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Technology and Society at Automated Borders: Risk of Discrimination and Fundamental Rights

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Master's Thesis

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"If we desire a society of peace, then we cannot achieve such a society through violence. If we desire a society without discrimination, then we must not discriminate against anyone in the process of building this society. If we desire a society that is democratic, then democracy must become a means as well as an end."

(Bayard Rustin)

Abstract

The European Union border control system has been under a series of transformations to better adapt to domestic and international pressures. New border technologies are in the centre of these transformations. Technological solutions, such as electronic gates, biometric identifiers and large-scale data systems are currently being implemented for the improvement of the system efficiency and security.

The present master's thesis is a contribution to the European Union Horizon 2020 research project named "BODEGA- Proactive Enhancement of Human Performance in Border Control". It focuses on the recent transformations of the European Union border control system, which are leading to an increasing automatization of its tasks. The implementation of new border technologies is spreading around the Union external borders, without proper assessment of social and ethical impacts. The aim of this research is to investigate how new border technologies are affecting and can affect fundamental rights, particularly the right of non-discrimination.

The research has been conducted with the analysis of survey questionnaire' responses given by travellers who recently crossed the Schengen border, in addition to the analysis of the results of a public consultation on the Smart Borders, which counted with the participation of European public authorities and organisation related to migration, border control and fundamental rights.

Research findings demonstrate that one of the greatest challenges of the European Union border management system is to reconcile humanitarian and security aspects in the performance of its common tasks. Furthermore, the findings indicate that the form in which technological solutions have been designed and implemented can reduce the likelihood of some discriminatory practice occurrences, but it can also potentially increase the likelihood of others.

Key words: automated border control, technology, European Union, fundamental rights, non-discrimination, security.

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List of Abbreviations

ABC - Automated Border Control

AEDH - The European Association for the Defence of Human Rights

ALLEA – All European Academies

BCP - Border Crossing Point

CJEU - Court of Justice of the European Union

C-SIS - Central of Schengen Information System

CS-VIS - Central System of Schengen Information System

ECJ – The European Court of Justice

EDPS - European Data Protection Supervisor

EDRi - European Digital Rights

EEA - European Economic Area

EES - Entry/Exit System

EESC - European Economic and Social Committee

EKD - German Protestant Church

EOS - European Organisation for Security

EU - European Union

eu-LISA - EU Large-Scale IT Systems Agency

FRA - The European Fundamental Rights Agency

ICMPD - International Centre for Migration Policy Development

ICT - Information and Communication Technologies

ISIS - The Islamic State of Iraq and the Levant/The Islamic State of Iraq and Syria

LEAs - Law Enforcement Authorities

MS - Member States

NI-VIS - National Interface of Visa Information System

N-SIS - National Databases of Schengen Information System

PICUM - Platform for International Cooperation on Undocumented Migrants

PNR - Passenger Name Record

RRI - Responsible Research and Innovation

RTP - Registered Traveller Programme

SBC - Schengen Borders Code

SIS - Schengen Information System

SIS II - The second generation of the Schengen Information System

SLTD - Stolen and Lost Travel Documents

TCN - Third-Country National

UN – The United Nations Organization

UNHCR - United Nations High Commissioner for Refugees

VIS - Visa Information System

Introduction

Considering the complexities of a border control system in a globalized world characterised by a constantly increasing number of individuals moving from East to West, North to South in a speed never seen before in the history of mankind, new strategies and technologies are being constantly developed to keep the system efficient and secure. Automated gates, information based systems and biometric identifiers are some of the new technologies adopted by the European Union (EU) border control system to respond to the three main challenges of its official border check points: to keep a smooth flow of travellers, efficient security checks and reduced budgets.

In 2015 the world witnessed the harsh reality of what became known as the "migration crisis" with the arrival of thousands of individuals seeking protection and better prospects of life at the EU external borders. The phenomena brought light to the fragilities of the European border control system, which under pressure struggled to keep the security of the external borders, the smooth flow of border crossings, and to comply with its obligation of providing travellers with a fair treatment and to ensure the respect of individuals' fundamental rights.

The current reality of EU border control is characterised by the increasing flow of travellers entering and exiting the Schengen area, along with a steadily rise in number and variety of threats to the EU territory and its citizens. In the eyes of public authorities and technical experts, data-based technology is a fundamental tool in such a context, enabling to improve border control security and efficiency by providing authentic information and identification of travellers.

This research arises in a moment in which the EU seeks to enhance the performance of its border control with the implementation of large-scale data based systems that collects and archives alphanumerical and biometrical data of individuals, e-passports and automated gates, also known as *e-gates*. However, the transformations currently taking place in various EU external border check points are occurring without proper assessment of ethical and social impacts, in what seems to be a rather rash attempt to enhance border security.

In 2014, the European Commission opened a call for research on the ethical and societal dimensions of border control through its research and innovation

programme Horizon 2020. The BODEGA – Proactive Enhancement of Human Performance in Border Control research project coordinated by VTT Technical Research Centre of Finland was created as an answer to this call. It focuses specifically on the human factor of the EU border control system and on changes that the introduction of technology brings to travellers' experience and to the work of border guards. BODEGA is funded by the European Union's Horizon 2020 and aims to improve border efficiency, security and travelling experience by gathering expertise and creating recommendations for the development of future border control checks.

The present master's thesis is a contribution to the BODEGA project and it aims to investigate and analyse the possible impacts that technologies being developed and applied in border control tasks can bring for individuals' fundamental rights, especially regarding the right of non-discrimination. In this sense, this research will contribute to BODEGA's development of value-oriented results and recommendations for future "Smart Borders" and EU border management, in order to ensure that security and efficiency will not be enhanced at the expense of fundamental rights. As a contribution to the BODEGA project this research will follow the European Code of Conduct for Research Integrity[1] and the Horizon 2020 Ethical Principles[2].

This research will specifically aim to investigate and analyse the impacts of new technologies applied in the border control system regarding the protection of fundamental rights at borders, particularly the right of non-discrimination. With the increasing usage of technology in border checkpoints it is important to ensure the just treatment of travellers. The European Union was built in multicultural bases and it has in its core values openness and respect for diversity of European societies. European borders must reflect those values by being inclusive and respecting the diversity of travellers, regardless if they are Europeans or non-Europeans.

To achieve this research purpose and successfully reply to its fundamental question of "How the implementation of new technologies is affecting and will affect the issue of discrimination in border control practices?", a methodological plan was devised taking into consideration the limitations of time and length of a master's thesis.

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[1] ALLEA – All European Academies. *The European Code of Conduct for Research Integrity* (Berlin: ALLEA, 2017). https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf
[2] Official Journal of the European Union. *Regulation (Eu) No 1291/2013 Of The European Parliament And Of The Council,* 2013. http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/fp/h2020-eu-establact_en.pdf#page=11

Both primary and secondary sources of data will be used to generate a deeper understanding of the EU border system complexities and to further uncover omitted issues. The data will present the experiences of travellers crossing the EU external borders, including Europeans and third-country nationals, the opinions and expectations of EU public authorities, and intergovernmental and non-governmental organizations related to areas of migration, border control, fundamental rights and data protection.

The present thesis will be divided in three main chapters. The first chapter will present a brief historical and theoretical background of the transformations occurred in the European border control system until 2017. The historical and theoretical background will be followed by descriptions of the main information systems currently being used along with critical discussions on the promotion of the idea of threats to internal security coming from abroad, framing migration as a security issues. Insights on the current domestic and international contexts, including main threats to the security of the EU and its citizens will also be presented. To finalise this first chapter a description of the Smart Borders Package with its main characteristics, objectives and components will be shown along with a critical analysis of its structure and impacts.

Research methods and data compose the second chapter, starting with a general introduction to this research's methodology followed by two sub-chapters which will present an in depth look into the BODEGA Travellers Survey and the Public Consultation on the Smart Borders, along with the methods of data collection and analysis used for each of them, their limitations, results and discussions of the findings. The third chapter will be partially a continuation of the discussion of findings from both sources, relating them with the literature and theoretical framework presented in the first chapter. Moreover, the current state of surveillance in Europe and border control exclusionary practices will be discussed, along with considerations on the right of non-discrimination. The chapter will include legal definitions of discriminatory practices, a critical evaluation on the notion of technology neutrality and ethical considerations for the development of a responsible research within the context of border control.

1. Border Control in the European Union

Border control can be generally described as measures taken by countries to regulate and control the movements of people and goods at their borders. Despite the general tendency to associate border control exclusively to official border crossing check points, it is a very complex activity that comprises a variety of tasks from document verification to humanitarian aid.

An official definition of border control is presented in the Practical Handbook for Border Guards, also known as the Schengen Handbook, as follows: *"'Border control' is the activity carried out at a border in response exclusively to an intention to cross or the act of crossing the border, regardless of any other consideration, consisting of border checks and border surveillance."* [3].

Currently, the significance of border control goes beyond migration and asylum policies, including security concerns, law enforcement, tourism, global trade, search and rescue operations, Information and Communication Technologies (ICT), data privacy and protection.

In the context of the European Union (EU), the complexity of border control is even more intricate with different regulations for internal borders and external borders. These regulations are applicable for the majority, but not all Member-States, and for some non-EU States. This study will focus exclusively at the EU external border control, which takes place at the Schengen external borders.

Internal border controls were extinguished in the European Union in a process that started in 1985 when Belgium, France, Luxemburg, the Netherlands and the Federal Republic of Germany signed the Schengen agreement for the gradual end of border checks performed at their common borders[4]. Nowadays, most of the EU Member States integrate what is called *Schengen Area*, along with four non-EU States - Iceland, Liechtenstein, Norway and Switzerland. Within the Schengen Area, any person regardless of their nationality can freely move from one country to another

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[3] Commission of the European Communities. *Practical Handbook for Border Guards (Schengen Handbook).* (Brussels: European Union, 2006). Last Modified: Nov 9, 2016.
http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2015010%202006%20INIT
[4] Sarah Leonard. "Border Controls as a Dimension of the European Union's Counter-Terrorism Policy: A Critical Assessment." *Intelligence and National Security* 30, no. 2-3, 2015. 306-332.

without being subject to border control checks, once they have crossed into the Schengen border[5].
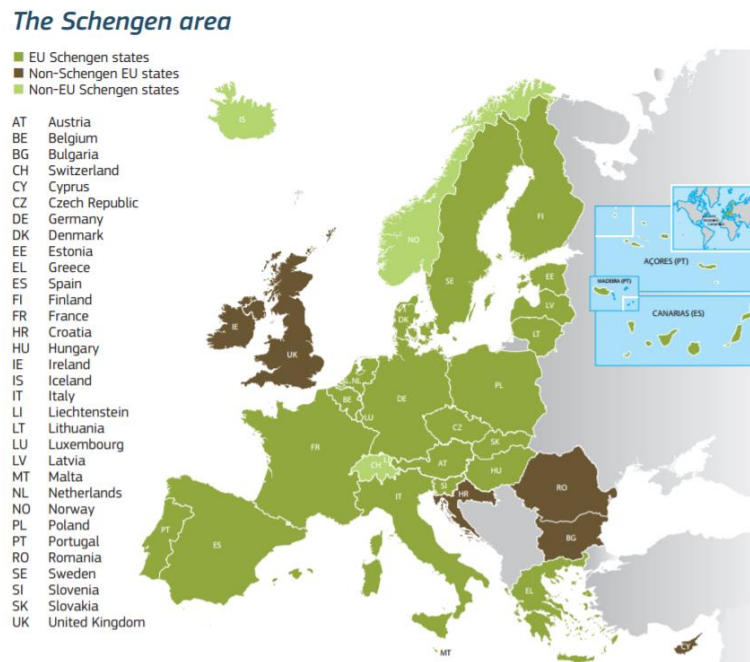

IMAGE 1: Current map of the Schengen Area[6]

Through the years the free movement of people and goods inside the Schengen Area was consolidated with new Member States joining the EU and adopting the Schengen agreement. Simultaneously, during the process of flexibilization of internal border control, EU external borders were increasingly reinforced, especially in 2004 after the terrorist attacks in Madrid, border control became one of the cornerstones of EU counter-terrorism policy.

The transformative process of the European borders that started with the signature of the Schengen agreement was followed by other agreements, treaties and conventions establishing new regulations for the EU migration policy, such as the Palma Documents (1989), the Dublin Convention (1990) and the Seville Summit (2002)[7]. As pointed out by scholars of the Paris School of Security Studies, this transformation process resulted in setting migration and border control as

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[5] European Commission, *Schengen Area* (May 10, 2018). https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/schengen_en

[6] Image source: European Commission, *Europe without borders: The Schengen area.* (Directorate-General for Migration and Home Affairs, 2015). doi:10.2837/78709. https://ec.europa.eu/home-affairs/sites/homeaffairs/files/e-library/docs/schengen_brochure/schengen_brochure_dr3111126_en.pdf /

[7] Georgia Papagianni, *Institutional and policy dynamics of EU migration law.* (Boston; Leiden: Martinus Nijhoff, 2006).

transnational and technical questions to be dealt with by experts, instead of national and political questions which they previously were[8].

As seen in the practices of EU agencies, with this transformation border control and migration became risk management issues rather than solely security issues, by seeing them through the lenses of technological solutions, risk scenarios and assessments. One of the main concerns raised regarding a technical risk management perspective for border management is the empowerment of risk experts to a level in which they are responsible to make decisions and to create strategies that will further limit the space for politics in the area[9].

After the 2004 attacks, the EU border control system went through another series of transformations in its regulations and practices aiming to preserve internal security. The Madrid terrorist attacks were characterized by the death of more than 190 people[10] and the involvement of Moroccans, Spanish, Syrians, Algerians, a Lebanese and a Tunisian in its preparation[11]. Some of the major changes made in the aftermath of the attacks were the creation of Frontex in 2004 and the implementation of the Schengen Borders Code (SBC) in 2006.

The European Agency for the Management of Operational Cooperation at the External Border of the Member States of the European Union, commonly referred as Frontex, started its operations in 2005. Its original main task was to coordinate operational cooperation between Member States in external border management activities, contributing to a better allocation of resources and ensuring the protection of freedom, security and justice in the EU territory[12]. In 2011, the agency strengthened its capacities and received the new task of developing and operating an information system for the exchange of classified information, including personal data, between relevant agencies of the European Union related to the security of external borders[13].

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[8] D. Bigo, "Frontier Controls in the European Union: Who is in Control". In *Controlling Frontiers: Free Movement into and Within Europe.* Ed. D. Bigo and E. Guild (London: Ashgate, 2005), 49-99.

[9] D. Bigo, "Globalized (In)Security: The field and the Ban-Opticon". In *Terror, Insecurity and Liberty. Illiberal practices of liberal regimes after 9/11.* Ed. D. Bigo, and A. Tsoukala (Abingdon: Routledge, 2008), pp. 10 - 48.

[10] Paul Hamilos. "The worst Islamist attack in European history". *The Guardian*. (2007). Out 14, 2017. https://www.theguardian.com/world/2007/oct/31/spain

[11] "Madrid bombing suspects". *BBC News.* (2005). 14 out, 2017. http://news.bbc.co.uk/2/hi/europe/3560603.stm

[12] Frontex. *Risk Analysis for 2016.* (Warsaw: European Union, 2016). doi:10.2819/416783. https://frontex.europa.eu/assets/Publications/Risk_Analysis/Annula_Risk_Analysis_2016.pdf

[13] Sarah Leonard. *Border Controls as a Dimension of the European Union's Counter-Terrorism Policy,* 306-332.

The name of the agency changed in 2016 to the European Border and Coast Guard Agency to better adapt to its new responsibilities, but its common name Frontex was maintained. The agency budget was increased, it gained more staff and responsibilities regarding migration and internal security, including assessing the vulnerabilities of national border authorities in the EU and developing recommendations[14]. Frontex obtained more autonomy and became able to deploy border and coast guards rapidly in areas where they are needed, to collect and process personal data and to increase its participation in return activities[15].

The SBC was implemented in 2006 as a regulation for the legislative part of the EU integrated border management policy, and it summarizes the rules applied for all individuals crossing the EU external and internal borders, including travellers' fundamental rights and how border checks should be conducted by border guards[16].

Regarding the external borders, two types of border checks are specified in the SBC, the *minimum check* that EU citizens and their family members must undergo when crossing the Schengen border, and the *thorough checks* which non-EU nationals are subjected to, along with a description of all the requirements necessary for them to enter the Schengen Area.

The minimum check is conducted exclusively for the purpose of verifying the passenger's identity, while the thorough check verifies not only the identity, but also purpose and duration of the stay, if there are sufficient financial means for the period the passenger is intending to stay and if all travel documents necessary are presented. Border guards can also question third country nationals, and search their identities through national and international databases to verify if the passenger does not represent a threat to internal security, public health or the international relations of EU countries[17].

What is seen nowadays in the European Union border control system as well as in other regions of the Western world is a form of governmentality called "Ban-opticon". The concept of Ban-opticon was created by Didier Bigo, one of the leading academics of the Paris School of Security Studies, to describe a different form of

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[14] Frontex. *Risk Analysis for 2017.* (Warsaw: European Union, 2017). doi:10.2819/250349.
https://frontex.europa.eu/assets/Publications/Risk_Analysis/Annual_Risk_Analysis_2017.pdf
[15] Ibid.
[16] European Parliament, *Schengen Borders Code* (2014). http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:l14514
[17] Ibid.

surveillance and control of people's movements in the era of globalization. Unlike the "Panopticon" idea developed by Jeremy Betham in his study of prison systems, in which an extended system of control and surveillance was applied for an entire population, the Ban-opticon is characterised for targeting only certain groups of individuals to be subjected to increased control and surveillance, while facilitating the movement of the majority[18].

The Ban-opticon is defined by three characteristics: exceptionalism, profiling and containment of foreigners and normalization of the non-excluded by creating normative imperatives[19]. As explained by Bigo[20], this concept allows us to analyse the bodies of discourses related to migration, the institutions, infrastructures, laws and regulations which compose the current European border control system. Most importantly the Ban-opticon enlightens the current global agenda for border control, in which the smooth flow of travellers and a high level of security are prioritized, in a way that surveillance is presented as necessary but it only targets a small number of individuals who are considered to be "abnormal", risky, potential criminals and therefore unwelcome. The discourses of free movement presented by European authorities plays a central role in this structure, by normalizing the majority and enabling increased surveillance for a minority that is justified as a necessity for the management of societal risks[21].

In the current context an extended surveillance, like in the Panopticon, would be extremely costly, difficult to justify and be accepted by the public opinion and it would compromise the dynamics of international commerce in the global age. In the Ban-opticon it is possible to sustain the four freedoms of circulation (goods, services, capital and individuals) while increasing control and surveillance through the extensive use of technologies of identification, which shares information across different agencies operating in the border control system[22].

