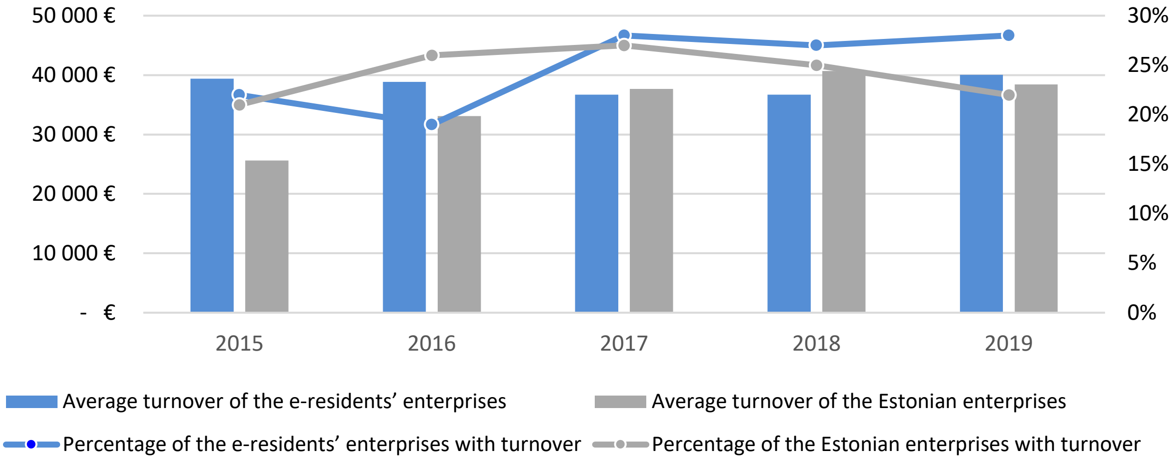
During the first five years of the e-Residency programme,

- the liquidation of 397 (1.8%) e-resident enterprises had started,
- bankruptcy proceedings against 4 (0.02%) e-resident enterprises had initiated, and
- 330 (1.5%) e-resident enterprises were deleted.

Comparison of new e-residents' enterprises and similar Estonian enterprises

Comparing the majority of new e-resident enterprises with the Estonian enterprises as similar as possible in years 2015 to 2019 (see Figure 1), it can be summarized that percentage of enterprises with turnover is similar for both the e-resident enterprises (27.1%), and the Estonian enterprises (24.5%). The turnover of comparable enterprises is also similar: for the e-residents almost 38,200 euros, and for the Estonian enterprises a little over 37,300 euros.

Figure 1. Comparison of the average turnovers and turnover existence of new e-resident enterprises and similar Estonian enterprises in years 2015–2019[125]



Source: the NAO on the basis of the data of the PBGB, the TCB, and the CRIS

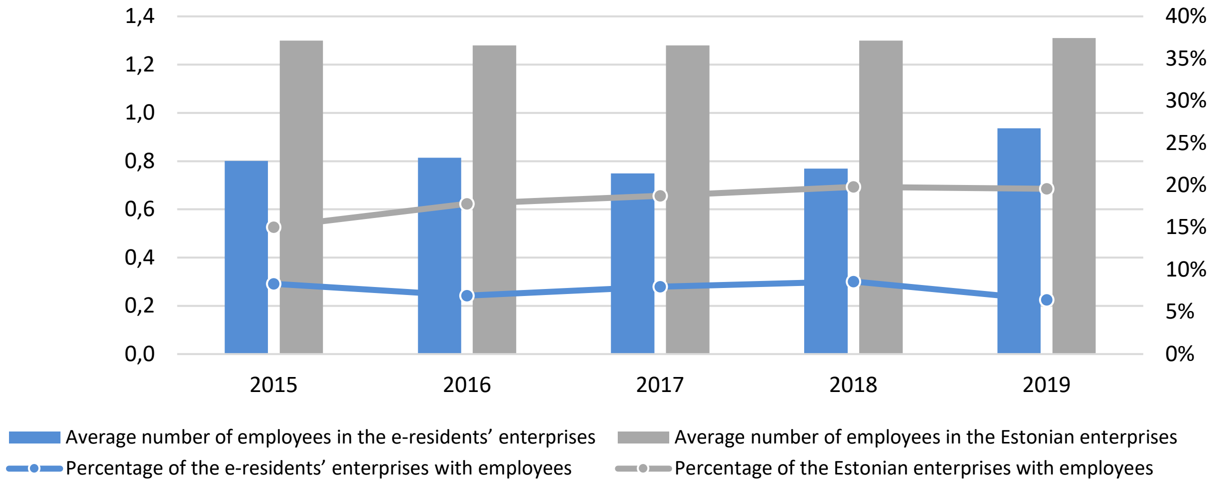
On average, percentage of the e-resident enterprises with employees (7.6%) is two and a half times smaller than percentage of the Estonian enterprises with employees (19%) (see Figure 2). Also, the e-resident enterprises (0.8) have more than one and a half times smaller average number of employees compared to the Estonian enterprises (1.3).

[123] The active enterprise had declared turnover during the year, including 0 euros and negative turnover.

[124] Investments in 2018 were excluded from this calculation due to incomplete data.

[125] Exact time period: 1/1/2015–31/10/2019.

Figure 2. Comparison of the average numbers of employees and employees existence of new e-resident enterprises and similar Estonian enterprises in years 2015–2019[126]



Source: the NAO on the basis of the data of the PBGB, the TCB, and the CRIS

However, the average salary of the e-resident enterprises has been significantly higher than the average salary of the Estonian enterprises (see Table 2). While the average salary of the Estonian enterprises has been in the range of 752 euros to 821 euros, the average salary of the e-resident enterprises has fluctuated between 785 and 1306 euros. At the same time, the median salary has been higher in the Estonian enterprises for some years and in the e-resident enterprises for some other years.

