

# Move Fast and Break Things? Barriers to GovTech Procurement in the United Kingdom

Nathan Davies <sup>a\*</sup>, Keegan McBride <sup>b</sup>, Moritz Kleinaltenkamp <sup>c</sup>

<sup>a</sup> Oxford Internet Institute, University of Oxford, Oxford, United Kingdom, [nathan.davies@oii.ox.ac.uk](mailto:nathan.davies@oii.ox.ac.uk), <https://orcid.org/0009-0000-8940-4471>.

<sup>b</sup> Oxford Internet Institute, University of Oxford, Oxford, United Kingdom, <https://orcid.org/0000-0002-9081-7529>.

<sup>c</sup> NEOMA Business School, Reims, France, <https://orcid.org/0000-0002-6184-1140>.

Submitted: 31 January 2025, Revised: 26 March 2025, Accepted: 21 April 2025, Published: 20 May 2025

**Abstract.** Governments depend on procurement to help them achieve their digital transformation goals. Historically, public sector technology contracts have overwhelmingly flowed to large technology firms. However, governments have begun to explore opening up the procurement process to GovTech startups to drive innovation. Yet, this policy goal has proved challenging to implement. This paper explores why this is the case by presenting the case study of GovTech startup procurement in the United Kingdom. By focusing on the role of temporal dynamics in shaping procurement processes and drawing on 32 primary interviews with stakeholders across the UK GovTech ecosystem and supplementary archival data, this study identifies how the financial, staffing, and strategic processes within public sector bureaucracies enact an erratic and unpredictable procurement rhythm. It further demonstrates the challenges startups face when encountering this rhythm, struggling to predict or synchronise with it. Startups who are successful face new challenges from managing multiple rhythms. While conventional discourse often frames this procurement challenge as a mismatch between the "slow" public sector and "fast" startups, this paper instead reveals the complex and contradictory rhythms that frustrate GovTech procurement.

**Keywords.** GovTech, Public Procurement, Temporality, Digital Government, Startups.  
**Research paper, DOI:** <https://doi.org/10.59490/dgo.2025.972>

## 1. Introduction

Policymakers understand that digitalisation is a key component of building a strong and effective public sector. As a result, governments around the world are racing to digitalise their often crumbling, outdated, and legacy information systems. Getting this right requires key decision-makers to navigate an increasingly complex environment defined by rapid technological innovation and change. As most governments are likely to lack the necessary internal capabilities to build and innovate state-of-the-art technological solutions, procurement serves as a key mechanism of digitalisation. While many governments have experience procuring technology from large "primes" (Margetts & Dunleavy, 2024), there is a growing interest in opening the procurement process to the broader "GovTech" ecosystem. As defined in the European Interoperability Act, GovTech "means technology-based cooperation between public and private sector actors supporting public sector digital transformation" (EU, 2024, Article 2). The same act provides specific provisions dedicated to "facilitating the development of an open European GovTech ecosystem, including cooperation with SMEs, research and educational institutions, and startups" (EU, 2024, Article 11). The potential, according to a recent World Economic Forum article, is large, with the GovTech industry representing a "\$9.8 Trillion Opportunity" (World Economic Forum, 2025). Yet, despite the

importance ascribed to GovTech and its potential to drive governmental innovation, governments face challenges in realising this potential (Bharosa & Janowski, 2024). In particular, they have struggled to maximise procurement from small GovTech providers (Bharosa, 2022; Filer, 2019; Mergel et al., 2022; Taylor & Viner, 2021).

This dichotomy represents a clear opportunity for academic research. Interestingly, despite recommendations to focus on the role of procurement in GovTech innovation (Bharosa, 2022; Hoekstra et al., 2023), there is still a general lack of empirical studies exploring how procurement practices are preventing GovTech suppliers from working with the public sector. Although GovTech innovation does not necessitate a specific type of supplier, startups, as a specific type of small and medium-sized enterprise (SME), are often the particular focus of attention. Unlike larger and more established technology primes, GovTech startups are viewed as more innovative due to their ability to work in an agile fashion, rapid prototyping, and lower costs (OECD, 2024). Notwithstanding some vital public policy reports (Filer, 2018, 2019), and some pioneering early studies (De Coninck et al., 2018; Hoekstra et al., 2023), more empirical work is needed to understand how GovTech startups interact with other suppliers, investors, buyers, and intermediaries in governmental procurement processes.

This paper represents an initial attempt at providing empirical evidence on the barriers that impact the involvement of GovTech startups and SMEs in governmental procurement processes. To do this, the paper focuses on a single case study: the United Kingdom's GovTech ecosystem. The UK case is interesting in that the country has long understood the importance of procurement for digitalisation and it has faced several scandals involving procurements from large technology firms. However, despite its pronouncements to increase procurement from GovTech startups and SMEs, it has had limited success to date (British Chamber of Commerce, 2024; Cabinet Office, 2020).

In the UK, efforts at fostering innovation through public sector digitalisation have often been criticised for being too slow. Increased collaboration with startups is presented as having the ability to help the public sector speed up. This context was well articulated during a 2017 meeting at the House of Lords Select Committee on Artificial Intelligence, when Matt Hancock—then Secretary of State for Digital, Culture, Media and Sport—was questioned on the NHS's "very slow" record of innovation and the "GovTech Catalyst" scheme, a programme designed to harness startup innovation to solve challenges across government. Hancock responded, "Most of GovTech is about procurement [...] Getting procurement rules right is one of the most important parts of driving improvements in technology through government" (House of Lords, 2017). However, while GovTech startups may move fast, the assumed slowness of government processes is often seen as a fundamental barrier to increasing procurement from startups, with time-consuming procedures and slow sales cycles. In surveys of UK and US public-sector-facing startups, 61% of respondents identified procurement as their most significant barrier, calling out its "time-consuming" procedures (Taylor & Viner, 2021, p. 25) and the time taken to secure government contracts (Orazem et al., 2017). In a sector where "innovation" equals "competitive advantage", companies whose products "have a nine-month 'shelf life' before the competition catches up [...] fear their technology will be obsolete" by the time the government resolves its decision (ibid.). The notion of "speed", with government assumed to be "slow", and startups "fast", can be observed across government policy documents, academic literature, and the broader grey literature. This appears to suggest the importance of temporal dynamics in governmental procurement processes. Yet, these "mismatched time frames" (Filer, 2019) remain un-theorised and empirically untested in Digital Government and Procurement scholarship. Thus, this paper asks the question: How is public procurement from GovTech startups complicated by temporal dynamics? While procurement challenges relating to time (e.g. payment timelines) have been noted in previous scholarship (Loader, 2013), a more comprehensive investigation of temporal dynamics leveraging more recent advances from wider management research has not yet been conducted. Such research emphasises that surface-level issues such as slow processes or payment timelines may stem from underlying dynamics in the (mis)alignment of rhythms of organisational processes.

Methodologically, the paper relies on evidence gathered from 32 primary interviews conducted with multiple stakeholder groups across the UK, as well as supplementary archival documents. Drawing on this empirical material, the research explores the barriers that are impeding the UK's efforts to procure from GovTech startups. As a result of this research, this paper makes several contributions. It addresses the need for research on public procurement barriers to GovTech start-ups and provides empirical evidence to show that temporal dynamics play an important role. Examining these temporal dynamics in depth, the paper offers novel theoretical contributions that show how Public Sector Buyers' (PSBs) organisational processes enact an erratic and unpredictable procurement rhythm that is both too slow and too rushed for startup suppliers to engage with effectively. Startup suppliers encountering this procurement rhythm face a sequence of challenges – predicting, synchronising, and managing the rhythms of multiple internal and external processes. Thus, the paper challenges the dominant, simplified understanding that GovTech procurement issues can be ascribed to a simple clash of 'slow' bureaucracies and 'fast' startups, pointing instead to the complex temporality that arises when different organisational forms interact. Overall, the findings broaden our understanding of procurement barriers, contextualising systemic constraints and conflicting policy objectives as part of organisational processes and conflicting rhythms.