The Paris School of Security Studies was created aiming to overcome the limitations of the Securitization theory developed by the Copenhagen School, which

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[18] Bigo, Globalized (In)Security: The field and the Ban-Opticon.
[19] Ibid.
[20] Ibid.
[21] Ibid.
[22] Ibid.

focused mainly on discourse analysis, since it understands security as a speech act[23]. The Paris School on the contrary focuses on institutions, practices and technologies, and it argues that security practises define what is security[24]. Therefore, to better understand the Ban-opticon structure applied in Europe and the security environment, it is important to look at the current practices and key elements of the border control system, specially the increasing adoption of data systems which became a key element for surveillance and control of individuals.

1.1 Information Systems and Border Control

The globalization era is known for a constantly increasing interdependence between States, freedom of movement and a dynamic global trade environment, but it is also known as a time marked by fear and uncertainty, in which local problems quickly become global problems. Identity and identification means have become priorities, the ability to tell who is who and to access authentic and verifiable information of individuals and groups has gained increasing significance for the States and law enforcement agencies, especially after terrorism became a global security problem[25].

The current border control system is characterised by the use of technological solutions and information systems focused on the identification of individuals. They gradually became essential tools for the EU security and border management activities, by providing solutions for the improvement of communication exchange and cooperation between Member States, security of identity documents, and for strengthen external border controls. Recent developments in EU border control policy comprise the increasing adoption of databases, surveillance systems, biometrics and automated border control (ABC) systems, with the Schengen Information System (SIS) and the Visa Information System (VIS) being the most important and used systems in the daily practices of border control tasks.

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[23] Barry Buzan, Ole Wæver and Jaap de Wilde. *Security: A New Framework for Analysis*, (Boulder: Lynne Rienner, 1998)
Didier Bigo. "The (in)Securitization Practices of the Three Universes of EU Border Control: Military/Navy – Border Guards/Police – Database Analysts." *Security Dialogue* 45, no. 3, 2014. 209-225.
[24] Didier Bigo and Elspeth Guild. *Controlling frontiers: Free movement into and within Europe,* (Aldershot: Ashgate, 2005).
[25] A. Ceyhan, "Policing by Dossier: Identification and Surveillance in an Era of Uncertainty and Fear", In *Controlling Frontiers: Free Movement into and Within Europe*. Ed. D. Bigo and E. Guild (London: Ashgate, 2005), 209-232.

The Schengen Information System (SIS) consists of large-scale data system composed by a central system (C-SIS) and national databases (N-SIS) from each country operating within it[26]. Law enforcement, visa and judicial authorities can access and use the information contained in the system for verifying missing or wanted persons and objects, such as passports, identity documents, vehicles and weapons. It is a hit/no hit type of system which enables the authorities to verify the existence of alerts emitted for individuals and objects. In the case of a hit, the system also gives instructions for the authorities on how to proceed with the individual or object found. The aim of SIS is to facilitate the cooperation between country participants regarding the collection and exchange of information related to the preservation of Schengen States internal security. The SIS is one of the systems used during thorough checks at border check points, which before 2017 were only conducted on third country nationals.

The second generation of the Schengen Information System (SIS II) became operational in 2013 and it differentiates from the previous SIS by including biometric features for the identification of individuals, providing inter-linked alerts and allowing Europol and Eurojust to access and search data in the system[27].

Another large-scale information system that has been used in EU border control activities since 2011 is the Visa Information System (VIS). The development of the VIS was part of a plan approved by the Council of the European Union in 2002 for combating illegal immigration and human trafficking in the EU[28]. Similarly to SIS, the VIS was created for the exchange of information among Member States, this time specifically related to visa. It also has a central system (CS-VIS), and national databases in each participant state (NI-VIS) linked to the central system. The VIS allows the EU border control authorities to verify the authenticity of visas presented at border check points and if the traveller is the rightful holder, by connecting and exchanging information between consulates in non-European states and external border check points in the entire Schengen Area. Data provided by the traveller during the application process, fingerprints, digital photograph and previous visa applications

[26] Sarah Leonard. *Border Controls as a Dimension of the European Union's Counter-Terrorism Policy,* 306-332. European commission, *Schengen Information System* (2018). https https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/schengen-information-system_en
[27] Official Journal of the European Union, *Council Decision 2007/533/JHA* (Council of the European Union, 2007). http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32007D0533
[28] Leonard, Border Controls as a Dimension of the European Union's Counter-Terrorism Policy.

are recorded in the system for 5 years and can be used during border check processes[29].

With VIS it is possible to prevent the practice of *visa shopping*, in which a single individual has multiple visa applications, and in the case of asylum seekers it can also be used to determine which EU Member State is responsible for the asylum application. Under specific circumstances access of data recorded in the system can be granted to national authorities and Europol for conducting investigations on terrorism and other criminal activities[30].

With these brief explanations of two large-scale data systems used in the EU, some important aspects can be observed. Access to information collected and stored in the systems is given to agencies and authorities also working outside the scope of border control, such as Europol and Eurojust. Critics of the current border control policies of the EU often point out problems related to this aspect of the systems, such as loss of privacy and misuse of data that has been granted for the exclusive purpose of border control, which can lead to abusive practices towards individuals or groups[31].

Another aspect very characteristic of the current border control system is the deallocation of border control tasks outside the territorial border to far distant places. It occurs through consulates responsible to collect data and biometrics of visa applicants, and by cooperation with different States' authorities for conducting background and identity checks. The responsibility of verifying passports is transferred to airline companies that are also required to provide passenger's information collected during the process of booking and check-in[32]. The passenger's information collected by airline companies are stored in a data system named Passenger Name Record (PNR), which is seen by EU law enforcement authorities as an important tool in the prevention of serious crimes and counter-terrorism[33].

In the aftermath of the Madrid attacks in 2004, the already existing notion of the "enemy within" has been increasingly intensified, which once again reinforced the

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[29] European commission, *Visa Information System (VIS) (*2018). Accessed in 15 oct 2017.
https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/visa-information-system_en
[30] Ibid.
[31] Ceyhan, Policing by Dossier.
Maegan Hendow, et al. "Using Technology to Draw Borders: Fundamental Rights for the Smart Borders Initiative." *Journal of Information, Communication and Ethics in Society* 13, 2015. 39-57.
[32] Bigo, Globalized (In)Security: The field and the Ban-Opticon.
[33] European commission, *Passenger Name Record (PNR)* (2018). Accessed in 01 jan, 2018.
https://ec.europa.eu/home-affairs/what-we-do/policies/police-cooperation/information-exchange/pnr_en

necessity for law enforcement authorities to efficiently identify those who are exiting and entering the territory. The concern over "risky people" has been emphasised through political discourses and media outlets repeatedly over the years, shaping the public opinion while providing justification for the extensive use of identification technologies, increasing surveillance and control over targeted groups[34].

In a global level, the perception of threats to internal security coming from abroad, and therefore the necessity of improving external border controls in order to preserve the integrity of the states and its citizens against foreign threats, were ideas originally promoted by the United Nations in the aftermath of the 9/11 terrorist attacks. In the Resolution 1373 adopted by the United Nations Security Council on September 28th, 2001, it was decided that all states shall 'Prevent the movement of terrorists or terrorist groups by effective border controls and controls on issuance of identity papers and travel documents […]'[35].

The link established between security and immigration in the political discourse by state authorities, international organizations and the media has been increasingly criticized for endangering the respect for fundamental rights and democratic values, for promoting the image of the foreigner as a potential threat and enhancing divisions and discrimination within societies[36]. As explained by Anastassia Tsoukala[37]:

> *"[…] the transformation of immigration into a threat to the EU societies has provoked confusions between legal and illegal migrants and/or between foreigners and nationals of ethnic or religious membership other than the one dominant in a given country, having thus created a climate of suspicion which aims indistinctly at all "foreigners"."*

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[34] Anastassia Tsoukala, "Looking at immigrants as enemies", In *Controlling Frontiers: Free Movement into and Within Europe*. Ed. D. Bigo and E. Guild (London: Ashgate, 2005), 92-161.
[35] United Nations Security Council, *Resolution 1373*. 2001.
https://www.un.org/sc/ctc/resources/databases/recommended-international-practices-codes-and-standards/united-nations-security-council-resolution-1373-2001/
[36] Ariane Chebel d'Appollonia and Simon Reich. *Immigration, Integration and Security – America and Europe in Comparative Perspective.* Ed. A.C. d'Appollonia and S. Reich (University of Pittsburgh Press, 2008), 203-228.
Hendow, et al., Using Technology to Draw Borders.
Leonard, Border Controls as a Dimension of the European Union's Counter-Terrorism Policy.
[37] Tsoukala, Looking at immigrants as enemies.

In European societies, threats related to migrants are mostly regarded to social stability, cultural homogeneity, employment, sustainability of the welfare state and general quality of life. According to Tsoukala[38], the transformation of migrants in a social threat starts with the assumption that members of a certain population group have malicious and immoral inherent traits, which are related to socio-economic or political problems in the society. Once this relation is established, migrants are seen as a cause or aggravating factor of societal problems, and their representation become based on pre-existing stereotypes instead of facts.

The climate of suspicion towards the figure of the foreigner creates space for unlawful practises of discrimination and exclusion to happen even before the person has been granted permission to cross the border.

1.2 Current reality of EU border control and terrorism

To understand the complex reality of EU border control, it is important to acknowledge the current regional and international context in which the EU border control is set in. With the advance of globalization, the flow of travellers crossing European borders for business, tourism and studies purposes increases every year, especially in airport border check points with a growing number of low-cost flight companies offering tickets with reduced prices. Another factor that contributes for the increasing flow of passengers crossing the EU external borders is the expansion of the visa liberalisation policy and recent border traffic agreements, especially with Western Balkan countries[39].

The number of economic migrants, legal and unauthorised, continues to grow with the increasing disparity of opportunities and quality of life between developed and developing countries, this include migrants coming from distant places like Asia, Eastern and Middle Africa, and South America, but also from neighbouring countries as the Balkans and Russia[40].

The flow of asylum seekers fleeing from violence and persecution is unlikely to be significantly reduced as the number of intrastate conflicts happening around the

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[38] Tsoukala, Looking at immigrants as enemies.
[39] Frontex, Risk Analysis 2016.
[40] Ibid.

world is still high[41]. In 2016, 102,330 people were killed in organized violence, in which 87,018 were caused by state-based violence, marking it as one of the deadliest years for conflict related violence since the Rwanda genocide[42].

According to the United Nations Refugee Agency (UNHCR), more than 1.2 million asylum applications were received by EU Member States in 2015, with Germany and Sweden together receiving half of the applications[43]. During the same year, 1.8 million attempts of illegal entry were identified at the Schengen external borders, a number composed by mostly Syrians fleeing from the horrors of the civil war and violence promoted by the Islamic State of Iraq and the Levant (ISIL) in a total of 594,059 people, followed in numbers by 267,485 Afghans[44].

In the case of Syrian nationals, it is difficult to determine the exact number of people arriving in the EU, since other migrants also claim to have Syrian nationality in order to facilitate their asylum process and guarantee their refugee status. Confirming the identity of thousands of poorly documented migrants is one of the main challenges for the European border control authorities nowadays.

This security gap has already shown its dangerous consequences, in November 2015 a series of coordinated terrorist attacks in Paris left 130 dead and more than 100 injured[45]. The ISIL claimed responsibility for the attacks and two terrorists involved entered the EU with fraudulent Syrian documents claiming to be asylum seekers[46].

A few months later, in March 2016, other series of terrorist attacks killed 32 people in Brussels, IS once again claimed responsibility and it is believed that the attacks were connected with those in Paris, with some of the suspects being part of the same IS network[47]. At least 14 suspects of both series of terrorist attacks were either Belgians or Belgium residents[48]. After Paris and Brussels until October 2017,

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[41] Uppsala Conflict Data Programme. Department of Peace and Conflict Research. Accessed in 24 oct, 2017. http://ucdp.uu.se/

[42] Ibid.

[43] UNHCR *Global Report 2015*, 2016. Accessed in 24 oct, 2017. http://www.unhcr.org/574ed7b24.html

[44] Frontex, Risk Analysis 2016.

[45] "Paris attacks: What happened on the night", *BBC News.* Last Modified in 9 Dec, 2015. Accessed in 24 oct, 2017. http://www.bbc.com/news/world-europe-34818994

[46] Frontex, Risk Analysis 2016.

[47] "Brussels explosions: What we know about airport and metro attacks", *BBC News.* Last Modified in 9 Apr, 2016. Accessed in 24 oct, 2017. http://www.bbc.com/news/world-europe-35869985

[48] Larry Buchanan, and Haeyoun ParK, "Uncovering the Links Between the Brussels and Paris Attackers". The *New York Times.* Accessed in 24 oct, 2017.

more than 13 attacks occurred in different European countries, conducted using a variety of methods and weapons, but the suspects list follow the same pattern, including both EU and non-EU citizens[49].

Through the years it became more evident that the idea of terrorist threats having an exclusively external nature was not in accordance with the reality of European Union. Security strategies for countering terrorism and other kinds of criminal activities focusing on third country nationals proved to be insufficient to preserve the integrity of the EU territory and the safety of its citizens, since terrorism is as domestic as a foreign problem.

In the end of 2015, due to increasing terrorist threats of jihadist nature against EU Member States and rising number of terrorist attacks, the Council of the European Union called for a revision of the SBC, in order to better adjust the regulation to the current security reality[50]. One of the main concerns of the Council was to develop a proper response to the issue of foreign terrorist fighters, who can have a European passport and benefit from the rights of free movement inside the EU and be subjected to a minimum check when crossing the external borders.

After the call, the European Commission presented a regulation amending the SBC, to establish that every person must undergo thorough checks regardless of their nationality during the processes of entry and exit of the Schengen external borders[51]. It is a significant change in the EU border control system, since previously only third country national (TCN) were subjected to thorough checks while entering the EU, in which the passengers' information were systematically checked in different databases, including the Interpol database for lost and stolen documents, in order to ensure that the person does not represent a threat to internal security. With the advent of foreign fighters and the involvement of European citizens in terrorist attacks, EU citizens and their family members started to be seen as a potential threat to the Union itself. As explained in a press release issued by the Council of the European Union[52] at the time the Council adopted the regulation for the SBC amendment:

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[49] "Terror attacks in Europe", *RTE* (2017). Accessed 24 oct, 2017.
https://www.rte.ie/news/world/2017/0817/898178-europe-terror-attack-timeline/
[50] European Council, *Schengen borders code: Council adopts regulation to reinforce checks at external borders* (2017). http://www.consilium.europa.eu/en/press/press-releases/2017/03/07-regulation-reinforce-checks-external-borders/
[51] European Council, *Schengen Borders Code: agreement to reinforce checks at external borders (*2018). http://www.consilium.europa.eu/en/press/press-releases/2016/12/07-systematic-checks/
[52] European Council, *Schengen borders code: Council adopts regulation to reinforce checks at external borders*.

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"The amendment obliges member states to carry out systematic checks against relevant databases on all persons, including those enjoying the right of free movement under EU law (i.e. EU citizens and members of their families who are not EU citizens) when they cross the external borders. The databases against which checks will be carried out include the Schengen Information System (SIS) and Interpol's database on stolen and lost travel documents (SLTD). The checks will also enable member states to verify that those persons do not represent a threat to public policy, internal security or public health. This obligation shall apply at all external borders (air, sea and land borders), both at entry and exit."

The Council of the EU and the European Parliament adopted regulations in March 2017 for the amendment, obliging all Member States to conduct systematic checks for all travellers at their external borders[53]. The reinforced checks started at the beginning of April 2017[54].

In June of 2017, Europol released its 10th EU Terrorism Situation and Trend Report. Some major trends presented by Europol are directly connected to the border control system and its tasks of protection of the EU and its citizens. One of the trends is related to the flow of European citizens to conflict areas in Syria and Iraq joining terrorist groups, and the return of these individuals to Europe. It is estimated that around 5,000 Europeans have travelled to those areas to become foreign terrorist fighters in groups like the ISIL [55].

Due to an increase in military defeats and difficulties to access ISIL controlled territories, the number of Europeans going to conflict areas is decreasing[56]. Moreover, the number of returnees is on the rise and this trend is expected to continue for the

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[53] European Council, *Schengen Borders Code: agreement to reinforce checks at external borders.*
[54] The Republic of Slovenia Ministry of the Interior Police. *Systematic border checks of all travellers at external Schengen borders to start on 7 April* (Slovenia, 2017).
[55] Europol, *EU Terrorism Situation and Trend Report* (2017). https://www.europol.europa.eu/activities-services/main-reports/eu-terrorism-situation-and-trend-report-te-sat-2017
[56] Europol, *EU Terrorism Situation and Trend Report*.

next years, especially with the possible collapse of ISIL, that have already lost significant parts of its controlled territories[57].

Foreign terrorist fighters represent a serious threat to the EU member states. They have received military training, ideological instruction, have knowledge about the use of explosives and weapons, and have been exposed to extreme levels of violence on a daily basis. As returnees, they tend to strengthen local jihadist movements, demonstrate significant levels of violence and brutality, and possibly perpetrate terrorist attacks in their country of origin. It is imperative for the security of EU member states that returnees are effectively identified during border checks before entering the Schengen Area.

The variety of threats and criminal activities occurring within the current border control context is wide and besides terrorist threats it includes: drug trafficking, human trafficking, migrant smuggling, document fraud, smuggling of weapons and exit of stolen vehicles. Ensuring a continuously functioning and effective border control system in such a complex scenario is a priority for the EU that sees technological solutions as a key element for this task.

1.3 Smart Borders

The Smart Borders Package was proposed by the European Commission for the first time in 2013 as a set of three legislative proposals: creation of the Entry/Exit System (EES), development of a Registered Traveller Programme (RTP) and an amendment of the SBC to include the changes promoted by the two new systems[58]. The proposals aimed to quicken border crossings, strengthen border check processes and improve the capacity of SIS and VIS with the adoption of smart technologies. As with SIS and VIS, the two new systems would be controlled by the EU Agency for large-scale IT systems (eu-LISA) that is responsible for maintenance, efficient exchange of data among national authorities, separation of data between different systems and data protection[59].

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[57] Europol, *EU Terrorism Situation and Trend Report*.
[58] European Parlament, *Legislative Train - Towards A New Policy On Migration: Registered Traveller Programme (2013 Smart Borders Package) (*2013). Accessed in 02 feb, 2018. http://www.europarl.europa.eu/legislative-train/theme-towards-a-new-policy-on-migration/file-registered-traveller-programme-(2013-smart-borders-package)
[59] Hendow, et al., Using Technology to Draw Borders.

