

The estonian e-residency programme and its role beyond the country's digital public sector ecosystem*

El programa de residencia electrónica de estonia y su papel más allá del ecosistema del sector público digital del país

Thomas Hoffmann ¹✉, Maria Claudia Solarte-Vasquez ²✉

* This reflection article is preceded by two earlier versions by Hoffmann. The first explain the e-residence as the means to bridge East and West, based on an extended abstract for the 9th Meeting and scientific Conference of South-East European Management Departments in Bosnia and Herzegovina (2019), which was submitted as a full paper for the EDT Conference in Rijeka. The second version, developing the same argument, is part of the forthcoming tribute "Recht als Brücke zwischen Ost und West - Festschrift für Prof. Dr. Alexander Trunk zum 65. Geburtstag" to Prof. Dr Alexander Trunk, in recognition for his lifetime academic accomplishments. This last is being published at Berliner Wissenschaftsverlag in a compilation of short writings, under the title "Das estnische E-Residenz-Programm als Brücke zwischen Ost und West."

¹ Dr. Thomas Hoffmann, LL.M., is a Tenured Assistant Professor of Private Law at the Law Department in the Faculty of Business and Governance of Tallinn University of Technology (Taltech).

² Maria Claudia Solarte, LL.M, Ph.D. is a Senior Lecturer at the Law Department in the Faculty of Business and Governance of Tallinn University of Technology (Taltech).

Fecha correspondencia:

Recibido: junio 02 de 2022.

Revisado: junio 22 de 2022.

Aceptado: junio 28 de 2022.

Forma de citar:

Hoffmann, Thommas y Solarte, María Claudia. "The estonian e-residency programme and its role beyond the country's digital public sector ecosystem". En: Revista CES Derecho. Vol. 13. No. 2, mayo a agosto de 2022, p. 184-204. <https://dx.doi.org/10.21615/cesder.6772>

[Open access](#)

[© Derecho de autor](#)

[Licencia creative commons](#)

[Ética de publicaciones](#)

[Revisión por pares](#)

Abstract

Estonia is known for its technological and regulatory/institutional innovation proposals and the development of one of the most efficient electronic government models in the world. Besides the "X-road" project (also known as the X-tee), benchmarking the state's innovativeness and digital capabilities at the domestic level, the e-Residency could be said to be the most important flagship programme positioning the country internationally. This article will expand earlier contributions about the political significance of the programme to explain further and characterize the concept according to its legal and political grounds, practical uses and continued strategic benefits to the country. It will revisit some of the strengths and weaknesses of the initiative, and present scenarios suggesting that its relevance will increase with the evolution of the European Union (EU) public sector digital ecosystems, leading to efficiency gains in cross border cooperation among the EU Member States (MSs).

[Gestión por Open Journal System](#)

DOI: 10.21615/cesder.6772
ISSNe 2145-7719

[Publica con nosotros](#)

Keywords: e-Residency; estonian e-state model; public sector digital transformation; public sector digital ecosystems, e-government.

Resumen

Estonia es conocida por sus propuestas de innovación tecnológica, regulatoria e institucional, y, asimismo, por haber desarrollado uno de los modelos de gobierno electrónico más

eficientes del mundo. Además del proyecto "X-road" (también conocido como X-tee), que se ha convertido en referente de sus capacidades digitales a nivel nacional, se podría decir que la residencia electrónica - e-Residency- es el programa insignia más importante que ha permitido posicionar al país a nivel internacional. Este artículo ampliará escritos y aportes anteriores sobre su significado político, para profundizar sobre la caracterización del concepto desde la perspectiva legal, sus funcionamiento, y el papel estratégico que cumple en terminos de política exterior. Adicionalmente, se revisarán algunas de las fortalezas y debilidades de la residencia electrónica según fue concebida, y se presentarán escenarios que sugieren que su relevancia aumentará a medida que los ecosistemas digitales del sector público de la Unión Europea (UE) se configuren. Lo anterior, porque establece estándares que podrían facilitar la cooperación transfronteriza entre los Estados Miembros de la Unión Europea.

Palabras clave: e-Residency; modelo de e-estado estonio; transformación digital del sector público; ecosistemas digitales del sector público, gobierno electrónico.

Antecedents and significance: The Estonian 'e-state'

Estonia has forged its reputation as a digital pioneer relying on its leaders' determination and a purposeful, well-coordinated and pragmatic political mindset. Even though this was the result of the State's vigorous impulse to the digitization of the public sector during the late 1990s, and the international marketing of each of its success stories, the collective readiness and disposition of the country, and a proper legal framework have also played a fundamental role. When the Estonian Parliament adopted the Resolution of 14 May 1998 on the "Foundations of the Estonian Information Policy,"¹ which explicitly called for the "*creation of an information society*," the country could draw on the technical capacities it had already established, and its human resources. Before regaining its independence, the Estonian Soviet Republic was one of the centres for research in information and communication technologies. The "Cybernetic Institute" of Tallinn Technical University, for instance, had been founded in 1960.

Within a decade from the resolution, the plan was strongly consolidated. The creation of the electronic tax authority and the electronic cabinet took place in 2000, the opening of the

¹ Parliament Resolution of 14 May 1998: "*Eesti infopoliitika põhialuste heakskiitmine*", available online in Estonian at <https://www.riigiteataja.ee/akt/75308>

Mayo – agosto de 2022

"X-road" in 2001, the electronic ID card, including digital authentication and signature as well as the 'digital school' were launched in 2002 and the Estonian central online citizen portal eesti.ee in 2003; municipal elections became electronically available since 2005 (the parliamentary elections followed in 2007), the digitization of the judiciary and notarial systems began in 2006, and mobile digital signatures and digital company registrations in 2007. The 'digital healthcare' system is in operation from 2008, and 'digital prescriptions' are being issued since 2010. The summary of these milestones can be consulted in the State Portal (<https://e-estonia.com/>).

Estonia is a leader on *e-governance* with a public sector that exemplifies the true meaning of an integral digital transformation. McBride et al. (2018) remind of the foundations of the Estonian version of an *e-state*: responsible information and data management, interoperability, and transparency. They also referred to the country's top position in the WASEDA IAC ranking,² and in the Digital Society and Economy Index (DESI) report of the EU from 2018, where the country was second in online public service delivery (European Commission 2018).³ This last relates more concretely to the broad concept of *e-government*, understood as the use of Information and Communication Technologies (ICTs), to improve the public administration performance and facilitate its communication activities. *E-governance* is encompassing of e-administration, e-democracy and e-law (Brown, 2005).