---

## 2. Theoretical Background

In an attempt to overcome the failings that accompanied earlier New Public Management approaches to digital transformation, many governments have embarked on a “comprehensive public administration reform agenda” (Boots et al., 2024, p. 300). This transformation has been a gradual process, manifesting in several waves (Dunleavy & Margetts, 2006b, 2006a; Margetts & Dunleavy, 2013, 2024). The most recent wave has been associated with calls for improved state capacity, particularly when it comes to digital technologies and data analytic capabilities (Mazzucato & Kattel, 2020). As the public sector is still often believed to have fallen behind technologically (Clarke, 2020; Clarke & Margetts, 2014; Dunleavy & Margetts, 2006a), governments have sought to modernise their approach to IT procurement: making contracts smaller and shorter (particularly for software), building more in-house expertise, buying from varied supplier sizes, and choosing open-source solutions (Boots et al., 2024). Though procurement plays a critical role in most governmental digital transformation initiatives, and there is substantial research on the procurement of technology and procurement of research, its role in Digital Government is often surprisingly “overlooked” (Boots et al., 2024, p. 297). This is unfortunate, as the history of digital transformation can only be understood in relation to procurement practices. However, recent research is now beginning to pay specific attention to how governments can better procure important emerging technologies, such as Cloud Computing (Jones, 2015) or Artificial Intelligence (McBride et al., 2021; Sanchez-Graells, 2024), as well as the role of new technologies in E-Procurement processes (Chen et al., 2021).

Focus has also begun to move beyond exploring the procurement of specific technologies necessary for digitalisation, looking into the broader procurement ecosystem and how the procurement process itself could be innovated upon (Boots et al., 2024; House of Lords Defence Committee, 2023). Of particular note, many policymakers have started to look to ‘GovTech’ as a means of improving their digital capabilities. It is argued that collaborating and procuring from GovTech startups would help to reduce dependence on legacy IT suppliers, support local firms to stimulate growth, and increase innovation in the public sector (Bharosa, 2022). Governments worldwide have implemented new measures to foster GovTech ecosystems that they can procure from (Hoekstra et al., 2022). However, progress has been slower and patchier than expected (Taylor & Viner, 2021), with procurement from startups hindered by barriers (Bharosa, 2022; Filer, 2019; Hoekstra et al., 2023). Existing work into why this is the case has predominantly focused on the technical barriers—such as interoperability and data security—inhibiting procurement from startups. These explanations are insufficient (Barcevičius et al., 2019). However, one potentially interesting dimension of barriers, which remains underexplored in the literature, is temporality. In their exploratory case study of GovTech ecosystems in the Netherlands and Lithuania, Hoekstra et al. reference the potential role of temporal dynamics as one of the barriers, highlighting that the pace of the private sector is perceived as “too slow for a startup or scale-up” (Hoekstra et al., 2023, p. 283). This barrier merits a more systematic exploration.

While theories of time and temporality are often discussed in management research, there is significantly less usage of this work in digital government studies. In management research, temporality continues to become a well-established “research lens” (D. G. Ancona et al., 2001; Blagoev et al., 2023), as more and more management scholars have found their focal phenomena – such as organisational change, conflict, identity, and strategy – to be underpinned by actors’ subjective experience of speeds, rhythms, and time horizons. Digital government research can now leverage and apply these theoretical advancements. For scholars of digital government, several temporal contributions are especially relevant. First, cultural practices within organisations shape how individuals experience and conceptualise time (Orlikowski & Yates, 2002). Second, the stories actors tell can shape temporal norms, determining if, when, and how an organisation might decide to act (Wood et al., 2021). This enables and precludes strategic possibilities (Kaplan & Orlikowski, 2013). Third, multiple rhythms and tempos exist within and across organisations (D. Ancona & Chong, 1996; Bluedorn, 2002). Fourth, when organisations with different temporal dynamics “collide”, this can cause tensions (Reinecke & Ansari, 2015). Finally, organisations can “adjust the pace or cycle of [one] activity to that of another” (D. Ancona & Chong, 1996, p. 253) as they try to synchronise to dominant cycles (Pérez-Nordtvedt et al., 2008; Sandra et al., 2023). However, synchronising to one cycle can lead to misalignment with others, creating new conflicts (Bluedorn, 2002). Given that Digital Government discourse is often framed as a way to speed up “slow bureaucratic machines” (Bharosa, 2022, p. 4), and that GovTech ecosystems involve multiple types of organisations interacting, Digital Government scholars could likely benefit from existing theoretical tools for analysing organisational rhythms, processes, and interactions.

## 3. Research Methods

### 3.1 Research Design

Following Yin’s single case-study approach, this paper looks at the UK GovTech ecosystem as the ‘unit of analysis’ (Yin, 2013, p. 31). The UK GovTech ecosystem comprises diverse stakeholders such as Public Sector Buyers (PSBs) in central government, local government, and healthcare; suppliers, including large incumbent suppliers, startups, and investors; and intermediaries, such as consultants and lawyers. Collectively, these organisations constitute an organisational field (DiMaggio & Powell, 1983), shaping institutional norms, practices, and procurement dynamics

within GovTech innovation. This ecosystem constitutes a revelatory case (Eisenhardt & Graebner, 2007) for understanding GovTech procurement dynamics for five reasons. (1) The UK is heralded as a global leader in many international digital government rankings (OECD, 2019). (2) Its public sector relies heavily on procurement (NAO, 2011, 2025); (3) but has been criticised for its reliance on large technology providers (Bracken, 2020; Greenway, 2020). (4) It has implemented a series of programmes and policy postures to promote innovation and diversity in technology procurement (e.g. GovTech Catalyst, Spark). (5) These attempts have had limited success (Science and Technology Committee - House of Commons, 2019). These factors mean that stakeholders acutely understand both the drivers and barriers to increased procurement from startups, rendering it particularly susceptible to this study.

The UK government spends an estimated £14 billion on digital programmes and technology annually (NAO, 2025). Historically, attempts at transforming UK digital government have been linked to procurement reforms, with the creation of the Government Digital Service (GDS) in 2011 linked in part to numerous expensive technology contracting failures. To counteract these failures, GDS enacted several reforms: developing spend controls and digital service standards, simplifying information classification levels, and building internal digital capabilities across government (Clarke, 2020). The following year, procurement procedures were streamlined with the introduction of G-Cloud, which enabled companies to list their offerings without a full tender or competition process (Science and Technology Committee - House of Commons, 2019, p. 51). The goal of this reform was, in part, to reduce costs and increase innovation by including more SMEs and startups. At the beginning, GDS's reforms did have success in diversifying procurement spending, with the market share of the top ten ICT suppliers falling from 53% to 39% (Kotecha & Desmond, 2017, p. 5). However, startups (as opposed to all SMEs) still only won less than 3% of government procurement spending between 2012 and 2014 (Spend Network, 2015). In 2018, a new "GovTech Catalyst" fund was created and provided £20 million to support the procurement of innovative solutions to several 'public sector challenges' from GovTech startups. However, Select Committee evidence from a roundtable of startups suggested that the programme was undermined by insufficient funding and cumbersome processes (Science and Technology Committee - House of Commons, 2019, p. 54). The new Labour government that came into power in 2024 has made reforming procurement, and increasing GovTech startup procurement in particular, an explicit policy goal.

### **3.2 Data Collection**

Collecting and engaging with archival data provided foundational context. It informed our sampling strategy and helped interpret the primary data, which consisted of 32 expert interviews conducted between May and July 2024, each lasting approximately one hour. Participants were selected using purposive sampling based on their experience in the UK GovTech ecosystem. We identified potential interviewees—across public sector organisations, startups, investment bodies, and intermediary roles—by reviewing grey literature, government websites, and relevant programme listings. Given the difficulty of accessing senior decision-makers, we also employed convenience and snowball sampling. According to the inclusion criteria, all participants had direct or indirect experience with public procurement. While we considered providing further detail on participants' roles, we avoided role-specific identifiers due to the risk of de-anonymisation in a small and interconnected ecosystem. Participants are categorised by stakeholder type, and the sample reflects a wide range of seniority and sectoral experience (see Table 1).