The EES is expected to be operational in 2020, and it records data of all TCNs crossing the Schengen external borders for short stay visits, including past refusals of entry, and registers the date and place of entry and exit in order to identify overstayers[60]. This new system will substitute manual stamping of passports and it will record biometric data of all TCNs traveling to and from the Schengen area.

The RTP gives the possibility for TCNs to use electronic gates, also known as e-gates, and to benefit from faster border crossings after a voluntary pre-registration process, which includes the gathering of biometric data such as fingerprints, besides travellers' personal information[61]. The target users are business and other frequent travellers who are considered to be "low risk" according to criteria such as purpose of travel, sufficient financial means and travel history. However, in 2016 a reviewed Smart Border Package proposal was presented by the European Commission, in which the 2013 proposal for the development of the RTP in a EU level was withdraw, but member States were given the possibility to enact their own RTP systems[62].

Germany and Netherlands have already developed their own RTP systems, which are currently being used at some of their busiest airports. The registration for the programme is free and available for TCNs who are holders of e-passports from Australia, Hong Kong, Japan, South Korea, Singapore, New Zealand, Canada and the United States of America[63].

Biometrics are an essential component of the Smart Borders Package and of the current EU border management system that prioritizes the ability to effectively identify individuals. They are seen by many security experts as the most accurate tool of identification and vital to the fight against fraudulent documents and identity theft[64]. In the early 2000s, the use of biometrics for border control purposes in EU gained strength with the development of e-passports, which contain digitalized facial image

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[60] European Council, Entry-exit system: final adoption by the Council (2017). Accessed 25 jan, 2018. http://www.consilium.europa.eu/en/press/press-releases/2017/11/20/entry-exit-system-final-adoption-by-the-council/

[61] Hendow, et al., Using Technology to Draw Borders.

[62] Taylor, Benjamin. "Developing Qualitative Criteria for Assessing the Impacts and Acceptability of Border Control Technology" (Masters thesis, University of Tampere, 2016). http://tampub.uta.fi/bitstream/handle/10024/99591/GRADU-1471257059.pdf?sequence=1&isAllowed=y

[63] Federal Police, *EasyPASS-RTP.* 2018. Accessed 02 feb, 2018. https://www.easypass.de/EasyPass/EN/EasyPASS-RTP/rtp_node.html;jsessionid=84FB35CEEDD5DD5BBBCE8472B1F9DBE1.2_cid297

Schipol Amsterdam Airport. *Registered Traveller Programme.* 2018. Accessed In 02 feb, 2018. https://www.schiphol.nl/en/page/registered-traveller-programme/

[64] Hendow, et al., Using Technology to Draw Borders.

and fingerprints of their holders[65]. The most common forms of biometric data being currently used for border control purposes are iris and retina recognition, besides facial recognition and fingerprints.

Examples of biometrics being used for border control procedures can be found all over the globe. For instance, Dubai airport has the largest and oldest iris recognition system and its automated gates are available also for passengers with disabilities[66]. Canada has a globally recognized traveller's register system, and the United States is currently expanding the use of biometric identifiers at border check points located in its busiest international airports[67].

At the border check point, passengers' biometric data previously collected during the visa or passport application are compared to the person presenting the travel documents by a border guard or e-gates that will read and verify the passenger's information through a passport scanner. In the case of TCNs pre-registered to the RTP system, a machine-readable token in the form of a card containing passenger's information would be presented and verified at the e-gates[68].

The "Smart Borders" reaffirms the Ban-opticon form of governmentality being currently applied in Europe, by creating further divisions between travellers and therefore refining even more the surveillance and control at the EU borders. With a system like the RTP, the division of travellers between EU and non-EU citizens established with the creation of the Schengen Area is surpassed by a newer division of TCNs that are considered to be "high-risk" or "low-risk" travellers. As in the case of EU and non-EU citizens, the distinction between "high-risk" and "low-risk" travellers implies different rights for individuals of each group, and it reinforces once again the perception of security threats coming from abroad. Foreigners, especially the poor ones who have no access to the RTP system or even e-passports, will face reinforced controls while the movement of others will be facilitated.

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[65] Elin Palm, "Conflicting Interests in the Development of a Harmonized EU E-Passport." *Journal of Borderlands Studies* 31, no. 2 (Apr 2, 2016): 203-16. Accessed 2 feb, 2018. doi:10.1080/08865655.2016.1181982.

[66] Tracey Caldwell. "Market Report: Border Biometrics". *Biometric Technology Today*, no.5 (2015): 5-11. Accessed 03 feb, 2018. doi://doi.org/10.1016/S0969-4765(15)30079-5.

[67] Ibid.

[68] European Commision*, Proposal for a regulation of the european parliament and of the council establishing a Registered Traveller Programme* (Brussels: European Union, 2013) https://ec.europa.eu/home-affairs/sites/homeaffairs/files/doc_centre/borders/docs/1_en_act_part1_v14.pdf

The logic of the Ban-opticon being applied in border management can be clearly seen in the words of Mark Cregor[69], managing director of the Accenture Border and Identity Services[70], while commenting on the EU proposals for the creation of the EES and RTP:

> *"These proposed changes in border management processes offer a unique opportunity for border agencies to not only improve the experience of the vast majority of travellers and simplify life for the frequent flyer, but also to focus security efforts on the small minority of travellers who pose a risk or to whom entry or exit from a particular country should not be permitted.".*

Some scholars have pointed out possible exclusionary practices that technological solutions can bring when applied in border control, in the case of e-passports that are essential to the use of e-gates, certain countries with weak institutional structures struggle to guarantee even the basic right of identity registration after birth and certainly are not be able to provide their citizens with biometric travel documents[71]. These individuals would be automatically excluded of the ABC system, and would face higher barriers for movement and reinforced border control checks by being placed in the "high-risk" travellers group for simply not having access to e-passports in their country of origin[72]. Moreover, the standardization of e-passports among developed countries can deepen the digital inequality currently existent between countries around the globe.

Already in the late 90s the Polish philosopher and sociologist Zygmunt Bauman pointed out for the exclusionary aspect of the globalization, and the existent dichotomy between freedom of movement and spatial segregation. In Bauman's perspective, globalization has a different meaning for different societal groups. For the elite globalization means freedom of movement, while for the poorest it means being

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[69] Tracey Caldwell, Market Report: Border Biometrics.
[70] Accenture is a multinational company which provide services in the areas of strategy, consulting, digital, technology and operations. Their clients are both from the private sector and governments, and its Border and Identity Services division works with the EU SIS II and VIS systems.
[71] Hendow, et al., Using Technology to Draw Borders.
Palm, Conflicting Interests in the Development of a Harmonized EU E-Passport.
[72] Hendow, et al., Using Technology to Draw Borders.

trapped in the local[73]. What is seen nowadays is that between these two extremes exists a third societal division of individuals who can also circulate and tend to relate globalization with freedom of movement. They represent the majority of travellers, who can prove to have sufficient means to be allowed to legally cross borders for the purpose of tourism, study or business, even though they are not members of the elite.

Although the notion of being trapped in the local can seem too radical, it is not entirely unrealistic. Those who do not have sufficient means to prove themselves as good consumers or capable of sustaining a comfortable living are not eligible for the RTP system or even to receive permission to legally cross the EU external border. For some authors, the current immigration policies combined with the increasingly use of technology for control and surveillance are not only excluding unwanted migrants, but also pushing them to illegal routes where they are exposed to conditions of bare survival and biological existence[74].

The EES system for instance has its creation justified by the Council of Europe[75] with promises of helping to: "reduce border check delays and improve the quality of border checks by automatically calculating the authorised stay of each traveller", "ensure systematic and reliable identification of overstayers" and "strengthen internal security and the fight against terrorism by allowing law enforcement authorities access to travel history records". However, its possible side-effects, as pointed by Hendow, Cibea and Kraler[76], can jeopardize the security of the EU and endanger the life of travellers, who in order to avoid being classified or identified as overstayers, would seek illegal migration routes boosting the demand for smugglers and expanding human trafficking networks around Europe.

On the other hand, travellers who already have access to the ABC system, mostly EU citizens, seem to sustain a positive perspective regarding the use of technological solutions at border check points. In a recent study conducted by Eticas[77] about data protection in automated borders, it was revealed that when using

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[73] Zygmunt Bauman, *Globalização: as conseqüências humanas* (Rio de Janeiro: Jorge Zahar Editor Ltda, 1999).
[74] Estela Schindel. "Bare Life at the European Borders. Entanglements of Technology, Society and Nature." *Journal of Borderlands Studies* 31, no. 2 (Apr 2, 2016): 219-16. doi:10.1080/08865655.2016.1174604. Hendow, et al., Using Technology to Draw Borders.
[75] European Council, *Entry-exit system: final adoption by the Council* (2017). Accessed 25 jan, 2018. http://www.consilium.europa.eu/en/press/press-releases/2017/11/20/entry-exit-system-final-adoption-by-the-council/
[76] Hendow, et al., Using Technology to Draw Borders.
[77] Gemma Galdon Clavell. "Protect Rights at Automated Borders." *Nature* 543, no. 7643 (Mar 2, 2017): 34-36. doi:10.1038/543034a.

automated systems in border control, travellers perceived the interaction with technology 'less aggressive' while crossing borders, when compared to a manual border control performed by border guards, and they tend to think that machines are less susceptible to discrimination. Border guards also see the neutrality and impartiality of technology with a positive perspective, but they also highlight the importance of human interaction in the identifications of suspicious behaviour[78].

This positive perspective regarding to the discrimination aspect is also shared by the European Commission who affirms that "Biometric technology can reduce the risk of mistaken identities, and of discrimination and racial profiling."[79]. The idea behind this affirmation is that with the use of ABC, the decision of who is allowed to cross the border is automatic, as the machine verifies if the biometrics recorded in the travel document matches with the biometrics of the passenger. If they match, entry permission is granted. However, questions have been raised regarding the "neutrality" of technology, especially about the algorithms being used and how the e-gates are programmed, for example discriminatory algorithms may stop individuals with certain nationality or those who are coming to Europe in high-risk flights[80].

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[78] Ibid.

[79] European Commission, *Smart Borders Package: Questions & Answers* (Brussels, 6 April 2016). http://europa.eu/rapid/press-release_MEMO-16-1249_en.htm

[80] Hendow, et al., Using Technology to Draw Borders.
Matthias Leese, "The new profiling: Algorithms, black boxes, and the failure of anti-discriminatory safeguards in the european union". *Security Dialogue,* 45(5) (2014): 494-511. doi:10.1177/0967010614544204.

2. Methods and Data

In order to successfully achieve my research aim and answer to my research questions, I compiled different sources of primary and secondary data, that together I believed could best represent the current reality and future panorama of the EU border control system, along with the perspectives of its main stake-holders and end-users.

The data collected is both of quantitative and qualitative nature, bringing to this research proper scientific basis for the discussion of a such a complex and challenging issue. Challenging in a sense that the automatization of border control checks and the implementation of sophisticated large-scale identification systems based on biometrics are a very recent phenomenon. Thus, no substantial scientific literature related to possible impacts on fundamental rights, particularly on the right of non-discrimination could be found during the process of literature review conducted at the initial stage of this research.

Although scarce, most of the academic literature found consisted of articles published in scientific journals related to the issues of data protection and data privacy. The importance of addressing such issues when accessing the ethical and societal impacts of new border control technologies is undeniable, however other crucial aspects regarding the protection of fundamental rights seem to remain uncovered.

The present research focuses on one of those uncovered aspects, by investigating, analysing and discussing how the implementation of new technologies are affecting and will affect the issue of discrimination in border control practices. My first source of primary data consists of an online survey questionnaire developed, published and distributed by the BODEGA project research team. The survey questionnaire responses present the experiences of travellers crossing the EU external borders, including Europeans and third-country nationals, and travellers who have used automated gates and those who have performed their border checks interacting with border guards.

A second source of primary data concerning other stakeholders involved in the border control system consists of questionnaires developed by the European Commission, which were used in a public consultation on the Smart Borders Package conducted in 2015. The questionnaires were filled by individuals, carriers, tourism, transport and infrastructure operators, EU public authorities, intergovernmental and

non-governmental organizations related to areas of migration, border control, fundamental rights and data protection. They were developed aiming to gather the perspectives, opinions and expectations of public authorities and organizations regarding the current state of EU border control system and the Smart Borders.

As source of secondary data, I will be using the report on the results of the public consultation issued by the European Commission and publicly available on their official website, in which it is possible to find results of quantitative data analysis of the responses of all participants, including individuals who participated at the public consultation anonymously and therefore did not have their filled questionnaires with their identification published.

In this chapter, I will present the materials, methods used for data collection and analysis, the results of the analysis and brief discussions for each source separately, starting with the BODEGA Travellers Survey followed by the Public Consultation on the Smart Borders Package.

2.1 BODEGA Travellers Survey

The present master's thesis is a contribution to the BODEGA- Proactive Enhancement of Human Performance in Border Control project led by VTT Technical Research Centre of Finland Ltd. and funded by the European Commission Horizon 2020 research and innovation programme. BODEGA's research team developed a traveller's online survey questionnaire to better understand the experience of travellers while crossing the Schengen border and their point of view regarding different aspects of border control.

The survey was developed taking into consideration the European Code of Conduct for Research Integrity[81] and the six cornerstones of the Responsible Research and Innovation (RRI) framework[82], which are ethics, societal engagement, gender equality, open access/science, science education and governance. This framework is an integral part of the BODEGA project and a cross-cutting issue of the

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[81] ALLEA – All European Academies. *The European Code of Conduct for Research Integrity.* Berlin: ALLEA, 2017. https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf
[82] European Commission. Responsible Research and Innovation: Europe's ability to respond to societal challenges. 2014. doi:10.2777/95935.

Horizon 2020 programme for the promotion of public engagement in research and innovation.

The survey questionnaire contains a variety of question types, combining both open-ended and close-ended questions such as: Likert-type scales, multiple choice and rank order questions. Close-ended questions do not cover the issue of *why,* however they are effective for understanding general aspects of the research. When combining both close-ended and open-ended questions it is possible to have a general and in-depth understanding of travellers' perspective of border control and allows them to define what they perceive as central issues of current practices. In total, the survey was composed by 46 questions and it was translated into nine languages. The responses given by the participants to open-ended questions that were not written in English were all translated to this language before the data analysis was conducted.

In August 2017 the survey questionnaire became available in BODEGA's official website[83] and its initial distribution strategy was to share it through newsletters and email lists of companies and institutions participants of the BODEGA project consortium, social media platforms and during dissemination events in which the project was presented, such as conferences and fairs.

At the time this thesis was written the survey was still open for participants in BODEGA's website. Until 30th of January 2018, when I compiled the data to be further coded and analysed, 143 participants from Africa, Asia, Europe, North America and South America had sent their responses in the condition of anonymity, all of which were collected and archived following EU research ethical regulations. QuestBack was the internet-based program used for collecting the data and it automatically coded all closed-ended questions' responses. In regard to open-ended question responses which could not be automatically coded, in order to have a better understanding of the data set I preferred to conduct the analysis by identifying common themes. I choose this rather than breaking the data into small sections by using key words for coding and systematization, since the number of responses received was smaller and their size and content varied substantially.

The majority of participants did not need a visa to travel to the Schengen area or were holders of a resident permit card for a Member State, only 20.5% claimed to

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[83] "Proactive Enhancement of Human Performance in border control". BODEGA. Last Modified 01 apr, 2018. http://bodega-project.eu/

need a visa. Regarding their gender 58% were males and 42% females, the largest age group of participants were of those 25 to 34 years old (35%) followed by 35-44 years old (30%). As a result of the initial survey distribution strategy, the level of education of most participants was high with 93% having at least completed a Bachelor's degree. In a total of 143 participants, 113 were EU, EEA or Switzerland citizens and 30 were third-country nationals (TCN) of which 3 claimed to have never crossed the Schengen border and therefore could not reply to all questions of the survey.

The survey was divided in five themes: background information, general perception and experience, ethics, last border control and border control in general. In order to focus on the specific research question of this master's thesis I selected 13 questions, those of which were more connected to discriminatory aspects and practices. The questionnaire did not have any question addressing directly the issue of discrimination in border control, but it had open-ended questions in which travellers could better describe their experiences and opinions, and close-ended questions concerning their interaction with border guards, treatment received and their perception of the e-gates.

To understand better the possible differences in the experiences of TCNs and of EU, EEA and Switzerland citizens who have the right of free movement in the Schengen area according to the EU law, I separated the data between these two groups, by creating a new category named "citizenship" that allowed me to distinguish the responses of the selected questions and to analyse them separately and comparatively while using the method of cross-tabulation for close-ended quantitative questions. Cross-tabulation is a common quantitative data analysis method used for analysing survey responses since it enables the researcher to understand the relation between multiple variables, to find patterns and trends that otherwise would be difficult to identify in the raw data[84]. The software used for the organization and analysis of this quantitative data was Microsoft Excel 2016 MSO.

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[84] Daniel F. Chambliss and Russell K. Schutt, *Making sense of the social world: Methods of investigation* (Sage Publications, 2016).

2.1.1 Results

When asked "What do you think about crossing the Schengen border in general?" the participants could choose between 5 different facial expressions the one that best represented their level of satisfaction. Third country national (TCN) respondents seemed to be more satisfied than EU citizens with Schengen border control, 70% of TCNs chose the faces which represented being satisfied or very satisfied, compared to 53% of EU citizens.
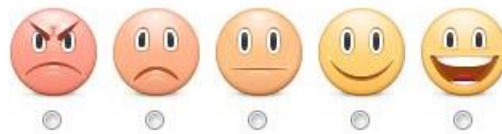

IMAGE 2: Facial expressions used in the BODEGA travellers survey.[85]

Some questions of the survey were addressed only to travellers who had experience using the ABC system, the aim was to understand the level of satisfaction with the system and possible existent challenges. TCN travellers who had used the system were either satisfied or very satisfied with their experience using the European e-gates, as were the majority of EU travellers (IMAGE 3). For instance, travellers who did not use the e-gate or had their border control performed partially automated and partially by a border guard were asked about their experience of interaction with border guards. Once again the majority of TCN travellers seemed to be generally satisfied with their experience: 20 were either satisfied or very satisfied, 9 were indifferent and 1 dissatisfied. However, regarding EU travellers even though the majority were also generally satisfied, 31 respondents affirmed to be indifferent, 5 dissatisfied and 1 very dissatisfied (IMAGE 4).