The Estonian model of *e-state* this article describes has two dimensions and complies with several key governance functions. On the one hand, it consists of a layer of digital interfaces that connects the public institutions with the population (citizens, residents and other users). This mediated (by technology) exchange is possible and effective because of its simplified access to the system, enabled by a single digital identification tool. Generally, it takes the form of a chip attached to an ID card or plugged into a personalized (mobile) device. On the other hand, it relies on the platform supporting these transactions, better known as the X-road, or X-tee. This is viewed as a 'data highway' or the public digital infrastructure that permits and protects the network and a broad range of interactions.⁴ The system is safe by design, which does not preclude the existence of open government data, a category that involves public licence for its access, share and use (Zuiderwijk and Janssen, 2014). However, the principle remains that access to the data is restricted and the content in the data packets is encrypted.⁵ The system is said to be transparent regarding the data handling and management, because it registers an unambiguous and detailed trace of the data use, by identifiable agents in the context it took place. The web page of the e-Estonia Briefing Centre informs about the dimensions and components of the e-state model at: <https://e-estonia.com/solutions/>.

² See the latest report in https://idg-waseda.jp/pdf/2021_Digital_Government_Ranking_Report_part_II.pdf

³ Estonia ranks 7th in the latest report, still significantly higher than the EU average. See <https://digital-strategy.ec.europa.eu/en/policies/desi>

⁴ The X-tee factsheet is regularly updated and available in <https://www.x-tee.ee/factsheets/EE/#eng>

⁵ <https://e-estonia.com/solutions/interoperability-services/x-road/>

Mayo – agosto de 2022

Another advantage of building the Estonian X-road was the opportunity to implement the Once-Only Principle, one of seven established in eGovernment Action Plan 2016-2020 of the EU (EU eGovernment Action Plan 2016-2020: <https://ec.europa.eu/digital-single-market/en/european-egovernment-actionplan-2016-2020> last accessed: 30 January 2022). It means that the users (residents -including businesses- and citizens) that have had to disclose personal data to the public administration, do not need to do it again (Krimmer et al., 2017); any authority in need of the same information should be able to obtain it from the relevant data package safeguarded on the state platform (Kalvet et al., 2018 and Tupay et al., 2021 p. 103), and to reuse it (van Ooijen, et al., 2019). For example, after the birth of a child is registered, the calculation of social benefits should become available automatically and could be assigned to the parents without the need for a claim. The administrative act that grants the benefit is issued on the basis of the same basic information and should not impose new transaction costs to any of the interested parties. This burden reduction is praiseworthy when it speeds governmental services safely and provides opportunities for the creation of public value (Wimmer and Marinov, 2017).

The level of interoperability that the X-road enables has had a big impact on the State efficiency in general, and remarkable upgrades in some areas, for instance, in the taxation field. From the point of view of the state when considering its strategies, and the taxpayers when planning their tax management approach, the existence of a unified and simplified system constitutes a gain. E-filing systems unquestionably result in cost reductions and improve the perception of the public about the tax authorities (Kochanva et al., 2020). De Neve et al. (2021) published empirical evidence about tributary systems simplification being economically sound.

Almost two decades ago, Paul Kirchhoff was calling for the simplification of tax law in Germany to the extent that the tax return would fit on a beer mat, and in the meantime, it has become a reality in Estonia.⁶ The income tax return of every fiscal resident of the country is pre-populated and pre-calculated automatically, but not necessarily fixed. Each person may supplement and correct the tax return data, when necessary, via the e-state portal.⁷ The salaries and other income rubrics are known by the authorities, as well as the information declared by third parties on deductibles and other encumbrances. Considering that the tax consultant profession could eventually lapse into disuse, this could be referred to as a good example of a disruptive institutional practice (Christensen et al., 2013).

The institutionalization of the e-residence concept as a digital identity

The current e-Residency programme is synthesized in a white paper that justifies at the policy level its general principles and makes clear that realizing the aims of the initiative does not

⁶ Available in: <https://www.faz.net/aktuell/politik/inland/paul-kirchhof-die-zeit-ist-reif-fuer-die-steuererklaerung-auf-dem-bierdeckel-15913818.html?premium>

⁷ <https://www.eesti.ee/en/money-and-property/taxation-and-currency/income-tax-and-the-declaration-of-income>

Mayo – agosto de 2022

create regulatory tensions.⁸ Notably, the programme aligns with the Estonian security policy which emphasises that close international relations and global awareness are essential to advancing national security. The country's investment in formal and informal alliances represents a soft power tool intended to ensure that its future matters for organizations and people abroad. In 2018, the government called for the revision of the original project to address concerns of the main stakeholders at the time, and after several months of public consultations, the e-residence 2.0 was prepared and announced.⁹

No substantial legal amendments were required for the establishment of the e-Residency in 2014, when the Estonian 'digital borders' were 'opened' to "*anyone with legitimate interests in the country e-services*" (Särav and Kerikmäe, 2016, p. 59), carrying out this state's unique and unprecedented project. Access became possible for foreign nationals to whom the government issued a transnational digital identity card, similar to the document received by citizens and habitual residents of Estonia.

At a specific normative level, two statutes are related to the e-Residency concept and help delineate its scope, namely, the Identity Documents Act¹⁰ and the Commercial Code.¹¹ In addition, the Aliens' Act¹² has an indirect relevance by listing exhaustively the legal basis to acquire a temporary or permanent residency status in Estonia and the regime governing this relationship between the person and the state.¹³ In the §1(1), Division 1, Subchapter 1 of its General Part (Chapter 1, GENERAL PART RT I 2010, 3, 4), on the scope of application, the act refers to aliens who reside temporarily or permanently in Estonia, and are employed in the country. The second division in the first chapter of the Act defines *alien* as a "*person who is not an Estonian citizen*" (§3); *permanent resident* as an "*Estonian citizen residing in Estonia or an alien residing in Estonia who holds a long-term resident's residence permit in Estonia or a permanent right of residence*" (§5); and, *permanent residence* in Estonia as "*the stay in Estonia on the basis of an Estonian residence permit or the right of residence*" (§6) ([RT I, 03.01.2017, 1]). Furthermore, it states what constitutes the legal basis for the rights and obligations associated to those statuses, except in the case of aliens who enter the country within international military co-operation frameworks (regulated by the National Defense Act) (§1(3)), and those whose connection to the country is governed by international law instruments, for example, the staff of diplomatic and consular missions from foreign states and their family members (§1(4)).

⁸ Available in: <https://s3.eu-central-1.amazonaws.com/ereswhitepaper/e-Residency+2.0+white+paper+English.pdf>. last accessed: 10 March, 2022.

⁹ Ibid.

