

Bachelor thesis

*Outsourcing control: The Growing Influence of Private Technology Companies in EU
Migration Management and Border Control*

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In this work I made use of generative artificial intelligence. Please see the
appendix for the disclosure statement.

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Abstract

This thesis investigates the role of private technology companies in shaping migration governance through digitalization within the European Union. It addresses a scholarly gap by not only focusing on states and EU agencies, but specifically on high-tech companies involved in the migration management and border control procedures. The central research question for this thesis is: “What role do private technology companies play in shaping migration governance through digitalization in the European Union?”. It hypothesizes that such companies are not only technical providers, but co-designers and influential partners in border management. To answer the research question, a qualitative research design has been applied, using desk research and content analysis of secondary sources. The analysis has been guided by the following theoretical perspectives: Public-Private Partnership (PPP) theory, Surveillance Capitalism, Securitization Theory, and Technological Determinism. The findings indicate that private technology companies have substantial influence over how migration governance digitalized, shaping policy implementation beyond simply executing. It aims to contribute to the public administration and migration governance literature by analyzing the implications of outsourcing core state functions to profit-driven actors, particularly in terms of transparency, accountability, and migrant rights.

LIST OF ABBREVIATIONS

AI – Artificial Intelligence

ECRIS-TCN - European Criminal Records Information System for Third Country Nationals

EES – Entry/Exit System

eBMS – Shared Biometric Matching System

EU – European Union

EURODAC - European Asylum Dactyloscopy Database

GDPR – General Data Protection Regulation

OHCHR - Office of the High Commissioner for Human Rights

PPP – Public-Private Partnership

SIS – Schengen Information System

VIS – Visa Information System

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1. Introduction

In the contemporary migration process, there is an increasing involvement of private actors (Axelsson & Pettersson, 2021). The government outsources various critical parts of the process to the private sector, such as: visa processing, detention and deportation services, and border security (Bloom, 2014). We refer to these processes and services as migration management and border control. There are various reasons for outsourcing, such as efficiency or a lack of the necessary knowledge within the government. In recent decades, a distinct migration management and border control industry has quickly emerged and expanded, with private companies increasingly assuming numerous former governmental functions, including the screening, monitoring, detention, and deportation of migrants (Gammeltoft-Hansen, 2013). The outsourcing and privatization is generally related to digitalization. Examples of digital tools are: EURODAC (Eurodac, n.d.), Visa Information System (VIS) (Migration and Home Affairs, n.d.b.), Automated Border Control (ABC) Systems (Migration and Home Affairs, n.d.a.), Schengen Information System (SIS) (Migration and Home Affairs, n.d.c.). As the EU increasingly relies on digital tools to manage borders, track migrants, and process asylum claims, private technology companies have become key players in delivering and operating these systems (Nalbandian, 2022). The border security market is expected to develop at a compound annual growth rate of 5.5% between 2024 and 2032, from its 2023 valuation of over 45 billion USD (Vishwakarma & Gujar, 2023). Growing worries about terrorism and illegal immigration are driving the market's rise as governments look for modern technologies and solutions to enhance national security. Investments in biometric identification, surveillance systems, and other border technologies have increased because of the rise in cross-border threats (Vishwakarma & Gujar, 2023). To address these security concerns, governments everywhere are giving border control measures top priority, which is driving up demand for innovative solutions and boosting the industry (Vishwakarma & Gujar, 2023). The migration industry has been defined as “the collection of entrepreneurs, actors and services who are primarily driven by financial gain” (Castles et al., 2005). This shift comes with several concerns, because it now is no longer just a public migration process, with people moving borders, but instead a highly profitable private market (Gammeltoft-Hansen, 2013). A multi-billion-dollar industry in which stakeholders have lots to gain. Eu-LISA for example had in 2024 a budget of almost 271 million euros (eu-LISA, 2025). Frontex goes a step further and had in 2024 a budget of around 922 million euros (Frontex, 2025).

The increasing privatization of migration management and border control signifies a major restructuring of state authority, which could have long-term effects on how migration management and border control is carried out and how migration policies evolve in countries that outsource these functions (Gammeltoft-Hansen & Sørensen, 2013). Due to dependency, private companies acquire a certain decision-making power (Bloom, 2014). The outsourcing of migration management and border control processes related to digitalization to private companies has transformed these companies from solely service providers, to becoming decision-makers in global migration governance. Private actors are becoming increasingly involved in processes such as agenda setting, negotiations, and implementation and enforcement within global migration governance (Abbott & Snidal, 2021). These companies have their own agenda, and making money is often their highest priority, instead of the interests and rights of migrants (Gammeltoft-Hansen, 2013).

From a Public Administration view, private actors are not under the same level of public scrutiny as public agencies, this can lead to a decrease in accountability, making it difficult to hold actors responsible for abuses or violations (Molnar, 2019). Public administration is highly concerned with serving public interest and upholding human rights, whereas private companies are often financially driven. This can result in a lack of ethical considerations and in the abuse of the migrants. When an increase of efficiency or outsourcing of technical knowledge comes at the expense of equal treatment, it is undermining the core values that public administrators ought to protect.

The outsourcing related to digitalization of government and administration also comes with opportunities for the gathering of vast amounts of data for private technology companies. The technological dependency on these companies, results in governments having services by private technology companies and staying dependent on them, creating more risks regarding the citizens' data being shared with business actors (Voss et al., 2019). As the EU keeps privatizing its borders, it continues to take advantage from technological advancements and collaboration with the private sector (Delioglu, 2025; Leander, 2005). Their usage of biometrics and surveillance technologies raises concerns regarding accountability and adherence to regional and international law. Private companies, including Thales Group, exert power over security narratives and solutions, by framing security matters in ways that correspond with their potential offerings and their commercial interests (Delioglu, 2025 ; Leander, 2005).

Migration management and border control is traditionally seen as a core state function, and much academic focus has been on states and EU agencies. However, control over immigration

by the state has been decentralized, diffused, and fragmented as a result of neoliberal economic restructuring, just as the power of the state in general (Axelsson & Pettersson, 2021). Scholars have acknowledged that migration management and border control is not carried out by governments alone, yet analyses have tended to concentrate on public actors (states, EU institutions) or on NGOs and security contractors, rather than on the technology companies that are involved. The literature has not fully caught up with outsourcing and privatization related to digitalization. We lack comprehensive research on how private-sector technology expertise, products, and interests are shaping the governance of migration in Europe. By investigating how private technology companies have been involved in designing, implementing, and even agenda-setting EU migration policies, the study will shed a light on hidden dynamics of policymaking. Next to that, the aspect of ethical concerns around the migrants is often overlooked in this research. This thesis contributes to stimulate academic debates at the intersection of public administration, digital governance, and migration studies by investigating how private technology companies shape migration governance in the European Union through privatization related to digitalization.

1.1. Research question

This thesis would therefore like to propose the following research question:

What role do private technology companies play in shaping migration governance through digitalization in the European Union?

