European Sociotechnical Imaginaries of Government Technology between Value Proposition and Tangible Policymaking*

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Abstract

Government Technology (GovTech) is increasingly seen as a catalyst for digital transformation in public administration, yet its conceptual foundations remain fragmented and underexamined. This study analyzes the sociotechnical imaginaries driving European GovTech discourse by identifying key narratives influencing its definition, adoption, and policy direction. Drawing on structured document analysis of national initiatives, think tank reports, and international organizations, we apply public value theory to evaluate how GovTech is framed in terms of vision, technology, organizational design, and context. We identify two dominant imaginaries: one focused on innovation-led transformation, the other on state-driven digital sovereignty. These imaginaries are often implicit, with emphasis placed on efficiency and cost-cutting over public governance, citizen participation, and regulation. Our findings also reveal significant fragmentation in GovTech approaches across Europe. For policymakers and practitioners, the study points to critical areas for improving the design and governance of emerging GovTech ecosystems.

Keywords

GovTech, Government Technology, Public Value, Sociotechnical Imaginary.

1. Introduction

Public institutions worldwide are facing increasing challenges [1], often due to a disconnect between the policies designed for citizens and their actual experiences when engaging with governments's primary point of contact: public administration [2][3]. This growing gap between governance and the everyday lives of citizens has contributed to widespread dissatisfaction with public institutions, undermining trust and engagement.

A key driver of this dissatisfaction is the absence of modern digital solutions and citizen-friendly service offerings [4]. Many states struggle to develop digital infrastructure and services on their own and instead rely on either outdated legacy systems or external providers [5], leading to technological lock-in effects with major BigTech companies [6][7]. This dependency often limits governments' ability to innovate, adapt, and provide efficient public services, further exacerbating public frustration.

In response to these challenges, GovTech, a portmanteau of "government" and "technology", has emerged as a potential solution. GovTech promises more affordable, tailored digital services by fostering transfer innovation into public administrations by emans of small and medium-sized enterprises (SMEs) rather than relying solely on large multinational technology firms [8][9]. The concept has gained

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traction in both academic and policy circles, with increasing recognition of its role in modernizing public administration [10][11][12]. However, despite its growing significance in research and policy-making, GovTech remains underconceptualized and largely absent from broader public discourse.

Given this landscape, there is a need to critically assess the space between what GovTech can and should provide and how public debates frame its potential. To do so, we employ the concept of sociotechnical imaginaries [13][14], which allows us to examine the visions and expectations that shape GovTech discourse.

Accordingly, our research seeks to address the following question:

RQ: *Which sociotechnical imaginaries shape European GovTech discourse?*

In the following, we analyze the sociotechnical imaginaries shaping European GovTech discourse through a structured document analysis of diverse documents. Using public value theory framework, we assess how GovTech is framed in terms of vision, solution, technology provider and user, and environmental factors.

Our findings show that GovTech imaginaries remain largely implicit, with efficiency and cost reduction dominating the discourse, while public governance and citizen engagement receive less attention. We identify two dominant imaginaries, one emphasizing market-driven innovation, the other state-led digital sovereignty, highlighting the fragmentation of GovTech approaches across Europe.

2. Theoretical Research Background

2.1. Government Technology

Government Technology (GovTech) has become an increasingly significant topic across economic, policy, and academic discussions, reflecting its growing role in shaping digital governance and public service modernization [8][15]. As governments harness technology to improve efficiency, accessibility, and citizen engagement, the concept of GovTech has evolved to encompass various perspectives.

One prominent perspective comes from Bharosa, who defines GovTech in terms of its potential to enhance government operations while also highlighting inherent risks, such as the ”Trojan horse” challenge, where external solutions introduce vulnerabilities or dependencies that compromise autonomy [8]. This concern is particularly relevant in discussions about digital sovereignty, procurement practices, and the long-term viability of digital public infrastructure [16][5].