As the final column shows, many participants had additional experience in other stakeholder groups that informed their experiences. For example, many investors had experience in startups and many GovTech founders had experience in government. The sample likely skews towards those already interested in procurement reform and those who agreed to be interviewed may be further self-selecting, biasing towards an extreme (Collier & Mahoney, 1996). However, the research design was oriented towards an "information-oriented selection," prioritising information richness over representativeness (Flyvbjerg, 2006).

**Tab. 1 – Participant Sample**

Stakeholder Type	Stakeholder Group	# Participants currently in group	#Additional Participants with experience in group
PSB	Civil Servant	2	10
	Government Advisor	1	0
	Procurement Official	1	1
		<b>4</b>	
Mediator	E-Procurement Startup	3	0
	Lawyers	2	1
	Procurement Consultants	3	1
		<b>8</b>	
Supplier	Startup	9	6
	Digital Consultants	3	9
	Large Corporates	1	2
		<b>13</b>	
Investors		<b>7</b>	2
Experts		<b>3</b>	1
<b>TOTAL</b>		<b>32</b>	

A semi-structured interview approach was employed, with protocols tailored to each stakeholder group (see Appendix), enabling flexible responses to new information. Interviews focused on procurement experiences, challenges, and organisational processes, encouraging detailed accounts of recent cases (e.g., tendering, bidding, investing). Temporal dynamics were explored indirectly through follow-up questions when raised organically, to reduce priming and social desirability bias.

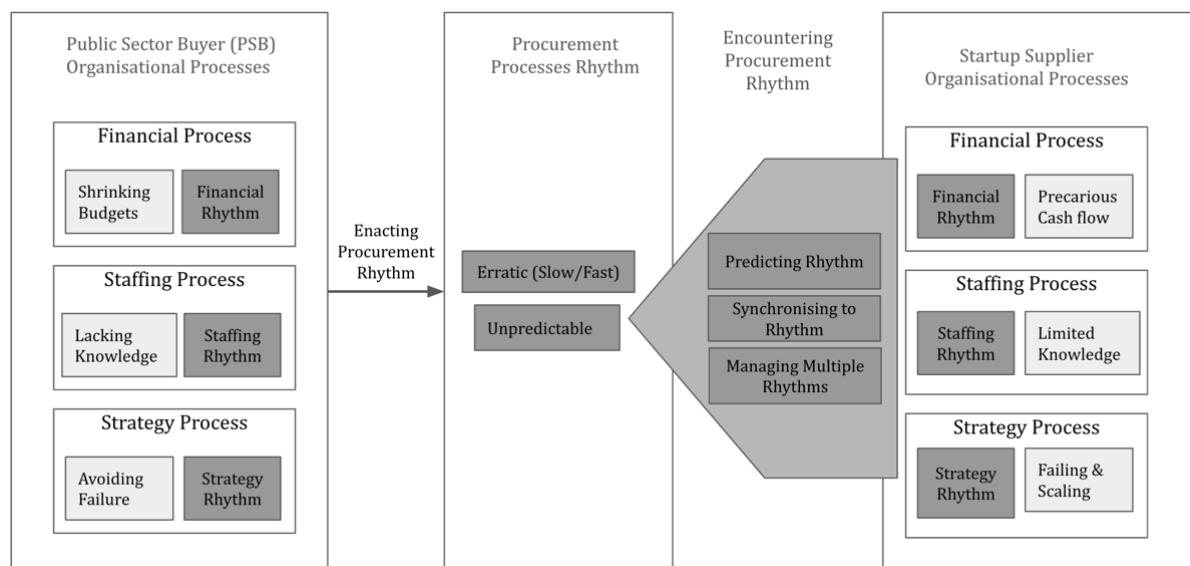
### 3.3 Data Analysis

Data analysis took place concurrently with data collection, ensuring that emerging insights informed subsequent interviews. All interviews were recorded and transcribed, and an initial round of open coding (Gioia et al., 2013) was conducted by MAXQDA. Initial coding rounds produced 658 codes, many of which related to systemic constraints in GovTech procurement for both Public Sector Buyer (PSB) and startup supplier barriers. A breakthrough moment came in one of the earliest interviews when a startup lobbyist remarked: “With procurement, the number one issue, along with speed and stuff—it’s not actually the rules that are the problem, it’s the interpretation of the rules... they interpret rules in a really conservative way and sort of fuck over startups that way” (P1). This offhand reference to “speed and stuff” might appear insignificant at first. However, as more interviews were conducted, similar temporal analysis emerged, with participants discussing the “speeds”, “rhythms”, “cadences”, and “cycles” of GovTech procurement. Recognising the significance of temporality, subsequent rounds of analysis linked first-order constructs into both systemic constraints and rhythms, together constituting organisational processes that were related to finance, staffing, or strategy (Table 2).

**Tab. 2** –Example Data Structure: PSB Organisational Processes

Category	Theme	Codes	Exemplar Quote
PSB Organisational Processes: Financial	Shrinking Budgets	Economic Climate	<i>"The macroeconomic trend of government having less and less money to go around" (P6)</i>
		Budgetary Pressures	<i>"as always, there are budgetary pressures, you want the middle manager to say, no, this is indispensable" (P17)</i>
	Financial Rhythm	Spending Reviews	<i>"[Annual] Spending Reviews [...] make it very difficult for you to commit to contracts that run beyond twelve months" (P7)</i>
		Financial Year	<i>"It's to do with budget allocations in a year. Departments are held accountable for going over budgets, but they're also held accountable for going under budget. So as you get towards the end of the financial year there's lots of scrapping around" (P8)</i>
PSB Organisational Processes: Staffing	Lacking Knowledge	Information Asymmetry	<i>"Not knowing what's out there in the market" (P4)</i>
		Technology Knowledge Gaps	<i>"Technology feels like a bit of an outlier" (P7)</i>
		Ignorant of Startups	<i>"So, in terms of a lack of understanding or empathy, I think I think there is that barrier there; to be honest, a lot of civil servants have only been in the civil service. They've never seen it from the startup perspective" (P26)</i>
	Staffing Rhythm	Churn	<i>"Churn happens because the mechanics of the system aren't set up to allow continuity of longer than a year" (P5)</i>
		Losing Institutional Knowledge	<i>"You've just got to know startups, and now you're gone" (P3)</i>
PSB Organisational Processes: Strategy	Avoiding Failure	Bigger as Safer	<i>"Nobody is gonna give you a prize for excluding G4S" (P24)</i>
		Fearing legal challenge	<i>"So, all these things are driven by, if you like risk that arrives from the rights of any supplier to claim that public sector buying decision over 140 grand has been distorted in some way." (P12)</i>
		Avoiding Media	<i>"If you waste a bit of money in failure, you will have to explain that to the public. If you wasted a lot of many on shit programs, that slow shitness doesn't get in the news" (P16)</i>
	Strategy Rhythm	Misaligned Incentives	<i>"It's not that the individuals are shit but they're not incentivised to...do anything better. Their incentive is to find something safe" (P5).</i>
		Short-termism	<i>"I don't commit to a very long procurement" (P27)</i>
		Disjointedness	<i>"Current procurement processes are like a poor relay race" (P18)</i>

Subsequent rounds of axial coding (Strauss & Corbin, 1990) identified the processes connecting these categories, surfacing how PSB organisational processes enacted the procurement process rhythm and how startup organisational processes determined how they encountered this rhythm (Figure 1). This allowed us to connect otherwise distinct systemic constraints, verifying that temporal dynamics were an important explanatory factor.



