Policy Advice Systems and Digital Tools in Policymaking: Brazil

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Abbreviations

AIR	Regulatory Impact Analysis system
AGU	Office of the Attorney General of the Union
CINCO	The Behavioural and Insight Unit within the Ministry of Management and Innovation
CGU	Office of the Comptroller General of the Union
CNI	National Confederation of Industry
CPI	Climate Policy Initiative
CPU	Office of the Comptroller General
EBIA	Brazilian Artificial Intelligence Strategy
FGV	Getulio Vargas Foundation
GTMI	GovTech Maturity Index
IPEA	Institute for Applied Economic Research
ITS Rio	Institute for Technology and Society
MGI	Ministry of Management and Innovation in Public Services
OECD	Organisation for Economic Co
PAS	Policy Advice Systems
PBIA	Brazilian Artificial Intelligence Plan 2024–2028
TCU	Federal Court of Accounts
SAAPG	Sub-Chief for Policy Analysis and Monitoring
SAE	Special Secretariat for Strategic Affairs
SAJ	Sub-Chief for Legal Affairs
SECOM	Special Secretariat for Social Communication in the Ministry of Communications
SGD	The Secretariat of Digital Government
SISP	Administration System of Information Technology Resources of the Federal Executive Branch

Executive Summary

Rationale

This report focuses on the use of digital tools and AI in Policy Advisory Systems (PAS) in Brazil. It has three objectives: to identify the key entities, actors, and processes of PAS in the central government of Brazil; to explore how Brazil uses digital tools and artificial intelligence (AI) to contribute to improving PAS; and to make recommendations that apply to the South African context and can improve South Africa's policy advisory framework. Brazil is a relevant case study for comparison with South Africa since it is also a country of the Global South, a member of BRICS, and transitioned to democracy from authoritarian rule around the same period. In other areas, it differs significantly from South Africa, most notably in its highly decentralised government structure that devolves power across federal, state, and municipal levels. It also has a much larger population (around 217 million) and economy (GDP $2.17 trillion).

Method

In terms of method, this study adopted a qualitative approach, for which secondary sources were consulted. These include academic publications, OECD reports, government documents, newspaper articles, and websites from different government departments and ministries, as well as non-governmental bodies like think tanks.

Main findings on Policy Advisory Systems (PAS) in Brazil

As a result of its highly decentralised and fragmented nature, the government of PAS in the state of Brazil is complex and pluralistic. While the office of the President is ultimately responsible for setting national priorities and strategic direction in terms of policy, the central entity through which almost all policy advice flows before it reaches the President's desk is the Civil House, or Casa Civil. The Casa Civil was first established through presidential decree in 1938, and its mandate is constantly updated through presidential decrees. It forms part of the executive branch and is funded by the federal budget. Its primary role is to serve as a centralising force in a decentralised system, and it cooperates with different entities across sectors and all levels of government and is active in producing standardised, high-level documents on the implementation of policy. When effective, the Casa Civil can promote the even distribution of policy advice across different levels of government. However, its close proximity to the President's office makes it vulnerable to political changes at the highest level (Farranha, Bataglia, & de Paula, 2021). Another important body is the Office of the Comptroller General of the Union (or CGU, which also forms part of the executive branch and works closely with the Casa Civil), which acts as a government watchdog to ensure that policies are legally compliant and that the policy formation process is transparent. It also designs and coordinates national anti-corruption strategies. There are 37 line ministries with various internal policy units in the form of departments, think tanks (like the Institute for Applied Economic Research, or IPEA, under the Ministry of Planning and Budget), secretariats, or directorates that design, monitor, and evaluate policy in their specific sectors. Apart from line ministries, the National Congress also has internal advisory units that help shape policy. There is a high level of cooperation between internal government units and external independent advisory bodies (like FGV, ITS Rio, and the Climate Policy Initiative) in the development of evidence-based policies.

Digital tools and AI

Digital tools play a central role in PAS across all levels of government in Brazil as they facilitate data-driven decision-making, transparency, and increase efficiency. Brazil is strongly committed to the digital transformation of its government and, in so doing, aims for its government to act as the primary agent for the digital transformation of the economy and of society. Policies are designed to bring government and citizens closer to each other and are fundamentally guided by the Digital Transformation Strategy (E-Digital, through Decree no. 9,319/2018), launched in 2018, that now falls under the newly formed Ministry of Management and Innovation of Public Services (MGI). The aims of the strategy are: improved connectivity, adoption of digital technologies, improving trust in digital systems, digital innovation, and increased economic productivity (Grimm, Reiners, Braun, Donath, Hörbelt, Lampert and Wich, 2024: 28-29). Brazil scores high on the GovTech Maturity Index (GTMI) due to its innovative approach to the digitalisation of public services and is seen as a "well-known good-practice country" (World Bank, 2022: 57). Unlike other sectors of government, the digital transformation agenda is viewed as politically neutral and economically beneficial and, as a result, has remained consistent across different administrations. It is therefore likely to steadily advance in the coming years (Grimm et al., 2024: 25). The Secretariat of Digital Government (SGD) is a vital entity within the MGI that coordinates digital government initiatives, especially public service delivery through flagship platforms such as GOV.BR— an innovative central portal offering over 4,700 services from 460 public entities. By early 2023, the portal had 144 million registered Brazilian users, making it the world's most accessed online government services portal. Other notable digital tools include Conecta— a programme that integrates data between systems so that citizens do not have to resubmit documents already in government possession; and the open data portal Participa+Brasil that contains over 14,000 government datasets that are available to the public and has a direct link through which citizens can give feedback, suggestions, and criticisms. Brazil's Central Bank also launched the Brazilian instant payment system (PIX) in 2020. It is used by 67% of adults in Brazil. The system is designed to speed up transactions and reduce costs.

For the use of Artificial Intelligence (AI) in policymaking in Brazil to be efficient, safe, and compliant with data privacy laws and individual rights, the government launched its updated policy statement called "AI for the Good of All: Brazilian Artificial Intelligence Plan 2024–2028" (PBIA) in July 2024. The PBIA has a proposed budget of USD4b and will be partly funded through the federal budget. It illustrates Brazil's commitment to its digital sovereignty, digital security, and protection of its citizens' privacy. Based on the case study of Brazil, the following recommendations are made:

Recommendations for Policy Advisory Systems (PAS)

- **A central policy body within the Executive should be established through which all policy proposals flow.** This entity should be publicly funded and should coordinate with both internal and external advisory bodies on a regular basis.

- **An independent compliance and oversight entity (like CGU) should be created** to audit, investigate and ensure legal integrity and transparency in the policymaking process.

- **A collaborative environment should be fostered between government advisory bodies and independent entities to improve the quality and evidence base of policy.** The Brazil case has shown that flexibility in its ability to draw from various specialised units (like IPEA, but also external bodies like FGV) adds value to the policy process.

Recommendations for Digital Tools and AI

- **Digital public infrastructure is to be regarded as equally important as other long-term public services such as water and sanitation, electricity, and roads.** Accordingly, a clear strategy for public service digitalisation should be developed, supported by a dedicated ministry (similar to Brazil's Ministry of Management and Innovation in Public Services – MGI) and by specialised implementation units (such as the Secretariat of Digital Government – SGD). This strategy should also include the establishment of a National Data Infrastructure to enable secure and efficient data sharing between government systems.

- **A single, user-friendly digital government portal should be developed to consolidate all public services.** These digital services must be designed with a citizen-centric approach, ensuring that the real-life challenges faced by users in adopting these systems are prioritised. By doing so, user satisfaction, trust, and the legitimacy of public services will be enhanced.

- **Cross-sector collaboration and partnerships among government institutions, civil society, academia, and startups should be fostered** to cultivate a thriving digital ecosystem.

- **Regulatory frameworks should be designed to remain adaptable to rapidly evolving technologies such as AI, while ensuring that public rights are safeguarded.** Additionally, digital sovereignty should be advanced by strengthening government computational capabilities (as demonstrated through Brazil's investments in supercomputing) and by establishing a secure cloud infrastructure for government data.