A different perspective is offered by the European Union, which has framed GovTech within its legislative agenda, particularly through the Interoperable Europe Act. This regulation, in conjunction with e.g. the Digital Markets Act and Artificial Intelligence Act, seeks to standardize and regulate the role of technology in public administration across EU member states [10]. The EU's approach emphasizes interoperability, fairness in digital markets, and responsible AI deployment, reinforcing GovTech's role in ensuring that digital transformation aligns with democratic values and regulatory oversight.

The economic potential of GovTech has also been recognized at a global level. The World Economic Forum (WEF) estimates the market impact of GovTech at approximately 9.8 trillion euros, highlighting its capacity to drive significant economic growth and innovation [17][18]. This immense financial potential has spurred the establishment of specialized agencies and institutions dedicated to GovTech, such as those documented in reports by Mergel et al. [11] and Kuziemski et al. [12] for the European Commission's Joint Research Center (JRC), like GovTech Polska, GovTech Campus (Germany), or GovTech Lab Lithuania.

Empirical studies, however, suggest that GovTech is often leveraged not for public sector digitization but as a tool for economic development policy. According to Niehaves and Klassen's JRC report [15], many GovTech initiatives prioritize competitiveness and digital industry growth over direct improvements in public administration services. This dual function of GovTech, both as a means for digital government transformation and as an economic policy instrument, raises important questions about its true role and beneficiaries, as noted by Niehaves and Klassen [15].

2.2. Public Value Theory

To analyze the value provided by GovTech initiatives, or at least the value propositions and objectives associated with them within the European GovTech discourse, we employ the lens of Public Value Theory. Public Value Theory, as conceptualized by Moore [19], posits that the ultimate aim of government initiatives is to create social value for citizens rather than to focus solely on financial efficiency and private interests logics.

Historically, IT adoption in government was primarily driven by a 'efficiency imperative', where digital technologies were seen as tools to streamline operations, reduce costs and improve productivity [20][21][22]. However, this focus has shifted, particularly with the emergence of new technologies such as artificial intelligence (AI). AI, in particular, has been argued to have a more profound impact on public value creation than traditional e-government tools [23], with its distinct potential for public value co-creation through collaborative interactions between governments and citizens [24][25].

To analyze the diverse ways in which value is associated with GovTech, various taxonomies [26] and frameworks of public value (in e-government) can be applied [27][21][28]. Rose et al. [21] propose four value positions that capture the potential value outcomes of e-government initiatives, which can be adapted to analyze GovTech's role in public service delivery. These positions — Professional Ideal, Efficiency Ideal, Service Ideal, and Engagement Ideal — represent different ways in which governments seek to create value for citizens through technology.

Table 1 summarizes these four value positions, each of which emphasizes different aspects of public administration, ranging from efficiency and accountability to citizen engagement and democratic deliberation. The integration of GovTech into public administration raises important questions about which of these value positions is most emphasized in current discourse and how these priorities align with the broader goals of public administration in democratic societies.

Table 1
Four value positions for e-Government from Rose et al. [21]

	Public Administration Tradition	**Representative Values**
Professional Ideal	Providing an independent, robust and consistent administration, governed by a rule system based on law, resulting in the public record, which is the basis for accountability	Durability, equity, legality, and accountability
Efficiency Ideal	Providing lean and efficient administration, which minimises waste of public resources gathered from taxpayers	Value for money, cost reduction, productivity, and performance
Service Ideal	Maximising the utility of government to civil society by providing services directed towards the public good	Public service, citizen centricity, service level, and quality
Engagement Ideal	Engaging with civil society to facilitate policy development in accordance with liberal democratic principles; articulating the public good	Democracy, deliberation, and participation

In addition to identifying these four value positions within the GovTech discourse, it is essential to understand the relationships between them. Rose et al. [21] differentiate between two main types (and various subcategories) of relationships: congruent and divergent relationships, highlighting the complex dynamics at play in the adoption and implementation of GovTech solutions.

Thus, Public Value Theory provides a structured framework for assessing the objectives and outcomes of GovTech initiatives. Since GovTech is embedded in a dynamic landscape of expectations, aspirations, and normative visions of technological progress [8], these visions influence not only how GovTech is implemented but also how it is justified and legitimized in governance discourses. Consequently, we structure our analysis of sociotechnical imaginaries within the European GovTech discourse [13][29] by examining the associated public value propositions that underlie and shape the imaginaries.