**Fig. 1** – Data Structure of Axial Coding Categories and Themes

## 4. Results

From the interviews, participants with experience in both PSBs and startups described their organisation's systemic constraints that prevented increased procurement from startups. In both types of organisations, participants described constraints relating to financing, staffing, and strategic goals. Our analysis helps explain these experienced procurement challenges by pointing to the temporality of their underlying organisational processes. As the following results section will demonstrate, throughout each of these processes, distinct rhythms compound and exacerbate systemic constraints in GovTech procurement.

### 4.1 Organisational Processes of Public Sector Buyers (PSBs)

**Financial Processes:** Participants discussed the challenges of limited and often decreasing budgets (P5, 6, 9, 13, 17, 25). Limited budgets encourage buyers to focus more on cost and less on innovation. Across the public sector, there is *"the macroeconomic trend of government having less and less money to go around"* (P6), creating *"budgetary pressures"* (P17). These constraints are acutely felt by local government (P6, 9, 13). Two interviewees highlighted the trend of many councils declaring bankruptcy (P6, 25), despite the *"risk-averse"* and *"tightly controlling"* policies of procurement officials (P25). Other participants challenged the public narrative of shrinking budgets, offering examples of considerable funding that was allocated to local government. However, in these examples, the funding either had to be returned to the central government when it expired, or startups were late to hear about it (P9, 20).

Temporal dynamics help explain these financial processes. Across government, the financial rhythms of budgets exacerbate challenges for GovTech procurement. Many civil servants raised that the combination of Treasury Accounting and the recent succession of annual spending reviews led to a pattern in the fiscal year of hesitant spending in the first half and a *"rush to march"* in the latter half, to avoid underspending (P8, 13, 20). These budget cycles had further impacts on both staffing and strategy processes.

**Staffing Processes:** PSBs lack knowledge about technology and startups (P8, 16, 26, 24). As one former civil servant reflected, *"within the procurement service...additional technology feels like a bit of an outlier"* (P28). Another described the daily routine of their colleagues as *"procuring pens in the morning and scooters in the afternoon"* (P24). As such, there is little specialist knowledge regarding technology within many commercial functions. Participants acknowledged that this was slowly changing and there were highly skilled individuals (P17, 25). However, buyers with technological skills were described as *"peripheral figures"* who often struggled to *"properly embed new technology"* (P17).

This systemic constraint can only be understood in relation to the compounding rhythms within PSBs. Under-resourced and under-skilled PSBs are further undermined by the nature of budget cycles, which contributes to high churn in the lower levels of the civil service. Consequently, startup suppliers described how buyers *"always changed"* (P1). An ex-civil servant frustratingly explained, *"Churn happens because the mechanics of the system aren't set up to allow continuity of even longer than a year...this is a very big problem"* (P27). Others reiterated that even in public sector organisations that were explicitly focused on startups and innovation, high churn had

detrimental effects on knowledge (P16).

**Strategy Processes:** PSBs are, understandably, risk-focused; particularly given the high stakes involved in many procurement decisions (P8). Legal constraints are designed to mitigate risks: of being sued, of malfunctioning technology, or of suppliers going bust. Other goals, such as avoiding public failure and media attention, create further constraints that prevent collaboration with startups (P14, 27). One participant with experience in large-scale health technology procurement characterised the risk position as “*extremist*”. He continued, “*this survival mode*” is “*the total opposite of a transformation program*”, which ought to “*throw it up in the air and make change happen*” (P27). Participants tended to agree that the strategic process was undermined by misaligned incentives (P5, 11, 12, 13, 14, 16, 18).

These persistent challenges are easier to understand when situated in the context of the ‘Strategy Rhythm’—the temporal dynamics that underpin decision-making and goal setting. The siloing of teams creates a disjointed working rhythm, undermining the ability for joined-up thinking. Throughout the interviews, participants used verbs that imply a lack of intention or even carelessness, such as “*lobbing*” and “*chucking*” (P5, 13, 18). Reflected on their time in a PSB, one participant explained that performance management does not facilitate “*the next person down the chain to actually add value*” (P18). Another with similar experience offered a memorable metaphor—procurement processes as a “*relay race*”, where each actor focuses on working as quickly as possible without considering the handover between different stages of the procurement process (P18). Budget cycles further undermine attempts at implementing strategic processes. One civil servant remarked that a budget “*is not a real budget*” because it must be agreed by the department annually. He continued, “*I don’t commit to a very long procurement, and I don’t necessarily get value because I don’t know if I’ve got the money in year two, three, and four. And this is bad for public sector value*” (P27).

4.2 PSBs Enacting Procurement Process Rhythm

Our results further demonstrate how PSBs’ interrelated organisational processes are enacted in the temporal dynamics of the procurement process itself (Figure 2). This process is erratic, both too rushed and too slow, and unpredictable.

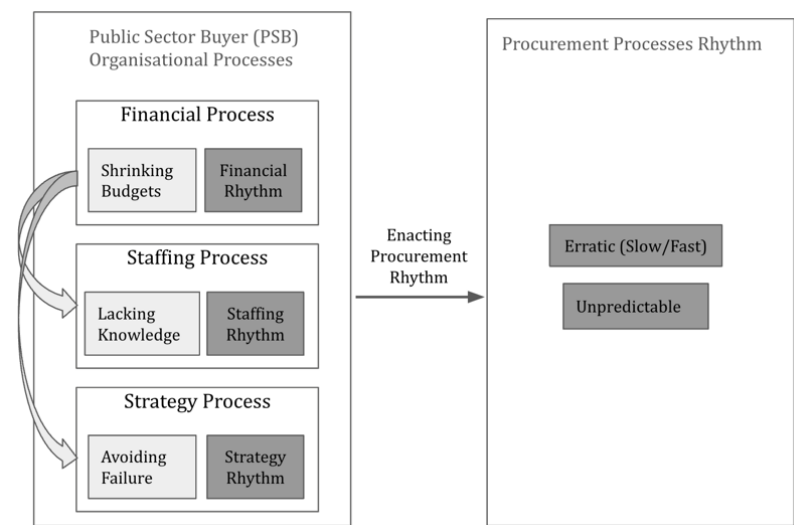


Fig. 2 – PSB Organisational Processes Enacting Procurement Rhythm

**Erratic (rushed):** PSBs often rush through improper pre-market engagement. Participants described how commercial teams focus on the contracting phase of procurement (P18, 25, 27, 32). An experienced buyer described how “*all the efforts go into the procurement phase. They really should go into the pre-procurement phase, the dialogue phase, the signal-to-market phase...The procurement, by the time you get there, should be the least intense part of the process*” (P27). Pre-market engagement is particularly important for suppliers who are less likely to have established connections with the public sector. Hurried pre-procurement and post-procurement phases reflect a broader phenomenon of rushed processes. Commercial teams rush to address expiring contracts and issue “*irregular contract extensions*” (P2). Local councils discover available project funding at the last minute and rush to meet deadlines (P9, 20). Civil servants acknowledged the increased use of frameworks (closed groups of pre-approved suppliers) because in many cases, “*there simply isn’t the time*” to run formal procurements (P8). While frameworks are not inherently problematic, their current usage disadvantages smaller suppliers. Finally, buyers and suppliers alike discussed the impact of the financial year (P5, 13, 20). Buyers described a “*flurry to purchasing*”, causing a “*mad scramble*” (P8). Likewise, suppliers described the “*frantic*” and “*crazy deadlines*” (P20).



**Erratic (slow):** At other points, procurement rhythms were described as too slow by all types of stakeholders (P16, 26, 27, 31). Formal procurement processes, unlike direct awards, can take “six to eight months” (P13) with multiple “different hoops” for suppliers (P20). Involving multiple departments or teams can slow things down (P12, 20, 26). One local authority supplier described the “luck” necessary to have the “right stakeholders” simultaneously aligned, particularly during holiday periods (P20). “Little redundancy” means that “when things don’t go to plan, there are delays everywhere” (P24). Another startup similarly described how overworked staff members in local authorities realised they had holiday to take at the end of the fiscal year when extra staffing was needed to meet rushed deadlines, with conflicting financial and staffing rhythms further slowing procurement processes (P20). Corroborating existing research, the slow sales cycle was a repeated feature of interviews (P8, 9, 16, 17, 21, 31).