BRAZIL

1. Introduction

Brazil is South America's largest nation, with a population of 217 million people, and also its largest economy with a GDP of $2.17 trillion (World Bank, 2023). It is a leading nation of the Global South and a member of BRICS. From a political perspective, Brazil's more recent history is characterised by the restoration of democracy after two decades of military dictatorship (1964-1985). This has some similarity with South Africa's democratic transition. Brazil's new constitution was promulgated in 1988 and marked a decisive shift to democracy by decentralising policymaking and embedding a new institutional innovation: the principle of participation. The result was that representative democracy had to become much more open to popular voices (Waisbich, 2024: 153).

In terms of government structure, Brazil is a federal republic with decentralised authority spread across a federal government to subnational entities (5,570 municipalities and 26 federal states, plus one federal district that functions as a state). Municipalities were granted authority over sectors such as education, health, and urban planning, shifting some policy development and implementation responsibilities away from the federal level. Despite this, central governance remains influential through fiscal transfers, regulatory frameworks, and national guidelines. However, the interplay between appointed officials and politically active public servants at the municipal level can fragment policy coherence, posing coordination challenges for central authorities aiming to ensure equitable service delivery and strategic national development (Albert and Manwaring, 2019: 415-416).

Politically, Brazil has a high level of multipartism (Fenwick et al., 2017: 206), with 27 political parties represented in its National Congress. This means that the president is almost always a minority one who needs to manage coalition politics to rule effectively. While this devolution aimed to bring policymaking closer to citizens, it also created a complex intergovernmental dynamic. As a result, Brazil has a pluralistic Policy Advisory System (PAS), with multiple actors, institutions, and advisory mechanisms that influence policymaking at the central government level.

In terms of relevant academic literature on PAS, it is worth noting that the bulk thus far have tended to focus on advanced industrial societies and Westminster-style democracies like the UK, Canada, Australia, and others (Albert & Manwaring, 2019). Since Brazil is a federal republic, and not a Westminster-style system, it is more decentralised, which should be taken into account when reading more general literature on PAS. Craft and Wilder (2017) have called for a 'second wave' of analysis that prioritises looking beyond 'exclusive concerns on the public service to the systemic nature of advisory activity'. This is especially applicable to a case study like Brazil, where there are many role players that have an impact on policies that eventually influence the policy decisions of the central government. Albert and Manwaring (2019) address this by looking at processes of 'metagovernance'. However, although such an approach would undoubtedly prove useful in a deeper analysis of PAS in Brazil, they fall outside the direct scope of this report. Furthermore, the literature on PAS in Brazil is mostly focused on specific policy sectors, whether it is the role of think tanks in austerity discourse (Ladi, Lazarou, & Hauck, 2018), conservation policies (Azevedo-Santos, et al., 2017), or institutional development policies of the Brazilian Central Bank (Taylor, 2009). There is a lacuna of academic literature that focuses across different policy sectors in Brazil (Saguin, et al., 2024 is a rare exception), and also on comparative studies between Brazil and other countries (with the exception of Turner et al., 2023). Regarding the use of AI, the work of Nicolás and Sampaio (2024) was very useful.

In order to meet its three objectives, this report is structured to first provide an outline of the policy advisory system (both governmental and non-governmental), with special focus placed on the Casa Civil

or Civil House, which is considered the main advisory body in Brazil's central government. Brazil's digital governance strategies are then addressed, with particular attention given to the projects of the newly formed Ministry of Management and Innovation in Public Services (MGI) and the strategies outlined in Brazil's Artificial Intelligence Plan (PBIA) 2024–2027. Finally, recommendations for South Africa are made based on the findings.

2. Methodology

This study adopted a qualitative approach, for which secondary sources were consulted. These include academic publications, OECD reports, government documents, newspaper articles, and websites from different government departments and ministries, as well as non-governmental bodies like think tanks. Information posted on these websites was checked for accuracy and cross-referenced against independent sources where possible. Regarding the focus areas of this study the complexity of the Brazilian state and its numerous role players in policy development and regulation at different levels of governance (and outside) means that a complete list would not be feasible. Instead, this document has a selective focus to include the most relevant areas for its objectives of understanding PAS in central government. It is worth noting that in the case of digital tools and AI, much of the information is very new, as some reports were only published in the last few weeks preceding the finalisation of this report.

3. Policy Advisory Systems (PAS) in Brazil

3.1 Background

The 1988 Constitution does not explicitly create policy advisory boards but does make provisions that imply or enable advisory structures, for example, Article 1 that states that power emanates from the people and Article 14 that provides for direct democracy through plebiscites, referenda, and so forth. Policy advisory bodies are instead created through other means, like presidential decrees, laws, and internal ministerial ordinances. It is important to also frame Brazil's PAS against the background of recent political changes. President Jair Bolsonaro's presidency (January 2019 - December 2022) marked a distinct shift to the political right that had an impact on participatory democracy and saw a reshuffling of government (Farranha, Bataglia, & de Paula, 2021; see also Alson et al., 2006: 5) in what has been labelled as a period of democratic backsliding (De Sá e Silva, 2022: 274). The election of the leftist President Luiz Inácio Lula da Silva (Lula) in January 2023 has again resulted in a re-structuring of government, including the termination of the Ministry of Economy and the establishment of the Ministry of Management and Innovation in Public Services (MGI). Furthermore, Brazil's extreme multipartism (27 political parties are currently represented in the two houses of the National Congress) means that the president is almost always a minority one who needs to manage coalition politics to rule effectively. President Lula, for instance, presides over a large coalition and follows a "big tent approach to consensus-building" (Pereira, 2024) while seeking to reverse many of the policy changes made by his predecessor. This extremely fragmented system makes it very challenging to develop coherent policy (Fenwick et al., 2017: 206).

3.2 The Centre of Government (CoG)

The Centre of Government (CoG) in Brazil normally refers to the following entities: the Presidency and the Personal Cabinet of the President, the General Secretariat, the Institutional Security Cabinet, the Casa Civil, the Special Secretariat for Strategic Affairs (SAE), the Secretariat of Government, the Office of the Attorney-General, the Ministry of Economy , the Special Secretariat for Social Communication in the Ministry of Communications (SECOM), the Ministry of Foreign Affairs, and the Office of the Comptroller-General (CGU) (OECD, 2022 B). This section looks at the CoG's main advisory bodies, namely the Office of the President, the 'Civil House', or Casa Civil (which will receive particular attention as it is the main body that regulates policy in the central government), the Office of the Comptroller General of the Union (CGU), individual

Ministries, the Institute for Applied Economic Research (IPEA), the Legislative Authority, and the Federal Court of Accounts (TCU).

3.2.1   THE PRESIDENT

In terms of policy, the Office of the President is ultimately responsible for setting national priorities and strategic direction. It receives policy input from multiple advisory and coordination bodies that are situated within the various entities of government (and hence funded by the government) and also from independent external bodies. The President of Brazil is both head of state, directly elected by the people, and head of government. While it is one of the most institutionally powerful presidencies in the world (Fenwick et al., 2017: 208), most presidents since the return to democracy in 1985 have been minority presidents that needed to overcome the institutional complexities of coalition politics, which has had a direct impact on policymaking. Fenwick et al. identify the five 'faces', or roles, of the President of Brazil, which in turn influence the dynamics of policymaking. These are: the President's role as head of state and therefore the face of the government to the public; his/ her role as head of the federal bureaucracy; his/her role as coordinator of subnational executives, managing negotiations between the federal government, powerful state governors, and municipal mayors; his/ her role as manager of party coalitions and his/ her role as the face of Brazil towards the outside world (2017: 208-209). Apart from managing these roles, exogenous factors (like the economic slowdown of 2014-2016) impact on the ability of a President to apply the required amount of focus to each role to ensure good policy (Fenwick et al., 2017: 213).