1.2. Sub-questions

With the following sub-questions:

Which types of private technology companies are there related to the digitalization in migration management and border-control procedures, and how do they contribute to it?

What type of public/private relationships can be identified in the migration management and border-control procedures?

What influence do private technology companies have on decisions and developments in migration management and border control?

What are the risks associated with delegating key aspects of EU migration management and border control to private technology companies, and how are these risks managed?

To answer these questions, the thesis adopts a qualitative approach, conducting desk research and content analysis of key documents.

2. Theoretical framework

2.1. Framework

This thesis draws on a combination of theories to explore the role of private technology companies in shaping migration governance through digitalization in the European Union. The increasing outsourcing and privatization of migration management and border control related to digitalization causes a shift from governments to private companies. This development raises questions about transparency, accountability, and power dynamics. To address these concerns, four theoretical perspectives are used in this thesis: Public-Private Partnership (PPP), Surveillance Capitalism, Securitization Theory, and Technological Determinism. Together, these theories provide a lens to analyze the mechanisms behind the involvement of digital technology companies in the EU's digital migration infrastructure.

The first one is the Public-Private Partnership (PPP). This theory entails, as it already says, the cooperative arrangements between public and private actors, with an advantage, compared to contracting out and privatization, that the strong sides of the public sector as well as the strong sides of the private sector can be utilized (Hodge & Greve, 2007). This is important to make use of as a lot of private technology companies are working together with the public sector in the migration process. The increasing involvement of the private actors have allowed them to have more central roles in the migration processes, “private companies are explicitly, implicitly, directly and indirectly involved at all stages of the migration process” (Bloom, 2014, p.1).

The PPP Theory is useful for examining formal collaborations, such as contracts or joint initiatives between governments and private technology companies. Such partnerships ideally make use of the strengths of each actor, the authority of the public sector, and the innovation and efficiency of the private sector. However, PPPs in practice also come with significant governance challenges. Cooperation can blur the lines of accountability: when a service is delivered while working together, it can become unclear who is answerable for the outcomes, especially when something goes wrong. Additionally, PPP arrangements do not only come in transparent, formal contracts, but also in informal, opaque collaborations (Zou et al., 2010). In this context of migration management, many private technology companies work closely with EU agencies under procurement contracts that resemble PPPs.

To further examine the implications of outsourcing digital infrastructure to private technology companies, this research draws on the concept of surveillance capitalism, developed by Shoshana Zuboff (2019). Surveillance capitalism refers to a ‘new’ economic system in which private companies collect vast amounts of personal data from its users, without their awareness oftentimes. Surveillance capitalism focuses on capturing individuals' personal experiences. These experiences are then transformed into data-driven products that can be traded and used within market systems (Zuboff, 2019). This data can be of huge importance and can be used for behavioral prediction and profit generation (Molnar, 2019). Through this scope, data extraction becomes a central business strategy, and people are transformed into data, for analysis, prediction, and control. Applying this to migration governance, surveillance capitalism sheds a light on how private technology companies are able to derive commercial value from collected data.

Surveillance capitalism highlights the way that migrants become sources of data to be commodified. Private technology companies that build and operate border technologies often gain access to sensitive personal data, such as fingerprints, facial scans, and travel histories (OHCHR, 2020). In migration governance, the collecting of the data, often without the knowledge of the migrant, raises serious ethical questions. Migrants often cannot opt out of surveillance or data collection at the border. Yet, the private companies involved might treat the collected data as a commercial resource, potentially beyond the intended purpose.

The deployment of digital technologies in migration management can not be fully understood without examining the discursive processes that frame migration as a threat. The securitization theory, originally developed by Wæver (1993), argues that a security issue is not an objective reality, but is created through discourse. Balzacq (2011) describes it as “no issue is essentially a menace; something becomes a security problem through discursive politics”. So when a political leader for example declares something as a security threat, and gains urgency and justifies extreme measures. In the European Union, migration has frequently been framed as a “crisis” or “security threat”, especially during the 2015 refugee crisis. This could be related to the digitalization companies. This framing allows governments to justify extraordinary investments in border surveillance, automated control, and data analytics systems. By labelling an issue a ‘security issue’, the securitizing actor “moves a particular development into a specific area, and thereby claims a special right to use whatever means are necessary to block it” (Léonard, 2014 ; Wæver 1993, p. 7). They can try and push to the government about the threats that the immigrants bring with them, this can then be justified by all the advanced technologies

they provide, while making lots of money. Authorities seek technological solutions that promise control, private technology companies become key suppliers in this, providing the hardware and software that implement securitized policies.

The securitization theory provides the political rationale that underpins the turn to high-tech solutions. By framing irregular migration as an existential security challenge, officials create a sense of emergency that legitimizes extraordinary measures. This securitization does not happen in isolation: the private technology companies have a profound interest in this framing and may actively contribute to it. These companies market their products as necessary answers to security threats and start working together with the politicians. This securitization of migration became especially apparent after 9/11, EU nations implemented more heavy security-oriented policies to protect EU borders from the people they considered to be security threats (Huysmans, 2006). These companies have the ability to influence how security threats are understood and responded to; they frequently define issues in ways that align with their ability to offer solutions, sustaining an iterative process of security measures driven by profit (Delioglu, 2025 ; Leander, 2005).

The final theoretical lens utilized for this study is technological determinism. Dusek (2006, p.3) describes it as “the view that technological changes cause changes in the rest of society and culture, and autonomous technology, the view that technology grows with a logic of its own out of human control”. Adapting this theory to the EU context, there is a strong belief in digital innovation to complex governance problems, such as migration. Several critics, such as Guild et al. (2009) claim that there is an ‘untested belief’ in security technologies as the great solution the EU might be facing. New systems and technologies are frequently framed as the panacea to deal with the illegal border crossing and other discussions about migration (Lemberg-Pedersen et al., 2020).

2.2. Concepts

This section conceptualizes the core concepts used during this research. Clarifying these terms provides a clear conceptual framework for the analysis.

MIGRATION GOVERNANCE

For migration governance the author used the definition used by International Organization for Migration (IOM): “The combined frameworks of legal norms, laws and regulations, policies and traditions as well as organizational structures (subnational, national, regional and international) and the relevant processes that shape and regulate States’ approaches with regard

to migration in all its forms, addressing rights and responsibilities, and promoting international cooperation” (International Organization for Migration, 2024, n.p).

DIGITALIZATION

Digitalization can be described as “transformation of business processes and activities to take advantage of digital technologies and data”(Honeywell, 2023, n.p). Technologies that can be understood under digitalization are cloud computing, Artificial Intelligence and the Internet of Things (IoT) (Honeywell, 2023). Digitalization is not to be confused with digitization. Digitization only refers to the process of changing information from a paper format to a digital format, whereas digitalization goes further.