Table 2. Comparison of salaries in new e-residents' enterprises and similar Estonian enterprises in years 2015–2019[126]

Indicator	2015	2016	2017	2018	2019
Average salary of e-resident enterprises	€785	€1,306	€1,128	€1,137	€1,263
Average salary of Estonian enterprises	€752	€767	€762	€785	€821
How many % does the average salary of e-residents differ?	4%	70%	48%	45%	54%
Median salary of e-resident enterprises	€444	€635	€509	€600	€749
Median salary of Estonian enterprises	€542	€600	€623	€668	€709
How many % does the median salary of e-residents differ?	-18%	6%	-18%	-10%	6%

Source: the NAO on the basis of the data of the PBGB, the TCB, and the CRIS

A comparison of percentages of liquidations, bankruptcies, and deletions of both e-residents' and similar Estonian enterprises shows that, in general, the indicators of both categories were similarly low in the first four years (see Table 3). In 2019, however, percentage of liquidations and deletions of both e-residents' and Estonian enterprises increased significantly, but somewhat more in the case of the Estonian enterprises.

[126] Exact time period: 1/1/2015–30/11/2019.

Table 2. Comparison of percentages of liquidations, bankruptcies, and deletions of new e-resident enterprises and similar Estonian enterprises in years 2015–2019[127]

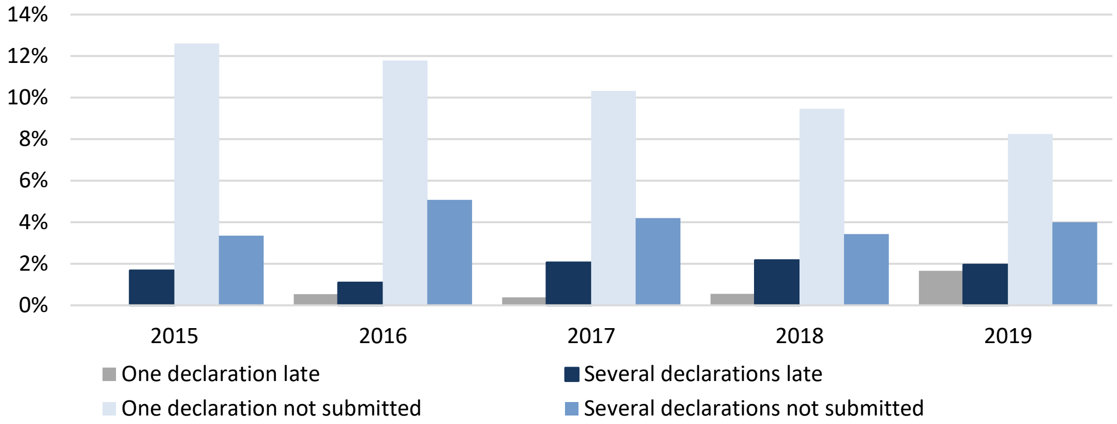
Indicator	2015	2016	2017	2018	2019
Liquidation of e-resident enterprises	0%	0.2%	0.5%	1.3%	3.3%
Liquidation of Estonian enterprises	0.1%	0.3%	0.4%	0.5%	5%
Bankruptcy of e-resident enterprises	0%	0.06%	0%	0%	0.02%
Bankruptcy of Estonian enterprises	0%	0%	0.04%	0.01%	0.04%
Deletion of e-resident enterprises	0%	0%	0.1%	0.4%	3.5%
Deletion of Estonian enterprises	0.1%	0.1%	0.3%	0.4%	5.4%

Source: the NAO on the basis of the data of the PBGB, the TCB, and the CRIS

Consolidated overview of submission of business-related reporting of new e-resident enterprises

According to VAT Act[128], the taxable person is obliged to submit a VAT return to the TCB by the 20th day of the month following the taxation period. In years 2015–2019, 1% of the e-resident enterprises being VAT taxpayers submitted one VAT return late, and 2% of the e-resident enterprises submitted several VAT returns late. There was unsubmitted one VAT return by 9% and several VAT returns by 4% of enterprises. While percentage of late submitters of VAT returns has increased compared to 2015, percentage of those who did not submit these has decreased (see Figure 3).

Figure 3. New e-residents' enterprises who submitted VAT returns late or did not submit these in years 2015–2019[129] (percentage)



Source: the NAO on the basis of the data of TCB

The declaration of income tax and social tax, as well as mandatory funded pension and unemployment insurance payments (TSD), must be submitted to the TCB by the 10th day of the month following the month of payment.[130] Similarly to the submission of VAT returns, compared to late submission, the e-resident enterprises are more likely not to submit a TSD (see Figure 4). In years 2015–2019, TSDs were submitted late by 2% and several TSDs were submitted late by 6% of the e-resident enterprises with employees. One TSD was not submitted by 12% and several TSDs by 4% of enterprises. Compared to

[127] Exact time period: 1/1/2015–30/11/2019.