3.2.2   THE CASA CIVIL

The Casa Civil, or Civil House, is the President's chief advisory office and plays a key role in articulating inter-ministerial initiatives and advising the President on strategic matters. Its primary role is to ensure coherence in policymaking across a highly decentralised system. It serves as a central hub for policy advice, coordination, and strategic management and is often described as the "nerve centre" of the Executive Branch. The Casa Civil was first established in 1938, not through the Constitution, but through presidential decree. Subsequently, its functions and roles have been updated directly by presidential decree. The Casa Civil is funded through the federal budget. It is served by a large number of special officers. advisory entities, standalone secretariats, sub-secretariats, sub-chiefs and other bodies. It has a very broad mandate and performs the following functions:

a) **Policy Coordination and Gatekeeping:** It coordinates the policy development process across all ministries; reviews, refines, and integrates proposals before they reach the President; plays a gatekeeping role that ensures that policy initiatives are coherent, legally sound, and aligned with the government's priorities; and provides strategic advice to the President. It also acts as a key advisory body to the President on legislative and policy matters. It often prepares policy briefs, memos, and recommendations for presidential decisions and synthesises inputs from ministries, technical bodies (like IPEA), and political advisors.

b) **Legislative Liaison:** In terms of legislative liaison, the Casa Civil coordinates with the National Congress to align the Executive's legislative agenda. It also supports negotiation and political articulation for key government bills and monitors the progress of executive proposals through Congress.

c) **Regulatory Oversight:** Casa Civil oversees the Regulatory Impact Analysis system (AIR); evaluates the social, economic, and environmental impacts of proposed regulations; and works with other regulatory bodies (like the CGU) to improve public policy quality.

d) **Legal and Institutional Control:** It ensures that proposals are legally vetted, often in conjunction with the Office of the Attorney General of the Union (AGU); it also houses the Sub-Chief for Legal Affairs (SAJ) who is responsible for the legal review of decrees, provisional measures and draft legislation.

e) **Crisis Management and Special Projects:** It plays a leadership role in managing emergencies and cross-cutting national programmes like infrastructure or public health responses and oversees inter-ministerial task forces when rapid coordination is needed.

An important entity within the Casa Civil relevant to this report is the Sub-Chief for Policy Analysis and Monitoring (SAAPG). The SAAPG is an important filter and coordination node in the executive branch because it reviews and advises on policies developed and implemented by ministries before they reach the President. It also plays a performance-tracking role by selecting public policies for ex ante and ex post analyses with responsible ministries for review and updating (OECD, 2022, B). It also coordinates with other federal ministries to ensure that their initiatives are aligned with presidential directives and are integrated across sectors. Throughout, the SAAPG uses empirical evidence (often provided by IPEA), statistical data (drawn from digital platforms like GOV.BR and Participa+Brazil) and other evaluations to advise on whether programs should be maintained, restructured or terminated (Casa Civil, n.d). Below is a case study showing how Casa Civil played a central role in coordinating policy development in the highly regulated finance sector.

Case study of policy implementation involving the Casa Civil:
PIX - Brazil's Central Bank's automated payment system:

Policy Initiation & Strategic Framing

Brazil's existing digital payment systems were centralised, fragmented, and often costly, thereby limiting financial inclusion and competition (Banco Central do Brasil, 2022). As a result, the need was identified in early 2018 for an efficient, centrally controlled, automated payment system. This aligned with broader presidential priorities around economic modernisation and digital transformation (the Digital Transformation Strategy, 2018).

Proposal & Drafting

The Central Bank of Brazil initially outlined a public infrastructure for instant payments. It submitted technical and legal proposals to the Casa Civil, advocating for government-backed regulation of a Pix-like system.

Interministerial Coordination via Casa Civil

The Casa Civil then coordinated the project between the Ministry of Finance (for budget impact), the Ministry of Planning & Budget (for fiscal implications), the AGU and SAJ (for legal viability), and the President's digital transformation agenda.

Legal Review & Regulatory Design

SAJ (Casa Civil) and AGU (independent of the Casa Civil) ensured constitutional compliance. The Central Bank could then leverage its broad regulatory mandate (rooted in the 1964 Banking Act and Payment System Act of 2013) to draft binding regulations and compel participation by banks and financial institutions (Schapiro, *et al*, 2023).

Budget and IT Infrastructure Support

The Ministry of Finance and the Ministry of Planning & Budget reviewed whether any subsidies or IT investments were required. The SGD (under the MGI) coordinated on technical specifications and integration into gov.br data systems (a primary digital tool in policy development) and public APIs standards (IMF, 2023).

Executive Sign-Off

Draft regulations were finalized through the Casa Civil. The regulatory framework was formally signed by the President and the decree and implementing regulations were published in the Official Gazette (DOU).[1]

Implementation by Central Bank & Oversight

The Central Bank of Brazil launched Pix on 16 November 2020, with subsequent tech integration by designated public IT companies and oversight by Casa Civil and the Ministry of Finance. Signup and usage monitoring dashboards were integrated into gov.br and PIX's own systems.

Monitoring, Evaluation & Institutional Follow-Up

PIX usage soared: over 80% of adults, 140 million individuals, 13 million firms, and 3 billion transactions monthly within two years (IMF, 2023); Casa Civil (including SAAPG), along with CGU and IPEA (external to the Casa Civil), monitored financial inclusion, competitiveness, and system reliability (Schapiro, et al. 2023; IMF, 2023; Grimm et al., 2024; see also Banco Central do Brasil, 2022; MGI 2025).

The successful development and launching of PIX in under three years (from conception to launch) relied on the cooperation of many different entities within the finance sector and the alignment of policy through the Casa Civil. The following chart is a more general depiction of the role of the Casa Civil.

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1   Since this was a presidential decree, it did not have to go through the National Congress. In the case of a draft Bill, it will first be sent to the National Congress, where it needs to pass through various committee stages, floor debates, and Senate and Chamber of Deputies votes before the President can either sanction or veto the Bill.

Brazil Fig. 1. The positioning of the Casa Civil in PAS in Brazil's central government (Author's design)
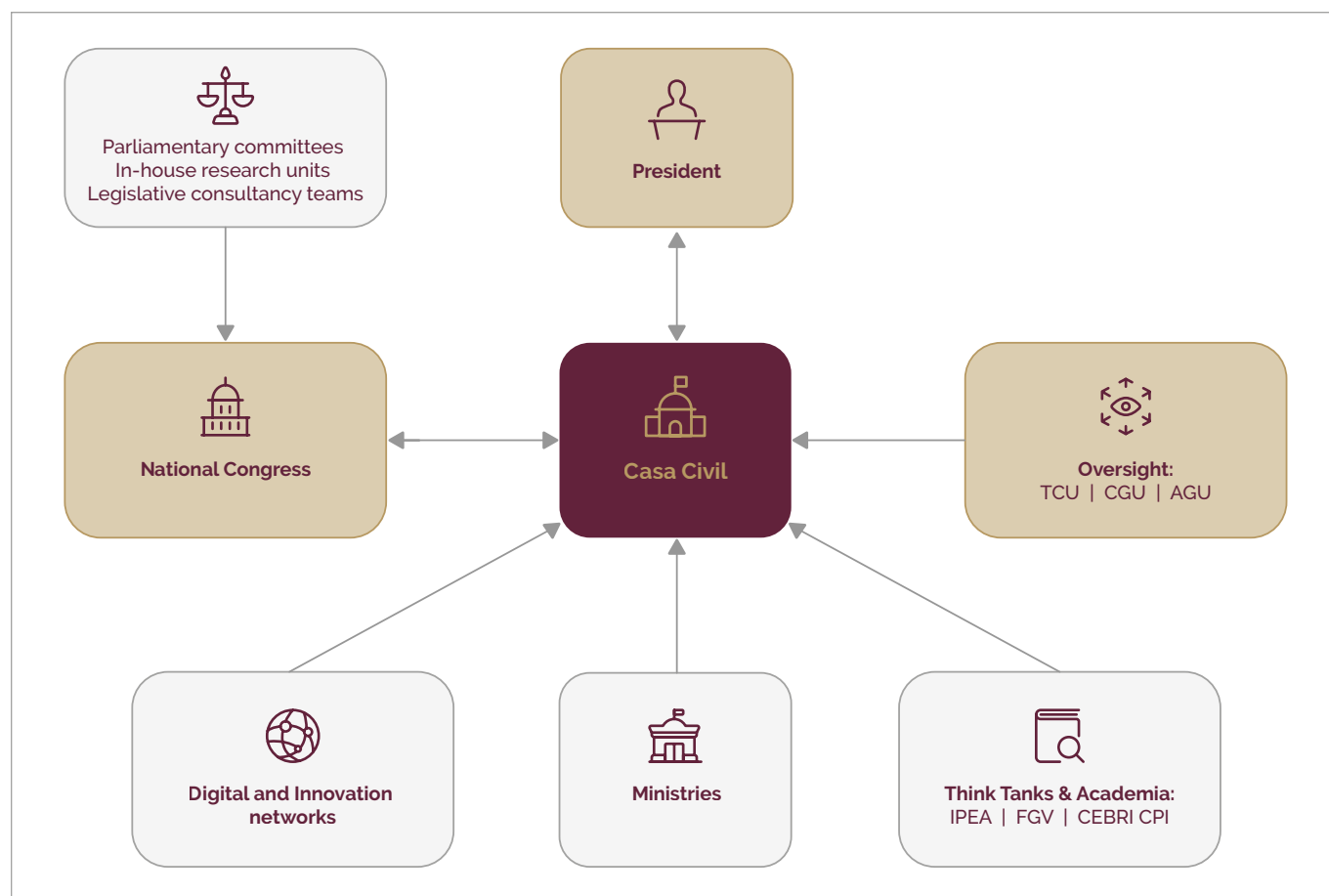
Source: Author (2025)