**Unpredictable:** This erratic rhythm—lurching between slow and rushed—combined with an opaque procurement process makes the process hard to predict (P24). While suppliers could anticipate some patterns in government sales cycles—for example, noting more tenders during summer and winter holidays (P2, 4, 8, 15)—in other ways, the procurement process was much harder to predict. One senior civil servant acknowledged this, describing, perhaps hyperbolically, that procurement was “an uncertain process that could take three months or three years” (P8). This uncertainty was exaggerated by political cycles, with suppliers “relying on cash for the next couple of years of work” that “could evaporate” with a General Election (P8). Another senior civil servant with experience in startups and investing described a broader, cultural “tension” between suppliers and buyers, who “operate in a certain way, knowing that: governments only have a certain lifespan, a programme is never really a programme, timescales are never timescales” (P27). These tensions from contrasting cultures are manifested in unpredictable procurement processes that make it difficult for suppliers to plan.

4.3 Organisational Processes of Startup Suppliers

Those with experience working in startups also discussed how their experience of procurement complications related to financial, staffing, and strategy processes. As in the case of PSBs, startup suppliers' temporal dynamics also compounded systemic challenges, albeit in different ways (Figure 3). These results were predominantly informed by those working in GovTech startups. Analysing the perspectives of those who had experience in other types of organisations, including PSBs and larger technology suppliers, served as additional data to confirm our results.

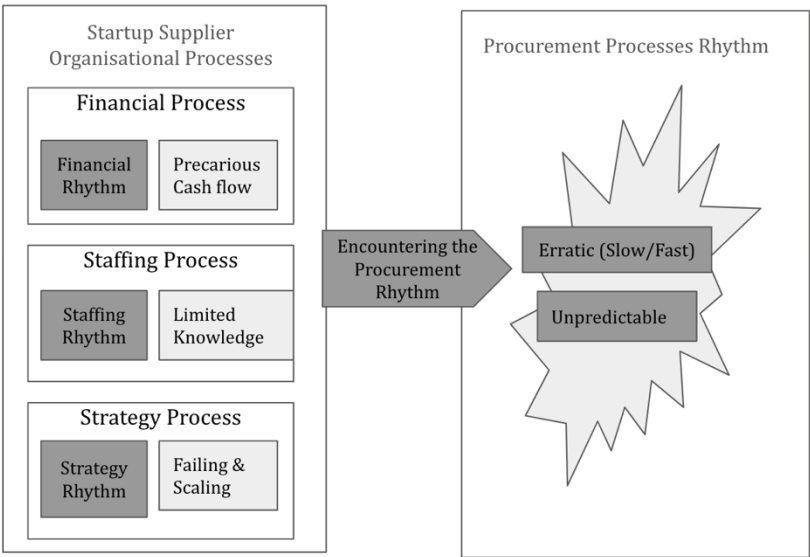


Fig. 3 – Startup Supplier Organisational Processes Encountering Procurement Rhythm

**Financial Processes:** Startups face challenges of constrained financial resources compared to larger suppliers. The temporal dynamic—of founders balancing their funding and revenue, on the one hand, and their expenses, notably paying employees and developing technology, on the other—was encapsulated by one supplier as “cash flow is king” (P16). In part because of limited financial resources and the strategic goal of scaling quickly, many startups seek external funding, often in the form of Venture Capital (VC). This imposes a financial rhythm of raising every 12 to 18 months, which can further complicate temporal dynamics. As we will see in subsequent sections, this creates challenges for startups encountering the rhythm of procurement.

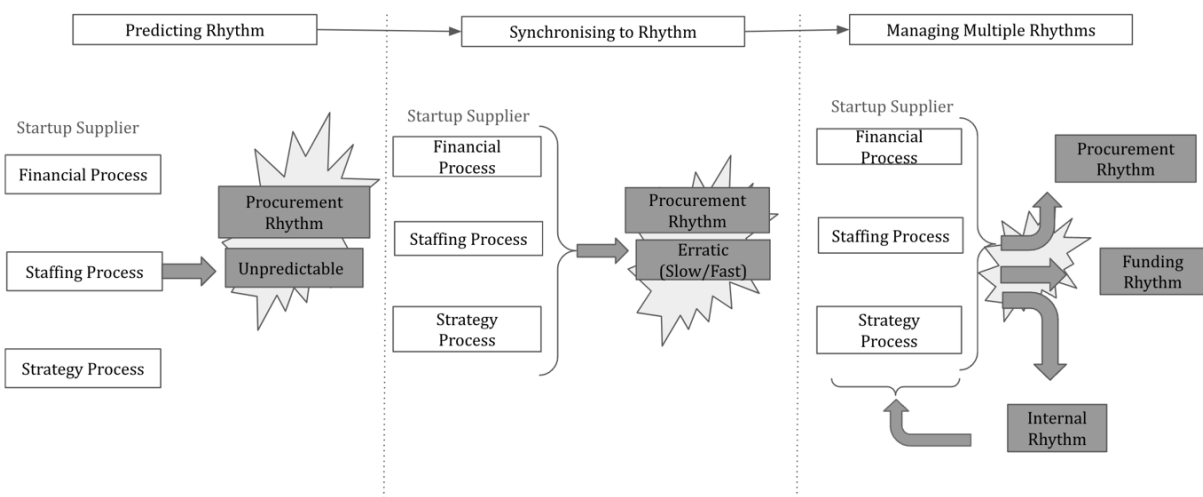
**Staffing Processes:** Many startups discussed the challenge of lacking dedicated expertise in public sector sales, compared to larger companies who had bidding teams (P4, 5, 13, 21). Due to financial processes, many startups without large VC funding must retain staff on short-term contracts. One founder explained: “We make do with

subcontractors, and we can't really build a proper team" (P6). This staffing rhythm was compared to consulting firms by participants with experience in both types of companies, where *"the beauty of a human consulting service model is you can move to [government as a secondee] and you don't lose things when the winds have slowed down... If you're selling a technology product you can't. The IP is the thing, and the thing can't move with you"* (P31).

**Strategy Processes:** Participants discussed the systemic constraints for startups that necessarily have to try and scale. Compared to the United States' large internal market for the public sector (P21) or the consortium buying of Norway (P24), the UK's market is smaller and more fragmented. This creates challenges for suppliers trying to scale by selling to multiple public sector customers because the *"route to market is a sort of jigsaw puzzle"* (P1). Conversely, large technology suppliers benefit from their scale to *"absorb the instability"* (P27). However, temporal dynamics frustrate startups' capacity for long-term planning. *"Time to market is the critical thing for a startup"*, both to develop technology, find product-market fit, and avoid running out of resources.

#### 4.4 Challenges for Startups Encountering Procurement Process Rhythm

Startups that seek to sell to the public sector encounter the erratic and unpredictable procurement process rhythm. As they do so, their organisational processes create challenges in predicting this rhythm (Figure 3). Those who overcome the prediction challenge face further difficulties synchronising with the procurement rhythm. Finally, those who synchronise successfully face tensions in managing multiple rhythms.



**Fig. 4 – Challenges for Startup Suppliers Encountering Procurement Rhythm**

**Predicting Rhythm:** As Figure 4 shows, to successfully bid, suppliers must navigate identifying relevant opportunities and frameworks. Joining most frameworks is time-consuming and uncertain, and they re-open for new entrants infrequently. Finding bidding opportunities was described by one as a *"waste of time"*. Another claimed, *"The system favours the incumbents who are happy to let things happen slowly"*. Many suppliers also discussed finding opportunities late. The rise of new e-procurement startups further reinforces the view that temporal dynamics disadvantage some suppliers. These mediators have built fast-growing businesses addressing these pain points. One successful e-procurement startup brands itself as enabling users to *"keep a pulse on their market and the opportunities that they should be chasing down"* and stay *"proactive"* (P22).