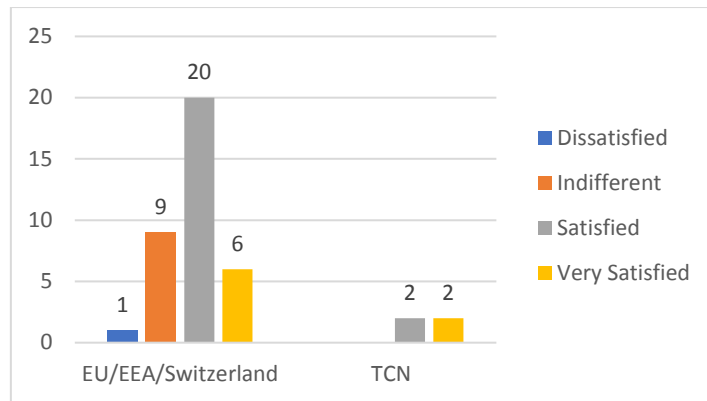[85] "Proactive Enhancement of Human Performance in border control".

IMAGE 3: Travellers' level of satisfaction with their experience of using the e-gate.
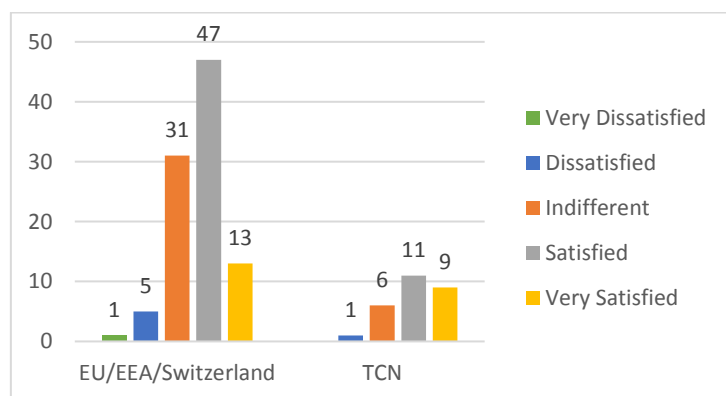

IMAGE 4: Travellers' level of satisfaction with their experience of interaction with border guards.

The issue of fair treatment at border control checks was directly addressed in the questionnaire with a multiple-choice question that was followed by an optional open-ended question about possible improvements in the border control system that could make travellers' experience better. Eighty-three percent of EU travellers felt they were treated fairly during the process of border control, and a slightly higher percentage was seeing among TCN travellers, with 88% of them also affirming to feel being treated fairly.

According to the responses of those who willingly replied to the open-ended question, the improvements pointed out by TCNs can be divided in three themes: better access to information about the border control process, faster border control checks and better treatment of travellers. Other concerns related to discriminatory practices in border control were also mentioned by travellers, as seen in the response bellow:

More neutral and fair treatment with Latin Americans. Unnecessary questions were made during the conversation with the European guard.

Another issue mentioned by the respondents was transparency and more information about border control check procedures and rights. For example, TCNs emphasized the importance of understanding the reasons why travellers are being questioned and their personal information being verified:

The border control should explain the reasons why they are verifying our personal information (or confirming, depending on the case). Specially for those who are crossing the border for the first time, unaware of the type of question the guarders would ask.

In the case of EU travellers, part of the most common improvements themes cited were similar to those mentioned by TCN travellers, such as better treatment provided by border guards and the provision of more information about the border control process. For example, an EU traveller emphasized the need for more information and civility from the border guards:

Better information before the passage. A little more civility on the part of the border guards.

However, faster border checks was the improvement most emphasized by EU travellers, in a total of 30 responses received, 17 were related to time, speed and efficiency. Along with a possible improvement, some travellers sent also their complaints as a form of justification for the proposed improvement, which were mainly about long waiting lines, lack of coordination between airlines and the border control check system and low efficiency of the system. For instance, an EU traveller suggested a revision of the current division between EU and non-EU passports for the optimization of border checks:

There is a distinction between EU and non-EU passports. On same airports this can be changed, probably based on arriving planes/passengers but on some airports it is more or less fixed for a flight between two Schengen states there

is a huge line on the EU passport gates and almost nobody on the non-EU Gates. This could be optimized.

Since in the group of EU, EEA and Switzerland citizens more travellers have used automated borders, another major theme identified during the analysis was improvements of the e-gates. For instance, a traveller suggested improvements on the design of the e-gates used at Helsinki-Vantaa airport:

…at Vantaa airport there isn't enough space between the "footprints" on the ground and the wall behind you if you have a backpack on, so you have to take it off which unnecessarily complicates things and slow the whole process down (as people who don't travel often don't realise they need to take off and so stand too close to the screen and so the machine can't recognise the face etc). Heathrow's implementation of the e-Gate works better as the screen is more towards the front of the gate; you have to stand diagonally within the gate which leaves room for your backpack and any other luggage within the e-Gate. Vantaa's is also difficult to fit other carry-on suitcases due to the layout of the e-Gate "booth".

The last section of the survey was dedicated to the topic of border control in general and all travellers, regardless if they had crossed the Schengen border before or not, were asked to give their opinion about a series of statements in which they could agree, disagree, neither agree or disagree, strongly agree, strongly disagree or simply choose the option "I don't know".

When replying to the statement "The use of e-gates makes me feel like a criminal or suspect." 70% of TCN travellers disagreed or strongly disagreed and none has agreed or strongly agreed with it. Similarly, in the case of EU travellers 74% disagreed or strongly disagreed, but four travellers have agreed and one strongly agreed. The majority of EU travellers also agreed that e-gates allow them to avoid potential communication problems with border guards, but TCN travellers, who mostly had no experience using the machines had diversified opinions: 14 agreed or strongly agreed and 9 claimed not to know if the e-gates can allow them to avoid communication problems.

The statement "I feel more secure when border control is performed by e-gates than when it's performed manually by a border guard." was the one that travellers seemed to be more reluctant to either agree or disagree with (IMAGE 5). Finally, when asked if they would prefer to use an e-gate instead of a manual control performed by a border guard the opinions of both group of travellers were relatively similar with 42% of EU travellers and 50% of TCN travellers agreeing and strongly agreeing.
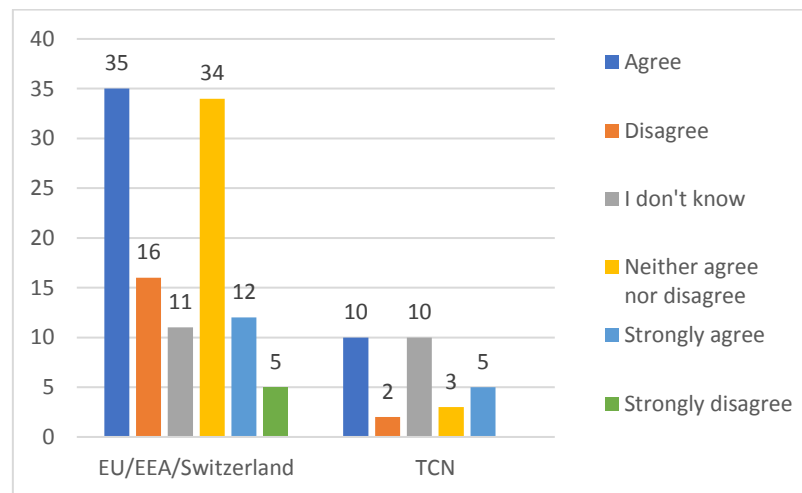

IMAGE 5: Travellers' opinion about feeling more secure when border control is performed by e-gates.

After stating their opinions in a multiple-choice format, travellers were given the opportunity to freely write their thoughts about border control in general. In total 28 travellers wrote their suggestions, thoughts and complaints, of which some themes identified were related to the treatment received by travellers, impartiality of border guards and discrimination. For example, TCNs and EU citizens mentioned in their responses possible differences in the treatment received by different groups of travellers:

The borders inside Schengen are great, however while entry I feel that there are differences in the treatment of non-Europeans, especially Latin Americans.

I have seen that border police officers were very rude and obtrusive to "Arab looking" travellers.

Comparisons between border guards and automated borders were also made, for instance a TCN traveller stated that e-gates could be better in certain contexts in which border guards cannot be trusted to be impartial:

In Finland I prefer what I think is safer - an actual border guard. In countries where police or officers can't be trusted to be impartial I would prefer e-gates. Before this survey I had not thought about the problems of data security regarding e-gates.

Another TCN affirmed to have good and bad experiences while crossing the borders, however the traveller thought the European border control system was too invasive:

I have had good and bad experiences while crossing the borders I think the system is too invasive, even though I understand it is still necessary! I hope one day I will not need to go through border check point and the free movement between countries will be worldwide!

Finally, it was possible to observe European traveller's concern regarding the functionally of the current border control system, its safeness and the possibility of reintroducing Schengen internal border controls:

My experiences are positive in tone, however, I am worried about the functionality of the system. The Schengen system is now under a particularly high pressure, since I'm left with a view that it has been possible to arrive at the EU territory without documents and to move within the Schengen area continuously, as all countries do not seem to comply with the requirements of the system in the same way as Finland. There is a threat that all countries will introduce border controls, thus disrupting the whole system.

2.1.2 Discussion

The survey questionnaire focused on individuals' experiences and perceptions of the current EU border control system and of changes being conducted for the improvement of its security and efficiency. During the analysis of the responses given by travellers, TCN and EU citizens seemed to have very similar opinions and perceptions in various aspects of the system, they also seem to share a similar vision on necessary improvements and had similar complaints.

Interestingly in some parts of the questionnaire TCNs showed to have a more positive perspective and to be more satisfied with the border control system and their experiences than EU travellers. For instance, a slightly higher percentage of TCNs felt they were fairly treated during border check, they were also more satisfied with their interaction with border guards and none of them agreed that e-gates make them feel like criminals.

At the beginning of this research, before conducting the data analysis I expected different results. In my perspective, TCNs were likely to have a more negative perception of European border control checks and possibly would be more dissatisfied with their experiences than their European counterparts, especially in the case of manual border control conducted by border guards. I also expected that TCNs would clearly show preference for automated borders, seeing them as more neutral, less aggressive and reliable than border guards for the performance of border control checks. However, the responses given in the questionnaire and the results of the analysis show that less than half of TCNs would prefer to use e-gates instead of manual border control, and half were unsure or disagree that they would feel more secure performing their border control with e-gates.

Such unexpected results are possibly linked with specificities of the data set sample. With the initial survey distribution strategy used by the BODEGA project research team, mostly individuals with a high level of education were reached by the distribution channels, resulting in a total of 93% of the participants having at least Bachelor's degree completed. Therefore, what the sample truly represents is the experiences and perspectives of highly educated individuals, who are like to be those qualified by border authorities as "bona fide" travellers.

Bona fide is a Latin word used as an adjective for something or someone that is genuine, legitimate or sincere, in a literal translation it means "with good faith"[86]. In the context of border control, the term is often used to refer to legitimate trustworthy third country nationals, who are considered to represent low risk to the territory they are entering[87].The process of border crossing is facilitated for bona fide travellers especially with the implementation of automated borders controls and the idea of filtering through profile[88].

Previously, only European citizens who accepted to be pre-registered and voluntarily provided their personal data to be stored in large-scale data systems were able to benefit from quick border crossings. However, with the creation of the Registered Traveller Programme (RTP) bona fide third country nationals who frequently travel to the EU became also able to benefit from open and quick borders. The participation requirements for the RTP, which is being currently applied at a national level in some European countries enlightens the determinant indicators used for distinguishing between "bona fide/desired" and "untrusted/undesired" travellers, which mainly are: nationality, wealth, employer and travel history[89]. The requirements and indicators used to measure individuals' eligibility limits the accessibility to the programme to an elite class, bringing implications for the RTP feasibility and non-discriminatory capacity[90].

The merger of risk prevention perspective with border security that has been seen in the recent years, brought focus on the individual and risks that each person can represent. The question of being an EU citizen or not seems to be gradually losing its importance in a border control system increasingly dominated by the logic of risk management, in which what truly matters is if a traveller is considered to be "low-risk" or "high-risk". Valsamis Mitsilegas explains in his book *The criminalisation of migration in Europe: Challenges for human rights and the rule of law,* the implications of this merger for the respect of fundamental rights[91]:

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[86] Synonym of Genuine. "Bona Fide". Oxford Dictionaries. 2018.
https://en.oxforddictionaries.com/definition/bona_fide
[87] Valsamis Mitsilegas, *The criminalisation of migration in europe: Challenges for human rights and the rule of law (*New York: Springer, 2014): 33-35.
[88] Didier Bigo. "The (in)Securitization Practices of the Three Universes of EU Border Control: Military/Navy – Border Guards/Police – Database Analysts." *Security Dialogue* 45, no. 3, 2014. 209-225.
[89] Hendow, et al., Using Technology to Draw Borders.
[90] Ibid.
[91] Mitsilegas, The criminalisation of migration in Europe.

> *"Movement is monitored on the basis of profiling – and the establishment of individual, subjective assessments on each traveller. Migrants are criminalised as they can be deemed as 'suspects' under these assessments and their freedom of movement curtailed accordingly. The introduction of the concept of 'bona fide' traveller is extremely worrying in this context.".*

The similarity in the responses of this survey questionnaire provided by European and non-European travellers demonstrates the effectiveness of the Ban-opticon. Regardless of their nationality, travellers profiled as bona fide who represent low security risks are not those who are being the target of surveillance. The high levels of satisfaction of both groups of respondents can therefore be critically analysed considering the Ban-opticon structure of the current border control system, developed to be as smooth and seamless as possible for most travellers with increased controls for a minority of "risky" individuals under suspicion.

The "normalized" travellers who are considered to be trustworthy can enjoy the benefits of not being under suspicion, including the quickness of high technology and hassle free interactions with border guards. Such benefits create the imaginary of open borders, and the perception of being able to move freely leads travellers to mistake speed with freedom[92].

The "Smart Borders" makes the EU border crossing process even more appealing for both authorities and individuals, since it allows to improve security with increased surveillance in a way that is almost imperceptible for the majority of travellers. They do not sense being watched and profiled since they are not stopped. They even contribute to the surveillance by voluntarily providing their information in order to "benefit" from the efficiency and comfort of the system, as explained by Didier Bigo[93]:

> *"They love the 'smart' borders, because they are watched but are not stopped. They participate in this surveillance; they perform it; they even contribute to it by entering their data into*

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[92] Bigo, The (in)Securitization Practices of the Three Universes of EU Border Control.
[93] Ibid.

the systems of control, thereby paying for the speed and comfort that are promised. The invisibilization of the dataveillance for well-off, normalized travellers does not make them freer, just less aware that they are at risk of becoming 'abnormalized'. This mechanism can explain why the system is 'smart', provoking greater acceptance on account of its 'seductive' aspect.".

However, for the minority of individuals who are considered "abnormal" or "risky" the "Smart Borders" means complicated border crossings, numerous ID checks, general increase in control and surveillance starting already at consulates in their country of origin. As described by Bigo[94], these travellers are permanently under surveillance and are transformed into objects of suspicion. They are not referred to as bona fide travellers, and they certainly have different perceptions and experiences of border crossings than those who are seen as such. For instance, as observed in the responses for open-ended questions, the issue of discrimination and mistreatment were mentioned with regards to specific groups of travellers for whom border guards were rude and obtrusive. A respondent from Latin America directly addressed the issue of discrimination by emphasizing the differential treatment received by the border guard at the booth who made "unnecessary" questions and behaved in an impartial manner in the perspective of the traveller.

Considering the survey results and the similarity of opinions and experiences of high-educated TCN and European travellers, it is possible to observe the implications of the Ban-opticon structure in the experiences of "normalized" individuals who are considered bona fide and undergo more lax controls, and of the "abnormal" ones who are considered risky by the authorities and therefore face reinforced controls.

2.2 Public Consultation on the Smart Borders

In 2015, the European Commission organized a public consultation on the Smart Borders Package aiming to gather opinions and views on it for the development of a

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[94] Ibid.

revised proposal to be presented to the European Council and the European Parliament, but also aiming to collect new ideas and knowledge related to the Registered Traveller Programme (RTP) and Entry/Exit System (EES) systems and their possible impacts[95]. The targets of the consultation were individuals (especially third country nationals who crossed or intended to cross the Schengen external borders), public authorities (in particular EU Member States and Schengen States), intergovernmental and non-governmental organizations (mainly those related to migration, fundamental rights, protection of third country nationals and data protection), carriers and transport, tourism and infrastructure operators (e.g. airports).

The consultation was opened from 29 July 2015 to 29 October 2015 and made available on a Commission dedicated website created for the exclusive purpose of the consultation. The distribution channels used for the promotion of the consultation included social media platforms, official EU Delegation websites and the Commission website. The European Fundamental Rights Agency (FRA) and the EU Agency for large-scale IT systems (eu-LISA) also cooperated with the Commission to boost the distribution of the consultation by disseminating information across civil society actors, and informing members and observers of the eu-LISA Management Board.

Even though a diversified distribution strategy was used with a variety of distribution channels, including direct contact with potential participants to inform about the consultation, as in the case of the BODEGA Travellers Survey the number of responses gathered was lower than hoped for. In total 101 responses were received: 62 coming from individuals of which 9 were non-EU citizens; 11 from carriers, transport, tourism and infrastructure operators; 14 from organizations; and the remaining 14 from public authorities including police, border guard, municipalities, regional council, ministries, supervisors and even an EU border assistance mission[96].

Four different questionnaires were developed specifically for each group of participants, but all structured in the same manner and divided in to seven sections: general information, biometric identifiers, accelerating the border crossings for non-EU citizens, data retention period, law enforcement access to the data, the abolition of passport stamping for non-EU citizens, and finally a section for comments and other

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[95] European Commission. *Public Consultations*. (European Union, 2015). Last update: 12 may, 2018. https://ec.europa.eu/home-affairs/what-is-new/public-consultation/2015/consulting_0030

[96] European Union. Report On The Public Consultation On Smart Borders. 2005. https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/results_of_the_public_consultation_on_smart_borders_en.pdf

questions[97]. The questionnaires were composed of close-ended and open-ended questions in addition to short informative texts in each section for a better understanding of the topics being discussed. These were included in order to obtain the most accurate responses possible from all participants, including those who may not be familiar with a specific theme addressed in the questionnaire.

The public consultation results, questionnaires and list of participants from organizations, public authorities, carriers and transport, tourism and infrastructure operators were publicly available on the European Commission Migration and Home Affairs website[98]. Participants from the "Individuals" group remained anonymous as were their responses, however the questionnaires completed by public authorities, organizations, carriers and operators were all publicly available on the same website. Some public authorities opted to send their responses in the form of position papers or formal comments, instead of filling the questionnaire.

Responses to open-ended questions written in a language different than English, were translated to English before the data analysis was conducted. As it could be observed while analysing the material gathered by the BODEGA Travellers Survey, receiving responses to open-ended questions was quite a challenging task. Not all the participants replied to the proposed open-ended questions, and those who did, they replied in different manners. Some responses were very detailed and abstract, in some cases sentences were left unfinished for exceeding the number of characters available. However, in other cases the responses were giving using only one word, or short sentences saying just "no more comments".