Figure 1 indicates the central role that the Casa Civil occupies in Brazil's policy advisory system and its interaction with different governmental and non-governmental bodies. It cooperates with the National Congress (which has its own advisory bodies), individual line ministries, external bodies like think tanks and academia, regulatory bodies, and various digital and innovation networks. It is the final step in policy development before it reaches the office of the President.

Positives

As mentioned before, Brazil's government is highly complex and decentralised. The Casa Civil is well-positioned as a filter through which almost all policy advice passes, thus acting as a centralising mechanism. It cooperates with different entities across sectors and all levels of government and is active in producing standardised, high-level documents on the implementation of policy (which was one area highlighted in the OECD report of 2022 that needed to be improved to ensure effective and transparent governance). However, its close proximity to the President's office makes it vulnerable to political changes at the highest level (Farranha, Bataglia, & de Paula, 2021).

Negatives

The Casa Civil is vulnerable to presidential decree that can affect democratic participation in policy. A recent example is the administration of conservative President Jair Bolsonaro (2019-2022), which made a concerted effort to terminate all participatory institutions that had not been created by statute (through Decree 9.759/201). This led to the termination of 25% of the citizen working groups actively engaged with the Casa Civil (Farranha, Bataglia, & de Paula, 2021: 156). Although rationalised by the administration as an effort to reduce bureaucracy and public spending, the result was the destruction of "…the model of (more liberal) government(s) from previous years, which favoured dialogue and participation. … Bolsonaro's decree

(became) one in which proximity to the Chief (a type of contemporary populism) is more important than the plural mediation exercised by participatory bodies" (Farranha, Bataglia, & de Paula, 2021: 159).

3.2.3   THE OFFICE OF THE COMPTROLLER GENERAL OF THE UNION (CGU)

The CGU is a ministry-level body that forms part of the Executive Branch. It acts as a watchdog within the government, audits, investigates, and enforces integrity inside federal institutions to ensure legal compliance and the proper spending of public money. The CGU is responsible for promoting transparency, accountability, integrity, and internal control within Brazil's federal government. It works closely with the Casa Civil (for example, see the PIX case study above) to ensure policies are legally compliant. Its core functions include:

a) **Internal Audit & Control:** It evaluates the use of public resources in federal programs and agencies; monitors compliance with fiscal and administrative rules; and ensures proper functioning of internal audit systems across ministries.

b) **Corruption Prevention:** It designs and coordinates national anti-corruption strategies; investigates and punishes civil servants involved in misconduct; and implements integrity programmes in public administration.

c) **Ombudsman and Public Transparency:** It manages the federal Transparency Portal; coordinates implementation of the Access to Information Act; and responds to citizen requests for government information.

d) **Disciplinary Action & Ethics Enforcement:** It conducts disciplinary proceedings against public servants and oversees integrity policies and whistleblower protection mechanisms (Controladoria-Geral da União, n.d.).

3.2.4   POLICY UNITS IN LINE MINISTRIES

Different ministries have internal policy units in the form of departments, secretariats, or directorates that design, monitor, and evaluate policy in their specific sectors. There are many such units spread over the 37 line ministries (and other ministerial-level entities like the Casa Civil), and apart from the Sub-Chief for Policy Analysis and Monitoring (SAAPG) within the Casa Civil (discussed in more detail above) and the Secretariat of Digital Government (SDG) under the Ministry of Management and Innovation in Public Services (discussed in more detail below), here are some of the most influential with short explanations of their roles in shaping policy: the Secretariat for Economic Policy (SPE) within the Ministry of Finance plays a central role in shaping macroeconomic policy and fiscal strategy (Ministry of Finance, 2025); the National Secretariat for Citizenship Income (SENARC) within the Ministry of Development and Social Assistance, Family and Fight Against Hunger oversees the Bolsa Família (social welfare) programme and related poverty alleviation policies (Ministry of Development and Social Assistance, Family and Fight Against Hunger, n.d.); the Secretariat for Research and Scientific Training (SEFIP) within the Ministry of Science, Technology and Innovation directs national science and research policies (Ministry of Science, Technology and Innovation, n.d.); the Department for Climate Policy and Climate Change under the Ministry of Environment and Climate Change develops and implements policies related to climate change mitigation and adaptation (Ministry of Environment and Climate Change, n.d.); the Department of Monitoring and Evaluation of the SUS (DEMAS) within the MinisTry of Health monitors and evaluates public health policies within the Unified Health System (SUS) (Ministry of Health, n.d.).

3.2.5   THE INSTITUTE FOR APPLIED ECONOMIC RESEARCH (IPEA)

The IPEA is a federal public foundation (and therefore funded by the federal budget) linked to the Ministry of Planning and Budget. It provides technical and institutional support to government entities for the formulation and reformulation of Brazilian public policies and development programmes (Institute for Applied Economic Research, n.d.). It focuses mainly on economic policy, social development, and public finance. The IPEA provides economic modelling and policy impact assessments for ministries; conducts research on poverty reduction, fiscal policy, and industrial strategy; and advises the Casa Civil and National Treasury using evidence-based recommendations (for more on evidence-based decision-making see Saguin et al., 2024). A recent example of work done by IPEA related to Brazil's digitalisation drive has shown

that internet and digital technologies can amplify existing power imbalances and centralised control within sectors that rely heavily on advanced technologies, potentially leading to wage disparities (Leite, Freguglia & Corseuil, 2025: 5).

3.2.6 THE LEGISLATIVE BRANCH

The National Congress (the Chamber of Deputies and the Federal Senate) debates and formulates national legislation. Apart from lawmaking and oversight, the National Congress is also a major producer, mediator, and consumer of policy advice that combines internal expertise, oversight, and public consultation. It receives support from legislative in-house consultancy teams like Consultoria Legislativa (CONLEG) and also research units like the Centro de Estudos e Debates Estratégicos (Center for Studies and Strategic Debates, or CEDES) in the Chamber of Deputies that produces documents of high specialisation, many of which have been turned into law or incorporated into government (Center for Studies and Strategic Debates, n.d.).

Furthermore, parliamentary committees play a role in reviewing and advising on policies, while the Supreme Federal Court influences policy through judicial decisions. Relevant to the broader digitalisation strategy is the establishment of the Mixed Parliamentary Front for the Digital Economy and Citizenship in 2019. This represents a strong collaboration between the Federal Government (represented by the SDG) and the National Congress on the enhancement of public policies for the sector (Camara dôs Deputados, 2019). More recently, in 2023, the Mixed Parliamentary Front for the Guarantee of the Right to Identity (FrenID) was established in cooperation with the MGI to help accelerate citizen access to the new national identity card (Ministry of Management and Innovation in Public Services, 2023).