¹⁰ Available in: <https://www.riigiteataja.ee/en/eli/501112021001/consolide>

¹¹ Available in: <https://www.riigiteataja.ee/en/eli/511012021004/consolide>

¹² Available in: <https://www.riigiteataja.ee/en/eli/517082021004/consolide>

¹³ Available in: <https://www.riigiteataja.ee/en/eli/518112013013/consolide>

Mayo – agosto de 2022

The e-Residency raises questions about a few well know legal categories: *identity/name* (Rossolillo, 2009), *nationality/citizenship* (Owen, 2018), and *residence/domicile* (Rogerson, 2000). These in particular represent three of the five personality/personhood attributes that are acquired from birth, and natural persons maintain as long as alive (some of them extend to legal entities, from their registration until they cease to exist) (Navarro Floria, 2012, Duminica and Olah, 2021). Therefore, discussions surrounding the characterization of the e-Residency reflect valid concerns about core understandings of civil law, which lay the foundations of long-standing societal arrangements and the legal order. In Civil Law Systems, they are intimately related to what are known as ‘very personal’ rights, which are traditionally linked to the protection of values such as seclusion, honor, privacy, and others that are considered inherent to being a (natural) ‘person’ (Cosola, 2021), and are legally protected. Fundamental social, political, economic, ethical and moral concerns lay at the basis of these categories, enshrined in rights that are also known as the forerunners of the Universal Declaration of Human Rights- (United Nations, 1948).

Identity refers in broad sense to the singularity of a person represented by conventions that can demonstrate individuality and moral agency (Floridi, 2006 p. 20). Legal systems use *names* and other differentiating codes with numbers and/or letters combined, assigned to refer to human beings and entities with rights and duties. Not every way to refer to a person is a valid identity sign. Pliner (1989) explains that aliases and nicknames, among other appellatives, are circumstantial or accessorial to a name, and even while attached to a person’s individuality, they have no legal weight.

An e-Residency card fully demonstrates and describe with valid conventions who the holder is, to the extent of its digital capacity. It is a forward-looking concept in that it leans the use of the identification card down to a version with limited features and entitlements. Conversely, in the traditional view of state issued personal Identity Documents (IDs), the individuality and legal personhood indicate the relationship between an individual and the issuing state.

Matsumoto (2013) alludes to identity as a right, coinciding with the policy and jurisprudence of the Court of Justice of the Organization of American States, which is in line with the European standards. She explains it as one that acknowledges the legal capacity of the holder, and presupposes the obligation of the state to guarantee the conditions for its free and wholesome exercise, according to the legal entitlements it may represent (2013, p. 2211). In effect, everyone has the right to be recognized, and therefore the ample meaning of identity nowadays denotes an inalienable, non-transferable and non-renounceable human right. Furthermore, this recognition has personal, familiar and social dimensions but they all begin with having name and surname, to be known in society and, crucially, on a state registry. Suárez & Fuentes (2015) refer to the legal doctrine developed by the Organization of the American States (OAS) in case law, that reflects this understanding of the matter. For instance, in *Gelman Vs. Uruguay* (24/021. Serie C No. 221, par, 122. Corte IDH, 2011), the Inter-American Court of Human Rights

Mayo – agosto de 2022

conceptualized that all attributes and characteristics that permit the individualization of a person form a bundle under the right to the self, the so-called identity right. Simultaneously, personhood, depending on the given state and society where people belong, points to the broad capability to become a legal agent (subject of entitlements and liabilities) (Ribadeneira, 2016), without excluding, in the case of natural persons, two other known dimensions: the anthropological, which refers to being a human, and the philosophical about being sentient, rational, and conscious (González, 2020).

Nationality is another distinguishing attribute of the personality and a fundamental right that connects an individual to a state and its protection. While nationality and citizenship are often used interchangeably at the international level (Pedroza & Palop-García, 2017), being a 'national' in a country would technically refer to a natural person of certain origin, an equivalent to belonging to a specific nation. The criteria are commonly defined at a constitutional level. In these cases, *citizenship* would refer to the capacity to exercise political rights and be subject of obligations as a member of a community within a territory (de Preperier, 2010). A national by birth is entitled to become a citizen, whereas non-nationals, in principle, should complete a naturalization process to attain that status. The first chapter on the general provisions of the Estonian Citizenship Act establishes the manner in which it is acquired, resumed and lost: by birth, naturalization or restoration, respectively (§2, 1) ([RT I 1995, 12, 122]).¹⁴ These attributes clearly add to the distinguishing features of the legal personhood of an individual, and thus, declared in IDs. Nevertheless, these documents are declarative rather than constitutive of the status and relevant information consigned in the civil registry system of the country where the person is from (Suárez & Fuentes, 2015).

Residence or residency broadly refers to the place where a natural person is established and *domicile* to a dwelling location. In Common Law jurisdictions and in Germany, the attributes are called 'habitual residence' and general domicile, and as such, they are understood to coincide. According to this view, presence and some permanence are presumed to create a meaningful connection between the person and a state, which combined with the attributes described above define the law governing the person's legal affairs and "other attributions" depending on the jurisdiction (Pfeiffer, 2021). The expression 'habitual residence' is compatible with the civil law notion of domicile that also relies on the relevant links individuals and states are recognized to have under both, domestic and private international law. Pfeiffer (2021) stated that within the EU, the habitual residence is the second point of liaison, in determining the applicable law and jurisdiction, after citizenship, when speaking of natural persons. In sum, the residency is regarded as the legal 'seat' of a person, which commonly corresponds to his/her domicile or place of living.

¹⁴ Available in: <https://www.riigiteataja.ee/en/eli/503022016004/consolide>

Mayo – agosto de 2022

The EU and MSs have their own rules on residency, in fact, it is tied to European rights and duties and has justified the freedoms of movement of goods, persons, services, and capitals for decades (Art 3(2) of the Treaty of the European Union TEU). In consequence, the benefits of having this status are undeniable and thus, strictly regulated. These attributes influence public administrative functions (Davies, 2005) and are a matter of public order to the extent to which they facilitate the state control of its territorial borders. For this reason, among others, -legal-residents and non-residents have to be distinguished in civil registries and in identification documents (Torpey, 2018). For practical purposes, for example access to social welfare and services, the conditions for an individual to be resident are concretely established by the law of each country. The residency does not automatically derive from being a national, citizen or from physically staying within the territory of a country. Nevertheless, presence or the intention of being in a place in the future may be the means to preserve the entitlements and obligations that it gives raise to (Bruzelius, 2019).

The Estonian e-Residency is not and does not rely on legal categories contemplated by statutes in the EU or any MS legislation. What is more, it shares none of the administrative or jurisdictional purposes explained so far because it is issued to foreign nationals not residing or staying permanently in the country.