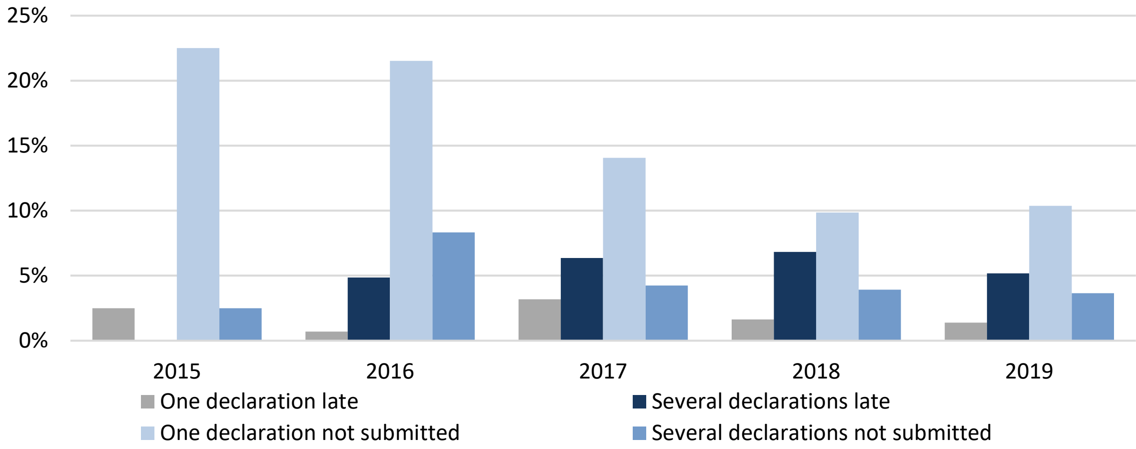
[128] VAT Act, § 27.

[129] Exact time period: 1/1/2015–30/11/2019. The figure shows data on the new e-resident enterprises.

[130] Income Tax Act, § 40 (5) and (6), Social Tax Act, § 9 (5), Unemployment Insurance Act, § 42 (3), Funded Pensions Act, § 11 (1).

2015, percentage of the e-resident enterprises that submitted TSD late has increased, and percentage of enterprises that have not submitted TSD has decreased.

Figure 4. Enterprises of the new e-residents who submitted declarations of income tax and social tax, as well as mandatory funded pension and unemployment insurance payment, late or did not submit in years 2015–2019[131] (percentage)



Source: the NAO on the basis of the data of TCB

1.2% of the e-resident enterprises had debts for taxes in years 2015–2019. The average debt for tax was 4,333 euros. In 2015–2019, the tax audit was performed regarding 8% of the new e-resident enterprises (see Table 4). The average amount of the tax imposed by the tax audit in years 2015–2019 was 1,098 euros. The share of the new e-resident enterprises with debts for tax has increased compared to 2015. The amount of debts for tax has also increased (four times). Percentage of the new e-resident enterprises subject to the tax audit has decreased compared to 2015, but the average amount of the tax imposed by the tax audit has increased significantly (to 2,023 euros).

Table 4. Debts for tax of the enterprises, which are majority-owned by the new e-residents[132]

Indicator	2015	2016	2017	2018	2019
Percentage of enterprises with a majority shareholding of the new e-residents who had debts for taxes at the end of the year	0.9%	1.1%	1%	1.2%	1.4%
Average debt for tax of the enterprises, which are majority-owned by the new e-residents	€1,571	€989	€913	€4,340	€6,527
Percentage of enterprises with a majority shareholding of the new e-residents who had been exposed to the tax audit	4%	19%	26%	5%	1%
The average amount of the tax imposed on the enterprises with a majority shareholding of the new e-residents during the tax audit	€55	€111	€92	€796	€2,023

Source: the NAO on the basis of the data of TCB

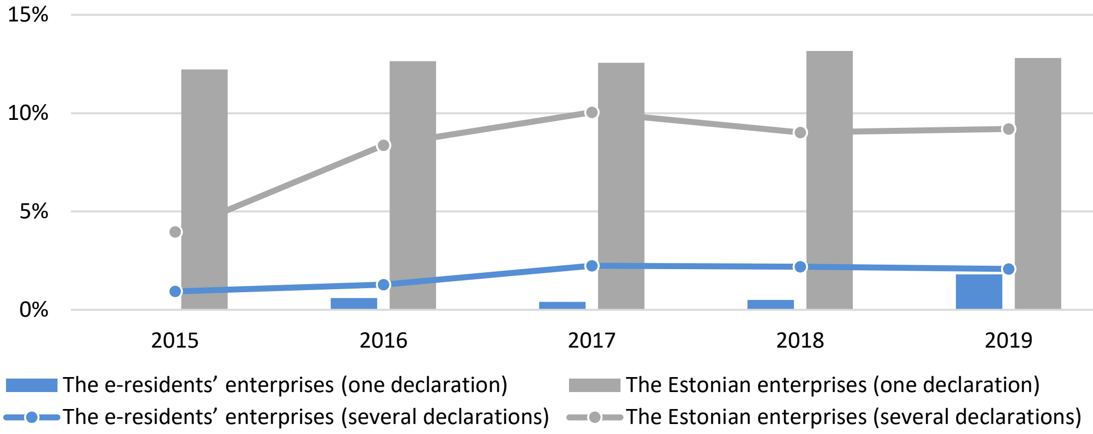
Comparison of new e-residents' enterprises and similar Estonian enterprises

Compared to the Estonian enterprises, the e-resident enterprises are less late in submitting VAT returns. In years 2015–2019, 2% of the e-resident enterprises and 9% of the Estonian enterprises submitted several VAT returns late. Percentage of the enterprises that did not submit several VAT returns is similar among the Estonian enterprises (2%) and the e-resident enterprises (3%). The submission of late returns has increased somewhat in both groups compared to 2015 (see Figure 5).