3.2.7 THE FEDERAL COURT OF ACCOUNTS (TCU)

The TCU is Brazil's external audit institution responsible for overseeing how public funds are used by the federal government. It functions independently from the Executive, Legislative, and Judicial branches. It is linked to the National Congress but operates autonomously. Although the TCU does not create policy, it has a powerful indirect influence on policy formulation and reform by performing performance audits to help identify policy inefficiencies. It also provides technical reports and recommendations that can influence public debate and legislative reforms, as well as risk alerts and compliance reports that can lead to adjustments in ongoing programmes. Furthermore, it helps ensure that public policies are legal, efficient, and aligned with constitutional principles. "*At the federal level, Brazil's Tribunal de Contas da União (Federal Court of Accounts) has initiated a citizen monitoring programme for roadworks. Citizens receive location-based notifications about nearby paving projects and are invited to submit geo-tagged photos and feedback. Verified reports earn micro-rewards and reduce the cost and workload of traditional technical inspections*" (TCU, n.d.).

3.3 Non-government advisory bodies

There are many non-government advisory bodies that actively cooperate with the central government in policy development. Most often, they specialise in specific sectors like technology and the environment. Three examples relevant to this report are the Getúlio Vargas Foundation (FGV), ITS Rio, and the Climate Policy Initiative. The FGV is one of the oldest (it was established in 1944) and most influential think tanks in Latin America and falls outside government. It acts as an external technical advisor to the Brazilian government and is frequently commissioned by ministries, Congress, or state governments to draft reports, conduct feasibility studies, and provide technical input on legislation and regulation. It serves as a key bridge between academia, government, and civil society. For instance, currently, the team from the Center for Sustainability Studies at FGV is working with the Ministry of Environment and Climate Change by gathering contributions from civil society for the drafting of the National Mitigation Strategy and its Sectoral Plans, that in turn will guide Brazil's National Plan on Climate Change until 2035 (Fundação Getúlio Vargas, n.d.).

ITS Rio is a non-profit research and policy centre focused on the intersection of technology, law, and society. It focuses on digital governance, AI policy, data privacy, and cybersecurity. It works with the government to shape AI and digital governance policies, analyses the implications of data privacy laws and AI regulation, and advises agencies like CGU and TCU on AI-driven governance. It is involved in numerous projects related to using technology to strengthen democracy. One example is Mudamos - which is partnered with Google.

Its goal is to create a virtual space for discussion and collaborative construction of public policies. On one level, Mudamos promotes a qualified and multi-sector debate on public issues on the Internet, and on the other it focuses on the creation of solutions to these issues, whether it be local, regional, or national. All policies collectively formulated through Mudamos are handed in to public agents responsible for their implementation and must be followed up by the network of organisations and people that participate in the project. In this way, Mudamos promotes active public participation in identifying problems and shaping the policies needed to address them. Regular reports are published on their website. They also organise live events such as talks with experts on digital governance (ITS Rio, 2025).

The Climate Initiative, or CPI, is an independent, not-for-profit organisation supported by a diverse range of funders from around the world. Its Brazil Policy Centre is housed at the Pontifical Catholic University of Rio de Janeiro and conducts rigorous economic, institutional, and legal analyses to identify areas for improving public policies. It provides recommendations on reconciling economic development with environmental conservation. It operates independently and collaborates with government agencies and civil society to chart paths for policy improvement, particularly in environmental and economic sectors (Climate Policy Initiative, 2025). The environment is a key factor in Brazilian politics, and the new administration has prioritised the development of sustainable environmental policies. This makes environmentally focused think tanks like the Brazil Policy Centre important contributors in the PAS ecosystem. This became especially apparent in the aftermath of the 2024 climate crisis that saw floods devastate the state of Rio Grande do Sul, causing significant human and economic losses. The floods highlighted the need for better risk management and the adoption of more resilient infrastructure (Climate Policy Initiative, 2024). One of the main projects of the Brazil Policy Centre of the CPI is the monitoring of the Forest Code - one of Brazil's most important policies. The backbone of the Forest Code is managed between the Brazilian Forest Service and the Ministry of Management and Innovation of Public Services (MGI), with the Brazil Policy Centre providing detailed technical reports and expertise (Climate Policy Initiative, 2024).

4.   Digital tools and AI

This section examines the use of digital tools and AI in Brazil's central government's Policy Advisory System (PAS). The Brazilian government has identified this area as key to improving efficiency and strengthening the connection between the state and its citizens through technology. A sustained drive to digitalise government services has produced positive results, positioning Brazil as a global leader in this field. This has also been made possible by Brazil's 82.6% internet penetration rate, which translates to 183 million individuals who actively use the internet in the country (Datareportal, 2025).

4.1   Background of Brazil's Digital Strategy

Digital tools play a central role in PAS across all levels of government in Brazil as they facilitate data-driven decision-making, transparency, and increase efficiency. Brazil is strongly committed to the digital transformation of its government and, in so doing, aims for its government to act as the primary agent for the digital transformation of the economy and of society. Policies are designed to bring government and citizens closer to each other and are fundamentally guided by the Digital Transformation Strategy (E-Digital, through Decree no. 9,319/2018), launched in 2018. The Digital Transformation Strategy is based on three principles: increased transparency and accountability; greater social participation in policymaking and the provision of more effective public services. It aims to achieve these goals by prioritising the digital transformation of the economy, encouraging digital innovation, improving the connectivity of citizens, increasing the usage of digital technologies, and improving the levels of trust in the digital environment (OECD, 2020). Subsequent decrees have referenced, amended, and integrated, but not replaced, the Digital Transformation Strategy.

The most recent is Decree No. 12.069 that created the National Digital Government Strategy and the National Digital Government Network (Rede Gov.br) for the period 2024 to 2027. The Strategy oversees the national digital transformation of public administration across all levels of government. It has a long list of objectives, including the implementation and maintenance of a single, national identification associated with the National Identity Card that is valid across all federal entities; managing resilient and scalable government

technological infrastructures; increasing the transparency of public organisations; optimising efficiency and promoting the innovation ecosystem through the use of emerging digital government technologies. Notably, unlike public policy in some other sectors (for instance, the environment) that can be subject to fierce political in-fighting, policy on digitalisation seems to be universally supported, regardless of the political ideology of the ruling party. This is likely to result in continued and uninterrupted progress in what seems to be an already successful sector (Grimm et al., 2024, p. 25). According to the World Bank's GovTech Maturity Index (GTMI) rankings, Brazil consistently ranks as a good practice country, with a score of 0.92, making it a leader in the digital government landscape. In comparison, South Africa's Digital Governance score for 2022 is 0.562, down from 0.772 in 2020. In the Southern and Eastern Africa region, SA is placed seventh (World Bank, 2023).

4.2   Managing the digital strategy

The main body responsible for the consolidation of Brazil's digital governance and public management agenda is the newly formed Ministry of Management and Innovation in Public Services (MGI), established in January 2023. It was specifically established to strengthen the Digital Transformation Policy (2018) and to expand interaction across all federal entities, as well as to realign and consolidate administrative modernisation functions previously spread across different bodies under a unified structure. It also manages the National Digital Government Strategy and the National Digital Government Network (2024-2027). The MGI's mandate aligns with global public administration trends emphasising digital innovation, interoperability, and resilience in state capacity (Ministry of Management and Innovation in Public Services, 2023). A key component under the MGI is the Secretaria de Governo Digital, or SDG, that is directly responsible for executing many of the central government's digital objectives.

Until 2019, the Secretariat of Information and Communication Technologies (SETIC), located within the Ministry of Planning, Budget and Management (MPOG), was tasked with overseeing federal IT policy and e-government systems, forming the basis for Brazil's digital state infrastructure. Its role was absorbed into the SGD, established in June 2019 (Decree No. 9.745/2019), which formed part of the Special Secretariat for Debureaucratization, Management and Digital Government under the now-defunct Ministry of Economy. The Ministry of Economy was dissolved in January 2023, and the SGD was moved to MGI. The SGD's stated objectives are to consolidate and expand the GOV.BR platform and its network; establish the National Data Infrastructure (NDI); implement and expand the new identification system and its new National Identity Card; strengthen maturity and resilience in Privacy and Information Security and to develop the governance of the Administration System of Information Technology Resources of the Federal Executive Branch (SISPS) and its IT resources (Ministry of Management and Innovation in Public Services, 2023). Below is a more detailed description of the primary digital tools.