The Estonian Aliens' Act¹⁵ lists exhaustively the legal basis to acquire a temporary or permanent residency in Estonia and the regime governing this relationship between the person and the state.¹⁶ The Act applies to citizens and residents of 'third states' only, because the citizens of the EU, the European Economic Area or the Swiss Confederation, MSs and their family members, with a legal right for stay or reside in Estonia, acquire it by virtue of different statutes ([RT I 2006, 26, 191, Chapter 3, Division 1, §13 of the Citizen of the European Union Act]).¹⁷ The e-Residency is absent from this list, and thus, the physical card that demonstrates this status is not constitutive of personhood, citizenship or habitual residence. Consequently, in Estonia, the e-resident card does not function as a general identification, and it is not issued as a travel document or entitles the holder to freedom of movement within the EU.

Estonia has not rethought any existing legal institutions but proposed and implemented a wholly new type of relationship between a state and natural person, one with more informal allegiances albeit the codified interactions that it relies on. What the e-Residency means for the country and its e-governance sustainability in practice has been more significant in terms of its consolidation than the legal framework around it, because the institutionalization path was built using technical rather than legal strategies. The following sections convey more concretely the evolution and success of the programme and suggest its relevance to other pan European initiatives related to digital identities and their management.

¹⁵ Available in: <https://www.riigiteataja.ee/en/eli/517082021004/consolide>

¹⁶ Available in: <https://www.riigiteataja.ee/en/eli/518112013013/consolide>

¹⁷ Available in: <https://www.riigiteataja.ee/en/eli/520032019014/consolide>

The e-residence in practice

The e-Residency and e-resident's digital ID may be granted to an alien who has legitimate and justified interest in using the digital services secured and maintained by the Estonian state if the person does not have the right or permission to stay or be a resident in the country, or is entitled to or already a holder of a valid ID card issued by Estonia. The application is an uncomplicated online process that lasts approximately 30 minutes, where no specific criteria must be met other than substantiating the interest in obtaining the e-residence.¹⁸ This involves submitting a motivational note and sharing personal information that allows the authorities to carry out background checks. The term for processing the application is 30 days and when it is approved, the applicant must collect the physical card in person, in Estonia or at an Estonian embassy abroad.

The Estonian Police and Border Guard Board (PBGB) manages the entire process.¹⁹ Their main responsibility is to assess the applicants' trustworthiness and corroborate the accuracy of their statements, for instance, personhood, identity and other ties to a country of origin, their status where residing at the moment, the expectations they may have, intentions about incorporating a company in Estonia, and to the extent possible, their digital competences. The PBGB will be able to observe whether the applicants are flagged by any of the applicable monitoring mechanism, in the same way it is done during migration proceedings. Moreover, the basis for denying, suspending and revoking the e-Residency, an Estonian visa and a resident permit as well as the grounds for establishing a prohibition on entry to the Schengen area are the same. Therefore, depending of the gravity of the situation, to strip a person of the e-resident status may result in a Schengen entry ban. Ultimately, the e-Residency is not a right or a personhood attribute, but an advantage that is granted at the state discretion.

The e-resident status is one of a kind that allows the use of the X-road, and through this platform, obtain benefits for being part of the growing Estonian digital ecosystem. Any person is a potential user of these public digital infrastructures and the ever-expanding services they support. Furthermore, since its introduction, the programme has focused on increasing the number of e-residents while improving their user experience. In this sense, the evolution of the initiative has been compared to the growth trajectory of a start-up, because it is responsive and refines its offerings continuously.

Estonia hosts state of the art solutions for e-residents to successfully pursue activities independently of their location. Digital nomads – professionals who live and work in more than one country, particularly the tech-savvy ones who offer cross-border IT and consultation services – are one of the main target audiences of the programme. An e-Residency gives them a way to establish companies electronically and manage them remotely with low overhead to

¹⁸ Look further consulting the page of the PBGB: <https://eresident.politsei.ee/?promo-code=230323809.1653732057>

¹⁹ This is explained in: <http://e-resident.gov.ee/>

Mayo – agosto de 2022

gain access to the European market, its legal framework, financial services, etc. The conveniences of having companies based in a MS (especially after the eIDAS Regulation (EU) No. 910/2014 of the European Parliament and of the Council of July 2014 on electronic identification and trust services for electronic transactions in the internal market, which has allowed the mutual recognition of trust services the EU-wide, and backs up Electronic Identification (eID) from 2016). The e-Residency portal describes its users/customers as follows: *“most e-residents are entrepreneurs who work digitally, are location-independent and want to start and run an EU company”*.

Most e-Residency applicants report that they are interested in incorporating a company, and it has been confirmed that in practice, the straightforward establishment of a business is a decisive incentive for many, although only one sixth of the e-residents effectively do so. Kimmo et al. (2018) suggested that the key motivation for people to create this kind of ‘ties’ with another country has to do with the rising political economy uncertainties around the world. As they mentioned, the low trust in governments and the foreign adoption of powerful technologies could indeed conflate to provoke a spreading interest in alternative relationships with states other than one’s own. But at a more personal level, they generally apply out curiosity or, indeed, after considering the ease and low-cost proceedings characterizing the legal and institutional environment of the country. The most popular company type is the “OÜ” or limited company (Oasühing), governed by the Commercial Code in its part VI, Chapters 17-22,²⁰ and by far the most common business entity for both, residents and e-residents. It is comparable to the German *haftungsbeschränkte Unternehmergesellschaft* (“Mini-GmbH”) regulated in art 5a of the Act on Limited Liability Companies (consolidated and published in the Federal Law Gazette III, Index No. 4123-1),²¹ or the English Limited (liability or by guarantee) Company Ltd, as defined in the United Kingdom Companies Act 2006 c 46, art 3(1).²² The establishment requirements are minimal, it can be done within a few minutes using an electronic ID card. The only perceived hurdles are the need for an Estonian contact person and a having a bank account in the EU. An Estonian OÜ could also be attractive because of the simplified tax regime applicable. As a rule, the payment of dividends is not taxed (Income Tax Act, §18).²³ The tax obligations arise only in respect to the profit distribution, i.e., profits can be reinvested year after year, and cover interim losses indefinitely. In the case of disbursements, however, the beneficiaries should pay income tax, in accordance to the law of the person’s fiscal residence, plus, the Value Added Tax (VAT), when VAT liable (Value Added Tax Act).²⁴ The Estonian Tax and Customs Board dedicates a page in its web portal to explaining the tax liabilities of companies established by e-residents (<https://www.emta.ee/en/business-client/registration-business/non-residents-e-residents/tax-liabilities-companies>). This leaves no doubt about Estonia imposing clear tax obligations to firms, and rules out any

²⁰ Supra note 15.