PRIVATE TECHNOLOGY COMPANIES

Private technology companies in the context of this research are the for-profit firms that develop and supply the digital systems, software, and services used for migration and border control. This category includes a range of actors, such as companies specializing in biometrics and surveillance hardware. For the purposes of this thesis, we define private technology companies as those commercial entities contracted or partnered with by governments or EU institutions to perform functions related to border management and migration governance. This includes companies tasked with building and managing information systems.

MIGRATION MANAGEMENT AND BORDER CONTROL

Border control is defined for this research as “The administration of measures related to authorized movement of persons (regular migration) and goods, whilst preventing unauthorized movement of persons (irregular migration) and goods, detecting those responsible for smuggling, trafficking and related crimes and identifying the victims of such crimes or any other person in need of immediate or longer-term assistance and/or (international) protection” (International Organization for Migration, 2024, n.p.). Migration management is defined for this research as “The management and implementation of the whole set of activities primarily by States within national systems or through bilateral and multilateral cooperation, concerning all aspects of migration and the mainstreaming of migration considerations into public policies. The term refers to planned approaches to the implementation and operationalization of policy, legislative and administrative frameworks, developed by the institutions in charge of migration” (International Organization for Migration, 2024, n.p.).

OUTSOURCING

Outsourcing can be defined as “a situation in which a company employs another organization to do some of its work, rather than using its own employees to do it” (Cambridge Dictionary, 2025, n.p.).

PRIVATIZATION

For this research we used the following definition of privatization: “The process of transferring ownership of a company or assets from a government or a government-controlled entity to a privately-owned company” (Practical Law, n.d., n.p.).

3. Hypotheses

The majority of private technology companies involved in digitalization of migration management and border control are large multinational corporations specializing in biometrics, data analytics, and surveillance technologies. These industry giants leverage extensive resources and technical expertise, positioning themselves as indispensable providers of sophisticated security and data-driven solutions for migration management.

Private technology companies do not only provide technical infrastructure but act as co-designers of migration management and border control systems, influencing the operational and strategic direction of digital border management. Through early involvement in system design, technical standard-setting, and strategic planning with public agencies, they exert significant influence over both the architecture and direction of digital migration governance, beyond the provision of basic infrastructure.

Private technology companies exert a significant influence on decisions and developments, through lobbying, participating in forums, and partnerships through which they create vendor lock-ins.

The outsourcing of migration management and border-control functions to private technology companies leads to reduced transparency and accountability, increasing the risk of human rights violations and weakening state control over migration.

4. Methods

In this chapter the research design, the methods of data collection, and the methods of data analysis that were used for this thesis are described and motivated.

4.1. Research design

As mentioned earlier, the main research question this thesis discusses is: “What role do private technology companies play in shaping migration governance through digitalization in the European Union?”. The research is carried out through desk research and content analysis based on available content. A search strategy is designed for each sub-question. Because the sub-questions have a dependency and order, they were answered consecutively. Finally the main research question was answered.

This research made use of a qualitative approach, combining comparative textual analysis. A qualitative approach was best fit for this study, as it allowed for an in-depth examination of how private technology companies and governance intersect through language and documentation. The type of textual analysis that was used in this study is qualitative content analysis. The data is collected through desk research and is therefore secondary data. It contains exploratory research as the study focuses on a subject that had previously not been studied in-depth. Next to that the study contains descriptive research, as the researcher only describes variables, instead of manipulating any of the variables (Siedlecki, 2019).

A qualitative, exploratory design in this case is appropriate, because the research seeks to understand processes and meanings (Cresswell, 1997). By conducting desk research instead of collecting primary data through interviews or surveys, the study could systematically gather evidence from a wide range of sources that were directly relevant for this research. Given the focus on content, qualitative content analysis is an optimal method to systematically analyze the data. This method enabled the researcher to categorize texts in a systematic way to make sense of the texts.

Based on the theory, an initial coding scheme for the content analysis was developed. This scheme was refined during the collection and analysis of the content. This allowed for a better time-efficiency, considering the little time to conduct the research. Using a coding scheme allowed for a transparent analysis. Where some of the bias of the researcher was eliminated and an improved accountability for the researcher.

The development of a clear coding scheme at the beginning of the analysis provided a framework to systematically examine the documents. The initial set of codes is (partly) derived from the theoretical concepts (PPP, surveillance capitalism, securitization theory, and technological determinism), ensuring that the analysis is guided by established concepts. However, the researcher used an iterative approach, meaning that the coding scheme was

adjusted in the coding process as new insights emerged from the data. By starting with theory-driven codes and adding new codes, based on the documents, the researcher maintains rigor, while also remaining open to nuances of the data (Kuckartz, 2014). The iterative process enhanced validity because the categories used to interpret the data are continually checked against the actual content of sources.

4.2. Methods of data collection

The research was carried out through desk research and content analysis based on available content. The data collection has been focused on documents that address the involvement of private technology companies in shaping migration management and border control procedures within the European Union. A search strategy was designed for each sub-question. The search strategy and queries have been based on the coding scheme. This scheme was refined during the collection and analysis of the content.

Documents were being sought that describe the mechanisms through which private technology companies influence the migration processes and try to explain the implications of this involvement for governance, transparency and human rights. The documents the researcher used for the textual analysis consisted of a variety, such as, scientific papers, policy documents and reports, white papers, EU Agency reports (Eurodac, Frontex). It was of importance to use both governmental sources as scientific sources, as they both brought their own value to this research. The main data collection has been done through platforms like Google Scholar, Consensus, and the University of Twente Library services. When a language barrier appeared, there was the use of the translation tool ChatGPT to translate the documents. The AI tool ChatGPT was additionally used to help search for useful documents. To select which documents to code, the researcher looked on official sites of either EU organizations, such as eu-LISA, or on the websites of the primary companies discussed in this paper for reliable documents. And looked for key terms relevant to this paper, such as ‘government’, ‘accountability’, and ‘migration management’. In total 9 documents were coded (see Appendix B), with 3 documents from private technology companies, 3 from EU Organizations or figures, and 3 from scholars.

4.3. Methods of data analysis

For analyzing the collected data, this research contained textual analysis. Textual analysis is a research method used to carefully interpret and analyze written, spoken, or visual content. It involves the process of breaking down text to uncover deeper themes, symbols, and messages. This method helps researchers explore the intentions, perspectives, and motivations of its

creators (Khan, 2025). More specifically, the method is content analysis, which is about the process of categorizing qualitative data into similar categories to see if there is a relationship between variables and trying to make sense of them, it is independent of theoretical framework, and is often used in textual data (Given, 2008).

For further analysis of the data, this study made use of a coding scheme. Based on the theory, an initial coding scheme for the content analysis has been designed. A code in qualitative inquiry is “most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldana, 2016, p.3). The researcher made use of both deductive and inductive coding. Deductive coding starts with a set of predefined codes, to which specific parts of texts are assigned, inductive coding begins directly from the data itself, where the researcher identifies meaningful segments, groups them into categories, and then develops codes based on what emerges from the material (Bihu, 2024). Inductive coding begins directly from the data itself, where the researcher identifies meaningful segments, groups them into categories, and then develops codes based on what emerges from the material (Bihu, 2024). The use of both inductive and deductive approaches allows for an efficient strategy. Coding itself allows an objective and transparent analysis of the papers used during this study.