4.3   Digital tools

4.3.1   GOV.BR

GOV.BR, the central government's online portal, is a major success and stands out as the primary digital tool influencing PAS in Brazil. It was launched in 2019 through Decree No. 9,756 (Government of Brazil, 2019). A total of 177 public service portals were migrated to this single portal, vastly increasing the government's digital interactions with its citizens (World Bank, 2023, p. 10). This meant that by early 2023, an estimated 89% of public services provided by the federal government could be accessed through GOV.BR (Grimm et al., 2024: 29). The portal's overall statistics are impressive: more than 156 million Brazilian citizens are registered on GOV.BR, and there are more than 4700 services offered through 460 integrated public entities (Grimm et al., 2024: 28-29, see also G20 Brazil, 2024). It is the world's most accessed online government services portal. Some of the main digital services include: pre-filled Income Tax Return, Electronic Signature, My Digital SUS (the digital health service that stores a person's medical records), Secure Cell Phone (a safety feature developed by Meta and the Brazilian Ministry of Justice and Public Safety), My INSS (Social Security), Enem (standardised national exam), eSocial (used by employers to report employee tax, social security and payroll information) and the Digital Driver's License (G20 Brazil, 2024). Central to GOV.BR viability is the introduction of a Digital Identity, including the National Identity Card (CIN), a document that integrates advanced technologies such as blockchain and a QR Code that ensures better security and data immutability (G20 Brazil, 2024).

Furthermore, the portal has an easily navigable interface and an average user satisfaction score of 4.3 out of 5.0 (World Bank, 2023, p. 10). The success of GOV.BR has contributed to Brazil's ranking of 14th out of 193 countries on the Online Service Index (which measures the scope and quality of services offered by the public sector). This ranking places Brazil ahead of top European economies like the UK (17th), France (20th), and Germany (44th) (Grimm et al., 2024, p. 29). Ultimately, the successful onboarding of so many citizens onto the GOV.BR platform is due to the combination of strong institutional leadership (SDG and the MGI), an easy-to-use design, high internet penetration, and the centralisation of many services on the platform.

4.3.2 CONECTA

Conecta forms part of Brazil's National Data Infrastructure (NDI), which in turn falls under the SDG. It is a programme that reduces the need for citizens to resubmit data already held by the state. Conecta integrates data between systems (known as interoperability), making it easier and more secure for citizens to use. It reduces fraud, saves costs and improves efficiency across agencies through automated, secure data sharing. The Conecta programme saved R$ 1.57 billion (USD300m) in the first quarter of 2025 by integrating digital government systems (Conecta gov.br, n.d.)

4.3.3 PARTICIPA+BRASIL

Participa+Brazil is an open data portal and serves as a means to improve transparency and fiscal openness. It contains over 14,000 datasets that are available in both human and machine-readable formats. The datasets cover various sectors, including agriculture, education, and health, and are updated daily. The platform provides a direct link through which citizens can give feedback, suggestions, and criticisms, in the process contributing to policymaking and the improvement of public services. Citizen engagement statistics are regularly published, and initiatives are implemented to increase the participation of vulnerable groups (World Bank, 2023: 12).

4.3.4 CINCO

The Behavioural and Insight Unit (CINCO) was established in 2023 and falls within the MGI, although not directly under the SDG. The goal of CINCO is to "support the development of high-impact policies, striving to make public services simpler, more accessible, transparent, and more efficient" (Ministry of Management and Innovation in Public Services, 2023). CINCO uses behavioural science to help bridge the gap between government policy and actual human behaviour. Rather than expecting people to adapt to rigid policies, CINCO designs user-centred solutions that simplify public services, improve accessibility and efficiency, and encourage positive behaviours. CINCO is similar to behavioural units across the world that aid government agencies in "designing and implementing policies that better suit the needs of both users and implementers" (Ministry of Management and Innovation in Public Services, 2023).

4.4 Artificial Intelligence (AI)

To understand the role of AI in policymaking in Brazil, it is necessary to also understand Brazil's development of AI policy itself. In essence, AI has major potential to promote citizen well-being and enhance government capacity, but it needs to be managed in such a way that it respects citizens' dignity, social rights, and cultural diversity, and not exacerbate inequality and discrimination. Due to the pressures of managing the effects of the recent global acceleration in digital transformation (due in part to the launch of generative AI services like ChatGPT in late 2022), it has become imperative for countries to prioritise their own AI sovereignty. AI sovereignty needs robust cyber-security measures and relies on the development of trustworthy AI technology that is transparent, accountable, fair, non-discriminatory, and that protects the privacy of citizens (Johansson Neto, Farias da Costa, & Gaspar, 2024: 2).

The first iteration of Brazil's policy towards AI was the Brazilian Artificial Intelligence Strategy (EBIA), published in 2021 by the Ministry of Science, Technology and Innovation. The most recent policy statement, called "AI for the Good of All: Brazilian Artificial Intelligence Plan 2024–2028" (PBIA), was published in July 2024 by the MCTI (Johansson Neto, Farias da Costa, & Gaspar, 2024: 3). The PBIA is a response to the recent shifts in the AI landscape and focuses on the achievement of technological and data sovereignty through an increase

in control over Brazil's digital landscape. The PBIA is also aligned with the Digital Transformation Strategy (2018), as well as the National Digital Government Strategy (2024) (Johansson Neto, Farias da Costa, & Gaspar, 2024: 3-4).

The proposed budget for PBIA is R$ 23 billion (USD4b) and will come from the federal budget, the FNDCT (the National Fund for Scientific and Technological Development), private sector counterparts, and other sources of resources (not specified in the report). The PBIA has 54 prescribed structural actions divided between five key initiatives. These initiatives are: 1) upgrading Brazil's Santos Dumont supercomputer to top five status in the world (USD320m); 2) the construction of a robust large language model (LLM) in Brazilian Portuguese and the upscaling of curated national datasets for natural language processing training ($200m); establishing a secure government cloud for confidential documents (USD180m); creating renewable energy-powered data centres (USD360m); and a programme for funding AI projects in the industrial sector through 500 different initiatives (USD1.63b) (Johansson Neto, Farias da Costa, & Gaspar, 2024: 4).

5. Conclusion and recommendations

5.1 Policy Advisory Systems

The policy advisory ecosystem in Brazil is truly complex, reflecting the fragmented and decentralised nature of its political system. In an effort to centralise this system, the Casa Civil exists as a central node through which policy flows before it is signed into law by the President. The potential problem is its vulnerability to drastic policy changes by the President. Despite this, Brazil has in recent years seen the successful implementation of policies, especially in the digital sector. The case study of PIX has shown the high degree of cooperation between many different entities (like sub-chiefs and secretariats housed in different line ministries; public think tanks like IPEA that specialise in policy development; and regulatory bodies like the CGU), at different stages of policy development, all coordinated through the Casa Civil that resulted in the successful launch of the system. Although South Africa has a Westminster-style government and therefore more centralised than Brazil, there may be merit in having a central government-funded body through which policy flows. It ensures that all government policy adheres to legal requirements, is consistent and of a high standard, and is centrally guided. Based on the above, here are some recommendations for improving policy advisory systems in South Africa:

- **A central policy body within the Executive should be established through which all policy proposals flow.** This entity should be publicly funded and should coordinate with both internal and external advisory bodies on a regular basis.

- **An independent compliance and oversight entity (like CGU) should be created** to audit, investigate, and ensure legal integrity and transparency in the policymaking process.

- **A collaborative environment should be fostered between government advisory bodies and independent entities to improve the quality and evidence base of policy.** The Brazil case has shown that flexibility in its ability to draw from various specialised units (like IPEA, but also external bodies like FGV) adds value to the policy process.

5.2   Digital tools and AI

Brazil has a successful track record in digital governance. It has launched a number of innovative digital tools, including the world's most accessed online government portal (GOV.BR). With regard to the use of Artificial Intelligence (AI) in policymaking in Brazil to be efficient, safe, and compliant with data privacy laws and individual rights, the government launched its updated policy statement called "AI for the Good of All: Brazilian Artificial Intelligence Plan 2024–2028" (PBIA), in July 2024. Following the example of Brazil, here are some recommendations regarding the use of digital tools and AI:

·   **Digital public infrastructure is to be regarded as equally important as other long-term public infrastructure such as that built for such as water, sanitation, electricity, and roads.** Accordingly, a clear strategy for public service digitalisation should be developed, supported by a dedicated ministry (similar to Brazil's Ministry of Management and Innovation in Public Services – MGI) and by specialised implementation units (such as the Secretariat of Digital Government – SGD). This strategy should also include the establishment of a National Data Infrastructure to enable secure and efficient data sharing between government systems.