2.3. Sociotechnical Imaginaries

GovTechs meaning and impact remain subject to various forces that shape interpretation. They stem from differing political, economic, and public-sector perspectives, each pulling in distinct directions regarding the value that GovTech is said to create. As a result, GovTech operates within a complex sociotechnical environment, where technological innovation is deeply intertwined with governance structures, economic agendas, and public value considerations [8].

It is insufficient to merely analyze the public and economic debates surrounding GovTech. Instead, we aim to explore the idealized visions of value that GovTech is claimed to provide [14]. These visions are often shaped by aspirations, expectations, and collective beliefs about the role of technology in government, rather than purely empirical assessments of its actual impact.

To frame our analysis, we adopt Jasanoff and Kim's concept of sociotechnical imaginaries [13][29]. Originally developed in the context of energy markets, sociotechnical imaginaries offer a theoretical perspective that is well suited to analyzing how technology evolves within public institutions. Unlike other conceptual tools, sociotechnical imaginaries focus on the collective visions that shape action and governance debates around emerging technologies [30]. This makes them especially relevant for understanding how GovTech is envisioned, justified, and implemented in different governance contexts.

In this paper, we follow Levenda et al.'s approach [31], which highlights the importance of distinguishing between regional sociotechnical imaginaries. This distinction is particularly relevant for GovTech, as previous studies have shown that national GovTech ecosystems are already forming in various countries [32][9]. However, a cohesive European GovTech ecosystem remains underdeveloped, despite increasing transnational policy discussions on digital governance [15]. This gap underscores the need to examine the interplay between national and European-level imaginaries in shaping the future of GovTech.

3. Methodology

3.1. Data Collection

To construct a dataset reflecting the landscape of European GovTech, we systematically gathered data from national GovTech initiatives, hubs, or equivalent institutions across all EU member states. Where such entities were absent, we substituted data with official documents and policy statements available through government websites. This data collection process was built upon Kuziemski et al.'s initial analysis of European GovTech ecosystems [12], ensuring continuity and comparability across our findings. Where necessary we translated sources using DeepL. We thus followed the steps for scoping: 1. assess all national initiatives as provided by Kuziemski et al., 2. enrich data basis by searching for "GovTech OR government technology" on official website of national government, and 3. search for "GovTech OR government technology" on Google viewing up to page three of results.

Table 2
Documents per source-type

European Union Member States	Think Tanks	International Organizations
75	9	16

Recognizing the potential for political bias in national government narratives, we incorporated additional perspectives by consulting independent organizations. To this end, we selected the ten highest-ranked think tanks in Europe, as identified by the Brookings Institute [33] supplemented by further internationally relevant organizations such as the World Economic Forum or World Bank. We see the potential for adding bias to the debate through this measure, but see the need to supplement them as they are both strongly dominated by the European narratives, as well as have given way to establish the GovTech field as a whole. For this see e.g. the World Banks GTMI Data Dashboard. In total

we assessed 100 documents and links without available resources, see Table 2. The full list is available under: https://tinyurl.com/yyn4rz9k

For each source, we assessed between one and three primary documents, ensuring a diverse yet manageable dataset, counting websites with sub-links as one each. The combination of official governmental sources and independent policy analysis provides a diverse understanding of how GovTech is framed, promoted, and contested across different levels of governance and discourse.

3.2. Structured Document Analysis

Our study applies a structured document analysis of sociotechnical imaginaries within GovTech, guided by a theoretical framework rooted in public value theory [34]. This approach allows us to systematically categorize the different visions, solution types, providers and users, and environmental conditions that shape GovTech implementation and discourse.