The tool that was utilized for coding the texts is ATLAS.ti, this is a qualitative data analysis software, which provides useful tools in academic research, especially for those in social science disciplines (Hwang, 2007). The coding scheme is divided into six categories, being: company typology and functions, relationship type, private sector influence, transparency, accountability, and migrant rights & ethical concerns, with each category related to at least one sub-question and theory. Company typology and functions, relationship types, transparency, and accountability are all derived from the PPP theory. Migrant rights & ethical concerns is derived from surveillance capitalism. Private sector influence aligns with securitization theory and technological determinism. Most keywords were mostly derived from the theoretical framework and sub-questions, for example biometric systems provider, outsourcing & delegated services, and accountability gap. Other keywords were added during the coding process, such as black-box systems, due process & redress, and policy capture & market shaping. These categories and keywords have objectively helped the researcher with answering the sub-questions and the main research question. It resulted in the following coding scheme:

Table 1: Coding scheme

Categories	Keywords
Company typology and functions	Biometric systems provider, AI & Data Analytics system provider, Border surveillance System Integrator and IT contractor, Consultancy company
Relationship types	Outsourcing & delegated services, Licensing & vendor lock-in, R&D partnerships and pilots, Informal partnerships and networks
Transparency	Opaque procedures, Black-box systems Proprietary secrecy, Information asymmetry, Limited disclosure of tech use
Accountability	Accountability gap, Oversight deficit, Liability ambiguity, Conflict of interest, Regulatory gaps
Migrant rights & ethical concerns	Privacy & data protection, Bias & discrimination, Due process & redress, Invasive surveillance, Consent
Private sector influence	Lobbying and policy advocacy, Security-framing narrative, Technological solution, Policy capture & market shaping

5. Analysis

5.1. Key private technology companies

This section will focus on the key actors that contribute to the public-private partnerships around the migration processes, answering the following sub-question: “Which types of private technology companies are there related to the digitalization in migration management and border-control procedures, and how do they contribute to it?”. EU agencies such as eu-LISA and Frontex have together spent billions of euros on contracts with the private sector (StateWatch, 2022). Eu-LISA being the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice (eu-LISA, n.d.). Frontex being the European Border and Coast Guard Agency (Frontex, n.d.)

One of the companies that is closely involved in the migration process is IDEMIA Group. IDEMIA Group is a leading French technology company. Their goal is to make the world safer through their experience in biometrics and cryptography (IDEMIA, 2024). They are currently partners of hundreds of governments in more than 180 countries. Their focus lies on three different fields. The first one is secure transactions, through safe ways to pay and connect. The second one is public security through biometric solutions that allow for secure access, travel, and protection. The third one is Smart Identity, unlocking a single, trusted identity for everyone using biometric and cryptographic technology (IDEMIA, 2025). In collaboration with partners Sopra Steria and Accenture, IDEMIA played a significant role in designing and implementing the shared Biometric Matching System (sBMS) (IDEMIA, 2023a). According to IDEMIA (2023b), this sBMS will be the cornerstone of border security in Europe as it will meet the identity requirements of the new European Entry/Exit System (EES). The contract awarded by eu-LISA is for a duration of four years, with an option to extend up until six years. The goal of the sBMS is to fight against irregular immigration and trans-border crime (Burt, 2024). The sBMS will not only be used for the EES, but also for systems such as the Schengen Information System (SIS), the Visa Information System (VIS), Eurodac (European Asylum Dactyloscopy Database) and the future ECRIS-TCN (European Criminal Records Information System for Third Country Nationals) (IDEMIA, 2023b).

The aforementioned Sopra Steria is a company that operates in nearly 30 countries, helping their clients drive digital transformation (Sopra Steria, n.d.a.). IDEMIA and Sopra Steria have already supported the management of other IT systems in the EU, such as SIS, VIS, and Eurodac for over 15 years (Burt, 2024). Public sector organizations, local governments, and

governmental agencies are undergoing a significant shift in the fast-paced world of today. Governments are under pressure to enact significant reforms within constrained resources as a result of the demands of citizens and companies for quick, effective action and measurable outcomes (Sopra Steria, n.d.b.).

Another company that is involved in the process is Thales Group. Thales is an international company with over 83,000 employees in 68 countries that is concerned with multiple markets, such as cybersecurity solutions, defence and security, and digital identity and security (Thales Group, n.d.a.). The market most relevant to this research is their digital identity and security market. With their identity management and data protection technologies, they are involved in border control. With their biometric solutions, they aim to offer governments secure national borders, through various types of technologies. These are fingerprint recognition, facial recognition, and iris recognition (Thales Group, 2023). Thales is also constantly working on effective migration management, part of Thales' involvement is on legitimizing trade and travel, preventing illegal immigration or identity theft, and tightening up the security measures at the borders (Thales Group, 2024). Thales provides electronic travel documents and national eID cards, and also offers other solutions that enhance security, facilitate and automate border and passenger processing, through applications such as "Thales Gemalto Border Management System, Thales Gemalto Visa Management System, Thales Gemalto Border Automated Biometric Identification System, Thales Gemalto Automated Border Control (ABC), Thales Gemalto Border Kiosk, and Thales Fly to Gate" (Thales Group, 2024, n.p.).

Next company is Atos, this French company was closely involved in the development of the Entry/Exit System (EES) (European Union Agency, 2019). Atos is a company focused on access control, security, and biometrics and offers the complete border control system, including consulting, design, construction, maintenance and operation (Atos, 2012). Atos was also granted a contract for SIS I, launched in 1995 (Lemberg-Pedersen et al., 2020). Other companies that were involved in the delivery of the EES and formed a consortium together were IBM and Leonardo S.p.A (European Union Agency, 2019). IBM is a community of engineers, scientists, and designers, coming up with the next advances in computing technology. Today, IBM's research is at the forefront of computing. They are intensely working on chips, hardware for AI and quantum computing (IBM Research, n.d.).

Leonardo S.p.A. is an international industrial group that develops technology in the fields of aerospace, defense, and security. The company is a trusted technology partner of governments,

defense agencies, institutions, and businesses, and it plays a significant role in important international strategic programs (Leonardo S.p.A., n.d.).

In 2020 a consortium led by Unisys with Uni Systems and Wavestone was contracted for a four-year deal worth 181 million euros by eu-LISA, to advise eu-LISA in the areas of freedom, security and justice (Emerce, 2021). Unisys is a technology solutions company that specializes in advanced technologies, they do this through digital workplace, applications, cloud, enterprise computing and business process solutions (*Unisys Corporation*, 2024). Uni systems is a Greek company that offers a broad range of products and services that help its clients succeed in a business environment that is changing quickly. They offer services from modern ICT infrastructures (cloud based and virtualized) to the best business applications. In addition to our extensive business domain knowledge and skills, they also provide consulting, implementation, support, operation, and managed services (*Uni Systems*, n.d.).