Following the common process of thematic analysis for qualitative data was not possible in this case. As described by Braun and Clarke[99] the process consists of different stages, starting with the researchers' familiarization with the data, followed by the creation of initial codes, search for potential themes, revision of themes, definition of nomenclature of each theme and the final stage of elaborating a report. As the responses gathered varied substantially on their size and content, after familiarizing with the data I was unable to break it into small sections for generating the initial codes,

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[97] Ibid.

[98] European Commission, Public Consultations.

[99] Virginia Braun and Victoria Clarke. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. 2, 2006. 77-101.

so in order to have a better understating of the data set I proceeded to the identification of common themes.

For the purpose of this study, I focused mainly on the responses given by public authorities and organisations, first in order to understand the valuable information they could give on the current state of the EU border control system, the different dimensions of "Smart Borders", the implications of the use of technology and information systems for security and the respect of fundamental rights. Secondly, to compare the perspectives of the authorities and of the organizations that mostly are representatives of the interests of civil society.

2.2.1 Results

A compilation of the results from both close-ended and open-ended questions related to the topic of this thesis that are still considered to be up-to-date will be presented below, following the same sequence and nomenclature of the themes of the public consultation questionnaires. A thematic division of the results enables a clearer observation of which aspects of the "Smart Borders" were addressed by the questionnaire and of the different perspectives between and within each group of participants.

The use of biometric identifiers

According to the results report published by the European Commission[100], the majority of respondents in all groups agreed on the necessity of the use of biometrics, with the exception of organizations, in which 8 out of 14 participants were against the use of biometrics due to the potential violation of fundamental rights and risks for data protection. For those who supported the use of biometric identifiers, the main advantages mentioned were enhanced security, data reliability and improvements on the speed of border checks.

In the case of individuals, particularly third country nationals, 7 out of 9 respondents expressed a positive perception regarding the use of biometric identifiers in border control. Nonetheless, when asked about specific types of biometrics such as

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[100] European Union, Report On The Public Consultation On Smart Borders.

fingerprints and facial images, 4 out of 9 TCN respondents affirmed that the necessity of giving their fingerprints for crossing the border might discourage them to travel to the Schengen Area. Regarding facial images, similar results were observed with 3 out of 9 respondents stating they would feel discouraged. Within the total group of individuals, 43% believed biometric identifiers could bring an actual improvement to the reliability of border control.

A substantial difference in the responses of public authorities and organizations regarding the use of biometrics in border control could be observed. The vast majority of public authorities believed that biometric identifiers have the potential to improve border checks reliability and were in favour of using a combination of two biometric identifiers: a facial image with a limited number of fingerprints. The most common justification given when asked about the reasons for favouring a combination of two biometric identifiers was that together they could produce a higher certainty of identifications and a reduction in error rates. For instance, the Regional Council of South Karelia[101] argued that only one biometric identifier is not sufficient for reliable identification:

Just one mean does not provide full certainty on persons identity. Both are fast procedures and don't affect fluent border crossing.

A similar argument was used by the House of Representatives of the States General in The Netherlands[102] that also mention specific difficulties that each type of biometric identifier could have when implemented at different border check points:

In the context of security, combining facial recognition and fingerprint data offers the best guarantees. Facial recognition is difficult in a moving train, however, and on some external borders it can be difficult to take fingerprints in very cold weather.

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[101] The complete questionnaire filled by the Regional Council of South Karelia can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_south_karelia_en.pdf
[102] The position paper sent by the House of Representatives of the States General in The Netherlands can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_position_paper_smart_borders_house_of_representatives_en.pdf

Only two of the public authorities participating were against the use of biometrics identifiers in border control in any form: the International Centre for Migration Policy Development and the European Data Protection Supervisor (EDPS). Both authorities questioned the real necessity of using biometrics and the lack of evidence confirming that any other less intrusive means, such as alphanumerical data is not sufficient to effectively verify a person's identity. When asked if biometric identifiers would either improve or jeopardise border control reliability, the EDPS was uncertain and provided an explanation about why the capacity of biometric identifiers for improving reliability was questionable:

This depends on the accuracy of the system used to match biometric information. According to the Technical Study, the total number of border crossings in 2025 is estimated at 887 million. If we assume that the system matching biometric information will match individuals incorrectly to the tune of 1%, on such a large scale, 8.870.000 travellers would be affected. These mistakes could lead either to situations where the traveller is blocked at the border (because of low quality of fingerprints taken initially etc.) or in being incorrectly identified as a person of interest.

Contrary to what was seen in most responses of the public authorities, more than half of the participant organizations were against the use of biometrics itself, some of them believed that their use would even jeopardise the reliability of border checks, in case of data errors and for failing to properly identify individuals' vulnerabilities. For instance, the Platform for International Cooperation on Undocumented Migrants (PICUM)[103] expressed a series of concerns regarding potential negative impacts that the use of biometrics could bring for the respect of an individual's fundamental rights:

Through the use of biometrics, a proper identification of individual vulnerabilities at the border could be hindered. For example, the right to asylum may be affected and specific vulnerabilities not identified. Data connected with a

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[103] The complete questionnaire filled by PICUM can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_picum_en.pdf

biometric identifier should be correct, up to date and of high quality (ie entry bans shall be removed as soon as they expire). An expired alert for arrest that has not been deleted may threaten the right to security and liberty of the person concerned.

Potential negative implications of biometrics that could endanger the right of free movement were also mentioned by the American based organization Access Now, which also highlighted in its response the vulnerabilities related to the use of databased systems for controlling the movement of people:

Based on evidences gathered from the EU Fundamental Rights Agency, biometric identifiers can serve as reliable indicators of a person's identity. However, there is a need to ensure that the data connected with the biometric identifiers are correct and of high quality. Errors in the databases can take place, leading to individuals being wrongfully apprehended, arrested or prevented from travelling.

The issues of discrimination and the criminalization of foreigners were also mentioned by organizations that were against biometrics and in favour of the sole use of alphanumerical data for border control purposes. For instance, Caritas Europa[104] declared itself to be against the collection and use of personal biometric data of third country nationals due to its potential to be used by law enforcement in criminal investigations and to further discriminate and criminalize foreigners and minority groups:

Collecting a huge amount of private data from third-country nationals could result in discrimination and criminalisation if the database is used systematically in crime investigation. The example of the Swedish police register in which Roma people were added on the basis of being Roma show that compiling private data, especially when third-country nationals (Smart Borders) or

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[104] The complete questionnaire filled by Caritas Europa can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_caritas_en.pdf

minorities are concerned, create a clear risk of ethnic profiling and use of data
by the police based on the nationality.

Process to accelerate border crossings for non-EU citizens

In this next theme about accelerating border crossings for TCNs, once again the majority of all groups agreed on the necessity to accelerate the process for TCN travellers and also supported the idea of creating a European RTP. The main advantages of the program mentioned by its supporters were improved mobility, reduction of time for crossing the border, enhanced security with its pre-vetting mechanism and potential support for the Union economy. Within the group of individuals, 61% of participants supported the availability of RTP to non-EU citizens, including 8 out of 9 TCN. However, 39% of individuals were against the implementation of RTP for seeing it as a form of segregation between travellers of different classes, for considering it unfair to pay for participating in the program and having access to accelerated border crossings, and for having concerns about security checks conducted in automated borders.

In the organisations group, 53% of the participants agreed on the need to accelerate the border control check process for TCN travellers. When questioned about the RTP 11 out 14 participants supported the initiative considering its potential for improving the efficiency of border checks. Organisations against the implementation and availability of the programme for TCNs expressed concern with the potential negative impacts it could bring for the respect of travellers' fundamental rights. The European Association for the Defence of Human Rights (AEDH)[105], for instance, questioned the discriminatory nature of the RTP and the validity of travellers' consent for enrolling in the programme when few or no alternatives are available:

The RTP system as it is currently designed risk infringing various human rights.
Discrimination: It is very likely that "the access to RTP will depend on status,
income, language skills and education" (EESC) or even sensitive data like

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[105] The complete questionnaire filled by AEDH can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_aedh_en.pdf

ethnic origin or race. Data Protec: If the RTP is the only solution to avoid long lines, the user's consent can't be considered as freely given. Also, to store biometrics in a centralised database is very risky. At most, they could be stored in the personal token.

The majority of public authorities also agreed on the necessity of accelerating the border process for TCN travellers, and the exact same number of public authorities and organizations showed support for the RTP initiative and availability for TCNs coming to the Schengen area. An interesting perspective was brought by some of the authorities working at the front line of the border control system. They perceived as a positive impact of the implementation of the RTP a potential ease in the burden of border guards work at check points, who could then be able to focus on other travellers and tasks. Future scenarios of the EU external borders and estimates of the number of travellers expected to cross the borders were mentioned by the Finnish Border Guard and the Hellenic Police, in order to confirm the necessity of accelerating and facilitating border crossing for non-EU citizens:

There is an evident need to facilitate frequent travellers' border crossings. At BCPs, in average (annually) 70-90 % of crossings are made by 10-20 % of individuals. This enables border guards to focus more to the rest of the traffic flow - this increase fluency and also security. What lanes RTPs are using, EU or specific RTP lanes, should be assessed. There should be some flexibility in this regard. (Finnish Border Guard)

It has been estimated that in 2011 alone foreign travelers made a €271 billion contribution to the EU economy. Additionally, every year more than 700 million EU citizens and TCNs cross the EU's external borders. This number is expected to rise significantly in the future. By 2030 the number of people at European airports could increase by 80%. In view of the above, it is critical to further facilitate non-EU citizens border crossings in a safe and secure framework. (Hellenic Police)

However, while the necessity of accelerating the border control process was confirmed by the majority of the authorities, security aspects were not forgotten. The

response given by the Finnish municipality of Parikkala[106] shows a clear concern with security in border control check procedures:

> *If checks are done thoroughly when submitting the application, the process is ok. Acceleration of border crossings is needed, but security and safety should be guaranteed first.*

Data

When questioned about the proposed periods for data retention in the EES the opinions of the participants varied greatly. In the case of non-overstayers, travellers who entered the Schengen area with a short-term visa and did not exceed the legal time permitted for their stay (90 days within 180 days), the majority of public authorities agreed the retention period should be longer than 181 days. The main argument used to justify their opinion was that an extended period of retention enables faster border controls by avoiding re-enrolment of travellers to the system. For instance, the Finnish Border Guard[107] mentioned in their response an additional advantage for passengers when applying longer data retention periods:

> *Retention time should be longer than 181 days for practical reasons. It would be time consuming and slow down the border checks if third country nationals visiting Schengen once a year or every second year (this is common frequency of travelling) should each time go through roll-out. Longer retention time would be beneficiary for passengers since positive travel history could be seen in border checks, and then would ease the checks to be carried out. Positive travel history in ESS could also facilitate visa issuing process.*

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[106] The complete questionnaire filled by the Finnish municipality of Parikkala can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_parikkala_en.pdf
[107] The complete questionnaire filled by the Finnish Border Guard can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_finish_border_guard_en.pdf

Organizations related to the fields of security and defence, such as the European Organisation for Security (EOS) and the Aerospace and Defence Industries Association of Europe presented a similar vision of most public authorities and supported a longer data retention period. However, the majority of organization participants were either against data retention itself or favoured a maximum period of 180 days, for understating as being sufficient for the purpose of determining the extent of an authorised short stay. Individuals and carriers mostly favoured a data retention period of 181 days or longer, for its potential to speed-up and ease border checks.

For overstayers, a period of 5 years for data retention was proposed by the European Commission and rejected by half of the individuals who participate in the consultation. They were in favour of a shorter period and expressed concern with data protection issues, possible difficulties for the correction and update of data recorded in the system and the importance of considering the reasons for overstaying. The majority of organizations also rejected the proposed 5 year period and were in favour of a shorter period. They expressed concern with possible increased profiling risks and data misuse that long periods of data retention can bring. Some of the organisations, such as the Protestant Church in Germany (EKD)[108] and the European Digital Rights (EDRi)[109], questioned the real purpose of collecting travellers' personal data and the legality of using a public consultation as a tool to determine the extent of data retention periods:

The retention of data must be justified by the purpose of the original data collection. Given that the main purpose of the EES would be detecting and preventing overstayers there is no need for long retention periods. Especially as there is no common EU approach on how to deal with overstayers. Moreover the system should only contain data which are necessary for verifying the entry and exit. The individual must have the right to appeal in case the determination as overstayer is incorrect. (EKD)

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[108] The complete questionnaire filled by EKD can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_ekd_en.pdf
[109] The complete questionnaire filled by EDRi can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_edri_en.pdf

The determination of the length of a data retention period should not be left to the result of a public consultation but to comprehensive proportionality and necessity tests conducted by legal experts. (EDRi)

Half of the public authorities' participants agreed with the 5 year period proposed, since it is equal to the biometric passport validity. Four participants favoured a data retention period longer than 5 years, having in mind the potential value of the information collected to law enforcement authorities and for the investigation of criminal activities. However, the International Centre for Migration Policy Development[110] favoured a data retention period shorten than 5 years and of only alphanumerical data, claiming to be unnecessary to retain any kind of biometric data for the purpose of calculation the duration of a traveller's stay:

Concerning all data retention, there is no need to retain biometrics. For the purpose of calculation of authorised stay, only alphanumeric data would be necessary. Concerning overstayers, the purpose of data retention should be more clearly outlined, as well as the guarantees and controls. This is a particularly important issue considering the recent ECJ ruling on the Data Retention Directive, which found insufficient guarantees and controls in the large-scale collection of personal data.

Law enforcement access to the Entry/Exit System data

Opinions regard to the access of law enforcement authorities to the EES were divided among the participants of the consultation. Public authorities were mostly supportive seeing the potential benefits of the system for security, mainly on detection, prevention and investigation tasks for the combat of terrorism and international criminal activities. For instance, the Hellenic Police[111] highlighted the already prevailing involvement of

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[110] The complete questionnaire filled by the ICMPD can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_icmpd_en.pdf

[111] The complete questionnaire filled by the Hellenic Police can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_hellenic_police_en.pdf

the police on tasks of border control in many Member States and the importance of law enforcement authorities (LEAs) and border authorities work closely:

> *Border control in many MS are been exercised by the Police. Organized crime and terrorism has indisputably international characteristics, which are not limited to a MS borders. Radicalization and especially ISIS attacks in EU's soil proved that the MS LEAs must be aware about border crossing flows and work more closely with each other, always in the framework of protecting human rights and freedom especially concerning privacy and data protection.*

For the French Ministry of Interior[112] the data of some travellers collected and archived by the EES can be decisive for criminal investigations and should be available for law enforcement authorities as soon as the system is implemented:

> *The entries and exits of some travellers are information often decisive and relevant in police investigations, which justifies the access of these services to the entry-exit system from its start-up.*

A slight majority of individuals and carriers were against EES data access to law enforcement authorities, and justified their position with concerns about the lack of sufficient data security and possible errors that could lead to further stigmatization of foreigners.

Only 12 replies were received from the group "Organizations" on this matter, of which 5 supported the EES data access to law enforcement authorities. Those which were against it mentioned the risks for fundamental rights and the reinforcement of the criminalization of third-country nationals. The European Association for the Defense of Human Rights (AEDH) addressed in their response the differentiation on the treatment of European and non-European citizens and highlighted the need of confidentiality when dealing with asylum seekers data:

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[112] The complete questionnaire filled by the French Ministry of Interior can be found at:
https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_french_ministry_of_interior_en.pdf

Such an access is going against the principle of purpose limitation since it would give law enforcement authorities access to personal data taken during migratory processes. That would be particularly dangerous for asylum seekers whose data has to be kept confidential. Moreover, it would mean, in essence, that every non-EU national is considered as a presumed suspect, unlike EU nationals still presumed innocent with their biometrics protected. Nothing can justify this difference in treatment.

The Protestant Church in Germany highlighted the increased risks for the occurrence of racial and ethnical profiling when granting law enforcement access to EES information:

Law enforcement access entails the strong risk that the information collected related to race, ethnicity, health and religious beliefs could be used as the basis for (racial and ethnical) profiling and therefore discrimination of people falling within these groups. The blanket collection of data and LEA would constitute clear violation of the EU Fundamental Rights Charter (CJEU C-293/12).

Asylum Seekers

In the last section of the questionnaire the particular case of asylum seekers coming to EU was raised as subject of discussion. Public authorities and organizations were asked through an open-ended question if they would expect any possible impacts of the EES or RTP systems on asylum seekers, their responses could be divided in three groups: those who believed there would be no impact whatsoever since they were not subjects of the Smart Borders legislative proposal; those who perceived positive impact with a possible facilitation of identification of undocumented travellers through biometric data; and finally those who expected a negative impact on the safety of asylum-seekers and for the respect of fundamental rights.

Whilst half of the public authorities did not reply to this question, of those who did the majority expected no impact, two expected positive impacts and only the International Centre for Migration Policy Development mentioned a possible negative impact. For the International Centre, asylum-seekers who first enter the EU as tourists

and later claim asylum are those more likely to be affected, since they could be wrongly considered overstayers with a system like the EES.

Nonetheless, the majority of organizations expected negative impacts that would possibly infringe fundamental rights, such as the right for protection and non-discrimination. For instance, the Protestant Church in Germany was concerned with EES bringing an additional burden to the asylum-seekers by requiring the provision of personal data to be stored in the system and the possible denial of entry for individuals who need protection and might refuse giving their biometrics. The German organization also expressed their discontentment with the Smart Borders Package itself, for in their view "placing emphasis on the need to protect the EU from foreigners rather than supporting much needed policies of welcoming migrants and refugees."[113].

Another participant organization, Caritas Europa, raised attention to elevated risks of discrimination and potential division of travellers between first and second-class citizens with the adoption of the proposal:

> *The proposal could result in the creation of first- and second-class citizens. It would create discrimination between on one side EU nationals and third country nationals who participate in the RTP and asylum seekers on the other side who would have to give their fingerprints as well as potentially other biometrics identifiers each time when crossing an EU border. Asylum seekers living in Europe should not be treated less of a person. This sort of discriminatory tactics is more likely to create frustration and lead to terrorist attacks than not.*

2.2.2 Discussion

The Public Consultation on the Smart Borders was developed as a contribution for the preparation of a revised legislative proposal for the implementation of the Smart Borders Package. The first proposal made by the European Commission in 2013 presented to the European Parliament and Council raised a series of discussions regarding the of Package's feasibility, technical and operational aspects, costs

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[113] EKD: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_ekd_en.pdf

involved and potential fundamental rights violations. Thus, a series of measures was taken by the Commission for the improvement of its legislative proposal and for the further preparation of a revised proposal to be presented in 2016. Some of the measures taken were the development of a technical study[114] and a cost study[115] in 2014, one-year pilot project[116] conducted by eu-LISA and the public consultation in 2015.