²¹ Available in: https://www.gesetze-im-internet.de/englisch_gmbhg/englisch_gmbhg.html

²² Available in: <https://www.legislation.gov.uk/ukpga/2006/46/part/1/crossheading/types-of-company>

²³ Available in: <https://www.riigiteataja.ee/en/eli/ee/509012020002/consolide/current#para18>

²⁴ Available in: <https://www.riigiteataja.ee/en/eli/523042021001/consolide>

Mayo – agosto de 2022

misunderstanding about the e-Residency turning into an incentive to promote the country as a tax haven.

Estonia received applications from EU MSs only until 2017, and until now, the e-residence and the simplified business environment are appealing and perceived as comparative advantages of the country mostly within Europe. If to look at the proportion of requests ever since, considering the people whose country of origin is located in the region, it seems that the trend will continue, even if the interest continues to grow in other parts of the world. The majority of e-residents and applicants in 2022 are from Russia; people from Finland, and Germany come in second and third place. By the end of 2021, the country in records with the most startups registrations, was Ukraine.²⁵ The programme became specially interesting for the British after Brexit, as expected. An article by Maewe Shearlaw was published in The Guardian newspaper on September 2016, with the title: "A Brexit bolthole? For €100 you can become an e-resident of an EU country you've never visited" (<https://www.theguardian.com/world/2016/sep/15/estonia-e-residency-european-union-brexit-eu-referendum>), and as of May 2022, more than 4000 UK citizens are e-residents of Estonia.

Some people obtain the e-Residency because they support the Estonian way of living and culture and to receive first-hand information about opportunities that other technology developments may create. A number of these e-residents have become ambassadors of the Estonian digital society abroad and are truly invested in the country's progress and care about its future. But in effect, offering electronic access to public and mixed public and private services is no longer exceptional, much less within the EU. Sustaining the position as an e-government leader will probably depend on the dynamic capabilities and adaptability of the Estonian e-state model to the expanding demands of the times. Estonia is likely to remain competitive and will attract e-residents based on the robustness of its forming digital ecosystem, the various entities it will group (public, private, technological, organizational, data and content related, etc.), the quality, completeness and human centered built of platforms and specific services, as well as the welcoming business environment that the ecosystem shall represent. The concept of the e-Residency in practice, has been a creative addition in the Estonian e-state development trajectory, and a branding product benefiting the Estonian country and nation (Same & Solarte-Vasquez, 2014). In spite of its limits, it has helped positioning the country internationally, and project some of its principles across borders. It has increased worldwide awareness about the Estonian technological success and attracted the attention of the international community.

Transcendence of the e-Residency programme; some of its strengths and weaknesses

From the Estonian state perspective, there were several reasons for setting up the e-Residency programme: On the one hand, it was designed as a digital alternative to real labor migration.

²⁵ The data is updated regularly in: <https://e-resident.gov.ee/dashboard/>

To compete with the neighboring Scandinavian countries would be too difficult because of the size of the country and its economy, and its wage levels. On this respect, Kimmo et al. (2018, p.423) highlight the words of Taavi Kotka, a former chief information officer of the Estonian government when summarizing their strategic approach: *“Attracting immigrants is just not an option for us. People would rather choose Sweden or Norway. Physically, we’re not able to improve our population. So why not do it online?”* Given that Estonia relies on foreign investments, know-how and, last but not least, strategic alliances, the e-Residency offered unlimited, scalable, immediately realizable and, compared to real labor migration, a much easier to control, purely virtual participation in the e-state. This had to be clearly conveyed to the world market in an appealing way, which reflected the other aim of the e-residence initiative mentioned in here: to support the country branding strategy (Same & Solarte-Vasquez) promoting Estonia as the prototype of a digital state (Kimmo et al., 2018).

Särav and Kerikmae (2016) argued that the e-Residency concept was overstretched because contrary to its apparent denomination, the e-residence does not grant the holder rights beyond the use of the state digital infrastructure – it does not even advance a relationship between the e-resident and the state or compare to the traditional understanding of residence or its neighboring concepts. What is apparent is that on the grounds of having an e-Residency, a person may solely obtain a digital identity and an ID card with two electronic certificates based on distributed architectures (in the sense of being separate: one for authenticating the person and the second for digital signing), that are X-road compatible. The person can simply enjoy the advantages of having access to a platform endorsed and safeguarded by the Estonian state. An e-resident can encrypt documents and conclude contracts digitally, transfer money through local financial service providers or set up a company without any physical presence in the country or maintaining other links with it. To verify and sign the authenticity of digital documents, requires, however, that the issuing party, for example, a contractual partner, is in possession of the same rights (being an e-resident or a classic holder of an Estonian personal identification number).

When the programme was approaching its fifth year, the initiators identified a number of weaknesses, some of which, resulted from not very significant criticism; it was noted, for example, that the possibility of authentication via smart personal devices that was available for the Estonian ID Card holders was not yet available for the e-residents, that collecting the physical card in the home country was inconvenient because it imposed the search for an Estonian representative, that the attending clerks in the country did not have good language skills, or that the programme depends too much on the willingness to cooperate of the Estonian financial institutions and service providers. A slightly more considerable objection is that the taxpayers sponsor the programme, and that granting the e-residence is supposed to promote the Estonian economy, science, education or culture, which is not measured under any specific criteria. The project overall is profitable since 2017, when Deloitte calculated a capital inflow to Estonia of around 14 million for the first three years after the programme was put in place. Up

Mayo – agosto de 2022

to that point such amount exceeded the costs of developing and maintaining the e-Residency overall a hundred times (Deloitte's auditors made this estimate public in an err.ee news portal article, available online at: <https://news.err.ee/646254/deloitte-e-residency-brought-14-4-million-to-estonia-in-first-three-years>).

The strategy included the assumption that Estonia will have 10 million e-residents by 2025, but about 85,000 have registered so far.²⁶ The number of e-residents seems to be growing rather slowly, which may be due, on the one hand, to the disillusionment of some groups and stakeholders who had high or even unrealistic expectations about the programme. In addition, tax advantages and physical access to the Schengen area were falsely promised and the creditworthiness of the e-Residency suffered as a result. On the other hand, the possibilities that it opens, beyond the establishment of a company are still very limited, at least the most palpable ones, and specifically, when the (contractual) partners of the e-resident do not have access to the X-road infrastructure themselves (this should apply to the majority of EU customers). Incidentally, this means that adopting a residence program of this kind in other jurisdictions would make sense only if - or when - the digital infrastructures are fully interoperable - or if their public administration are epitomes of the Estonian model, as is currently the case of Finland (Jackson et al., 2021, p.111). A brief on the data exchange for the population registries of the two countries, based on the X-road is explained in the site of the Nordic Institute for Interoperability Solutions (NIIS) (Tuulas, 2020).