In 2020, the eu-LISA and Frontex set up a new consortium: the ecos Consortium. This Consortium consists of members such as the aforementioned Sopra Steria, everis (part of NTT DATA group), CANCOM, and OTE. During this contract, they are supporting the eu-LISA in designing and providing an infrastructure platform that will provide services that can be used across the board of applications (Sopra Steria, 2021). The budget for the consortium is 442 million euros and has a maximum duration of six years (Sopra Steria, 2021). Everis is the leading company in this consortium. It offers applications infrastructure and platform services while effectively managing the platform's evolution. It will also encourage “modern, efficient, elastic, and dynamic designs and evolutions of the current infrastructure” within the limits established by eu-LISA (NTT DATA, n.d.). CANCOM is a German IT company that specializes in multiple technologies, such as AI, IoT, designing digital workplaces, optimizing cloud & datacenters, and security and networks (CANCOM Corporate, n.d.). OTE Group is responsible for the provisioning of network infrastructure, For the design, implementation, testing, and maintenance of the Agencies' recently deployed and re-cast large-scale applications, OTE Group provides network hardware, software, and network infrastructure services (COSMOTE Global Solutions, n.d.).

Concluding, the companies involved represent several key categories. First are specialized biometric and identity solution providers such as IDEMIA, Thales, Sopra Steria, and Atos, which are essential in developing and maintaining large-scale biometric systems including the sBMS, SIS, VIS, and EURODAC. These companies contribute through their expertise in identity verification, secure access, and border automation, thus becoming central actors in the

EU's efforts to manage identity and control mobility. Second, development and implementation partners such as Unisys, Wavestone, Uni Systems, Sopra Steria, IBM, and IDEMIA play an important role in the implementation and evolution of systems like the Entry/Exit System (EES). These companies help design, build, and advise on complex IT systems necessary for managing migration-related applications, databases and interfaces across the EU. Lastly, large-scale infrastructure and platform solution providers, everis (NTT DATA), CANCOM, and OTE Group deliver integrated services to support the digital infrastructure of EU border and migration control. These include cloud solutions, network infrastructure, and application platforms capable of providing evolving demands in data integration, surveillance, and enforcement.

5.2. Types of public/private relationships

This section examines what kind of collaborations there are between governments and the aforementioned companies, focusing on the consortia. Whether there is a cooperative collaboration, or tasks are being completely outsourced, without (much) involvement of governments, answering the following research question: “What type of public/private relationships can be identified in the migration management and border-control procedures?”.

As mentioned before, IDEMIA Group was a key actor in the development of the EU-EES. Each Member State of the European Union should create and implement a national solution to control the entry and exit movements that are conforming to the Schengen Borders Code (EU) 2016/399, revised by the introduction of EU-EES (EU) 2017/2225. To support the Member States, IDEMIA provided them with their top 5 recommendations to minimize the effect on travelers and border control employees in implementing the EES. The position paper developed by IDEMIA has as goal:

“to effectively guide Member States on which solutions to employ in adherence with the new processes” (United Nations World Tourism Organization, 2022).

As the interoperable EU border systems were being developed, commercial interests became an essential element. This happens in a number of ways. Such as, the framework contract winners are given preference when it comes to harvesting later contract chains. Also, because systems like SIS, VIS, Eurodac, and EES (as well as EUROSUR) compel Member States to align their national systems with the technological standards set by those contracts, such EU-wide framework contracts also result in path dependency at the national level (Lemberg-Pedersen et al., 2020).

Sopra Steria, which is a major tech player in digital services, is heavily active in the public sector services. The company mentions on their website that they help governments with the implementation of advanced technologies:

“To stay ahead, public sector organisations need to embrace innovation and technology. Sopra Steria helps governments harness the power of AI, data, cloud computing and other advanced technologies. Through digitalisation, we increase agility and operational efficiency, enabling these organisations to deliver timely and effective services” (Sopra Steria, n.d., n.p.).

Thales provided a page on their website about the EES, and how biometrics help in facilitating smart borders. They explain how they fit in this project and why they are the right choice to do the job for the European Union. The project is hugely dependent on biometrics and checking travel documents, which comes down to: “1. Exploiting the latest technologies to authenticate travel documents, identify travellers, and assess risk. 2. Reducing costs through process automation and optimization. 3. Optimising border guards' tasks will supervise these devices, allowing them to focus on suspicious cases. 4. Reducing waiting times through registration in EES database” (Thales Group, n.d.b., n.p.).

In the document published by eu-LISA, in which they announced the consortium, consisting of the companies: IBM Belgium BVBA, Atos Belgium NV, and Leonardo S.p.A., who are responsible for the implementation and maintenance of EES, they frame the consortium as a partnership:

“We cannot accomplish all this alone though. We need strong partners as well as close and constructive cooperation with them. We are delighted that today, after years of dedication and hard work by our teams, to have found knowledgeable and experienced partners that I believe are capable of delivering under challenging deadlines and a complex scope of work, assisting eu-LISA to achieve a timely implementation of the Entry-Exit System for the EU” (European Union Agency, 2019).

In the consortium led by Unisys with Uni Systems and Wavestone, the companies released a statement in which they stated that “they are going to help in the roll-out and deployment of smart technology in border control”. They also stressed that “they have worked with the European Union for over a decade, and that this contract shows their industry knowledge in the area of migration and Home Affairs” (Unisys Corporation et al., 2021).

“New multi-million dollar contract supports eu-LISA in the roll out and deployment of smart technology for more convenient and secure travel” (Unisys Corporation et al., 2021, p.1).

“Unisys Corporation (NYSE: UIS) today announced a four-year contract in partnership with Uni Systems and Wavestone, to support a range of services for the European Union. The Unisys-led consortium will consult on the design of major European IT systems to support eu-LISA, the European Union Agency for the Operational Management of Large-Scale IT Systems in the Area of Freedom, Security and Justice” (Unisys Corporation et al., 2021, p.1).

“[T]he agreement covers a wide range of services and the consortium will be providing end-to-end support from defining and consulting on new services through overseeing project delivery, testing and quality control. As part of the new developments set to take place, the consortium will be providing critical support in the rollout of new smart technology. This includes biometric authentication and mobile enablement, as eu-LISA continues to upgrade and streamline passenger flow” (Unisys Corporation et al., 2021, p.1).

“The contract was awarded to the Unisys-led consortium as part of a public tender for the Transversal Engineering Framework (TEF). This framework includes the design, provision, testing and support of core business systems and interoperability components. Under the contract, the consortium will be responsible for the delivery of critical infrastructure, while ensuring that compliance, security and data protection requirements are all upheld to the highest standard” (Unisys Corporation et al., 2021, p.1).