**Synchronising with Rhythm:** Given these temporal dynamics, there are challenges around government sales cycles. Startups *"try and offer purpose-built stuff for the public sector, but nine times out of ten get killed by the long sales cycles"*. Short contracts exacerbate slow processes. One startup founder described their attempts to align various short-term contracts and maintain cash flow. Startups on short-term contracts *"don't know if it's going to continue"* (P9). This is further aggravated by high churn. A former startup CEO noted that the combination of slow sales cycles and fast turnover is *"completely deadly"* (P21). This combination was also noted by a former founder whose startup had gone bankrupt. He explained, *"People move on so fast... If you're dealing with early-stage tech companies, two-year postings are not very helpful"* (P16). An experienced civil servant explained how this temporal misalignment is *"Bad for startups or anyone trying to innovate... We end up with those that are the most stable companies with the deepest pockets becoming the easy buys"* (P27). Startups *"wade"* through the time-consuming bidding process under rushed deadlines (P25). This raises the question articulated by one interviewee – *"how can people pace themselves and move in a way that aligns with government cycles (P31)?"* The difficulties in aligning internal rhythms with the public sector go some way in explaining why many startups fail when selling to government, and why others never try to begin with.

Other participants described adapting their behaviour to align with the public sector. One digital consultant who

---

worked closely with startups explained startups' varying levels of success in "*pacing*" themselves to "*align*" to these cycles (P15). They explained that for many smaller suppliers, "*bidding doesn't come naturally*". Others "*know how to bid [and] have their own rhythm*". Those with bidding teams "*have their own cadence of how they do things*". Reflecting on their firms' success selling products and services to the public sector, they described how "*unlike a lot of other SMEs, we are quite in tune to what those rhythms look like*". Another former employee of the same firm mirrored this sentiment. The firm's "*evolution is a story of reacting to the signals being sent in the dance that we do with government. As they sort of slow... you kind of cue each other's movements*" (P31).

**Managing Multiple Rhythms:** While some startups struggle to synchronise to government cycles altogether, others face difficulties because they synchronise to these same cycles. As Figure 3 shows, startups can face tensions between procurement rhythms and their internal rhythms. For example, startups can become "*addicted to grant funding*" (P16) – dependent on a succession of precarious short contracts. This creates problems in retaining permanent staff and developing technology (P6, 32). "*User input is crucial*" for technological development as it enables startups to "*learn something and iterate from it*". However, in GovTech there are often "*less opportunities for...internal feedback*" (P31). These barriers are amplified by small, short-term contracts because "*Startups can't build products because the contracting mechanisms and what government is asking for don't correlate with the cost of developing technology*" (P32). A succession of short-term contracts creates challenges for intellectual property and hiring staff.

A second tension arises between the procurement and funding rhythm. As GovTech startups try and scale, many face barriers from investors sceptical about government customers. Due to the speed of procurement sales cycles, many Venture Capital Investors (VCs) see startups selling to government as "*un-investable*" (outside of Defence) (P30). For those who can attract external investment, the cadence of fundraising every eighteen to twenty-four months clashes with government sales cycles. Startups expressed an awareness that they will "*die if they don't raise again*" (P17). VC timelines are, therefore, a source of further tensions for public-sector-facing startups. These barriers have a cascade of disincentivising effects. Eight interviewees discussed startups bankrupting themselves when trying to sell to PSBs.

## 5. Discussion

Based on this single explorative case in the UK, our findings make a series of empirical and theoretical contributions with implications for policymakers and practitioners.

### 5.1 Empirical Contributions

First, we address calls for further research into the role of public procurement as a barrier for GovTech and the need for empirical case studies (Bharosa, 2022; Hoekstra et al., 2023). We identify barriers that prevent increased procurement from startups. In doing so, we nuance previous studies of public procurement from SMEs (Loader, 2013), disaggregating the specific experiences of GovTech startups due to their characteristic goals of developing novel technologies, disrupting markets and scaling quickly (Hoffman & Yeh, 2018). Second, we provide rigorous empirical evidence to demonstrate the role temporal dynamics play in GovTech barriers (Figure 1), confirming previously anecdotal evidence in the grey literature and further developing lines of argument in recent work (Hoekstra et al., 2023).

### 5.2 Theoretical Contributions

This paper makes two distinct theoretical contributions: (1) a general contribution to procurement theory and public sector innovation by illuminating underlying temporal dynamics beneath surface-level issues like perceived slowness, suggesting systemic rather than simplistic 'speed-up' solutions; and (2) a specific contribution to GovTech scholarship by revealing the unique temporal tensions faced by startups due to their position at the intersection of innovation, scaling pressures, and public sector processes.

Conventional understandings of the procurement barriers have focused on the systematic constraints that PSBs and startup suppliers face. By using "time as a research lens" (Ancona et al., 2001; Blagoev et al., 2023), we elucidate the complex temporal dynamics of GovTech procurement. While confirming that time plays an important role, our contributions challenge the assumption that underpins much of the GovTech discourse – that the conflict can be reduced to a heuristic of government being slow, startups being fast. Our research also surfaces the role that rushed government processes play in limiting GovTech procurement, "precluding strategic possibilities" (Kaplan & Orlikowski, 2013). We show that there are multiple conflicting rhythms within PSBs (D. Ancona & Chong, 1996; Bluedorn, 2002). These enact a procurement rhythm that is erratic and unpredictable. This may explain irrational-seeming procurement processes that procurement scholars have primarily attributed to conflicting policy objectives (Lember et al., 2014, 2015).

Rather than a uniform slow pace, the varied and erratic rhythm of PSBs creates challenges for the GovTech startups

that encounter them. Startups struggle to predict the rhythm of buyers and to subsequently synchronise with them. Nuancing more simplistic accounts that can be found in individual interviews with startups or in the grey literature, procurement challenges cannot be attributed solely to an incompatibility between ‘fast’ startups and ‘slow sales cycles’. This is just one challenging temporal dynamic among many as startups attempt to manage multiple rhythms.

### **5.3 Implications for Practitioners and Policymakers**

The findings of this research provide several practical insights for policymakers and practitioners aiming to enhance GovTech procurement from startups. Rather than solely focusing on simplifying procurement rules or enhancing buyer capacity, it is crucial to also develop a deeper understanding of how temporal dynamics and rhythms across the public sector and GovTech ecosystems align or misalign. Policymakers should look beyond simply accelerating procurement processes and instead improve how procurement rhythms are communicated and managed, helping startups better predict and synchronise their internal processes with public sector cycles. For instance, the recent introduction of pipeline notices under the new UK Procurement Act represents a promising initiative. If effectively implemented, these notices could greatly enhance suppliers' ability to anticipate procurement rhythms and better prepare their bidding and financing strategies accordingly. Improving transparency around procurement timings and rhythms could thus significantly mitigate the temporal barriers identified in this research. Additionally, addressing temporal misalignments not only facilitates greater involvement of innovative suppliers but also helps avoid problematic dependency on large incumbent providers. In light of unfolding geopolitical developments, this could also positively impact digital autonomy by promoting a more diversified and resilient supplier ecosystem within the public sector.

### **5.4 Limitations and Future Research**

As a single case study, more work is required to validate these findings and test their applicability to other contexts. The findings are primarily based on experts' perceptions of barriers and would benefit from alternative methods, including quantitative research. Specific boundary conditions, such as the UK's distinct administrative, budgetary, and legal environment, limit the direct generalisability of our findings to other national contexts. We recommend future research pursue some of the lines of inquiry opened by this case study and continue to explore the fruitful cross-pollination of temporality and digital government.