131 Exact time period: 1/1/2015–30/11/2019. The figure shows data on the new e-resident enterprises.

132 Exact time period: 1/1/2015–30/11/2019. The figure shows data on the new e-resident enterprises.

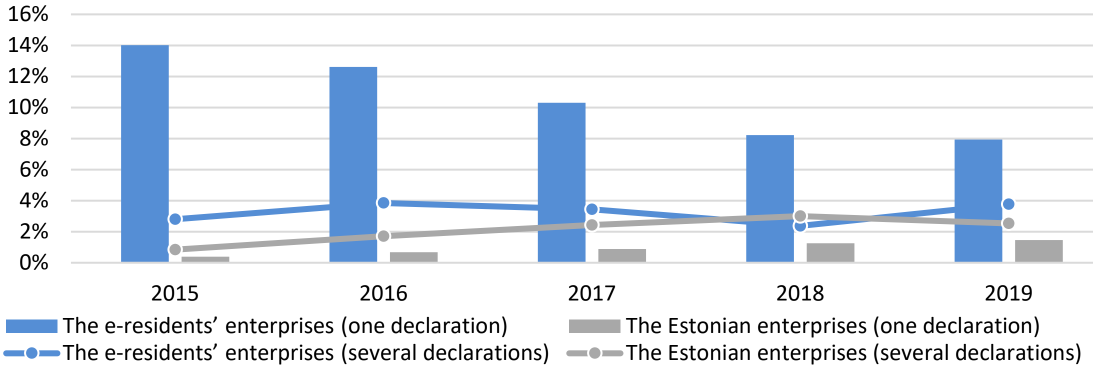
Figure 5. New e-residents' enterprises and similar Estonian enterprises who submitted VAT returns late in years 2015–2019[133] (percentage)



Source: the NAO on the basis of the data of TCB

Percentage of the new e-resident enterprises that do not submit a VAT return has decreased compared to 2015, but has increased somewhat among the Estonian enterprises (see Figure 6).

Figure 6. New e-residents' enterprises and similar Estonian enterprises who did not submit VAT returns in years 2015–2019[134] (percentage)



Source: the NAO on the basis of the data of TCB

There are significantly fewer TSD late submitters among the e-resident enterprises than among the Estonian enterprises. In years 2015–2019, several TSDs were submitted late by 0.6% of the e-resident enterprises with employees, and several TSDs were submitted late by 21% of the Estonian enterprises with employees. In 2015–2019, one or more TDSs were submitted late by less than 1% of the e-resident enterprises (see Table 5). This is significantly less than among the Estonian enterprises.

[133] Exact time period: 1/1/2015–30/11/2019.

[134] Exact time period: 1/1/2015–30/11/2019.

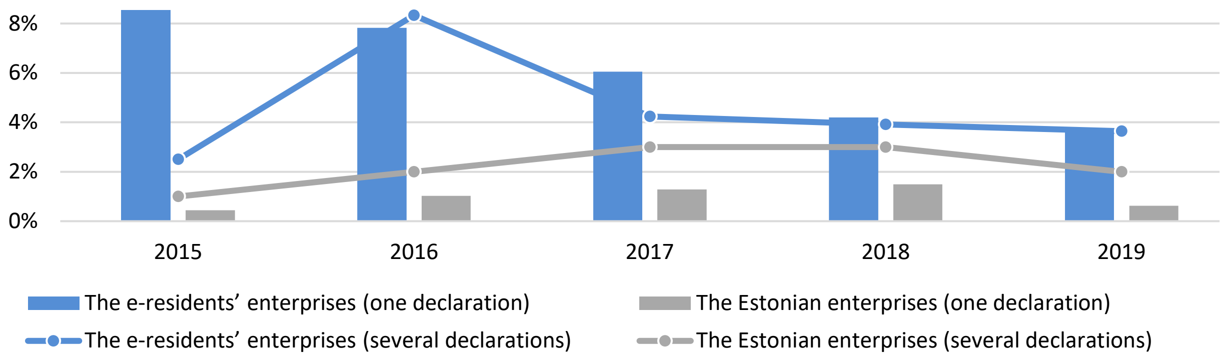
Table 5. The new e-resident enterprises and similar Estonian enterprises who submitted declarations of income tax and social tax, as well as mandatory funded pension and unemployment insurance payment, late in years 2015–2019[135] (percentage)

Indicator	2015	2016	2017	2018	2019
The e-resident enterprises with one late declaration	0.2%	0%	0.3%	0.2%	0.1%
The Estonian enterprises with one late declaration	56%	48%	44%	35%	28%
The e-resident enterprises with several late declarations	0%	0.5%	0.6%	0.7%	0.4%
The Estonian enterprises with several late declarations	18%	24%	27%	21%	17%

Source: the NAO on the basis of the data of TCB

The number of the enterprises that did not submit TSDs is somewhat higher among the e-resident enterprises (4%) than among the Estonian enterprises (2%). Percentage of the enterprises that have failed to submit one or more TSDs has been decreasing in recent years (see Figure 7).