Within the ecos consortium, led by everis, they stated:

“Thus, the single platform will promote modern, efficient, elastic and dynamic designs and evolutions of the current infrastructure within the standards set by eu-LISA and will have an as-a-service orientation, becoming infrastructure and platform services provider for the applications whilst efficiently managing the evolution of the platform” (NTT Data, n.d., n.p.).

“designing and providing an infrastructure platform that will provide services that can be deployed across the board of any of the current and future systems” (NTT Data, n.d., n.p.).

The analysis of public/private relationships in EU migration management and border control shows a complex dynamic where private technology companies appear to operate simply as service providers, which means just implementing the technical aspects of policies designed and ordered by public institutions, while in practice they have a far more influential role. The main companies are officially contracted through public procurement contracts, which then seems as if the companies are only implementing the orders they get from governments.

However, their activities go further than simple implementation. These companies shape solutions, offer strategic guidance, and have an influence on the design of infrastructure and digital processes. For example, IDEMIA’s position paper on how EU Member States should approach EES implementation shows some level of agenda-setting influence. Just as Sopra Steria and Thales frame their services not just as delivery mechanisms but as innovative influencers of policy transformation, using advanced technologies to reshape workflows and risk assessments at the border.

Furthermore, statements from eu-LISA and the consortia involved in EES development show partnership relations, suggesting that the public sector views these companies as collaborators, not just vendors. The Unisys-led consortium, for instance, is entrusted with end-to-end system design and consulting, positioning them as co-developers of EU border management technology. The ecos consortium, meanwhile, delivers scalable, evolving infrastructure with an “as-a-service” orientation, reinforcing long-term operational dependence on their private expertise.

This relationship structure shows a hybrid model of procurement and functional outsourcing, where private actors gain decision-making power over technical standards, and system functions, while keeping the image of neutral implementers. Their influence can be seen in both the technical development and the strategic direction of EU migration systems, which raises important questions about democratic accountability, transparency, and the balance of power in the governance of European borders.

In conclusion, while these public/private collaborations might be seen by the ordinary public as simple delivery arrangements, in practice, private companies have significant control over how migration governance is technologically realized, making them not just executors of state decisions, but shapers of policy implementation and design.

5.3. Influence

This section investigates the influence of private technology companies on EU institutions, answering the following question: “What influence do private technology companies have on decisions and developments in migration management and border control?”

Migration management and border control in Europe have increasingly become domains of public–private partnership, where private technology and security companies play a significant role alongside state actors. The European Union (EU) and its agencies have actively integrated industry into policy networks, giving companies direct avenues to shape decision-making. For example, the European Commission has for years convened industry-dominated expert forums to set security research agendas – such as the 2003 Group of Personalities and the 2007 European Security Research and Innovation Forum (Lemberg-Pedersen et al., 2020).

According to Lemberg-Pedersen et al. (2020), private and commercial actors often have a significant influence on the development, adoption, and implementation of EU measures which are related to immigration. In order to secure profit, expansion, and the fortification of both their own roles on that market as well as the conditions for the market as a whole, these actors aim to obtain access to and leverage over EU policymakers, either directly, or through interest and lobby groups, consulting companies, and communications bureaus (Lemberg-Pedersen, 2013). These private companies can shape EU policy through several strategies, some of which are lobbying, framing suggestions as expert knowledge, private rule- and standard-setting, and public-private partnerships (Baird 2018). Lemberg-Pedersen et al. (2020) conclude that only a couple of large companies are responsible for a small amount of projects, and that this outcome may have been contributed by commercial actors using their position as security experts by framing expanding areas of serious security concerns in need of technological solutions they themselves provide, as evidenced by the seemingly upgraded roll-out of costly and sophisticated surveillance infrastructures.

When looking at the influence of the companies earlier mentioned, we analyze that ATOS has had 20 meetings with the European Commission since 2014, and has around 10 in-house

lobbyists. Leonardo has 3 lobbyists, and has had 30 meetings between 2015 and 2019, which averages 6 per year. IBM has 9 lobbyists registered to improve their ties with the EU and have reported 90 meetings with members of the European Commission in between 2014 and 2020, which averages around 13 per year (Lemberg-Pedersen et al., 2020).

Table 2: Companies meetings with European Commission

Company	Recorded lobby meetings with the European Commission	Period covered	≈Average per year	Registered in-house lobbyists
Atos	20	2014-2024	±2	10
Leonardo S.p.A.	30	2015-2019	6	3
IBM	90	2014-2020	13	9

A significant part of lobbying occurs informally, particularly during the drafting phase of legislative texts, funding frameworks, and policy communications. This stage is especially vulnerable to influence due to the complexity of EU institutional architecture, which includes numerous Directorate Generals, agencies, subcommittees, and funding mechanisms. The European Parliament, with its growing influence over legislation, has also become an important target for corporate lobbying. The lack of transparency in these interactions increases the likelihood of behind-the-scenes influence. Companies may exploit this complexity to intervene in the fine print of legal language—how migration policies are defined, framed, and implemented. These informal interventions often escape public scrutiny, which aligns with Baird's (2018) argument that reduced transparency corresponds with an increase in informal political influence.

5.4. Risks

This section examines the risks that come with the increasing outsourcing of key aspects of the migration process. The following subjects will be highlighted: accountability and transparency, and migrant right and ethical concerns, trying to answer the following research question: “What are the risks associated with delegating key aspects of EU migration management and border control to private technology companies, and how are these risks managed?”

5.4.1. Accountability and transparency

Turning over key aspects of migration management and border control to private technology companies can come with significant risks. We outline the main risks and address how they are being addressed, if they are being addressed, by EU institutions and Member States. Private companies are nowadays visible at every level of the migration process. The outsourcing of the migration control function to these private companies is for a large part not regulated, and policy implications are poorly understood. Vulnerable migrants are being affected by the unclear lines of responsibilities and accountabilities, as well as the force being used (Bloom, 2014).

As also pointed out in Gammeltoft-Hansen (2013) there has been a huge increase in private companies taking over tasks that were previously in hands of the government. In theory, international human rights legislation has no position on privatization. Nothing in the human rights treaties expressly forbids governments from choosing to contract out or privatize the provision of services, and governments are still free to choose how they want to govern (although there are the UNGP Guidelines). However, a number of human rights organizations have underlined that continuous compliance to human rights must be guaranteed throughout the privatization process (Gammeltoft-Hansen, 2013).

In response to the concerns, the EU had set up clearer accountability frameworks. To ensure this accountability, the companies have to adhere to REGULATION (EU) 2023/969 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, which is about *establishing a collaboration platform to support the functioning of joint investigation teams*.

Key points here are that eu-LISA must ensure:

- “the development of large-scale IT systems using an adequate project management structure;
- the effective, secure and continuous operation of large-scale IT systems;
- the efficient and financially accountable management of large-scale IT systems;
- an adequate high-quality service for users of large-scale IT systems;
- continuity and uninterrupted service;
- a high level of data protection, in accordance with EU data protection law, including specific conditions for each large-scale IT system;

- an appropriate level of data and physical security, including specific rules for each large-scale IT system”.