In spite of undeniable advancements, Estonia does not operate as a borderless digital state, yet. Unsurprisingly, the e-Residency programme and related initiatives do not create a clear value for the users – specially the most innovative or the newly designed. Not all of the applicants that access the services from remote countries have been exposed to them before. The need for physical presence to open a bank account and to conclude some transactions with public officials is problematic when the person needs a visa to enter the country. It has become clear that to gain from the e-Residency, the standing issues of e-residents' access to banking, usability of the system, lack of more and competitive services, and the low visibility of its security features have to be resolved. The state works continuously towards an integral monitoring of the programme, including the creation of procedures for the ex-ante and ex-post checks on applicants and e-residents, following a risk-based approach. However, it must be said that the integrity of the e-residence project also rests on the responsible behavior of the e-residents themselves (Tammpuu, et al., 2022). Since the extensive attacks on the Estonian digital infrastructure in 2007 (Czosseck et al., 2011), and the shortcoming perceived in the programme, the IT capabilities and cybersecurity standards have been strengthened substantially, and not only in connection to the electronic IDs and their functionalities. The potential of the technological capacities of the Estonian State and the efficiency of its digital governance approach do not end at the edge of this project. The country has pioneered and implemented

²⁶ More information about the strategy is available in: <https://learn.e-resident.gov.ee/hc/en-us/articles/360000720437-Why-Estonia-offers-e-Residency>

solutions that are only in preparation in other EU MSs, under security conditions that are advanced in the context of the region.

Based on a correct strategy for data governance, the public sector ecosystem that is shaping around the platforms, services, organizations and users could better meet the needs of the country in terms of economic growth and security. It needs to know much better the varying needs of its stakeholders, and this includes the e-residents. That knowledge will translate in better regulatory developments to make operations easier and safer for the state, the private sector such as the organizations offering financial services to the e-residents' companies and the users/customers. It may also help the programme's outreaching efforts and promote engagement. Every technical upgrade in these directions will presumably enhance transparency, which will elevate the creditworthiness of the Estonian e-state and make it possible for the e-Residency team to pursue other uses for residents (such as special types of visas), and prepare more advanced ideas such as conceiving the access of e-residents to healthcare, pensions, and selected public services that are reserved to residents and citizens so far. With more companies established by e-residents because the offerings of the e-Residency are augmented, the state may boost its stature and importance at the international level.

The programme has transcended frontiers and influence positively, the adoption and launch of similar strategies in other countries, demonstrating the international recognition of the Estonia's innovativeness. Lithuania and Ukraine already offer their e-Residency while Singapore, Brazil and Portugal are expected to start the program soon. Nonetheless, what weights the most is not that well known. In 2012, Estonia became the first State in the world to deploy blockchain technology in production systems. It uses the KSI Blockchain developed in Estonia in 2007 and used globally (by NATO, for example) to efficiently and effectively secure networks, systems, and data (<https://digiexpo.e-estonia.com/Solutions/guardtime-ksi-blockchain-stack/>). It functions at a great speed because it does not ever store the data, permitting in turn, a heightened user experience. The country has invested in cybersecurity infrastructure and developed remarkable expertise in the field. With KSI, a data breach could be discovered instantly, saving, in average, seven months of intense work. Besides, the country created the notion of data embassy by placing servers with the digital copies of key databases in a secure location outside its territory, that are officially under Estonian jurisdiction. They are sovereign objects forming a government cloud where to back up the state in code and operate essential services. Estonia exists physically and digitally, the later will ensure the state's continuity and functioning regardless of events that may affect its territorial integrity.

The e-Residency project contributes to the collective efforts for cross border collaboration and advanced interoperability in Europe. In this light, the continued expansion of the project could

Mayo – agosto de 2022

be tied to various EU actions for shaping Europe's digital future and in response to the current priorities of the Digital Decade Policy.²⁷

The future of the programme and related applications

In earlier publications, it was posited that a digital residence for Estonia would be the means to bridge the distance between East and West, looking at the unique geopolitical situation of the country, its historical context, and post-soviet developments. In 1991, Estonia had already embarked on the introduction of the Aliens' Passport, presently contemplated in the Identity Documents Act (RT I 1999, 25, 365 §2 (2), 2),²⁸ to formalize the status of a large portion of the non-Estonian population (mainly Russian speaking) who stayed in the country after it regained its independence. This form of ID established a permanent settlement permit granting non-nationals or non-naturalized individuals, under some conditions, access to the digital infrastructure that ordinary citizens have. An argument was made on that the approval of e-Residency applications, would be a protective measure much in the same way these 'grey passports were meant to prevent the (Russian) 'passportization' of foreign residents who could eventually have important political influence, and become able to create tensions inside the country (Hofmann & Chochia, 2018). In the case of the e-residency, due to its restrictive nature, this danger is ruled out - an e-resident does not acquire political rights, only the permission to use the Estonian digital infrastructure. Other ways have been used to deal with these concerns, the language choices of the E-State portal, for instance, determine the reach of its content. But while the information toolkits are available in English, Japanese, German, French, and Spanish, the site on the e-Residency programme is neutral (in English). The stories featured in its pages are about the experiences of people from Eastern Europe, mainly from Ukraine - which used to reflect the demographic composition of the e-residency landscape accurately, prior to the Russian aggression to Ukraine in February 2022.²⁹

The political significance of the programme is now greater. It is possible for Estonia to project the image of a capable, competent, relatable (socially and culturally), and strong country along with the characterization as a digital and technologically advanced state, already consolidated. It is the time now to have a say in the field of international security as it counts with the knowledge, capacities and experience that it requires. The stability and sustainability of the Estonian state has come to depend on unique competences, and the bonds it has been able to create with the international community as a country and at the societal level. Its strategies are exemplary. The e-Residency is only one of the means to expand its 'size' and relevance, but the political will and technology behind it may play a much more important role in the future.

²⁷ The policy and related documents are available in: https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en#documents

²⁸ Supra note 13.

²⁹ See more in: <https://www.cfr.org/global-conflict-tracker/conflict/conflict-ukraine>

Mayo – agosto de 2022

Having understood that the e-Residency confers benefits to aliens whose identity is based on a personhood established in a foreign country, by creating a new type of relationship between the country and natural persons, it could be said that the idea is a precursor of the now more advanced project on the European Digital Wallet (in pair with a digital identity notion for dynamic uses across borders).