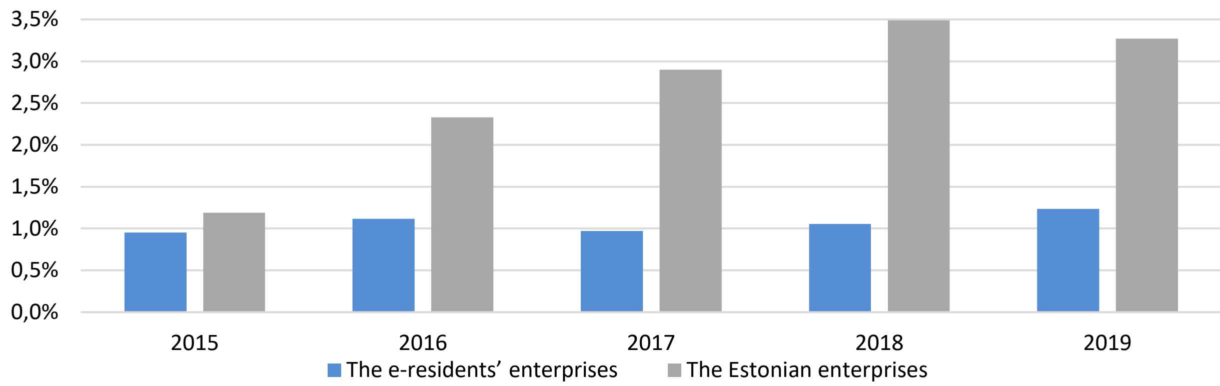
Figure 7. The new e-resident enterprises and similar Estonian enterprises who did not submit declarations of income tax and social tax, as well as mandatory funded pension and unemployment insurance payment, in years 2015–2019[136] (percentage)



Source: the NAO on the basis of the data of TCB

The e-resident enterprises have less debts for tax compared to similar Estonian enterprises. In 2015–2019, the payment indebtedness was 1% for the e-resident enterprises and 3% for the Estonian enterprises (see Figure 8). Percentage of the e-resident enterprises with debts for tax has remained unchanged in years 2015–2019. Compared to 2015, percentage of tax debtors among the Estonian enterprises has increased.

Figure 8. New e-residents' enterprises and similar Estonian enterprises who had debts for tax in years 2015–2019[137] (percentage)



Source: the NAO on the basis of the data of TCB

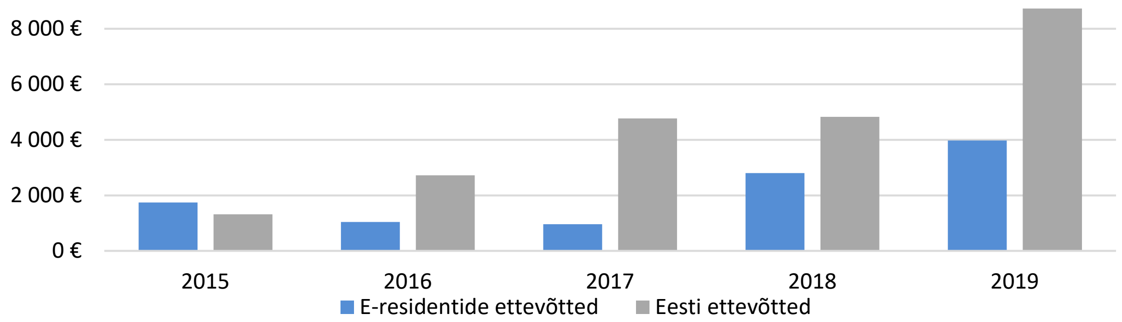
[135] Exact time period: 1/1/2015–30/11/2019.

[136] Exact time period: 1/1/2015–30/11/2019.

[137] Exact time period: 1/1/2015–30/11/2019.

The average tax debt of the new e-resident enterprises (2,811 euros) has been almost half lower than that of the Estonian enterprises (5,561 euros) in years 2015–2019. The average tax debt in both groups has increased compared to 2015 (see Figure 9).

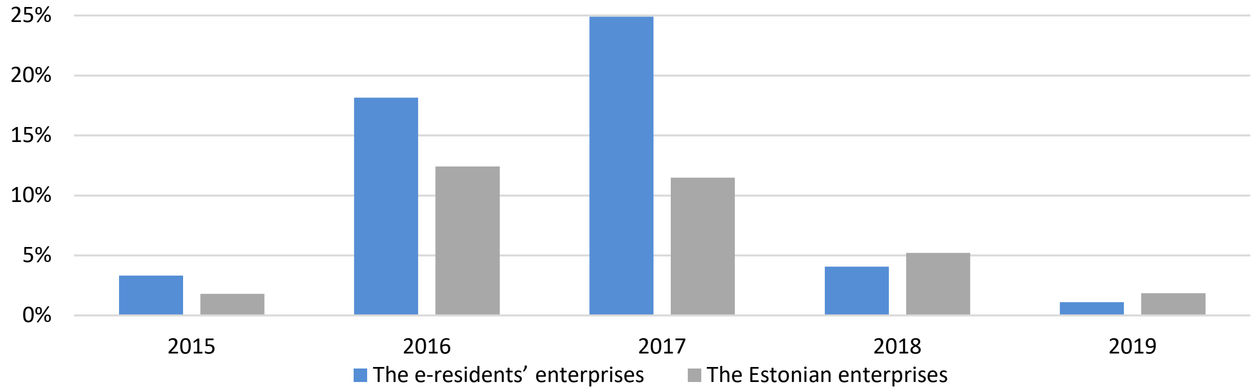
Figure 9. The average tax debt of the new e-resident enterprises and similar Estonian enterprises in years 2015–2019[138]



Source: the NAO on the basis of the data of TCB

Percentage of the enterprises subject to the tax audit in years 2015–2019 was similar for the e-resident enterprises (7%) and the Estonian enterprises (6%). The number of the enterprises subject to the tax audit increased significantly in both groups in years 2016–2017, but has fallen to 1–2% by 2019 (see Figure 10).