·   **A single, user-friendly digital government portal should be developed to consolidate all public services.** These digital services must be designed with a citizen-centric approach, ensuring that the real-life challenges faced by users in adopting these systems are prioritised. By doing so, user satisfaction, trust, and the legitimacy of public services will be enhanced.

·   **Cross-sector collaboration and partnerships among government institutions, civil society, academia, and startups should be fostered** to cultivate a thriving digital ecosystem.

·   **Regulatory frameworks should be designed to remain adaptable to rapidly evolving technologies such as AI, while ensuring that public rights are safeguarded.** Additionally, digital sovereignty should be advanced by strengthening government computational capabilities (as demonstrated through Brazil's investments in supercomputing) and by establishing a secure cloud infrastructure for government data.

·   **No digital tools developed specifically for enhancing Brazil's central government PAS were identified.**

6. References

Albert, V. & Manwaring, R., 2019. Metagovernance, political demand and policy advice: a case from Brazil. *Policy Studies*, 40(3–4), pp.410–425. https://doi.org/10.1080/01442872.2018.1557621

Alimonti, V., 2025. *Deepening Government Use of AI and E-Government Transition in Latin America: 2024 in Review*. Electronic Frontier Foundation. Available at: https://www.eff.org/deeplinks/2024/12/deepening-government-use-ai-and-e-government-transition-latin-america-2024-review [Accessed 3 May 2025].

Alston, L.J., Melo, M.A., Mueller, B., & Pereira, C., 2006. Political Institutions, Policymaking Processes and Policy Outcomes in Brazil. *Inter-American Development Bank*, Research Network Working Paper #R-509

Azevedo-Santos, V.M., Fearnside, P.M., Oliveira, J.C. & Padial, A.A., 2017. Removing the abyss between conservation science and policy decisions in Brazil. *Biodiversity and Conservation*, 26, pp.1745–1752. https://doi.org/10.1007/S105310171316X

Coelho, V.S.P., Pozzoni, B. & Cifuentes, M., 2005. Participation and public policies in Brazil. In: J. Gastil & P. Levine, eds. *The Deliberative Democracy Handbook: Strategies for Effective Civic Engagement in the Twenty-First Century*. San Francisco: Jossey-Bass, pp.174–184.

Craft, J. & Wilder, M., 2017. Catching a second wave: Context and compatibility in advisory system dynamics. *Policy Studies Journal*, 45(1), pp.215–239. https://doi.org/10.1111/psj.12133

Da Costa, F.C., Chai, C.G., Carneiro, M.F., Basílio, D.G.G., Riani, R.S.R. & Batalha, G.F.O.M., 2023. Enhancing Good Governance and Combating Corruption in Brazil: Assessing the Feasibility, Potential, and Limitations of New Technologies. *Beijing Law Review*, 14, pp.1484–1503. https://doi.org/10.4236/blr.2023.143080

De Sá e Silva, M.M. 2022. Policy dismantling by capacity manipulation in a context of democratic backsliding: The bureaucracy in disarray in Bolsonaro's Brazil, *International Review of Public Policy*, 4:3, p. 272-292. https://doi.org/10.4000/irpp.3001

Farranha, A.C., Bataglia, M.B. & de Paula, A.P.P., 2021. Democracy and participation: changes and challenges in Bolsonaro's government—analyzing Brazilian federal decree 9.759/2019. *Resista Videre*, 13(28), pp.150–172. http://dx.doi.org/10.30612/videre.v13i28.15272

Fenwick, T. B., Burges, S. W., & Power, T. J. 2017. Five faces of presidential governance: insights from policymaking in democratic Brazil. *Policy Studies*, 38(3), pp. 205–215. https://doi.org/10.1080/01442872.2017.1290232

Grimm, S., Reiners, W., Braun, M., Donath, L., Hörbelt, S., Lampert, S., & Wich, M. 2024. Digital transformation for a sustainable future: insights from Brazil's civil service. Bonn: German Institute of Development and Sustainability (IDOS). http://doi.org/10.23661/idp17.2024

International Monetary Fund (IMF). (2023). Pix: Brazil's Successful Instant Payment System, 2023:289, https://doi.org/10.5089/9798400249266.002

Johanson Neto, G.P., Farias da Costa, V.C., & Gaspar, W.B. 2024. Brazil's Artificial Intelligence Plan (PBIA) of 2024: Enabler of AI sovereignty? *The African Journal of Information and Communication*, 34, pp. 1-15. https://doi.org/10.23962/ajic.i34.20424

Ladi, S., Lazarou, E. & Hauck, J., 2018. Brazilian think tanks and the rise of austerity discourse. *Policy and Society*, 37(2), pp.222–242. https://doi.org/10.1080/14494035.2017.1397396

Leite, P.H.B., Freguglia, R.D. & Corseuil, C.H.L., 2025. The heterogeneity of organizational structure changes in Brazilian firms with the arrival of the internet. *Rio de Janeiro: Ipea*, (Discussion Paper, No. 3111), pp.1–32. https://dx.doi.org/10.38116/td3111

Machado Vilani, R., Fearnside, P.M. & Machado, C.J.S., 2025. Brazilian President Lula's Climate Authority challenge: pragmatism versus coalition politics. *Environmental Conservation*, pp.1–4. https://doi.org/10.1017/S0376892925000062

Maia, G, 2025, How Brazil uses GovTech and digital public infrastructure to drive development, *World Economic Forum*, https://www.weforum.org/stories/2025/04/brazil-govtech-digital-public-infrastructure-development/# [accessed 17 June 2025]

Nicolás, M.A. & Sampaio, R.C., 2024. Balancing efficiency and public interest: The impact of AI automation on social benefit provision in Brazil. *Internet Policy Review*, 13(3), pp.1–24. https://doi.org/10.14763/2024.3.1799

OECD, 2018. *Digital Government Review of Brazil: Towards the Digital Transformation of the Public Sector*. OECD Digital Government Studies. Paris: OECD Publishing. https://doi.org/10.1787/9789264307636-en

OECD, 2022 A. *Regulatory Reform in Brazil*. OECD Reviews of Regulatory Reform. Paris: OECD Publishing. https://doi.org/10.1787/d81c15d7-en

OECD, 2022 B, Centre of Government Review of Brazil: Toward an Integrated and Structured Centre of Government, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/33d996b2-en.

Passarinho, N., 2019. 6 points of Paulo Guedes' economic reform that may affect you directly, BBC News Brazil, https://www.bbc.com/portuguese/brasil-50319850?utm_, accessed 29 May 2025.

Saguin, K., González-Velosa, C., Meneses, F. & Silva, P., 2024. Variation in evidence use across policy sectors: the case of Brazil. *Policy and Society*, 43(4), pp.521–555. https://doi.org/10.1093/polsoc/puae031

Schapiro, M.G., Mouallem, P.S.B. & Dantas, E.G., 2023. PIX: explaining a state-owned Fintech, *Brazilian Journal of Political Economy,* 43 (4), https://doi.org/10.1590/0101-31572023-3470

Taylor, M., 2009. Institutional development through policymaking: A case study of the Brazilian Central Bank. *World Politics*, 61(3), pp.487–515.

Turner, J.A., Ayre, M., Nettle, R., Sousa, E. & Silva, T., 2023. Advisor understanding of their roles in the advisory system: A comparison of governance structures in Argentina, Australia, Brazil, and New Zealand. *The Journal of Agricultural Education and Extension*, 29(1), pp.3–28. https://doi.org/10.1080/1389224X.2021.1944233

Waisbich, T.L., 2024. Mobilising international embeddedness to resist radical policy change and dismantling: The case of Brazil under Jair Bolsonaro (2019–2022). *Policy Sciences*, 57, pp.145–169. https://doi.org/10.1007/s11077-023-09519-0

World Bank. 2022. GovTech Maturity Index. 2022 update. Trends in the public sector digital transformation. https://openknowledge.worldbank.org/entities/publication/10b535a7-e9d4-51bd- 96ed-6b917d5eb09e

World Bank. 2023. "GovTech Maturity Index, 2022 Update — Regional Brief: Latin America and the Caribbean." Equitable Growth, Finance & Institutions Notes. Washington, DC: World Bank

Websites:

Banco Central do Brasil, 2022. Pix Management Report: Conception and first years of operation 2020–2022. Available at: https://www.bcb.gov.br/content/estabilidadefinanceira/pix/relatorio_de_gestao_pix/pix_management_report_2023.pdf [Accessed 16 June 2025].