Estonia has lived the ‘Digital Decade’ ahead of time and displays signs of readiness to move onto cross border digital collaboration in any of the fields that are priorities for the EU (from e-governance, to civil and commercial matters, dispute resolution, law enforcement, etc.), broadening with it the compatibility of these resilience and growth strategies with the National Security Concept, passed by the Parliament of the Republic in 2010.³⁰ The text declares that *“Deepening integration within the European Union strengthens the sense of cohesion and provides better protection against security threats. An internally integrated European Union is also more capable and influential in foreign relations”*.

The European Digital Identity is one of the Commission actions for making Europe fit for the Digital Age, which is one of its 2019-2024 priorities.³¹ Besides, the Commission defined the targets and milestones for eID in its Communication 2030 Digital Compass: The European Way for the Digital Decade (.pdf). E.g., by the end of 2030, 80% of the EU citizens should be able to use eIDs and have access to their medical records, key public services should be available online, etc. An e-Residency card is an official document that can only be used to identify the holder according to specific parameters in digital environments for the purpose of accessing concrete services that require strong authentication (the Principles and guidance on eID interoperability for online platforms of the EU Commission state that strong authentication is a *“process that enables the electronic identification of a natural or legal person, or the origin and integrity of data in electronic form to be confirmed”* (2022)). Strong authentication tools provide a higher level of security for transacting online, which has become ever more prevalent with the reduction of physical interactions imposed by the Covid-19 Pandemic. Like in this area, Estonia has the chance to participate in the creation of regional and global standards for the digital markets with rules and best practices based on its values, and to do so without discarding the pragmatic aim of the state on increasing the economic scope of the country (maybe more likely to do it, and several fold). The Digital EU will benefit citizens and businesses when the insufficient cross-border interoperability is overcome. The standards are predecessors of formal regulations, and the common basis for the MSs to recognize eIDs issued by other countries and institutions.

The Proposal for a Regulation of the European Parliament and of the Council to enact a framework for a European Digital Identity (SEC(2021) 228 final) - (SWD(2021) 124 final) -

³⁰ Read further in: https://vm.ee/sites/default/files/content-editors/JPA_2010_ENG.pdf

³¹ The policy and strategy description and related documents are available in: https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-digital-identity_en

Mayo – agosto de 2022

(SWD(2021) 125 final)³² takes into account that the existing cross-border regulation (the European electronic identification and trust services initiative (eIDAS Regulation (EU) N°910/2014 on electronic identification and trust services for electronic transactions in the internal market)³³ is no longer enough to cope with the emerging environment where rigid identities have given way to dynamic ones, based on attributes that the person may control and share where necessary. The demand for such identity solutions is growing and promises efficiency gains if the systems are trustworthy and secure.

Contrary to what some authors may speculate, it is not foreseeable that in the nearest future the data stored and combined in digital environments would make for a digital person, which would differ radically from the classic meaning of personhood (Rodota & Konder, 2021). Therefore, the conception of identity that the regulatory proposal will allow is materially unchanged, even if in format, it could vary. With the data produced by humans navigating in digital environments, the users could be profiled as several 'personae.' A digital wallet, for starters, could be taken as a receptacle where an individual's complete 'biography' is stored, along with a few characters and combinations for access to digital services.

This discussion would not be possible or the regulatory development awaiting feasible, had institutional innovations such as the e-Residency programme not been implemented before. This Estonian contribution to the world does not only create bridges between regions and jurisdictions, but also bonds and interdependencies that effectively connect the world together.

References

- Blake Jackson, E., Dreyling, R., & Pappel, I. (2021, October). A Historical Analysis on Interoperability in Estonian Data Exchange Architecture: Perspectives from the Past and for the Future. In *14th International Conference on Theory and Practice of Electronic Governance* (pp. 111-116). <https://doi.org/10.1145/3494193.3494209>
- Brown, D. (2005). Electronic government and public administration. *International Review of Administrative Sciences*, 71(2), 241-254. <https://doi.org/10.1177%2F0020852305053883>
- Bruzelius, C. (2019). Freedom of movement, social rights and residence-based conditionality in the European Union. *Journal of European Social Policy*, 29(1), 70-83. <https://doi.org/10.1177%2F0958928718756262>
- Christensen, C., Raynor, M.E. and McDonald, R., 2013. *Disruptive innovation*. Harvard Business Review.

³² The proposal draft is available in: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0281>

³³ More on the eIDAS regulation could be consulted in: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2014.257.01.0073.01.ENG

- Cosola, S. J. (2021). Interpretacion de los Atributos de la Personalidad y los Derechos Personalisimos en el Codigo Civil y Comercial de la Nacion. *Revista Ultracontinental de Literatura Jurídica*, 2(2), 266. https://www.ajurmoc.com.br/files/anexos/revista/revista_nr04.pdf#page=267
- Czosseck, C., Ottis, R., & Talihärm, A. M. (2011). Estonia after the 2007 cyber attacks: Legal, strategic and organisational changes in cyber security. *International Journal of Cyber Warfare and Terrorism (IJCWT)*, 1(1), 24-34. DOI: 10.4018/ijcwt.2011010103.
- Davies, G. (2005). 'Any place I hang my hat?' or: Residence is the new nationality. *European Law Journal*, 11(1), 43-56. <https://doi.org/10.1111/j.1468-0386.2005.00248.x>
- De Neve, J.E., Imbert, C., Spinnewijn, J., Tsankova, T. and Luts, M., 2021. How to improve tax compliance? Evidence from population-wide experiments in Belgium. *Journal of Political Economy*, 129(5), pp.1425-1463.
- Duminica, R. and Olah, L., 2021. The Law Applicable to the Civil Status of the Natural Person. *JL & Admin. Sci.*, 15, p.4. <https://heinonline.org/HOL/Page?handle=hein.journals/jladsc15&id=4>
- European Commission, 2018. *Digital Economy and Society Index Report 2018 Digital Public Services*. DESI Report. [online] European Commission. Available at: https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=52244
- European Commission, 2022. Ec.europa.eu. 2022. [online] Available at: https://ec.europa.eu/futurium/en/system/files/ged/draft_principles_eid_interoperability_and_guidance_for_online_platforms_1.pdf
- Floridi, L. (2006). Ética de la información: su naturaleza y alcance. *Isegoría*, 34. <https://philpapers.org/go.pl?id=FLOTDL&proxyId=&u=https%3A%2F%2Fdx.doi.org%2F10.3989%2Fisegoria.2006.i34.2>
- González Granado, J. (2020). De la persona a la personalidad algorítmica: a propósito de la personalidad jurídica de la inteligencia artificial. *Reproducció del document publicat a:* <http://www.publicacions.ub.edu/ficha.aspx?cod=12695>.
- Hoffmann, T., & Chochia, A. (2018). 12 The institution of citizenship and practices of passportization in Russia's European neighbourhood policies. In *Russia and the EU: Spaces of Interaction* (pp. 223-238). Routledge.