Figure 10. New e-residents' enterprises and similar Estonian enterprises who had been exposed to the tax audit in years 2015–2019[139] (percentage)



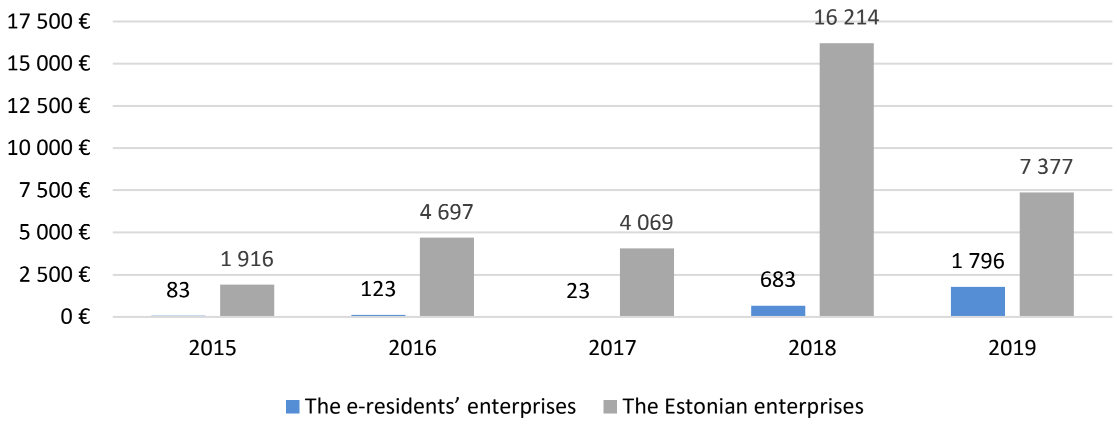
Source: the NAO on the basis of the data of TCB

The amount of tax imposed by the tax audit for the Estonian enterprises (8,315 euros) was almost nine times higher than the amount of the tax imposed on the enterprises related to the e-residents (960 euros). The amount of the tax imposed by the tax audit has increased in both groups compared to 2015 (see Figure 11).

[138] Exact time period: 1/1/2015–30/11/2019.

[139] Exact time period: 1/1/2015–30/11/2019.

Figure 11. The average amount of the tax imposed by the tax audit on the new e-resident enterprises and similar Estonian enterprises in years 2015–2019[140]



Source: the NAO on the basis of the data of TCB

[140] Exact time period: 1/1/2015–30/11/2019.

Annex C. Overview of the e-residents paying social tax

According to the results of the survey among the e-residents[141], the e-residents want to receive health insurance and pension insurance in Estonia. In Estonia, the payment of social tax on state health insurance and pension insurance is guaranteed and must also be paid by the e-residents who receive the remuneration of a member of the management board or supervisory board of the Estonian enterprises.[142] The wages and service fees paid to non-residents are exempt from social tax if the place of work or provision of services is outside Estonia.[143]

One of the main groups that Estonia calls the e-residents are digital nomads[144], i.e. people who constantly travel and work on a computer, who run a 'one-man' company, that is, they are business owners, members of the management board, and employees at the same time, and who may not have health insurance or pension insurance in any other country due to their lifestyle.

According to the data of the TCB, in 2018, there were 757 e-residents who had received the remuneration of a member of the management board or the wage. The number of these e-residents has been increasing every year, and from the beginning of the programme, i.e. from 1 December 2014 to 31 March 2019, 3.9 million euros of social tax has been paid to Estonia from the remuneration of a member of the management board or the wage of the e-residents.[145]

According to the Estonian Health Insurance Fund, there are no special provisions for the e-residents in the Health Insurance Act, and if a minimum social tax liability has been declared for an e-resident, the e-resident is an insured person and is entitled to health care, medicine benefits, medical device benefits, and temporary incapacity benefits.[146]

However, it turns out that the exercise of the right to health insurance is difficult for foreigners, because obtaining many health insurance services requires entry in the list of general practitioners, which requires registration of residence in the population register.[147] The e-residents do not presumably live in Estonia, which is why they do not get to the list of the general practitioners either. Even if an e-resident or other foreigner stays in Estonia on a temporary basis, such as a visa, they cannot register their place of residence here and therefore cannot obtain health insurance.

Although the government has developed amendments to the law to address the problems of the foreigners with a temporary stay[148], the changes planned to enter into force in 2022 will not help the e-residents who are presumably seldom present in Estonia[149].

According to the Social Insurance Board, the social tax of non-residents (including the e-residents) does not differ in any way from the ordinary social tax that creates pension rights. This means that if an e-resident has a pensionable service calculated from social tax for 15 years, he or she will be entitled to an Estonian old-age pension. As the Estonian pension is transferred to every part of the world from 2018, the e-residents also receive the Estonian pension regardless of the country of their residence.[150] If the pensionable service calculated from the social tax is less than 15 years, but the tax

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[141] See more in the third chapter named “The e-residents use the Estonian e-services, but not few of them renew their digital IDs”.

[142] Reply from the TCB dated 01/4/2019 to the inquiry of the NAO.

[143] Social Tax Act, § 3 (7).

[144] Who should apply? The e-residency application website, viewed on 2/2/2020.

[145] Reply from the TCB dated 24/5/2019 to the inquiry of the NAO.

[146] Reply from the Estonian Health Insurance Fund dated 20/3/2019 to the inquiry of the NAO.

[147] Reply from the Ministry of the Interior to the filing of the Tallinn Education Board, 10/10/2019.

[148] Intention to develop a bill to amend the Aliens Act and other Acts, Government of the Republic , registered on 24/9/2019.