The revised legislative proposal[117] was adopted by the European Commission in April 2016 and considerable changes could be observed when comparing it to the first proposal. For instance, the idea of establishing a centralised Registered Traveller Programme for third-country nationals was withdrawn. The regulation for the implementation of an Entry/Exit System was maintained in the revised proposal, however this time law-enforcement access to information recorded in the system was included, allowing national law-enforcement authorities and Europol to use the system for criminal investigation and identification[118]. Another significant change was regarding the data retention period, which previously was proposed 181 days for non-overstayers and 5 years for overstayers, in the 2016 proposal data from all TCNs would be retained in the system for 5 years.

Two main points can be delineated from the outcome of the revised proposal bearing in mind the results of the public consultation. First, the data collected related to the adoption of the RTP and its potential impacts for fundamental rights is still relevant even though the programme was excluded from the newest Smart Borders Package proposal. Its establishment in an EU level might have been withdrawn, however interested Member States have developed their own RTP and applied it on a national level in some of Europe's busiest airports, such as Schiphol Amsterdam

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[114] European Commission. *Technical Study on Smart Borders – Final Report* (PWC. 2014). https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/borders-and-visas/smart-borders/docs/smart_borders_technical_study_en.pdf
[115] European Commission. *Technical Study on Smart Borders – Cost Analysis* (PWC. 2014). https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/borders-and-visas/smart-borders/docs/smart_borders_costs_study_en.pdf
[116] eu-LISA. *Smart Borders Pilot Project Report on the technical conclusions of the Pilot* (European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice, 2015). https://www.eulisa.europa.eu/Publications/Reports/Smart%20Borders%20-%20Technical%20Report.pdf
[117] European Commission. Regulation Of The European Parliament And Of The Council (Brussels: European Union, 2016). Https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/securing-eu-borders/legal-documents/docs/20160406/regulation_proposal_entryexit_system_borders_package_en.pdf
[118] European Parliament, Smart Borders: EU Entry/ Exit System. 2016. http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/586614/EPRS_BRI(2016)586614_EN.pdf

Airport[119] and Frankfurt Airport[120]. These national RTPs differ from the centralised version described in the first "Smart Borders" proposal mostly by its limited availability, only third-country nationals from some specific countries can enrol, and by being free of charge for travellers.

Second, the most contentious topics of the consultation were the access of law-enforcement authorities to EES data and the data retention periods. Within the aspects discussed in the consultation, these were the ones more likely to bring negative impacts for the protection of fundamental rights, including increased risk of data misuse, of racial and ethnical profiling and differentiation on the treatment of Europeans and non-Europeans. Despite the majority of individuals, organizations and even some public authorities being against the access of the EES to law-enforcement authorities, or favouring a prior evaluation of necessity after two years of the EES implementation, in the revised proposal law-enforcement access to the system is assured since the beginning of its operation.

An even paradoxical outcome was seen regarding participants opinions on the proposed data retention periods. The majority of organizations were either against data retention of non-overstayers or supported a maximum period of 180 days, in the case of overstayers the majority rejected the proposed 5 years, and so did half of the individuals consulted. Public authorities mostly supported a longer data retention period for non-overstayers and half agreed with the period proposed for overstayers. In the revised proposal of the Smart Borders, the differentiation between non-overstayers and overstayers was withdrawn and a period of 5 years of data retention in the EES was established for all TCNs crossing the EU external borders. Part of the justification provided by the European Commission[121] for this decision was:

> *"The five year data retention period reduces the re-enrolment frequency and will be beneficial for all travellers, while allowing the border guard to perform the necessary risk analysis required by the Schengen Border Code before authorising a traveller to enter the Schengen area. For the border guard the systematic*

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[119] Schipol Amsterdam Airport, Registered Traveller Programme.
[120] Federal Police*,* EasyPASS-RTP.
[121] European Commission. Regulation Of The European Parliament And Of The Council (Brussels: European Union, 2016). Https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/securing-eu-borders/legal-documents/docs/20160406/regulation_proposal_entryexit_system_borders_package_en.pdf

deletion of the EES record after 181 days as proposed in 2013 would have removed any trace of the third country national recent history of entries and exits from the Schengen area which is required for a risk analysis.".

This justification shows another side of the importance of retaining individuals' personal data for a longer period in the EES system. The necessity of retaining travellers' data for risk analysis was not mentioned by public authority participants of the consultation, they mostly referred to the benefit of faster border checks that longer data retention periods can bring. The Finnish Border Guard also mentioned an additional benefit for travellers, who by having their data retained could then develop a positive travel history, which would facilitate the processes of border checks and visa issuance for them. However, it seems that being "beneficial" for travellers and for speeding border checks is a bonus that the needed long data retention period can bring. This bonus is used extensively by the authorities to justify their preference for long data retention periods, and in the case of the European Commission to justify their decision of establishing a 5 year data retention period which all foreigner travellers will be subjected to.

The contradictions between the views of the participants and what was delimited in the revised proposal of the Smart Borders raise questions about the real meaning of the consultation. In principal, the development of a public consultation indicates an interest of the European Commission to understand the perspective of end-users and stakeholders involved in the process of migration and border control. As mentioned by the Commission itself, one of the main objectives of the public consultation was to "collect views and opinions to underpin the on-going impact assessment of the Smart Borders package and the policy preparation of the revised proposal…"[122]. Thus, one may question the real value attributed to the results obtained with the responses of participants for the development of the revised proposal, since it may seem that the consultation was conducted merely to legitimize a new legislative proposal than to address and include the concerns and interests of the civil society.

After reading the revised proposal and its outcomes, the adherence of the public consultation to the principle of transparency seems uncertain. Not in any part

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[122] European Commission, Public Consultations.

of the public consultation was it mentioned the necessity of retaining travellers' personal data for extended periods, in order to conduct risk analysis tasks. Neither was it mentioned by the European Commission which developed the consultation, nor by the public authority participants, including those working in the front line of the border control system, such as border guard and police.

Another issue raised in the public consultation by a variety of organizations and a few public authorities concerning the implementation of the "Smart Borders" was the issue of proportionality. When discussing the use of biometrics, data retention and the access of law enforcement to the EES system, for some participants the necessity of using and storing biometric information for calculating an individual's duration of stay was unclear, and the proposed amount of biometric data to be collected would lead to the creation of the world largest data base system. This seems rather disproportionate to the main purpose of the EES. Many of the organizations participants and the European Data Protection Supervisor expressed concern with potential problems of data management that massive collection of information combined with long periods of retention could bring. For instance, data connected to biometric identifiers that are not collected with precision, or up-to-date, for example an expired alert that has not been deleted, may restrain traveller's freedom of movement and endanger their security.

The access of law enforcement to the system was seen by some organizations as a move against the principle of purpose limitation, since the EES was developed for calculating traveller's length of stay and to tackle the issue of overstayers. Therefore, travellers' personal data would be collected in migratory process when they arrive at border check points, for the purposes of migration and border control, not for criminal process and investigations.

 In principle, third-country nationals whose data will be retained in the EES are not suspect of any crime and should not be treated as such. Allowing law-enforcement authorities to access this data contained in the system may further criminalize the image of the foreigner as those who should not be trusted and must be under continuous surveillance. By using a data-base created for the purpose of controlling the entry and exit of TCN as a tool for criminal investigations, it creates space for further discrimination and criminalization of foreigners.

What started as a system to electronically calculate the length of stay of non-European travellers in the Schengen Area, who entered with a short-term visa, quickly

became a tool of security and surveillance. The responses of public authorities and organizations related to security and defence to the questionnaire of the public consultation, and the revised proposal presented by the European Commission in 2016 confirm the establishment of a risk management framework in the EU border control system. Further, it attests the veracity of concerns raised be the academia a decade ago when border control and migration started to shift from being exclusive security issues to risk management issues.

Already in 2008, scholars from the Paris School of Security Studies, such as Didier Bigo expressed concerns regarding the empowerment of security agencies and risk experts in border management to a level in which they would be responsible for the creation of strategies and decision-making, leaving a limited space for politics in the area[123]. In a border control system like the current one, characterised by the increasing use of information and communication technologies for identification, surveillance and risk analysis related tasks, information provided by technical studies and experts are more valuable for the process of decision-making, than political discussions and the interests of the civil society. Not only is the space for politics in the area now limited, but also the space for protection of fundamental rights, with different representatives of the civil society (churches, human rights organizations, data protection agencies) being gradually excluded from the process of decision making by having their voices unheard.

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[123] Bigo, D. (2008). Globalized (In)Security: The field and the Ban-Opticon. In D. Bigo, & A. Tsoukala (Eds.), Terror, Insecurity and Liberty. Illiberal practices of liberal regimes after 9/11. (pp. 10 - 48). Abingdon: Routledge. P. 25-28.

3. Surveillance and fundamental rights in border control

The practice of surveillance is not a contemporary phenomenon in political history. The ability to tell who is who and to produce foresight knowledge for strengthen security and defence have been valued by governments for centuries. Already in the 5th Century BC, the Chinese General and military strategist Sun Tzu emphasized the importance of acquiring knowledge on the people one should rule and about one's enemies. In his widely known text "The Art of War", Sun Tzu stated "If you know the enemy and know yourself, you need not fear the result of a hundred battles."[124].

What is contemporary is the form in which surveillance is practised in the era of globalization, particularly in democratic countries, where the principles of freedom and equality are the fundamental bases in which politics and societies are constituted. Along with freedom and equality comes the principle of transparency and privacy, which together creates little space for practices of surveillance and control. Therefore, it seems rather difficult to imagine a public acceptance of an extended system of control and surveillance being implemented in a democratic state.

Paradoxically, it is exactly in democratic states, such as EU Member-States, where technologies of identification, control and surveillance are constantly being developed and implemented. As explained by Peter K. Manning "The point appears to be that privacy and human rights must be defended in democracies, yet democracies to defend themselves are moving evermore toward systematic data gathering and use in the processes of ordering."[125]. Since the early 2000's, it is possible to observe an increasing use of information and communication technologies, especially large-scale data systems which store individuals' personal information. With the increasing incidence of terrorist attacks happening in the EU, the capability of accessing valid and accurate information of individuals gained an additional value for the authorities.

Practices of surveillance and control of individuals occurs now under the scope of a new form of governmentality known as the Ban-opticon. In societies which human rights are valued and defended, the Ban-opticon allows such practices without

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[124] Sun tzu. *The art of war* (Allandale Online Publishing, 2000).
https://sites.ualberta.ca/~enoch/Readings/The_Art_Of_War.pdf
[125] Peter K. Manning, "Surveillance and Democracy." *The Canadian Journal of Sociology / Cahiers Canadiens De Sociologie* 36, no. 3 (2011): 241-45. Accessed in 1 may, 2018.
http://www.jstor.org/stable/canajsocicahican.36.3.241.

triggering rejection of the public opinion and diminishing the freedom of circulation. All of which is possible by facilitating the movement of the majority of individuals, while performing a focused surveillance through the extensive use of identification technologies. They enable to target only certain groups of individuals considered abnormal and risky, who must undergo reinforced border control checks.

The question of risk is particularly interesting to understand EU security policies, particularly those related to border management. Risk assessment tools have had a fundamental role in the creation of security strategies and justifications for increasing surveillance and control. In order to generate acceptance, public actors and law-enforcement authorities need to provide proper justifications for conducting practices which might be contrary to societal values and human rights principles. Sentiments of fear and uncertainty are often used to gain public acceptance, for instance to increase the amount of individuals' personal data being collected, stored and shared through different data-based systems across the EU. Public authorities tend to justify such practice as necessary for the management of societal risks.

The assessment of security and societal risks was often conducted by the intelligence and risk analysis experts, responsible to provide governments with information and foresight knowledge to be used in the development of strategies for the protection of the state and its citizens against domestic and international threats. Risks scenarios were then created to be used as guides by public agencies and authorities in the preparation for future challenges and threats.

The responsibility of prevention and protection against security threats, once exclusive of the intelligence realm, is now shared among law enforcement authorities, including border guards. In the case of the EU border management, FRONTEX is the agency responsible to conduct risk assessments and to develop scenarios of alternative and possible future environments for border management, taking into consideration domestic and global pressures[126]. Annually, the agency publishes its risk analysis report covering security risks affecting the EU external borders, the report contains: situational pictures of the previous year regarding mainly surveillance, border checks and cross-border crimes; analyses; and scenarios[127].

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[126]Frontex, Risk Analysis 2016.
[127] Ibid.

Results of risk analysis and trend reports, produced by governmental agencies and sometimes private companies, present possible challenges and threats from possible futures. The information provided by these reports is then used for the development of technical solutions to prepare states for the possible future outcomes or for preventing them. However, an inherent contradiction surrounding this risk management logic and the constant need of developing security solutions can be perceived. While attempting to reach ultimate security levels, insecurity and uncertainty are generated with the continuous creation of future scenarios and their potential threats. As explained by Benjamin Taylor[128] when discussing about the development of technological solutions to security:

> *"Security technology then, along with the discourse and policies that surround it, may very well create insecurity in the sense that they heighten fear and uncertainty. Once fear and uncertainty are increased, it is easy to attempt to reduce these with technological solutions, thus setting in motion a vicious cycle."*

The sense of uncertainty creates a state of emergency, in which quick measures should be taken for the prevention of potential threats and to assure safety. The immediate need to react opens space for an accelerated introduction of new technologies, and leaves critical examinations and considerations as secondary aspects. As seen in the case of the European automated border control system, the implementation of e-gates and biometric identifiers is spreading around EU border check points without proper assessment of ethical and societal impacts. Research projects like the BODEGA were requested and funded by the European Commission afterwards to fulfil this gap, and to contribute for the improvement of ethical and societal issues.

Analysing EU external border security through its practices as suggested by the Paris School of Security Studies revels a gradual shift of migration and border control from a political to a technical risk management question. Strategies and decisions before discussed in a democratic environment, with space for political debates, the involvement of non-governmental organisation and the civil society, are now taken in

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[128] Taylor, Developing Qualitative Criteria.

private spheres by security authorities and technical experts[129]. According to Bigo[130], these actors' legitimization for taking decisions and developing border management strategies comes from the belief of them being the true holders of knowledge, different from political actors who are professionals of politics.

With the increasing automatization of the border control system, it seems natural to perceive the question of migration and border control as a technical issue that can be better managed by professionals of the field. Since they are able to make decisions and create solutions for eventual problems based on their knowledge, technical studies and risk assessments. European Union institutions, especially the European Commission seem to corroborate with this logic, as it could be observed in the first Smart Borders Package proposal, in the preparation of its revised version and its outcome.

A border control system based on risk management can implicate on the systematic categorization of travellers, as it can be already seen with the distinction of travellers between those who represent low-risk and high-risk. In addition, the space for actors outside the scope of security and risk-management become continuously reduced, as it could be observed with the participation of religious actors, human rights organizations and data protection agencies in the public consultation on the Smart Borders and the later exclusion of their considerations in the preparation of the final revised version of the Smart Borders proposal.

The automatization of borders and implementation of asocial techniques, those which do not require human interaction, can bring the idea of neutrality and impartiality for the border control task of sorting individuals between those who are allowed to cross (low-risk) and those who are not (high-risk). However, the definition of "low-risk" and "high-risk" individuals itself is still unclear, as is the criteria used to determine in which category each individual falls, opening for debate the weight nationality, ethnicity, race and religion might have if used as determinants of an individual's potential risk.

Individuals considered to be "high-risk" by the authorities, might not even be able to reach an official EU external border check point, since the border management system as it is now starts its control and policing tasks outside the EU territory. These

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[129] Bigo, Globalized (In)Security: The field and the Ban-Opticon.
[130] Ibid.

individuals can have their request to cross the EU external border denied already in their country of origin, during the process of visa issuance at an EU Member-State consulate. What becomes clear when analysing the current EU border management system is the exclusionary aspect of the Ban-opticon as a form of governmentality, as explained by Bigo[131]:

> *"The Ban is the way to exclude and to normalize, to play with the different possible futures and to try to monitor the future to control the present. So, it is a belief in technologies of "morphing", of "profiling", of computer data bases and their capacities to "anticipate" who will be "evil" and who is "normal", who is "allowed to benefit from freedom of movement" and who is excluded or controlled before they can use their freedom of movement."*

Territorial borders consist of a mechanism of exclusion by their very own nature, they exist to separate the unknown outside from the familiar inside[132]. While analysing the current state of EU border management and the data-based systems in use, it was possible to perceive a social sorting capacity of the systems. Different from Bauman's vision on the social stratification of mobility in the era of globalization[133], the usage of large-scale data systems, such SIS II, VIS, RTP and EES (yet to be implemented) seem to have created a modern way to differentiate individuals based on their potential risk. Until 2017, personal data of around 40 million individuals (mostly third-country nationals) were recorded in EU large-scale data systems, such as SIS II and VIS[134].

The current transformations of the EU border control system seem to be driven by the necessity of improving mobility and its security capacity. However, the improvement of mobility appears to focus on only a certain group of individuals classified as bona fides. For these individuals, surveillance is designed to provide open borders, while for others it is designed to distinguish and restrain. Regarding the improvement of security, the discursive and political securitization of migration

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[131] Bigo, Frontier Controls in the European Union: Who is in Control.

[132] Katja Franko Aas, "'Crimmigrant' Bodies and Bona Fide Travelers: Surveillance, Citizenship and Global Governance." *Theoretical Criminology 15,* n 3 (2011): 331-346.

[133] Bauman, Globalização: as conseqüências humanas.

[134] FRA - European Union Agency for Fundamental Rights. *Fundamental Rights Report 2017.* 2017. doi:10.2811/595970

appears to be the force behind the increasing implementation of border surveillance technologies.

A relation between the figure of the foreigner and security risks has been constructed throughout the years in political discourses given by public authorities and international organizations, especially in the aftermath of the 9/11 terrorist attacks in the United States and of the Madrid attacks in 2004. Since then, the idea of threats coming from abroad has been repeatedly emphasized by media outlets, which played an important role on influencing the public opinion for the acceptance of the extensive use of identification technologies, surveillance and reinforced controls over the movement of foreigners.

The notion of threats coming from abroad was strengthened to the point where the presumption of innocence seems not applicable to foreigners anymore. When reading the responses given by public authorities and security organisations to the questionnaire of the Public Consultation on the Smart Borders Package[135], it was possible to identify the view that non-European travellers who aim to enter the Schengen area must prove their innocence and trustworthiness, in order to be granted permission of entry.