Adopted from Regulation EU (2018, p.3)

The accountabilities that the private companies have are described in DIRECTIVE (EU) 2024/1760 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, which was adopted in 2024 (but not yet in force) after recommendations from the European Parliament in 2021:

Key point:

In order to ensure effective enforcement of the provisions of national law transposing this Directive, Member States should provide for dissuasive, proportionate and effective penalties for infringements of those measures.

Here it is important to note that Member States shall adopt and publish, by 26 July 2026, the laws, regulations and administrative provisions necessary to comply with this Directive. This means that it is currently not adopted, but a work in progress.

5.4.2. Migrant rights & ethical concerns

With all the new technologies that are being employed, there is also an increase in concerns about migrant rights and ethical concerns. The technologies are often unregulated and are being used in opaque environments. Molnar (2019, p.306) argues that ‘this lack of regulation is deliberate, as States single out the migrant population as a viable testing ground for new technologies. Making migrants more trackable and intelligible justifies the use of more technology and data collection under the guise of national security, or even under tropes of humanitarianism and development’. At the borders of the Mediterranean Sea, migrants are the victims of the EU and its Member States not acting in an according, humane way, because the migrants of overcrowded sinking boats are framed as threats, and thus have been left to die or pushed back to the country they came from (Metcalf et al., 2023). Multiple human rights organizations have pressed the urge that in the process of privatization, respect for human rights must be guaranteed. In theory, states retain ultimate responsibility under international law, even though the actors and methods by which human rights duties are fulfilled may change under privatization. A state is directly responsible for the actions of private actors under general international law when such actors are either acting in the exercise of "governmental authority"

or when it can be demonstrated that the state is "directing or controlling" the specific behavior (United Nations, 2001).

5.4.3. Risks managed

To manage these risks, the United Nations Human Rights adopted a framework put forward by the United Nations Guiding Principles (UNGPs), which consists of three pillars: 1. The state's duty to protect human rights. 2. The corporate responsibility to protect human rights. 3. and the requirement to guarantee efficient remedies in cases when commercial operations directly or indirectly violate human rights. However, to be noted is that this is not binding in law. It only offers a comprehensive roadmap for integrating human rights into business practices and regulatory systems (Davitti, 2020). The *Guiding Principles on Business and Human Rights* (2011) articulate the State duty to protect human rights as a foundational obligation under international law. This duty requires States to take appropriate and effective measures, legislative, administrative, judicial, and policy-based, to prevent, investigate, punish, and redress human rights abuses committed by third parties, including business enterprises, within their jurisdiction or territory. For the corporate sector, the responsibility is defined as a baseline standard of conduct, independent of the State's capacity or willingness to fulfill its own duties. It entails two primary obligations: (1) not causing or contributing to human rights harms, and (2) preventing or mitigating harms linked to their operations, products, or services through business relationships. Companies are expected to fulfil this responsibility, and adopt human rights due diligence processes, which include assessing actual and potential impacts, integrating findings across internal functions, taking action to prevent or mitigate impacts, and tracking effectiveness. Businesses must also establish or participate in grievance mechanisms to ensure timely and fair remediation of rights violations (U.N. Human Rights Council, 2011). To deal with AI, the EU adopted in 2024 the Artificial Intelligence Act (Regulation (EU) 2024/1689). In annex III it is visible that use of AI in "Migration, asylum and border control management" is automatically classified as high-risk. This means that providers of such AI systems must: draw up technical documentation, establish a policy to respect the Copyright Directive, Publish a sufficiently detailed summary about the content used for training. Providers of models with systemic risk have additional duties, such as assessing and mitigating possible systemic risks, and track, document and report serious incidents (Future of Life Institute, 2024). To protect the data of people the General Data Protection Regulation (GDPR) has been developed and is applicable since May 25th, 2018 (General Data Protection Regulation (GDPR), 2024).

6. Results

The document analysis shows an extensive involvement of private technology companies at every level of EU migration management and border control. Over the last ten years, EU agencies and Member States have increasingly relied on a couple of big private technology companies to design, build, and operate the digital systems around migration processes. These companies are not simple contractors; they have become central to the EU's border infrastructure. Major projects like the European Entry/Exit System (EES), the Schengen Information System (SIS), the Visa Information System (VIS), and new biometric databases have all been developed in partnership with private actors. In financial terms, this partnership is enormous: EU institutions such as Frontex and eu-LISA have spent billions of euros into contracts with companies in this industry.

Crucially, the relationship between public institutions and these private companies goes further than simple buyer-supplier transactions. Formally, governments and EU agencies work together in this industry through public procurement contracts and consortia. In practice, however, these arrangements function more like partnerships. The research finds that EU officials in public refer to certain contractors as “partners” as very important for achieving policy goals. Moreover, many of the technology companies do far more than only executing government instructions, instead they have an influence in shaping project outcomes. Several contractors are entrusted with big responsibilities: consulting on system design, making strategic technical decisions, and even guiding Member States on how to implement new regulations in practice. Through these collaborations, private companies have put themselves in positions not just as service providers, but as co-deciders of Europe's migration management. Public authorities have become dependent on the technical know-how and products of their “private partners”, sometimes to the point of building long-term reliance on those external systems and expertise.

Over the years, the European Commission has held expert forums together with the big technology companies to shape research and innovation priorities. This has allowed corporate interests to bring their perspectives into EU policy planning from the beginning. In addition, direct lobbying is a key part of influence. Several of the major companies involved in EU border control actively engage with EU policymakers. Because EU migration governance involves complex frameworks and specialized technology, public officials often rely on private sector expertise to understand technical possibilities and constraints. This creates opportunities for companies to shape the narrative, for instance by framing certain surveillance solutions as

essential or by emphasizing specific security risks that their products can solve. Such framing can change policy discussions toward outcomes that are in favor of these companies.

With the benefits of private sector involvement come significant risks on multiple levels. One of the clearest risks analyzed is a lack of accountability. When core state functions are carried out by private companies, it complicates who holds the responsibility. If something goes wrong, it may be unclear whether it is the fault of the state or the contractor. But, European institutions recognize this challenge, and they have introduced stricter requirements to maintain public control and oversight over outsourced projects. A new EU directive calls on Member States to impose effective penalties on companies that violate legal standards or contract terms. However, these measures are still being operationalized and have yet to prove themselves, as some are not in force until the coming years.

7. Discussion

Through this research, there have been some limitations, an example would be the exclusive use of secondary data obtained via desk research results. Because the researcher was not able to use primary research, the study has no control over how the original information was conducted. This limitation was minimized by carefully selecting data from credible sources; however, the data might still reflect biases of the original authors. In this complex subject, many more private actors are involved than could be discussed, therefore there were a few key companies selected, which were analyzed through this research.

The findings of this study will now be discussed through the lenses of theories that were introduced earlier.