[149] According to the explanation by the Chancellor of the Ministry of the Interior to the Tallinn Education Board, the draft will help to solve the problem of registering the residence of the foreigners with a temporary stay who are legally staying in Estonia for more than 183 days.

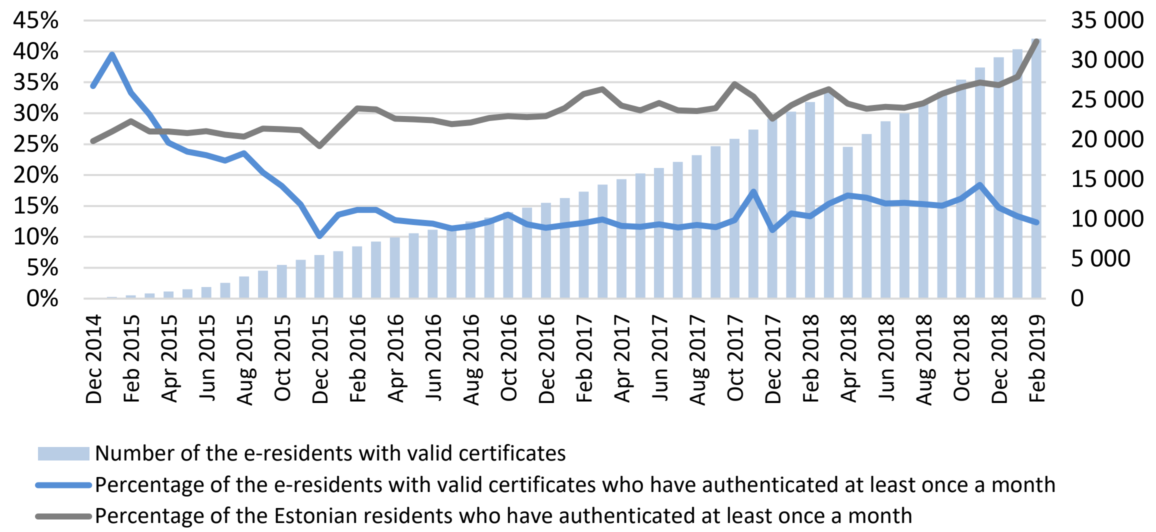
[150] Reply from the Social Insurance Board to the inquiry of the NAO dated 20/3/2019.

has been received for more than 1 year, the lengths of service of the countries with which Estonia has a social security agreement can be added together to create a pension right. This includes the entire European Union, Russia, Ukraine, Canada, Australia, Moldova, and Belarus.

Annex D. Performance of digital procedures

Electronic identification statistics show that in the period 1/12/2014–28/2/2019, at least once a month, the average [151]14% of the e-residents have been authenticated (see Figure 1)[152].

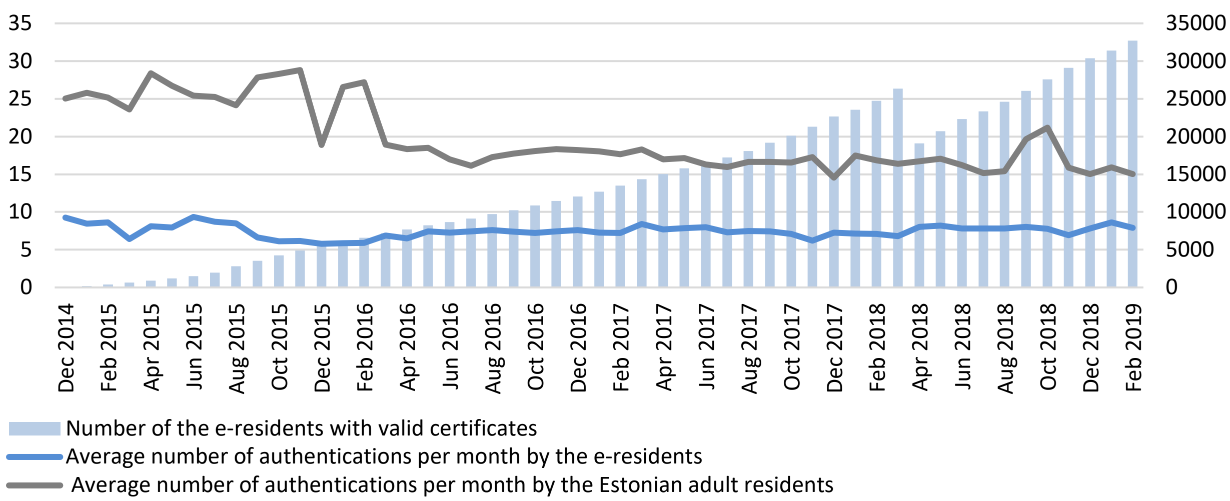
Figure 1. Electronic identification among the e-residents and the Estonian residents from December 2014 to February 2019



Source: the NAO on the basis of the data of SK ID Solutions AS, the PBGB, and Statistics Estonia

The average number of authentications per month for the e-residents is 7 (see Figure 2) and has remained stable over the programme period.