From our initial dataset, we extracted key indicators associated with sociotechnical imaginaries [34]. However, due to practical constraints and the need for a more structured analytical lens, we refined these indicators by applying findings from Niehaves and Klassen's (2024) [15] framework reducing it to 14, see 3. This allowed us to cluster the identified sociotechnical imaginaries indicators into four primary categories:

Core Vision and Values that encompasses overarching idealized narratives that define the role of GovTech in public governance, digital transformation, and citizen participation.

Solutions covering the technological components, digital infrastructures, and interoperability mechanisms employed within GovTech ecosystems.

Technology Providers and Users analyzing structures, policies, and governance shaping GovTech adoption at both national and European levels.

Environment evaluating the broader regulatory, economic, and sociopolitical factors influencing the development and deployment of GovTech solutions.

Table 3
Clusters and indicators for analysis

Cluster	Indicator
Vision	Professional ideal Efficiency ideal Service ideal Engagement ideal
Technology	Public administration digitalization solutions Research-driven digital innovation Client-/citizen-facing services
Organization	General providers of government technology solutions Small- and medium-sized enterprises with public sector offerings Startups supplying mainly to the public sector
Environment	Digital market creation and development policy Public procurement policy Government-led market promotion Export supporting policies

4. Results

4.1. Core Visions and Values in GovTech

Based on Rose et al.'s [21] public value framework, the key values identified across European contexts are categorized under the four ideals of professional, efficiency, service, and engagement.

The **Professional Ideal** is strongly present in the GovTech discourse across Europe, where there is a clear emphasis on improving the quality, reliability, and accountability of public administration by leveraging government technology. The core vision is to enable government institutions to operate with high standards of professionalism, rooted in legal and institutional frameworks that guarantee fairness and consistency in service delivery [35][36]. Additionally, digital sovereignty has emerged within this context, reinforcing the Professional Ideal by emphasizing (European) governmental control over digital infrastructure. Ensuring that European institutions maintain strategic oversight over digital systems aligns with the principles of professionalism by safeguarding institutional integrity, reducing dependency on external actors, and enhancing long-term public trust [15].

The **Efficiency Ideal** is still the most dominant theme in various national GovTech discourses. The use of technology to streamline government operations, reduce operational costs, and maximize resource allocation is a key value across many countries [37][35][38][39][36][40].

The **Service Ideal** reflects the vision of a public sector that is oriented around the needs of citizens, ensuring that services are accessible, high-quality, and responsive to the demands of the public. Key values such as citizen-centricity, universal accessibility, and quality of service are prominent[35][39].

The **Engagement Ideal** underscores the role of GovTech in fostering democratic participation, dialogue, and collaboration between citizens and the state. This ideal stresses the importance of government technology not only as a tool for efficiency but as a means to enhance civic involvement in public decision-making [25]. Countries like France [38] and Greece [40] emphasize the importance of involving citizens in the policy-making process and creating opportunities for collaborative governance through digital platforms.

4.2. Solution Related Dimensions

The technological dimensions of GovTech can be categorized based on solutions offered to public administrations. While some solutions focus on basic digitization of government services [35], others push the boundaries of technological innovation through advanced research-driven applications and citizen-facing services [41]. Based on our analysis, GovTech solutions can be classified into three primary categories:

Public Administration Digitization Solutions including all forms of technologies aimed at digitizing public administrations functions, such as automation, e-government portals, and interoperability frameworks. Estonia's model serves as a well-known example of such efforts [35][37].

Research-Driven Digital Innovation emerging from deep R&D in fields such as artificial intelligence, machine learning, and cybersecurity. These innovations are often introduced through public-private partnerships, pilot projects, or experimental regulatory frameworks that allow for safe, controlled implementation in public sector contexts [12].

Client-/Citizen-Facing Services following technologies designed for direct citizen interaction, such as digital healthcare platforms, smart city applications, and chatbots for public service inquiries. These solutions are intended to increase accessibility, efficiency, and personalization in government services, thereby enhancing citizen satisfaction and engagement [42][8][25].