Through the lens of the PPP theory, there is a clear increase in the outsourcing and collaborating with private technology companies. This is because the public agencies don't have the capacity and knowledge to implement the advanced technologies themselves, so they outsource or collaborate with these private technology companies. This can increase efficiency, but this study urges for clear regulations so companies or agencies can be held accountable, when something goes wrong. It is also visible that these collaborations trace back to decades ago. The public agencies have been collaborating with the companies for a very long time, and this creates vendor lock-ins, which means that the public agencies have become so dependent on the companies, that it becomes very difficult, or/and expensive to switch. When interpreting the data through securitization theory, there is a clear narrative coming forward from the private

technology companies. Securitization theory helps clarify why EU actors can justify exceptional measures at Schengen borders: by framing migration as an existential threat, migration has frequently been framed as an urgent security problem, and the private technology companies act like their technology is the solution to all the migration problems. This was also noticed during coding, that the code ‘technological solution’ was used frequently when coding the documents of the private technology companies. This can also be explained through technological determinism. The drive to digitalize and automate border control often comes from the assumption that more advanced technology leads to more effective governance. As massive IT systems and AI-driven analytics are rolled out, officials feel compelled to continue on the high-tech path, even in the absence of clear evidence that these tools fairly or effectively address migration issues. Technological determinism in this context serves as a justification for outsourcing, if one assumes that high-tech innovation is necessary but beyond the capacity of the public sector, turning to specialized companies seems not only logical but inevitable. Through surveillance capitalism the motives and data-driven strategies from the private technology companies become clear. The business model of many technology companies revolves around data: gathering it, analyzing it, and monetizing it.

8. Conclusion

This thesis set out to answer the question: *What role do private technology companies play in shaping migration governance through digitalization in the European Union?* The analysis clearly demonstrates that private technology companies now occupy a pivotal position in EU migration governance. Far from being mere contractors executing government orders, these companies have become co-architects of Europe’s digital border management. They design, build, and operate the core information systems, from biometric databases to smart borders. In doing so, private companies influence how policy is implemented and even how policy options are developed. The answer to the research question, therefore, is that private technology companies play an active, shaping role: they provide technological infrastructure and expertise, and through this role they significantly steer the direction of migration governance in the EU’s digital era.

Over the past decade, EU institutions and Member States have increasingly entrusted a few high-tech companies with end-to-end responsibilities in major migration management projects. Companies are involved at every stage: consulting on system design, setting technical standards, and advising on implementation of EU rules by national authorities. Public

authorities have become very dependent on these “private partners” for the everyday functioning of critical systems like the Entry/Exit System, Schengen Information System, and EURODAC. This dependency can become self-reinforcing: as governments rely on the expertise of these technology companies to manage complex systems, the same actors gain leverage to shape strategies and decisions, blurring the line between public policy-maker and private implementer. This results in vendor lock-ins, making it difficult for public agencies to switch providers without significant costs or disruption.

This study contributes to the academic field by filling a notable gap in research. In the field of public administration, the thesis contributes knowledge on public–private partnerships and governance of public services. Traditional public administration scholarship has examined outsourcing and PPPs in various domains, but migration control, especially its digital transformation, has been underexplored. This research adds evidence to debates on the changing boundaries between public authority and private companies. It highlights an evolved form of PPP and outsourcing where private actors not only deliver services but participate in policy design and decision-making, via this way, they challenge traditional perspectives of accountability and control in the public sector, where these used to be in the hands of the public sector. These insights urge public administration scholars to re-evaluate frameworks of accountability in cases where the state’s capacity is enhanced by private expertise.

As recommendations for further research, it would be interesting to conduct in-depth case studies of specific technological systems or incidents in order to see how the abstract concerns identified here play out in practice. For example, researchers could look at the implementation of a particular AI-based border control tool in one Member State to trace its impact on decision outcomes and on migrants’ experiences.

In conclusion, this thesis has shown that private technology companies are deeply involved in shaping how the European Union governs migration through digitalization. This involvement has made them key governance actors, bringing on the one hand innovation, but on the other hand critical challenges. The study’s contributions highlight that migration governance today cannot be understood without acknowledging the influence of these private technology companies. Ensuring that this influence does not undermine core values and the rights of migrants is the most important moving forward. The EU and its Member States, together with companies, must act to build transparency, accountability, and respect for core fundamental rights into the design of digital migration systems.

Based on these findings, the author suggests that governments and these private technology companies should open up contracts and processes. Increase transparency in consortia, by publicly disclosing key details of the contracts, except for the genuinely sensitive security information. Publishing in more detail than currently who is providing what exact services and under what concrete terms, allow EU parliamentarians, national parliaments, and citizens to scrutinize the private actor involvement to a greater extent.

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Appendix A: AI Statement

During the preparation of this work the author used ChatGPT in order to brainstorm, check grammar and spelling, and collect literature. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the work.

Appendix B: Dataset

Title	Author	Year	Link
Accountability and responsibility in the migration control industry	Thomas Gammeltoft-Hansen	2013	https://acrobat.adobe.com/id/urn:aaid:sc:EU:3f8a43e6-9bdd-4511-92c1-fb34e3081a70
The Reliable Government	Sopra Stera	2024	https://www.soprasteria.be/docs/librariesprovider2/sopra-steria-benelux-documents/notindexdocuments-ssg-be/20240701_ssb_whitepaper_reliable_gov't.pdf?sfvrsn=572559db_5
Securing the borders of tomorrow	Thales	2025	https://img06.en25.com/Web/THALES/%7Bceefa6eb-6d05-4af2-be79-1431e44ec281%7D_gov-wp-SecuringTheBordersOfTomorrow-2025.pdf
Effective digital identity and the need to orchestrate, Chapter 2	Thales, Juniper Research	2021	https://acrobat.adobe.com/id/urn:aaid:sc:EU:c6f1523f-8b3a-431c-9b0b-10d25a3343f6
Fostering innovations and mitigating risks	Eu-LISA	2024	https://acrobat.adobe.com/id/urn:aaid:sc:EU:b44054e4-a79f-4148-a228-d00a9ab11eb3
Beyond the Governance Gap: Accountability in Privatized Migration Control	Davitti	2020	https://www.cambridge.org/core/journals/german-law-journal/article/beyond-the-governance-gap-accountability-in-privatized-migration-control/A4088521496623A75C3B77E2E2CE3020?utm_campaign=shareaholic&utm_medium=copy_link&utm_source=bookmark
Transparency and accountability in the management of European borders	European Ombudsman	2021	https://europa.eu/!Jwjwj6
Search and rescue and the protection of migrant in the central Mediterranean Sea	OHCHR	2021	https://www.ohchr.org/sites/default/files/Documents/Issues/Migration/OHCHR-thematic-report-SAR-protection-at-sea.pdf
Technology on the margins: AI and global migration management from a human rights perspective	Molnar	2019	https://acrobat.adobe.com/id/urn:aaid:sc:EU:faa15660-9725-4ac1-a0fe-57e968c00591