Figure 2. The average number of authentications per month for the e-residents and the Estonian adult residents from December 2014 to February 2019



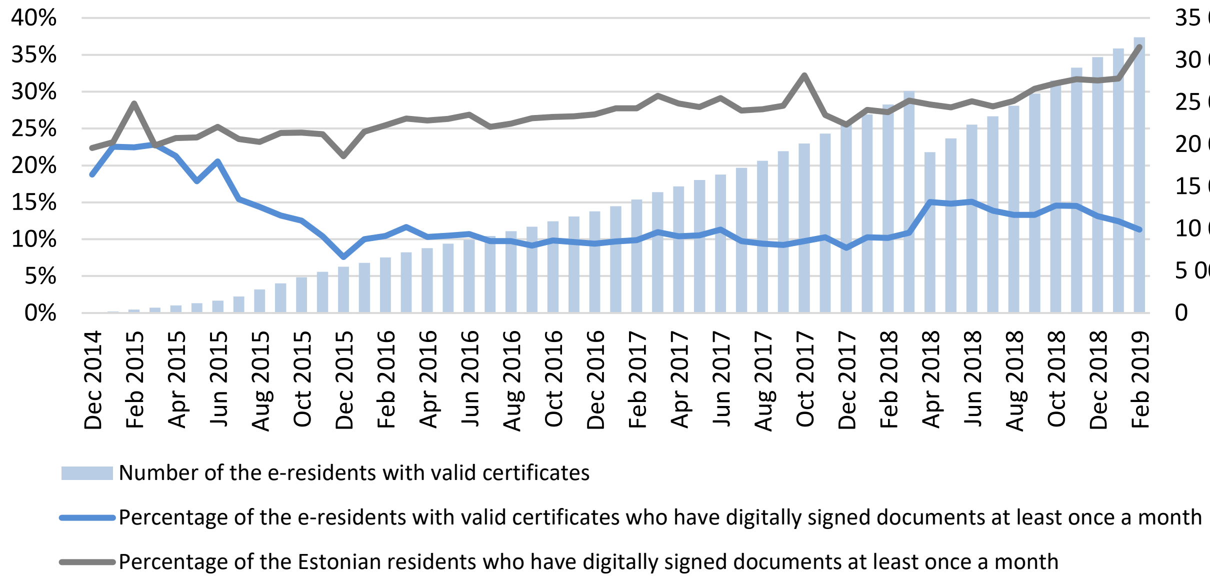
Source: the NAO on the basis of the data of SK ID Solutions AS, the PBGB, and Statistics Estonia

[151] All summarised results for the overall period are presented as weighted averages.

[152] As the e-residents can only have one valid certificate at a time for which statistics are kept (digital IDs), percentage of authentication and digital signing has been taken into account for the e-residents with valid certificates. Percentage of authentication and digital signing of the Estonian residents is calculated on the basis of the number of adults, as the Estonian residents may have several valid certificates (ID card or residence permit card, digital ID and mobile ID). This also applies to Figures 2, 3, 4.

On average, 12% of the e-residents have digitally signed documents at least once a month throughout the entire period (see Figure 3).

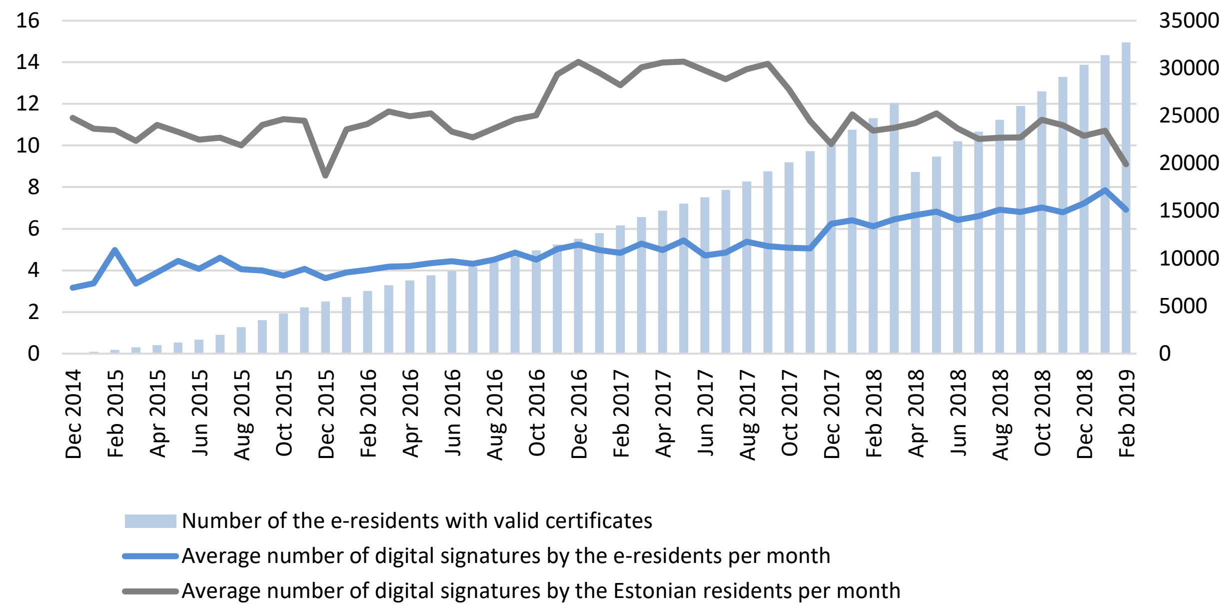
Figure 3. Digital signing among the e-residents and the Estonian residents in the period from December 2014 to February 2019



Source: the NAO on the basis of the data of SK ID Solutions AS, the PBGB, and Statistics Estonia

The average number of digital signatures issued by the e-residents per month during the entire period is 6 (see Figure 4). At the same time, the frequency of digital signatures of the e-residents has been steadily increasing during the programme.

Figure 4. The average number of digital signatures of the e-residents and the Estonian adults per month from December 2014 to February 2019



Source: the NAO on the basis of the data of SK ID Solutions AS, the PBGB, and Statistics Estonia