For instance, the European Organization for Security (EOS) pointed to the capability of "Providing TCN and migrants the right means to prove their bona fide movements"[136] as one of the reasons why the "Smart Borders" are necessary for making the EU more secure and welcoming. The Finnish Border Guard mentioned the benefit that longer data retention periods could bring to TCNs by providing them with a positive travel history, which could be accessed by the authorities and facilitate their process of border crossing and visa issuance[137].

In principle, TCNs who are arriving at the EU external borders or applying for a visa are not suspects of any crime, and they should not be treated as such. The climate of suspicion around the figure of the foreigner endangers the protection of fundamental rights, opens space for unlawful discriminatory practices, creates division within

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[135] European Commission, Public Consultations.
[136] The complete questionnaire filled by European Organization for Security can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contributioin_eos_en.pdf
[137] The complete questionnaire filled by the Finnish Border Guard can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_finish_border_guard_en.pdf

societies and put the security of TCNs at risk. Further, practices of discrimination and exclusion can create sentiments of frustration which may lead to extremism and radicalization, increasing the likelihood of terrorist attacks occurrences[138].

The results of the public consultation reveal public authorities' main concern of enhancing security levels at EU external borders. They seem to perceive the borders as the entrance of external threats which could disrupt the stability of EU Member-states and the safety of its citizens. Organized crime and terrorism were linked to management of border crossing flows, and mentioned while justifying the necessity of conceding law-enforcement authorities access to the information recorded in the Entry/Exit system. A system which its main declared purpose is to registrate third-country nationals date of entry and exit from the Schengen Area, in order to calculate the duration of stay of those who are entering the territory with a short-term visa and to detect overstayers.

Nonetheless, public authorities seem certain about the potential contributions of the EES system to tasks of prevention, investigation and combat of cross-border crimes. The system is planned to be fully functional by 2020 and the access of law-enforcement authorities to its information was established in the revised proposal of the Smart Borders presented by the European Commission in 2016. The Commission seems to agree on the importance of the system for practices of law-enforcement and explains its potential contribution in the following manner: "The access to the Entry-Exit System by law enforcement authorities will constitute an additional instrument to prevent and combat terrorism and serious crime, by tracking travel patterns and combatting document and identity fraud."[139].

After its implementation, EES has the potential to become one of largest data-based systems in the world, since it will store personal information, including biometrics, from every TCN crossing the EU external border. The necessity of collecting travellers' biometrics for calculating the length of their stay is yet unclear, which lead most of the organizations to discuss the system's proportionality while responding to the public consultation. In the perspective of the organizations, the massive amount of data collection, long periods of data-retention and access to law-enforcement authorities outside the scope of border control are not in accordance to

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[138] S. Lyons-Padilla, et al. "Belonging nowhere: Marginalization & radicalization risk among Muslim immigrants". Behavioral Science & Policy 1(2) (2015):1-12.
[139] European Commission, Smart Borders Package: Questions & Answers.

the declare purpose of the system. Moreover, travellers will provide their personal information and biometric data while crossing the border, for migration and border control tasks, not for its potential use in criminal investigations.

Law-enforcement access to the EES system is perhaps the most contentious aspect of the Smart Borders proposal. It raises questions regarding not only the real purpose of the system, but also about the real purpose of the Smart Borders. In a ban-opticon structure, the "Smart Borders" reveals itself as another tool for refined surveillance and strengthened control of foreigners. It is welcomed by the authorities for its potential to collect an amount of individuals' personal data never seen before, without extraordinary efforts and public resistance, since in order to cross the border travellers will have to provide guards with their information. The majority of travellers will be glad to do so, considering the potential benefits of facilitated and faster border crossings when they are entering or leaving the Schengen area. Perhaps this is exactly what characterises the most interesting feature of the "Smart Borders", which is its ability of being welcomed and praised publicly by individuals, public authorities, security organizations and tech-companies, even though it has a potential to further endanger the protection of fundamental rights.

The transformation of border control into one of the cornerstones of counter-terrorism policy, leads to an increasing securitization of borders and migrants, to a level which a variety of European public authorities, ranging from border guards to small municipalities, share a sort of common sense on the necessity of improving border security at all costs. When discussing the Smart Borders Package in the questionnaire of the public consultation, considerations regarding the impacts of the Package for the fundamental rights were mention in a rather superficial manner by most of the authorities. Being possible to interpret that the respect for the fundamental rights is important, but not as important as assuring security.

3.1 The right of non-discrimination

In order to properly discuss the impacts new border technologies can bring to the respect of fundamental rights, particularly how they are affecting, or can affect the issue of discrimination in border control practices, it is important to have a clear understanding of how the right of non-discrimination is legally defined. In the European context, the Charter of Fundamental Rights of the European Union represents the

ultimate documentation of the rights of every individual in the EU, including political, social, economic and personal rights[140]. The Charter is in accordance to the European Convention on Human Rights and it contains six titles: Dignity, Freedoms, Equality, Solidarity, Citizens' rights and Justice[141]. Under the title Equality, the Article 21 Non-Discrimination[142] has the following description:

> *"1. Any discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited.*
> *2. Within the scope of application of the Treaties and without prejudice to any of their specific provisions, any discrimination on grounds of nationality shall be prohibited."*

In the specific context of EU external border control, the Schengen Borders Code regulates the practices of border management. In its Article 7 Conduct of Border Checks is stated that "While carrying out border checks, border guards shall not discriminate against persons on grounds of sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation." [143]. According to the European Union Agency for Fundamental Rights (FRA), differential treatment of individuals on the grounds of their nationality is not necessarily discriminatory or unlawful[144]. However, the Agency emphasizes that it is considered unlawful if the differentiation is based predominantly on religious, racial and ethnic aspects[145].

As observed in the results of the BODEGA Travellers Survey, travellers' perception of discrimination is mostly related to the questions of ethnicity and

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[140] European commission. *Why do we need the charter?* Accessed in 02 may 2018.
https://ec.europa.eu/info/aid-development-cooperation-fundamental-rights/your-rights-eu/eu-charter-fundamental-rights/why-do-we-need-charter_en
[141] Ibid.
[142] Official Journal of the European Union. *Charter Of Fundamental Rights Of The European Union.* 2012.
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012P/TXT&from=EN
[143] Official Journal of the European Union. R*egulation (Eu) 2016/399 Of The European Parliament And Of The Council.* 9 Mar, 2016. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0399&from=EN
[144] FRA - European Union Agency for Fundamental Rights. *Fundamental rights at airports: border checks at five international airports in the European Union*. 2014. http://fra.europa.eu/en/publication/2014/fundamental-rights-airports-border-checks-five-international-airports-european
[145] Ibid.

nationality. The respondents who claim to have received a differential treatment or witnessed it related the border guard behaviour to their nationality or appearance, for instance an "Arab look". A study conducted by FRA in 2014 evaluated the treatment of TCNs at entry border checks in five EU international airports[146]. It counted with the participation of 274 TCN travellers who experienced more thorough checks, and similar results were reported. Half of the travellers who were dissatisfied with border guards' conduct attributed the treatment received with their nationality, and a third to their race or ethnicity. FRA pointed a potential lack of information about border check procedures as a source of negative impressions and travellers' dissatisfaction.

A total of 223 border guards working at the five international airports were also consulted during the study. They were asked about which indicators were mostly used for identifying irregular TCN travellers before communicating with them at the border check booth. Travellers' behaviour, nationality and country of destination were pointed as the three most helpful indicators for effectively identifying irregular travellers by most of the border guards. However, in the case of border guards working at Schiphol airport ethnicity was indicated as the most helpful indicator for the effective recognition of travellers attempting to enter the Schengen area irregularly.

Considering the current automatization of border control checks, with the implementation of electronic passports, electronic gates, biometric identifiers and data-systems for identification, the potential of border technologies to reduce discriminatory practices can be perceived. Discrimination can take a variety of forms in the context of border control, and effect both EU citizens and TCNs. It can happen through abusive behaviour of border guards, extensive practices of profiling based exclusively on race, religion and ethnicity or differential treatment of travellers based on dress manners, gender, sexual orientation, disabilities and visual representations of religion.

The usage of ABC systems certainly brings significant changes on how border control checks are performed, but how it can reduce discriminatory practices and the perception of being discriminated by border guards when compared to the traditional manual border control are issues that have not yet been properly assessed by the academia and industry. However, it is reasonable to affirm that the systems present a

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[146] Ibid.

potential to improve the experience of travellers and in some cases to reduce the probability of discriminatory practices.

For instance, in the study conducted by FRA a transgender traveller complained about the abusive behaviour of border guards at Fiumicino airport, who were mocking her during the border check process [147]. With the implementation of asocial technologies, such as the e-gate, discriminatory incidents related to an individual's gender identity can be expected to be reduced, since interaction with border guards would not be necessary. The same logic can be applied for discrimination based on dress manners and visual representations of religion, while using the e-gates travellers' passport information and biometrics are verified without considerations regarding their clothes, accessories and religious symbols.

Nevertheless, the capacity of border technologies to reduce discriminatory practices based on race, ethnicity and nationality cannot be assured. Contrary to the common belief on technology impartiality, machines as the e-gates are programmed by technicians, who as human beings might have their own bias and follow specific security and migration agendas. Therefore, it is important to remember that technological tools do not have a rationality of their own, and above all, they are inserted in a particular context and are designed and implemented according to specific purposes. The automatization of border controls does not change the security framework in which border management is inserted. As seen through out this research, the automatization of border controls and the technologies involved in the process are in fact strengthening surveillance and control practices, which further will distinguish individuals on risk assessment bases.

The machines perform their risk assessment tasks of profiling and sorting travellers, between those who are allowed to cross and those who should proceed to further checks with a border guard, by the using algorithms. According to the Article 9 of the European General Data Protection Regulation, which will be applicable to all Member States by May 2018, the act of processing individuals' sensitive data is prohibited, even if risk assessment tasks are conducted following proper safeguards[148]. Sensitive data is referred to those concerning an individual's race, ethnicity, religion, political opinion or affiliation, philosophical beliefs, genetic and

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[147] Ibid.

[148] General Data Protection Regulation. *Art. 9 GDPR: Processing of special categories of personal Data.* 2018. https://gdpr-info.eu/art-9-gdpr/

biometric data, sex life and sexual orientation[149]. Under exceptional circumstances, their use for profiling is permitted when proved to be crucial for reasons of public interest, although even in this case, profiling can still be considered unlawful if it's discriminatory in essence[150].

The discriminatory aspect of profiling can be subtle and indirect when conducted using data-based systems. For instance, when law-enforcement authorities are searching information on visa holders registered in the VIS for the purpose of a criminal investigation, it can be understood as a neutral and impartial conduct at the surface. However, when taking a deeper, such practices can resonate negative impacts for specific group of individuals, in case most of those registered in VIS are Africans or Asians[151]. Therefore, as recommended by FRA "Automated risk assessment or profiling would, therefore, have to be based on algorithms that are not primarily or solely determined by personal characteristics that reveal sensitive information such as, race, ethnicity, health, sexual orientation, and religious beliefs."[152]

In addition, regarding to the capacity of border technologies to reduce discriminatory practices based on ethnicity, FRA highlighted in its report about the interoperability of information systems, the dangers implicated to the use of biometrics at automated borders. Concerning the risk of ethnic profiling, travellers' facial image collected for the purpose of identity verification may disclose the ethnic origin of the individual and enable automated ethnic categorization[153]. While responding the public consultation questionnaire, the Protestant Church in Germany also mentioned an elevated danger of ethnic profiling with the use of biometrics in border control checks[154].

It is important to note that the practice of profiling in border control already happened before the usage of technology and identification systems. Traditional forms of profiling, also known as confirmatory profiling, consist of assuming that passengers who have a certain pattern of characteristics represent a potential threat to the country

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[149] Ibid.

[150] FRA - European Union Agency for Fundamental Rights. *Fundamental rights and the interoperability of EU information systems: borders and security.* 2018. http://fra.europa.eu/en/publication/2017/fundamental-rights-interoperability

[151] Ibid.

[152] Ibid.

[153] Ibid.

[154] The complete questionnaire filled by the EKD can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_ekd_en.pdf

where they are seeking entry. The pattern of characteristics is defined based on expert knowledge and past experiences that are applied in border control to filter those who hypothetically can be dangerous and must be submitted to be further scrutiny. As pointed out by Matthias Leese[155], "confirmatory profiling practices have raised considerable critique in terms of social sorting or racial profiling, as predefined profiles can include variables like gender, age, nationality, religious belief, etc.". However, a set of rules regulate the practice of profiling in order to avoid fundamental rights violations, for instance systematic discriminatory pattern of profiling is forbidden by the right of non-discrimination as seen at the beginning of this sub-chapter.

The potential impacts of the Smart Borders system to the right of non-discrimination were mentioned by the majority of organizations which responded to the public consultation. They expressed concern with the further criminalization of foreigners as an outcome of grating access to law-enforcement authorities to the EES system. Caritas Europa affirmed that allowing the use of data-bases for criminal investigations could lead to the criminalization and discrimination of TCNs and minority groups. The organization cited the example of the Swedish Police, which collected personal information of Roma people to be added in the police register, for the reason of them being Roma[156]. The example was cited to demonstrate the actual probability of TCN data recorded in large-scale systems to be used for unlawful profiling practices, based on ethnicity and nationality.

Discrimination in current border control practices can be observed in the exclusionary nature of the RTP, which is already fully functional in some of the European busiest international airports. The RTP was proposed by the European Commission in 2013, as a component of the Smart Borders Package, but was withdraw from the revised proposal of the Smart Borders. Nevertheless, some EU Member-States decided to develop and implement their own RTP seeking to improve the flow of travellers at airport border check points. The programme is designated to bona fide TCN travellers, however the criteria used to determinate who is considered a bona fide is unclear. Thus, currently only individuals from certain nationalities can enrol to the programme and benefit from accelerated border crossings, those being

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[155] Leese, The new profiling.
[156] The complete questionnaire filled by the Caritas Europa can be found at: https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/contribution_caritas_en.pdf

holders of e-passports from: Australia, Hong Kong, Japan, South Korea, Singapore, New Zealand, Canada and the United States of America. All of these countries do not have significant records of irregular migratory movements towards the EU territory, which might categorize their citizens as low-risk travellers[157].

The complexity of the border management is undeniable. Demands for efficiency, security, fairness and protection of vulnerable individuals are part of the current border control context. One of the greatest challenges faced by the EU border management today is to find a point of reconciliation between humanitarian and security aspects in the performance of its common tasks. In the midst of the border control process transformation, with an increasing securitization, integration, automatization and digitalization, particular attention must be given to the inclusion and assurance of fundamental rights.

The issue of fundamental rights in border control processes, in particular the right of non-discrimination is a notably sensitive topic, which must be addressed in a responsible and adequate manner. Potential legal inadequacies or violations may affect the lives of thousands of people who cross the EU external borders annually. Thus, when discussing the issue of discrimination in border control it is critical to avoid simplifications and naturalizations, that may lead a reduction of the space for reflection and critical considerations. For instance, when discussing the European border control process Benjamin Taylor[158] stated the following:

> *"The border control process is inherently discriminatory, that is, the purpose of performing the task is to ascertain who is, and who is not, allowed to cross certain spaces. How we define who is and who is not allowed to cross borders generally relies on a number of assumptions about the meaning of concepts such as what constitutes identity, nationality, the state, and internal and external security."*

When investigating and analysing the potential impacts of new border technologies for fundamental rights and the compliance of current border control practices to the legal framework, the question of technology's acceptability goes

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[157] Frontex, Risk Analysis 2017.
[158] Taylor, Developing Qualitative Criteria.

beyond traveller's satisfaction. It also involves legitimacy of practices, social and ethical considerations which may not be outlined at a first glance. The results of the BODEGA Travellers Survey and of the Public Consultation on the Smart Borders reveals that the majority of traveller respondents were generally satisfied with their experience with the EU border control system and with their interaction with technology. Nonetheless, as it could be observed in the course of this study travellers' general satisfaction did not mean the inexistence of ethical and societal issues in border control practices and technological solutions in use.

In order to produce a responsible research, it is imperative to gain knowledge on deeper issues intrinsic to border management practices and its complexities, which often cannot be observed in a superficial level. The participation of different actors involved in the processes of migration and border control, including end-users, it is crucial to gain a deeper understanding of the complexities and contingencies of the system. It helps to uncover omitted issues, ambiguous practices and norms, which enable a reconstruction of the EU border control context according to the information gathered. This research process, based on the RRI framework permits the creation of adequate recommendations, significant societal impacts and responsible solutions[159].

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[159] European Commission, Responsible Research and Innovation.

Conclusion

This study focused on answering the question of "How the implementation of new technologies is affecting and will affect the issue of discrimination in border control practices?". Which it revealed to be a very challenging task for several reasons. First, discrimination is a very sensitive and complex issue, regardless of the context few people are willing to discuss it and many precautions need to be taken when studying it. Second, the automatization of the EU border control system with the implantation of new border technologies is a process which started very recently and is still on-going. Thus, very few samples of academic literature could be found during the process of the literature review, relating the recent transformations of the system and the impact they may have on fundamental rights. Scientific publications dealing exclusively with the issue of discrimination could not be found.

In order to reveal how discrimination occurs in the current system and how travellers experience it, I relied mostly on primary sources of data which contained the travellers' experiences while crossing the Schengen border, including Europeans and third-country nationals, and the perspectives of public authorities and intergovernmental and non-governmental organizations. More specifically the material used consisted of the BODEGA Travellers Survey, created by the project research team in 2017, and the Public Consultation on the Smart Borders developed by the European Commission in 2015.

Along with the theoretical framework, the results obtained with participants' responses from the survey and the public consultation were used to re-construct the European border control context beyond its appearances and official descriptions. Omitted issues and ambiguous practices were then exposed, and it could be demonstrated with the support of the theoretical framework that issues related to exclusionary and discriminatory practices of border control are not limited to the process of border control checks. On the course of this study it became clear that in order to understand the implications of new technologies for the fundamental rights, it was paramount to comprehend EU security policies for border management and migration, in addition to the environment in which these technologies are being inserted.

The theoretical framework chosen for this study proved to be adequate for investigating and analysing the actors, discourses, institutions, technologies, laws and regulations related to migration and border management, that compose the current EU border control system. The Ban-opticon synthetized the form in which surveillance and control of individuals' movement is currently conducted in Europe, and enabled a critical evaluation of border control practices. For instance, it could be observed that identification technologies, such as data-systems and biometric identifiers are being used for a continuous refinement of surveillance. In the current border control system, movement is facilitated for the majority of travellers, with a refined surveillance targeting only individuals from certain groups who are considered risky and therefore must undergo reinforced controls.