4.3. Provider and User Related Dimensions

The organizational factors influencing GovTech adoption can be examined from two primary perspectives: **The Supply-Side** – The companies and organizations that develop GovTech solutions, and **The Buy-Side** – The public organizations that procure and implement these technologies. Procurement processes are particularly significant within the European GovTech discourse, as they directly reflect and operationalize the sociotechnical imaginaries embedded within the procuring institutions.

Despite increasing relevance of (GovTech) procurement policies, discourse on buy-side dynamics of GovTech remains underdeveloped. Most studies treat public institutions as passive buyers and users of

digital solutions, rather than active co-shapers of the GovTech ecosystem. Only a few sources, such as Mergel et al.'s analysis [11], specifically address public procurement for innovation [16].

Given the absence of a clear, unified definition of GovTech providers, the term is often used implicitly rather than explicitly [15]. However, we identify three primary understandings of GovTech providers based on how they position themselves in the market and their relationship with the public sector:

General Providers of Government Technology Solutions – this broadest definition includes any company supplying technology to the public sector, regardless of size, specialization, or market focus. These firms range from large IT service providers to specialized government software firms [41][37].

Small- and Medium-Sized Enterprises with Public Sector Offerings – Some definitions restrict GovTech providers to SMEs that specifically develop solutions for public sector clients. This framing aligns with the EU's policy goal [10] of diversifying public procurement beyond large multinational tech firms, fostering a more competitive GovTech ecosystem [11][12][43].

Startups Supplying Primarily to the Public Sector – A more specific categorization focuses on startups that develop explicitly targeted at public administrations needs. According to the European Startup Monitor, this segment is gaining prominence, with increasing numbers of GovTech-focused startups entering the market [15][44][26].

4.4. Environment Related Dimensions

The environmental context in which GovTech operates is shaped by market forces and regulatory frameworks. As with many emerging digital markets, the successful development of GovTech ecosystems requires a balance between enabling innovation and implementing appropriate regulatory mechanisms that safeguard public value provision [10][8].

To analyze the environmental factors influencing GovTech, we draw upon Niehaves et al.'s research [15], which provides a relevant analytical framework due to the lack of pre-existing empirical data on singular national GovTech ecosystems [45][15]. Our analysis identifies the following five environmental factors shaping the evolution of GovTech across European contexts:

Digital Market Creation and Development Policy – Several EU member states have adopted targeted policies aimed at fostering GovTech market ecosystems, either through direct government interventions, public funding schemes, or the establishment of specialized GovTech hubs [46][15]. These efforts are driven by the recognition that GovTech markets do not naturally emerge in the same way as traditional technology sectors.

Public Procurement Policies – An enabler of GovTech development and scaling is the structuring of public procurement processes to favor SMEs. Initiatives such as the Interoperable Europe Act emphasize the need for open, transparent, and innovation-friendly procurement policies to allow GovTech solutions to scale within the public sector [47][10][48].

Government-Led Market Promotion – Many semi-public organizations and governmental agencies play a role in marketing GovTech and framing digital transformation as a mission-driven endeavor [17][38]. By fostering awareness and legitimacy, these institutions serve as intermediaries [15]. The framing of GovTech within the broader "mission-driven public sector digitalization" narrative often serves to justify public investments and the development strategies.

Export-Supporting Policies – Some countries, particularly Estonia, have pursued GovTech export strategies, leveraging their domestic digital governance expertise to position themselves as leaders in global public sector technology solutions [35]. As such, the intersection of industrial policy and digital government strategy plays a significant role in determining how GovTech ecosystems evolve within and beyond the EU [15].

Public-Private Partnership Professionalization – As GovTech increasingly requires collaborative models between governments and private technology firms, the professionalization of public-private partnerships has emerged as a key factor in ensuring effective implementation and governance [49]. Establishing clear contracting frameworks, risk-sharing mechanisms, and accountability structures has been a central focus of recent policy efforts, particularly in relation to AI governance, cloud infrastructure, and cross-border interoperability initiatives.

4.5. Overarching Sociotechnical Imaginaries

Our analysis reveals variation in GovTech understanding across contexts. While discussion frequently emphasizes technological solutions and organizational structures, environmental factors receive considerably less attention. These factors are often treated as external constraints, rather than integral components of GovTech development [7], with only minor calls to action directed toward governments to proactively shape enabling conditions for GovTech ecosystems [50].