Future research should examine how specific policy interventions could help address these temporal misalignments whilst supporting greater strategic autonomy in government technology procurement. This might include studying how procurement vehicles could be redesigned to better balance the competing needs for innovation, stability, and sovereign control; investigating how successful GovTech startups navigate competing timeframes whilst building sustainable public sector solutions; or exploring how digital technologies themselves might help bridge these temporal gaps without creating new dependencies. There is also scope for comparative studies examining how different jurisdictions manage temporal dynamics in their GovTech ecosystems whilst maintaining appropriate levels of digital autonomy. Given the growing importance of GovTech in public sector digital transformation, understanding and addressing these temporal barriers will be crucial for fostering more effective and sustainable public-private collaboration in government technology innovation.

## **6. Conclusion**

Commentators often claim that public procurement is broken. This study has shown how temporal dynamics play a critical role in frustrating the stated policy goal of increasing public procurement from GovTech startups. While conventional wisdom frames the challenge as a clash between “slow” government and “fast” startups, our findings suggest a more complex and patterned problem: the erratic and contradictory procurement rhythms enacted by public sector organisations. Startups struggle not only with delays but with unpredictability and misalignment with multiple rhythms. Fixing procurement will require more than government moving faster—it will require learning to better move together. To do so, researchers must continue to explore time as a structural feature of governance—and policymakers must begin to take time seriously.

## **Acknowledgement**

- **Contributor Statement\*:** Author contributions were assigned according to the CRediT (Contributor Roles Taxonomy) system.
  - Nathan Davies: Conceptualisation, Methodology, Investigation, Data Curation, Formal Analysis, Validation, Writing – Original Draft, Writing – Review & Editing, Visualisation, Project Administration, Funding Acquisition, Resources
  - Keegan McBride: Validation, Writing – Review & Editing, Supervision, Funding Acquisition, Resources

- Moritz Kleinaltenkamp: Methodology, Formal Analysis, Validation, Writing – Review & Editing, Visualisation, Supervision
- **Use of AI\***: During the preparation of this work, the author(s) used Claude (Anthropic) in order to proofread. After using this tool/service, the author(s) reviewed, edited, made the content their own and validated the outcome as needed, and take(s) full responsibility for the content of the publication.
- **Conflict Of Interest (COI)\***: There is no conflict of interest

## References

- Ancona, D., & Chong, C.-L. (1996). *Entrainment: Pace, cycle, and rhythm in organizational behavior*.
- Ancona, D. G., Goodman, P. S., Lawrence, B. S., & Tushman, M. L. (2001). Time: A New Research Lens. *The Academy of Management Review*, 26(4), 645. <https://doi.org/10.2307/3560246>
- Barcevičius, E., Cibaitė, G., Codagnone, C., Gineikytė, V., Klimavičiūtė, L., Liva, G., Matulevič, L., & Misuraca, G. (2019). *Exploring digital government transformation in the EU: Analysis of the state of the art and review of literature*. (G. Misuraca, Ed.). Publications Office. <https://data.europa.eu/doi/10.2760/17207>
- Bharosa, N. (2022). The rise of GovTech: Trojan horse or blessing in disguise? A research agenda. *Government Information Quarterly*, 39(3), 101692. <https://doi.org/10.1016/j.giq.2022.101692>
- Bharosa, N., & Janowski, T. (2024). The GovTech Challenge ?V GovTech and Public Value Creation. *Proceedings of the 25th Annual International Conference on Digital Government Research*, 1043–1045. <https://doi.org/10.1145/3657054.3659125>
- Blagoev, B., Hernes, T., Kunisch, S., & Schultz, M. (2023). Time as a Research Lens: A Conceptual Review and Research Agenda. *Journal of Management*, 01492063231215032. <https://doi.org/10.1177/01492063231215032>
- Bluedorn, A. C. (2002). *The human organization of time: Temporal realities and experience* (pp. xii, 367). Stanford University Press.
- Boots, S., Clarke, A., Brousseau, C., & Lajoie, A. (2024). Breaking All the Rules: Information Technology Procurement in the Government of Canada. *Canadian Public Administration*, 67(3), 297–325. <https://doi.org/10.1111/capa.12577>
- Bracken, M. (2020). *The sad tale of Britain's Government Digital Service—Public Digital*. <https://public.digital/pd-insights/blog/2020/11/the-sad-tale-of-britains-government-digital-service>
- British Chamber of Commerce. (2024). *SME Procurement Tracker (2024)*. <https://www.tussell.com/gov/blog/sme-procurement-tracker-2024>
- Cabinet Office. (2020). *Transforming Public Procurement*. [https://assets.publishing.service.gov.uk/media/5fd77b11e90e076630958ecc/Transforming\\_public\\_procurement.pdf](https://assets.publishing.service.gov.uk/media/5fd77b11e90e076630958ecc/Transforming_public_procurement.pdf)
- Clarke, A. (2020). Digital government units: What are they, and what do they mean for digital era public management renewal? *International Public Management Journal*, 23(3), 358–379. <https://doi.org/10.1080/10967494.2019.1686447>
- Clarke, A., & Margetts, H. (2014). Governments and Citizens Getting to Know Each Other? Open, Closed, and Big Data in Public Management Reform. *Policy & Internet*, 6(4), 393–417. <https://doi.org/10.1002/1944-2866.POI377>
- Collier, D., & Mahoney, J. (1996). *Insights and Pitfalls: Selection Bias in Qualitative Research* (SSRN Scholarly Paper 1540881). <https://papers.ssrn.com/abstract=1540881>
- De Coninck, B., Leysen, J., & Leysen, V. (2018). *Public Procurement of Innovation Through Increased Startup Participation: The Case of Digipolis (Research-in-progress)*.
- DiMaggio, P., & Powell, W.W. (1983). "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields". *American Sociological Review*. 48: 148. doi: 10.2307/2095101
- Dunleavy, P., & Hood, C. (1994). From old public administration to new public management. *Public Money & Management*, 14(3), 9–16. <https://doi.org/10.1080/09540969409387823>
- Dunleavy, P., & Margetts, H. (2006a). *Digital era governance: IT corporations, the state, and E-government*. Oxford University Press.
- Dunleavy, P., & Margetts, H. (2006b). New Public Management Is Dead—Long Live Digital-Era Governance. *Journal of Public Administration Research and Theory*, 16(3), 467–494. <https://doi.org/10.1093/jopart/mui057>
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory Building From Cases: Opportunities And Challenges. *Academy of Management Journal*, 50(1), 25–32. <https://doi.org/10.5465/amj.2007.24160888>
- Filer, T. (2018, September 25). In Govtech Investment, Patience is a Virtue. *Bennett Institute for Public Policy*. <https://www.bennettinstitute.cam.ac.uk/blog/govtech-investment-patience-virtue/>
- Filer, T. (2019). Thinking about GovTech: A Brief Guide for Policymakers. *Bennett Institute for Public Policy*.
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), 219–245. <https://doi.org/10.1177/1077800405284363>
- Gil-Garcia, J. R., Dawes, S. S., & Pardo, T. A. (2018). Digital government and public management research: Finding the crossroads. *Public Management Review*, 20(5), 633–646. <https://doi.org/10.1080/14719037.2017.1327181>



- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1), 15–31. <https://doi.org/10.1177/1094428112452151>
- Greenway, A. (2020, September 24). The Government Digital Service truly was once world-beating. What happened? *The Guardian*. <https://www.theguardian.com/society/2020/sep/24/government-digital-service-truly-was-once-world-beating-what-happened>
- Hoekstra, M., Chideock, C., Bodea, G., Bharosa, N., Cave, J., Kokkeler, B., Oomens, I., Berg, A. V. D., Veenstra, A. F. V., & Alleweldt, F. (2022). *The Digital Single Market and the digitalisation of the public sector*.
- Hoekstra, M., Van Veenstra, A. F., & Bharosa, N. (2023). Success Factors and Barriers of GovTech Ecosystems: A case study of GovTech ecosystems in the Netherlands and Lithuania. *Proceedings of the 24th Annual International Conference on Digital Government Research*, 280–288. <https://doi.org/10.1145/3598469.3598500>
- Hoffman, R., & Yeh, C. (2018). *Blitzscaling: The Lightning-Fast Path to Building Massively Valuable Companies* (1st edition). HarperCollins.
- Hood, C. (1995). Contemporary public management: A new global paradigm? *Public Policy and Administration*, 10(2), 104–117. <https://doi.org/10.1177/095207679501000208>
- House of Lords. (2017, December 12). *Oral evidence—Artificial Intelligence Select Committee*. <https://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/artificial-intelligence-committee/artificial-intelligence/oral/75736.html>
- House of Lords Defence Committee. (2023). *It is broke—And it's time to fix it: The UK's defence procurement system*.
- Kaplan, S., & Orlikowski, W. J. (2013). Temporal Work in Strategy Making. *Organization Science*, 24(4), 965–995. <https://doi.org/10.1287/orsc.1120.0792>
- Kotecha, B., & Desmond, J. (2017). *State of the UK GovTech Market: Unlocking the Potential of Startups to Solve Public Problems*. PUBLIC.
- Lember, V., Kattel, R., & Kalvet, T. (Eds.). (2014). *Public Procurement, Innovation and Policy: International Perspectives*. Springer Berlin Heidelberg. <https://doi.org/10.1007/978-3-642-40258-6>
- Lember, V., Kattel, R., & Kalvet, T. (2015). Quo vadis public procurement of innovation? *Innovation: The European Journal of Social Science Research*, 28(3), 403–421. <https://doi.org/10.1080/13511610.2015.1043245>
- Loader, K. (2013). Is Public Procurement a Successful Small Business Support Policy? A Review of the Evidence. *Environment and Planning C: Government and Policy*, 31(1), 39–55. <https://doi.org/10.1068/c1213b>
- Margetts, H., & Dunleavy, P. (2013). The second wave of digital-era governance: A quasi-paradigm for government on the Web. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 371(1987), 20120382. <https://doi.org/10.1098/rsta.2012.0382>
- Margetts, H., & Dunleavy, P. (2024). The political economy of digital government. *Public Money and Management*. <https://ora.ox.ac.uk/objects/uuid:f337829e-ad2b-47ee-a87e-e8875849c74e>
- Mazzucato, M., & Collington, R. (2023). *The Big Con: How the Consulting Industry Weakens Our Businesses, Infantilizes Our Governments, and Warps Our Economies*. Penguin Press.
- Mazzucato, M., & Kattel, R. (2020). COVID-19 and public-sector capacity. *Oxford Review of Economic Policy*, 36(Supplement\_1), S256–S269. <https://doi.org/10.1093/oxrep/graa031>
- Meier, K., & Hill, G. (2005). Bureaucracy in the Twenty-First Century. In *The Oxford Handbook of Public Management* (pp. 51–71). [https://scholarworks.boisestate.edu/pubadmin\\_facpubs/40](https://scholarworks.boisestate.edu/pubadmin_facpubs/40)
- Meijer, A. (2015). E-governance innovation: Barriers and strategies. *Government Information Quarterly*, 32(2), 198–206. <https://doi.org/10.1016/j.giq.2015.01.001>
- Mergel, I., Ulrich, P., Kuziemski, & Martinez, A. (2022). *Scoping GovTech dynamics in the EU*. European Commission. Joint Research Centre. <https://data.europa.eu/doi/10.2760/700544>
- Milward, H. B., & Provan, K. (2003). Managing the hollow state: Collaboration and contracting. *Public Management Review*, 5(1), 1–18. <https://doi.org/10.1080/1461667022000028834>
- NAO. (2011). *Information and Communications Technology in government. Landscape Review—NAO report*. <https://www.nao.org.uk/reports/information-and-communications-technology-in-government-landscape-review/>
- NAO. (2025). *Government's approach to technology suppliers: Addressing the challenges*. <https://www.nao.org.uk/insights/governments-approach-to-technology-suppliers-addressing-the-challenges/#downloads>
- OECD. (2019). *Digital Government Index: 2019 results* (OECD Public Governance Policy Papers 03; OECD Public Governance Policy Papers, Vol. 03). <https://doi.org/10.1787/4de9f5bb-en>
- OECD. (2024). *Enabling Digital Innovation in Government: The OECD GovTech Policy Framework*. OECD. <https://doi.org/10.1787/a51eb9b2-en>
- Orazem, G., Mallory, G., Schlueter, M., & Werfel, D. (2017). *Why Startups Don't Bid on Government Contracts*. 16.
- Orlikowski, W. J., & Yates, J. (2002). It's About Time: Temporal Structuring in Organizations. *Organization Science*, 13(6), 684–700. <https://doi.org/10.1287/orsc.13.6.684.501>
- Pérez-Nordtvedt, L., Payne, G. T., Short, J. C., & Kedia, B. L. (2008). An entrainment-based model of temporal organizational fit, misfit, and performance. *Organization Science*, 19(5), 785–801. <https://doi.org/10.1287/orsc.1070.0330>

- Reinecke, J., & Ansari, S. (2015). When Times Collide: Temporal Brokerage at the Intersection of Markets and Developments. *Academy of Management Journal*, 58(2), 618–648.  
<https://doi.org/10.5465/amj.2012.1004>
- Rhodes, R. a. W. (1994). The Hollowing Out of the State: The Changing Nature of the Public Service in Britain. *The Political Quarterly*, 65(2), 138–151. <https://doi.org/10.1111/j.1467-923X.1994.tb00441.x>
- Sandra, D., Segers, J., & Giacalone, R. (2023). How organizations can benefit from entrainment: A systematic literature review. *Journal of Organizational Change Management*, 36(2), 233–256.  
<https://doi.org/10.1108/JOCM-01-2022-0023>
- Science and Technology Committee - House of Commons. (2019). *Balance and effectiveness of research and innovation spending: Government and UK Research and Innovation Responses to the Committee's Twenty-First Report of Session 2017–19* -.  
<https://publications.parliament.uk/pa/cm5801/cmselect/cmsctech/236/23602.htm>
- Spend Network. (2015). *A hard sell—Why does less than 3% of government procurement spend go to startups?*  
<https://www.nesta.org.uk/blog/a-hard-sell-why-does-less-than-3-of-government-procurement-spend-go-to-startups/>
- Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques* (p. 270). Sage Publications, Inc.
- Taylor, H., & Viner, Z. (2021). *The State of European GovTech*. PUBLIC.
- Wood, M. S., Bakker, R. M., & Fisher, G. (2021). Back to the Future: A Time-Calibrated Theory of Entrepreneurial Action. *Academy of Management Review*, 46(1), 147–171. <https://doi.org/10.5465/amr.2018.0060>
- World Economic Forum. (2025). *The Global Public Impact of GovTech*.  
[https://reports.weforum.org/docs/WEF\\_The\\_Global\\_Public\\_Impact\\_of\\_GovTech\\_2025.pdf](https://reports.weforum.org/docs/WEF_The_Global_Public_Impact_of_GovTech_2025.pdf)
- Yin, R. K. (2013). *Case Study Research: Design and Methods* (Fifth edition). SAGE Publications, Inc.

## Appendix

Below is a sample protocol used for interviews with public sector buyers. Similar structures were used for other stakeholder groups (e.g., startup founders, intermediaries), with content tailored accordingly. All questions were followed by flexible prompts depending on interviewee responses.

Core Question	Associated Prompts & Follow Ups
1. Can I confirm you understand and agree with the informed consent procedures?	
2. Could you describe your current role and how you got there?	Perceptions of UK procurement; motivation for working in procurement.
3. In what ways do you interact with procurement in your work?	Organisational context; specific responsibilities; constraints.
4. Can you walk me through the process of recent procurement decision you were involved with in detail?	Specific hurdles; supplier engagement; interdepartmental coordination.