The thesis has demonstrated that the usage of large-scale data systems has created a new form of differentiating travellers according to their potential risk. They are now categorised and distinguished between those who represent a high-risk and low-risk. Nonetheless, the criteria used to determine in which group each individual falls is still unclear. During this study, it was possible to observe that wealth and education seem to be important indicators of travellers' trustworthiness. The further investigation and analysis of the indicators and criteria used to determine if a traveller represents low-risk or high-risk could be an interesting topic for further research in the area.

During this study, it was possible to verify that the securitization of migrants and borders, through the notion of threats coming from abroad is still prevalent in the discourse of public authorities and it seems to be the driving force behind the development of new border technologies. In the responses provided by public authorities to the public consultation, organized crime and terrorism were linked to border management. In addition, it was possible to perceive that in the view of most of the authorities, third-country nationals are suspects until the contrary can be proved. For them, those who aim to cross the Schengen border must be able to prove their innocence and trustworthiness, in order to be granted permission.

Furthermore, analysing the border control system through the lenses of the Ban-opticon concept revealed that the "Smart Borders" are more than legislative proposals and technological solutions for the improvement of border control performance, in fact they represent yet another tool for refining surveillance and strengthening the control on the movement of foreigners.

Regarding discriminatory practices during the process of border control checks, when comparing manual border checks performed by border guards and automated checks performed by machines, such as the e-gates, potential positive and negative impacts for the reduction of discriminatory practices were perceived. An automated border control system has the potential to eliminate discrimination based on gender identity, dress manners and visual representations of religion. However, ethnic discrimination can be further increased with the used of biometric identifiers that are able to automatically categorise individuals based on their ethnicity.

Moreover, new border control technologies have the potential to generate new forms of discrimination. Technological solutions currently being implemented in a border control system, which is increasingly dominated by a risk management logic can produce new forms of discriminatory practices based on risk. The newer distinction of travellers between "low-risk" and "high-risk" is an example of what can be considered as a new form of discrimination in border control practices, by which the criteria used to determinate the potential risk of every person crossing the border is still ambiguous. This distinction according to individuals' potential risk is strengthened with the availability of large-scale data systems, containing a massive amount of travellers' personal information and used for the purpose of identification and surveillance.

Inherent discriminatory features of the current border management system cannot be changed only with the implementation of new border technologies. In order to protect fundamental rights in the European borders and reduce the occurrence of exclusionary and discriminatory practices, a broader and deeper transformation needs to occur within the structure of the system and most importantly in the security policies for border management. As mentioned earlier in this study, the greatest challenge of the EU border management system today is to reconcile humanitarian and security aspects, mirroring the core values of European Union in its practices.

The findings of this study confirm the establishment of a risk management framework in the EU border control system. When comparing the responses given by organizations and public authorities to the public consultation on the Smart Borders and the outcomes of the revised proposal presented in 2016, it was attested the empowerment of technicians and risk experts in the EU border control system. The implications of such empowerment include the transfer of the responsibility for creating strategies and making decisions related to migration and border control to risk experts,

and the further limitation of the space for political actors and civil society representatives in the area. Further research on the decision-making process in different levels of the European border control system is necessary, along with the implications that the empowerment of risk experts and technicians can bring for the respect of democratic values and the protection of fundamental rights.

There is urgent need for further academic research on the ethical and societal impacts of new border technologies currently being implemented in the EU external borders, including additional studies covering the issue of discrimination. Considering the number of travellers crossing the border daily, fundamental rights violations and ethical inadequacies in border control procedures have the potential to negatively impact the lives of thousands of individuals.

Limitations of time and length of an average master's thesis did not permit a complete coverage on the impacts that new border technologies can bring to the right of non-discrimination, those being positive or negative. It is still necessary to investigate in-depth the risk categorization of travellers, how e-gates are programmed, what kind of algorithms are being used and what kind of technological solutions could be developed to reduce the occurrence of discrimination. Nevertheless, I hope this thesis can contribute for opening the space for further social and ethical research in the use of new border control technologies, and for enlightening the importance of critical studies analysing the continuous transformations of border control practices.

References

Articles, books and thesis

Aas, Katja Franko. "'Crimmigrant' Bodies and Bona Fide Travelers: Surveillance, Citizenship and Global Governance." *Theoretical Criminology 15,* n 3 (2011): 331-346.

Bauman, Z. *Globalização: as conseqüências humanas.* Rio de Janeiro: Jorge Zahar Editor Ltda, 1999.

Bigo, D. "Frontier Controls in the European Union: Who is in Control". In *Controlling Frontiers: Free Movement into and Within Europe.* Edited by D. Bigo and E. Guild, 49-99. London: Ashgate, 2005.

Bigo, D., and Guild, E. Controlling frontiers: Free movement into and within Europe, Aldershot: Ashgate, 2005.

Bigo, D. "Globalized (In)Security: The field and the Ban-Opticon". In Terror, Insecurity and Liberty. Illiberal practices of liberal regimes after 9/11. Ed.D. Bigo, and A. Tsoukala, pp. 10 – 48. Abingdon: Routledge, 2008.

Bigo, D. "The (in)securitization practices of the three universes of EU border control: Military/navy – border guards/police – database analysts*," Security Dialogue, 45(3)* (2014): 209-225.

Braun, Virginia and Clarke, Victoria. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. 2 (2006): 87.

Buzan B., Wæver O. and Wilde J. Security: A New Framework for Analysis, Boulder: Lynne Rienner, 1998.

Caldwell, Tracey. "Market Report: Border Biometrics". Biometric Technology Today, no.5 (2015): 5-11. DOI://doi.org/10.1016/S0969-4765(15)30079-5.

Ceyhan, A. "Policing by Dossier: Identification and Surveillance in an Era of Uncertainty and Fear", In *Controlling Frontiers: Free Movement into and Within Europe.* Edited by D. Bigo and E. Guild. London: Ashgate, 209-32. 2005.

Chambliss, D. F., and Schutt, R. K. *Making sense of the social world: Methods of investigation.* 5th ed. Sage Publications: 2016.

Clavell, Gemma Galdon, "Protect Rights at Automated Borders." *Nature 543,* no. 7643 (Mar 2, 2017): 34-36. DOI:10.1038/543034a.

D'Appollonia, A.C. and Reich, S. *Immigration, Integration and Security – America and Europe in Comparative Perspective.* Edited by A.C. d'Appollonia and S. Reich. University of Pittsburgh Press, 2008.

Leese, M. "The new profiling: Algorithms, black boxes, and the failure of anti-discriminatory safeguards in the European Union". *Security Dialogue, 45(5),* (2014): 494-511. DOI: 10.1177/0967010614544204

Leonard, Sarah. "Border Controls as a Dimension of the European Union's Counter-Terrorism Policy: A Critical Assessment". *Intelligence and National Security 30,* no. 2-3, 2015. 306-332.

Lyons-Padilla, S., M. J. Gelfand, H. Mirahmadi, M. Farooq and M. van Egmond. "Belonging nowhere: Marginalization & radicalization risk among Muslim immigrants". *Behavioral Science & Policy 1(2)* (2015):1-12.

Manning, Peter K. "Surveillance and Democracy*." The Canadian Journal of Sociology / Cahiers Canadiens De Sociologie* 36, no. 3 (2011): 241-45. http://www.jstor.org/stable/canajsocicahican.36.3.241.

Maegan Hendow, Alina Cibea, and Albert Kraler. "Using Technology to Draw Borders: Fundamental Rights for the Smart Borders Initiative." *Journal of Information, Communication and Ethics in Society* 13, no. 1, 39-57. 2015.

Mitsilegas, V. *The criminalisation of migration in Europe: Challenges for human rights and the rule of law.* New York: Springer, 2014, 33-35.

Palm, Elin "Conflicting Interests in the Development of a Harmonized EU E-Passport." *Journal of Borderlands Studies 31*, no. 2 (Apr 2, 2016): 203-16. DOI:10.1080/08865655.2016.1181982.

Papagianni, G. *Institutional and policy dynamics of EU migration law.* Boston; Leiden: Martinus Nijhoff. 2006.

Schindel, Estela, "Bare Life at the European Borders. Entanglements of Technology, Society and Nature." Journal of Borderlands Studies 31, no. 2 (Apr 2, 2016): 219-16. DOI:10.1080/08865655.2016.1174604.

Sun Tzu. The art of war. Allandale Online Publishing, 2000. https://sites.ualberta.ca/~enoch/Readings/The_Art_Of_War.pdf

Taylor, Benjamin. "Developing Qualitative Criteria for Assessing the Impacts and Acceptability of Border Control Technology", Master's thesis, University of Tampere, 2016. http://tampub.uta.fi/bitstream/handle/10024/99591/GRADU-1471257059.pdf?sequence=1&isAllowed=y

Tsoukala, A. "Looking at immigrants as enemies", In *Controlling Frontiers: Free Movement into and Within Europe,* Edited by D. Bigo and E. Guild, 92-161. London: Ashgate, 2005.

Public records and policy documents

ALLEA – All European Academies. *The European Code of Conduct for Research Integrity.* Berlin: ALLEA, 2017. https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf

European Commission. *Practical Handbook for Border Guards (Schengen Handbook),* by: Secretary-General of the European Commission. Brussels. 2006.
http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2015010%202006%2 0INIT

European Commission. *Technical Study on Smart Borders – Cost Analysis - Final Report,* By: PWC. 2014. https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/borders-and-visas/smart-borders/docs/smart_borders_costs_study_en.pdf

European Commission. *Technical Study on Smart Borders – Final Report,* By: PWC. 2014. https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/borders-and-visas/smart-borders/docs/smart_borders_technical_study_en.pdf

European Commission. *Europe without borders: The Schengen area.* By: Directorate-General for Migration and Home Affairs. 2015. DOI: 10.2837/78709
https://publications.europa.eu/en/publication-detail/-/publication/09fcf41f-ffc4-472a-a573-b46f0b34119e/language-en

European Commission, *Smart Borders Package: Questions & Answers.* Brussels, 6 Apr, 2016. http://europa.eu/rapid/press-release_MEMO-16-1249_en.htm

European Commission. Proposal for a Regulation of the European Parliament and of the Council establishing an Entry/Exit System (EES). Brussels: European Union, 2016. Https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/securing-eu-borders/legal-documents/docs/20160406/regulation_proposal_entryexit_system_borders_p ackage_en.pdf

European Council, *Entry-exit system: final adoption by the Council*, 2017. http://www.consilium.europa.eu/en/press/press-releases/2017/11/20/entry-exit-system-final-adoption-by-the-council/

European Council, *Schengen borders code: Council adopts regulation to reinforce checks at external borders,* 2017. http://www.consilium.europa.eu/en/press/press-releases/2017/03/07-regulation-reinforce-checks-external-borders/

European Council, *Schengen Borders Code: agreement to reinforce checks at external borders,* 2018. http://www.consilium.europa.eu/en/press/press-releases/2016/12/07-systematic-checks/

European Parliament, *Legislative Train - Towards A New Policy On Migration: Registered Traveller Programme (2013 Smart Borders Package),* 2013. http://www.europarl.europa.eu/legislative-train/theme-towards-a-new-policy-on-migration/file-registered-traveller-programme-(2013-smart-borders-package)

European Parliament. *Smart Borders: EU Entry/ Exit System.* 2016. http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/586614/EPRS_BRI(2016)586614_EN.pdf

European Union. Report On The Public Consultation On Smart Borders. Brussels, 2005. https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-is-new/public-consultation/2015/docs/consultation_030/results_of_the_public_consultation_on_smart_borders_en.pdf

European Union. Official Journal of the European Union. *Council Decision 2007/533/JHA* by Council of the European Union. Jun 12, 2007. http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32007D0533

European Union. Official Journal of the European Union. *Charter of Fundamental Rights of the European Union.* 2012. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012P/TXT&from=EN

European Union. Official Journal of the European Union. *Regulation (Eu) No 1291/2013 of the European Parliament and of the Council.* 11 Dec, 2013. http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/fp/h2020-eu-establact_en.pdf#page=11

European Union. European Commission. *Proposal for a regulation of the European parliament and of the council establishing a Registered Traveller Programme,* Brussels: European Union, 2013. https://ec.europa.eu/home-affairs/sites/homeaffairs/files/doc_centre/borders/docs/1_en_act_part1_v14.pdf

European Union. European Commission. *Responsible Research and Innovation: Europe's ability to respond to societal challenges. Brussels,* 2014. DOI: 10.2777/95935. https://ec.europa.eu/research/swafs/pdf/pub_rri/KI0214595ENC.pdf

European Union. European Parliament. *Schengen Borders Code.* 2014. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:l14514

European Union. FRA - European Union Agency for Fundamental Rights. *Fundamental rights at airports: border checks at five international airports in the European Union.* Vienna, 2014. http://fra.europa.eu/en/publication/2014/fundamental-rights-airports-border-checks-five-international-airports-european

European Union, eu-LISA. *Smart Borders Pilot Project Report on the technical conclusions of the Pilot.* Tallinn, 2015. https://www.eulisa.europa.eu/Publications/Reports/Smart%20Borders%20-%20Technical%20Report.pdf

European Union. European Commission. *Public Consultations.* 2015. Last update: 12 Apr, 2018. https://ec.europa.eu/home-affairs/what-is-new/public-consultation/2015/consulting_0030

European Union. *Frontex. Risk Analysis for 2016.* Warsaw, 2016. DOI:10.2819/416783. https://frontex.europa.eu/assets/Publications/Risk_Analysis/Annula_Risk_Analysis_2016.pdf

European Union. Official Journal of the European Union. *Regulation (Eu) 2016/399 Of The European Parliament And Of The Council.* 9 Mar, 2016. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0399&from=EN

European Union. Europol, *EU Terrorism Situation and Trend Report,* 2017. https://www.europol.europa.eu/activities-services/main-reports/eu-terrorism-situation-and-trend-report-te-sat-2017

European Union. FRA - European Union Agency for Fundamental Rights. *Fundamental Rights Report 2017.* Vienna, 2017. DOI:10.2811/595970. http://fra.europa.eu/en/publication/2017/fundamental-rights-report-2017

European Union. Frontex. *Risk Analysis for 2017.* Warsaw, 2017. DOI:10.2819/250349. https://frontex.europa.eu/assets/Publications/Risk_Analysis/Annual_Risk_Analysis_2017.pdf

European Union. FRA - European Union Agency for Fundamental Rights. *Fundamental rights and the interoperability of EU information systems: borders and security.* Vienna, 2018. http://fra.europa.eu/en/publication/2017/fundamental-rights-interoperability

General Data Protection Regulation. Art. 9 GDPR: Processing of special categories of personal Data. 2018. https://gdpr-info.eu/art-9-gdpr/

United Nations Security Council, *Resolution 1373,* 2001. https://www.un.org/sc/ctc/resources/databases/recommended-international-practices-codes-and-standards/united-nations-security-council-resolution-1373-2001/

Websites and online news articles

"Bona Fide". Oxford Dictionaries. Accessed March 10, 2018. https://en.oxforddictionaries.com/definition/bona_fide

"Brussels explosions: What we know about airport and metro attacks", BBC News Last Modified April 09, 2016. http://www.bbc.com/news/world-europe-35869985

"EasyPASS-RTP", German Federal Police. Accessed January 18, 2018. https://www.easypass.de/EasyPass/EN/EasyPASS-RTP/rtp_node.html;jsessionid=84FB35CEEDD5DD5BBBCE8472B1F9DBE1.2_cid297

"Entry-exit system: final adoption by the Council", European Council. Last Modified November 10, 2017. http://www.consilium.europa.eu/en/press/press-releases/2017/11/20/entry-exit-system-final-adoption-by-the-council/

"Legislative Train - Towards A New Policy On Migration: Registered Traveller Programme (2013 Smart Borders Package)", European Parliament. Accessed February 16, 2018. http://www.europarl.europa.eu/legislative-train/theme-towards-a-new-policy-on-migration/file-registered-traveller-programme-(2013-smart-borders-package)

"Madrid bombing suspects". BBC News. Last Modified March 10, 2005. http://news.bbc.co.uk/2/hi/europe/3560603.stm

"Paris attacks: What happened on the night", BBC News. Last Modified December 9, 2015. http://www.bbc.com/news/world-europe-34818994

"Passenger Name Record (PNR)", European Commission Migration and Home Affairs. Accessed November 21, 2017. https://ec.europa.eu/home-affairs/what-we-do/policies/police-cooperation/information-exchange/pnr_en

"Proactive Enhancement of Human Performance in border control". BODEGA. Last Modified April 01, 2018. http://bodega-project.eu/

"Registered Traveller Programme". Schiphol Amsterdam Airport. Accessed February 02, 2018. https://www.schiphol.nl/en/page/registered-traveller-programme/

"Schengen Borders Code: agreement to reinforce checks at external borders", European Council. Last Modified December 07, 2016. http://www.consilium.europa.eu/en/press/press-releases/2016/12/07-systematic-checks/

"Schengen Borders Code: Council adopts regulation to reinforce checks at external borders", European Council. Last Modified March 07, 2017. http://www.consilium.europa.eu/en/press/press-releases/2017/03/07-regulation-reinforce-checks-external-borders/

"Schengen Information System", European Commission Migration and Home Affairs. Accessed November 21, 2017. https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/schengen-information-system_en

"Smart Borders Package: Questions & Answers". European Commission Press Release Database. Last Modified April 06, 2016. http://europa.eu/rapid/press-release_MEMO-16-1249_en.htm

"Systematic border checks of all travellers at external Schengen borders to start on 7 April", The Republic of Slovenia Ministry of the Interior Police. Last Modified March 29, 2017. https://www.policija.si/eng/index.php/component/content/article/13-news/1925-systematic-border-checks-of-all-travellers-at-external-schengen-borders-to-start-on-7-april

"Terror attacks in Europe", RTE. Last Modified August 17, 2017. https://www.rte.ie/news/world/2017/0817/898178-europe-terror-attack-timeline/

"Visa Information System (VIS)", European Commission Migration and Home Affairs. Accessed November 21, 2017. https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/visa-information-system_en

"Why do we need the charter?", European Commission. Accessed April 14, 2018. https://ec.europa.eu/info/aid-development-cooperation-fundamental-rights/your-rights-eu/eu-charter-fundamental-rights/why-do-we-need-charter_en

Buchanan, Larry and Park, Haeyoun. "Uncovering the Links Between the Brussels and Paris Attackers". *The New York Times,* March 23, 2016. Accessed October 24, 2017. https://www.nytimes.com/interactive/2016/03/23/world/europe/how-the-brussels-and-paris-attackers-could-be-connected.html?smid=pl-share

Hamilos, Paul. "The worst Islamist attack in European history". *The Guardian*, October 31, 2007. Accessed February 06, 2018. https://www.theguardian.com/world/2007/oct/31/spain