Rather than a single unified understanding of GovTech, we observe a matrix-like structure, where GovTech providers interact with GovTech solution users. How Govtech is used and what it means, strongly depends on the narrative forced by the speaker. However, regulatory and infrastructural dimensions remain ill-defined, often being used implicitly in policy discussions [15]. From this, we identify two overarching sociotechnical imaginaries, each reflecting a simplified narrative about what GovTech is, who drives it, and how it should be developed:

STI-1 The Innovation-Driven GovTech Imaginary: This sociotechnical imaginary envisions GovTech as a catalyst for digital innovation, with startups and SMEs positioned as key drivers of public-sector modernization [41]. The narrative surrounding this imaginary emphasizes: market-led digital transformation; public sector as a facilitator, not a leader; cross-sectoral collaboration; and scalability and exportability. This imaginary is particularly prominent in countries like France, Netherlands, and the UK, where GovTech accelerators, innovation hubs, and startup-driven ecosystems have gained momentum [35][46][15]. Best visible as from the Netherlands: "*GovTech is the application of new technologies and business models - primarily driven by partnerships with startups and scaleups - to improve the design and delivery of public services*" [43][48].

STI-2 The State-Directed Digital Sovereignty Imaginary: In contrast to the innovation-driven imaginary, this sociotechnical imaginary portrays GovTech as a strategic tool for national and European digital sovereignty. It emphasizes: government-led digital infrastructure; reduced dependence on BigTech; and interoperability and standardization. This imaginary aligns with the European Commission's approach, as seen in the Interoperable Europe Act [10]. Countries such as Germany and Austria have embraced this model, advocating for strong regulatory oversight and state-led digital transformation [41][11]. As exemplarily noted by the German GovTech Campus in cooperation with the World Economic Forum: "*GovTech is not a single technology. It is the application of a suite of technological tools to address public challenges. It encompasses digital public infrastructure – such as payments – and government service delivery – whether in healthcare, welfare, education or in times of national and international crisis*" [17].

5. Discussion

Our analysis demonstrates that the visions and values associated with GovTech broadly encompass all four public value dimensions—the professional ideal, efficiency ideal, service ideal, and engagement ideal [21]. However, we find that efficiency and cost reduction are the most frequently emphasized objectives. GovTech is primarily framed as a tool for optimizing administrative processes, reducing operational costs, and improving government efficiency through technological innovation [8]. While these priorities align with broader public sector modernization efforts, they may also overshadow other value dimensions, such as citizen-centricity and professional integrity in governance. Professional integrity, in this context, refers to bureaucracy as embodying unmatched objectivity and a rule-based system grounded in law [21].

Although the literature acknowledges the complex relationships between different public values, including congruent and divergent relationships [21], the current GovTech discourse does not fully reflect this debate. In particular, discussions surrounding GovTech solutions rarely engage with questions of value prioritization or potential trade-offs between competing values. For instance, while GovTech is often framed as enhancing efficiency, this objective may sometimes conflict with the professional ideal (which emphasizes institutional robustness and legal accountability) or the service ideal (which prioritizes accessibility and citizen-centric service quality). The lack of explicit discourse on such

trade-offs suggests a need for more critical engagement with the normative dimensions of GovTech implementation.

Furthermore, while we observe patterns in sociotechnical GovTech imaginaries [29], discourse remains fragmented and utopian visions are inconsistent. Different narratives coexist, ranging from innovation-driven digital markets [35] to state-directed sovereignty models [41], yet there is no singular, cohesive vision guiding GovTech's long-term trajectory. This ambiguity reflects the early-stage development of GovTech ecosystems, where multiple actors are still negotiating their roles and responsibilities [11][32]. While implicit visions and narratives exist, they are rarely formalized or explicitly acknowledged. This implicit framing allows stakeholders to keep potential policy interventions vague, avoiding clear commitments regarding GovTech's long-term regulatory and infrastructural requirements. As a result, discussions on GovTech governance, procurement frameworks, and regulatory oversight remain underdeveloped, leaving room for interpretative flexibility but also policy inconsistency.