Mayo – agosto de 2022

- Kalvet, T., Toots, M., van Veenstra, A.F. and Krimmer, R., 2018, April. Cross-border e-government services in Europe: expected benefits, barriers and drivers of the once-only principle. In *Proceedings of the 11th International Conference on Theory and Practice of Electronic Governance* (pp. 69-72).
- Kimmo, M., Pappel, I., & Draheim, D. (2018, April). E-residency as a nation branding case. In *Proceedings of the 11th International Conference on Theory and Practice of Electronic Governance* (pp. 419-428).
- Kochanova, A., Hasnain, Z. and Larson, B., 2020. Does e-Government improve Government capacity? Evidence from tax compliance costs, tax revenue, and public procurement competitiveness. *The World Bank Economic Review*, 34(1), pp.101-120. <https://doi.org/10.1093/wber/lhx024>
- Krimmer, R., Kalvet, T., Toots, M., Cepilovs, A. and Tambouris, E., 2017, June. Exploring and demonstrating the once-only principle: a European perspective. In *Proceedings of the 18th annual international conference on digital government research* (pp. 546-551).
- Matsumoto, N. (2013). Comentarios sobre otros derechos presentes en la CADH. Derecho a la personalidad jurídica (artículo 3); derecho al nombre (artículo 18); indemnización por error judicial (artículo 10). Instituto de Investigaciones Jurídicas, Universidad Nacional de Mexico. Suprema Corte de Justicia de la Nacion. Mexico DC.
- McBride, K., Toots, M., Kalvet, T. & Krimmer, R. (2018). Leader in e-Government, Laggard in Open Data: Exploring the Case of Estonia. *Revue française d'administration publique*, 167, 613-625. <https://doi.org/10.3917/rfap.167.0613>
- Navarro Floria, J. G. (2012). *Los derechos personalísimos*. El Derecho.
- van Ooijen, C., Ubaldi, B., & Welby, B. (2019). A data-driven public sector: Enabling the strategic use of data for productive, inclusive and trustworthy governance. OECD library. <https://doi.org/10.1787/09ab162c-en>
- Owen, D. (2018). On the right to have nationality rights: Statelessness, citizenship and human rights. *Netherlands International Law Review*, 65(3), 299-317. <https://doi.org/10.1007/s40802-018-0116-7>
- Pedroza, L., & Palop-García, P. (2017). The grey area between nationality and citizenship: An analysis of external citizenship policies in Latin America and the Caribbean. *Citizenship Studies*, 21(5), 587-605. <https://doi.org/10.1080/13621025.2017.1316701>

Mayo – agosto de 2022

- Pfeiffer, T. (2021). The Notion of Habitual Residence, in: Pfeiffer, Thomas/Lobach, Quincy C./ Rapp, Tobias (Eds.), *Facilitating Cross-Border Family Life – Towards a Common European Understanding. EUFams II and Beyond*, p. 9–19. Heidelberg. DOI: <https://doi.org/10.17885/heiup.853.c11708>
- Pliner, A. (1989). El nombre de las personas, legislación. *Doctrina. Jurisprudencia. Buenos Aires: Astrea*.
- de Preperier, R. (2010). El Derecho a la identidad en el Derecho internacional privado. *Foro Jurídico*, (11), 39-46. <https://revistas.pucp.edu.pe/index.php/forojuridico/article/view/18572>
- Ribadeneira S.J. (2016). El rol del número de cédula en el derecho a la identidad. *Ius Humani. Law Journal*, 5, 243-257. <https://heinonline.org/HOL/P?h=hein.journals/iushum5&i=243>
- Rodota, S., & Nelson Konder, C. (2021). Pos-Humano. *Revista Brasileira Direito Civil*, 27, 113. <https://heinonline.org/HOL/P?h=hein.journals/rvbsdirec27&i=99>
- Rogerson, P. (2000). Habitual residence: the new domicile?. *International & Comparative Law Quarterly*, 49(1), 86-107. <https://doi.org/10.1017/S0020589300063971>
- Rossolillo, G. (2009). Personal identity at a cross road between private International law, International protection of Human rights and EU law. *Yearbook of Private International Law*, 11, 145.
- Same, S., & Solarte-Vasquez, M. C. (2014). Country branding and country image: insights, challenges and prospects. The case of Estonia. *TalTech Journal of European Studies*, 4(1), 137-165. <https://sciendo.com/abstract/journals/bjes/4/1/article-p137.xml>
- Suárez, B. & Fuentes, E. (2015). Derecho al reconocimiento de la personalidad jurídica. Concepto y desarrollo en la jurisprudencia de la Corte Interamericana de Derechos Humanos. *Revista Prolegómenos Derechos y Valores*, 18, 36, 65-80. DOI: <http://dx.doi.org/10.18359/dere.934>
- Särav, Sandra, and Tanel Kerikmäe. "E-Residency: A Cyberdream Embodied in a Digital Identity Card?" *The Future of Law and eTechnologies*. Springer, Cham, 2016. 57-79. https://doi.org/10.1007/978-3-319-26896-5_4
- Tamppuu, P., Masso, A., Ibrahim, M., & Abaku, T. (2022). ESTONIAN E-RESIDENCY AND CONCEPTIONS OF PLATFORMBASED STATE-INDIVIDUAL RELATIONSHIP. *TRAMES: A Journal of the Humanities & Social Sciences*, 26(1).

Torpey, J. C. (2018). *The invention of the passport: Surveillance, citizenship and the state*. Cambridge University Press.

Tupay, P.K., Ebers, M., Juksaar, J. and Kohv, K., 2021. Is European Data Protection Toxic for Innovative AI? An Estonia Perspective. *Juridica Int'l*, 30, p.99. <https://heinonline.org/HOL/P?h=hein.journals/jurdint30&i=100>

Tuulas, A (2020) CASE STUDY. Estonia and Finland launch automated data exchange between population registers, NORDIC INSTITUTE FOR INTEROPERABILITY SOLUTIONS. <https://x-road.global/estonia-and-finland-launch-automated-data-exchange-between-population-registers>

United Nations. (1948). Universal Declaration of Human Rights.

Wimmer, M. A., & Marinov, B. (2017). SCOOP4C: reducing administrative burden for citizens through once-only-vision & challenges. *Jusletter IT*, 2020, 2-5.

Zuiderwijk, A., & Janssen, M. (2014). Open data policies, their implementation and impact: A framework for comparison. *Government information quarterly*, 31(1), 17-29. <https://doi.org/10.1016/j.giq.2013.04.003>