Our findings contribute to the theoretical understanding of GovTech imaginaries by demonstrating that sociotechnical imaginaries are often latent rather than explicitly articulated [29]. , allowing for multiple interpretations and strategic ambiguity. This finding suggests that future GovTech research should move beyond merely identifying discursive patterns and instead analyze the mechanisms through which imaginaries become institutionalized in policy and governance frameworks. Moreover, our study highlights the gap between theoretical discussions on public values and real-world GovTech discourse. While academic literature recognizes the interdependencies and tensions between different public value ideals, these debates are not yet fully reflected in GovTech narratives.

For practitioners and policymakers, our findings emphasize several areas for improvement in the design and governance of GovTech ecosystems: 1. clarifying GovTech imaginaries – policymakers should explicitly define the role of GovTech within public administration, distinguishing between market-driven, innovation-focused approaches and state-directed digital sovereignty strategies. Without clear vision alignment, policy fragmentation may hinder scalability and interoperability in GovTech adoption, 2. developing a public value framework for GovTech – current GovTech policies lack explicit engagement with public value trade-offs. Governments should integrate value-driven decision-making frameworks when designing procurement strategies, funding mechanisms, and regulatory structures to ensure GovTech solutions align with broader democratic governance principles, 3. enhancing GovTech procurement structures – given that procurement is a key bottleneck in GovTech adoption, structured mechanisms—such as innovation-friendly procurement models, cross-border regulatory alignment, and SME-focused funding programs—should be developed to diversify GovTech ecosystems and reduce reliance on dominant IT providers, and 4. bridging the regulatory and market divide – the regulatory environment for GovTech remains underdeveloped, with digital infrastructure and interoperability frameworks often treated as secondary concerns. Policymakers might prioritize regulatory road maps balancing market-driven innovation with strong state oversight to ensure secure, ethical, and scalable GovTech solutions.

6. Conclusion

This study examined the sociotechnical imaginaries shaping GovTech in Europe [8][13], analyzing how GovTech is framed in terms of vision, solution, technology provider and user, and environmental factors. By conducting a structured document analysis of national initiatives, think tank perspectives, and international organizations, we identified key trends, revealing significant variation in its interpretation across contexts.

A major finding is the implicit nature of sociotechnical imaginaries in GovTech discourse. While visions are present, they are often vaguely articulated, leaving room for multiple interpretations and allowing for policy flexibility but also inconsistency [15]. Additionally, the debate surrounding GovTech does not fully reflect the theoretical discussions in public value research, which recognize tensions and trade-offs between different governance ideals, such as efficiency, professionalism, service orientation, and democratic engagement [21].

While our study provides insights into the nature of GovTech imaginaries within the European discourse, it is beset with limitations. Analysis is constrained by availability of documents, which may not capture the full range of perspectives. Additionally, as GovTech remains a rapidly developing field, its discourse is subject to continuous evolution, meaning that findings presented here may require periodic reassessment as new policies, regulations, and market dynamics emerge [10].

Future research should build upon these findings by conducting empirical case studies of specific national GovTech ecosystems, examining how different countries implement and adapt GovTech policies regarding socioeconomic, sociotechnical and cultural aspects of government innovation. Further investigation into the institutionalization of sociotechnical imaginaries would also be beneficial, particularly in understanding how certain narratives become dominant in policy-making and what role governments, public administrations, private companies, and international organizations play in shaping them. Additionally, given the increasing reliance on public-private partnerships in GovTech [49], future research should explore the long-term implications of private sector involvement in public-sector digital transformation, particularly concerning public governance, procurement practices, and regulatory capture risks.

Declaration on Generative AI

During the preparation of this work, the authors used Grammarly, DeepL, and ChatGPT in order to: Grammar and spelling check, Paraphrase and reword. After using this service, the authors reviewed and edited the content as needed and take full responsibility for the publication's content.

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