Brazil Policy Center, Climate Policy Initiative, n.d. Brazil Policy Center. Available at: https://www.climatepolicyinitiative.org/the-programs/brazil-policy-center/ [Accessed 7 Apr. 2025].

Casa Civil, n.d. Portal da Casa Civil. Available at: https://www.gov.br/casacivil/pt-br [Accessed 28 Mar. 2025].

Casa Civil, 2018. Avaliação de Políticas Públicas – Ex-post. Available at: https://www.gov.br/agricultura/pt-br/acesso-a-informacao/acoes-e-programas/programas-projetos-acoes-obras-e-atividades/publicacoes/avaliacao_de_politicas_publicas_expost.pdf [Accessed 7 Apr. 2025].

Casa Civil, 2023. Portal da Casa Civil. Available at: https://www.gov.br/casacivil/pt-br [Accessed 28 Mar. 2025].

Center for Studies and Strategic Debates n.d. Centro de Estudos de Debates Estratégicos, n.d. Available at: https://www2.camara.leg.br/a-camara/estruturaadm/altosestudos [Accessed 10 May 2025].

Controladoria-Geral da União (CGU), n.d. CGU launches Redata: its first open data reuse contest. Available at: https://dados.gov.br/dados/conteudo/controladoria-geral-da-uniao-lanca-o-redata-seu-primeiro-concurso-em-reuso-de-dados-abertos [Accessed 28 Mar. 2025].

Danish Ministry of Foreign Affairs, n.d. Denmark supports Brazil's innovation in public policy. Available at: https://dfcentre.com/denmark-supports-brazils-innovation-in-public-policy/ [Accessed 5 May 2025].

DataReportal, 2025. The "state of digital" in Brazil in 2025. Available at: https://datareportal.com/reports/digital-2025-brazil?utm_ [Accessed 30 June 2025].

FGV – Fundação Getulio Vargas, n.d. Portal FGV. Available at: https://portal.fgv.br/en [Accessed 28 Mar. 2025].

Future Policy, n.d. Brazil: National Policy on Agroecology and Organic Production. Available at: https://www.futurepolicy.org/healthy-ecosystems/brazil-national-policy-agroecology-organic-production/?utm [Accessed 7 Apr. 2025].

G20 Brazil, 2024. The Brazilian Gov.br portal is a global highlight of the Digital Government and Inclusion workshop. Available at: https://g20.gov.br/en/news/the-brazilian-gov-br-portal-is-a-global-highlight-of-the-digital-government-and-inclusion-workshop#:~:text=The Brazilian Gov.br portal,Digital Government and Inclusion workshop [Accessed 17 June 2025].

Gov.br, n.d.-a Brazil launches new industrial policy with development goals and measures up to 2033. Available at: https://www.gov.br/planalto/en/latest-news/2024/01/brazil-launches-new-industrial-policy-with-development-goals-and-measures-up-to-2033 [Accessed 5 May 2025].

Gov.br, n.d.-b Conecta gov.br interoperability program. Available at: https://www.gov.br/governodigital/pt-br/infraestrutura-nacional-de-dados/interoperabilidade/conecta-gov.br [Accessed 7 Apr. 2025].

Gov.br, n.d.-c Digital government – SGD overview. Available at: https://www.gov.br/governodigital/pt-br/estrategias-e-governanca-digital/secretaria-de-governo-digital [Accessed 3 May 2025].

Gov.br, 2022. Estratégia Brasileira para a Transformação Digital (E-Digital 2022–2026). Available at: https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosestrategiadigital/e-digital_ciclo_2022-2026.pdf [Accessed 8 June 2025].

Gov.br, n.d.-d. GOV.BR integration reduces spending by R$ 1.57 billion in Q1 2025. Available at: https://www.gov.br/gestao/pt-br/assuntos/noticias/2025/abril/conecta-gov-br-integracao-entre-sistemas-reduz-gastos-em-r-1-57-bilhao-no-primeiro-trimestre-de-2025 [Accessed 5 May 2025].

Gov.br, n.d.-e. Key personnel at SGD. Available at: https://www.gov.br/gestao/pt-br/composicao/quem-e-quem#:~:text=Secretaria de Governo Digital | SGD [Accessed 7 May 2025].

Gov.br, n.d.-f. MCTI – Summary of Brazilian AI strategy 2021. Available at: https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ebia-summary_brazilian_4-979_2021.pdf [Accessed 7 Apr. 2025].

Gov.br, n.d.-g. MGI – CINCO behavioural insights unit. Available at: https://www.gov.br/gestao/pt-br/assuntos/inovacao-governamental/cinco/english [Accessed 5 May 2025].

Gov.br, n.d.-h. National Commission for the Sustainable Development Goals. Available at: https://www.gov.br/mre/en/subjects/sustainable-development-and-the-environment/sustainable-development/national-commission-for-the-sustainable-development-goals [Accessed 7 Apr. 2025].

Gov.br, n.d.-i. Public policy evaluation in agriculture. Available at: https://www.gov.br/agricultura/pt-br/acesso-a-informacao/acoes-e-programas/programas-projetos-acoes-obras-e-atividades/publicacoes/

avaliacao_de_politicas_publicas_expost.pdf [Accessed 7 Apr. 2025].

Gov.br, n.d.-j. Publications – CGU English portfolio. Available at: https://www.gov.br/cgu/pt-br/centrais-de-conteudo/publicacoes/institucionais/arquivos/portifolio-ingles.pdf [Accessed 28 Mar. 2025].

IBGE – Brazilian Institute of Geography and Statistics, n.d. IBGE Home (English). Available at: https://www.ibge.gov.br/en/home-eng.html?lang=en-GB [Accessed 7 Apr. 2025].

IPEA Forum BRICS, n.d. IPEA Forum BRICS Home. Available at: https://www.ipea.gov.br/forumbrics/en/ [Accessed 28 Mar. 2025].

ITS Rio – Institute for Technology and Society, n.d. ITS Rio (English). Available at: https://itsrio.org/en/en-home/ [Accessed 28 Mar. 2025].

Ministry of Development and Social Assistance, Family and Fight against Hunger, n.d. SENARC. Available at: https://www.gov.br/mds/pt-br/orgaos/SENARC [Accessed 2 May 2025].

Ministry of Environment and Climate Change, n.d. Environment and Climate Change. Available at: https://www.gov.br/mre/en/subjects/sustainable-development-and-the-environment/environment-and-climate-change [Accessed 2 May 2025].

Ministry of Finance, 2025. Panorama Macroeconômico April 2025 (Executive Summary). Available at: https://www.gov.br/fazenda/pt-br/central-de-conteudo/publicacoes/conjuntura-economica/panorama-macroeconomico/2025/panmacro_slides_ingles_executive_summary_april2025.pdf [Accessed 2 May 2025].

Ministry of Health, n.d. DEMAS: Department of Monitoring, Evaluation and Dissemination of Strategic Health Information. Available at: https://www.gov.br/saude/pt-br/composicao/seidigi/demas [Accessed 2 May 2025].

Ministry of Management and Innovation in Public Services, 2023. SISPS: Administration System of Information Technology Resources of the Federal Executive Branch. Available at: https://www.gov.br/governodigital/pt-br/estrategias-e-governanca-digital/sisp [Accessed 5 Apr. 2025].

Ministry of Science, Technology and Innovation, n.d. Ciência para Sustentabilidade: Biodiversidade e Clima. Available at: https://www.gov.br/mcti/pt-br/centrais-de-conteudo/publicacoes-mcti/ciencia-para-sustentabilidade/livro-ciencia-para-sustentabilidade-biodiversidade-e-clima-ingles_210x250-issuu.pdf [Accessed 2 May 2025].

Participedia, n.d. The National Policy of Social Participation. Available at: https://participedia.net/method/the-national-policy-of-social-participation [Accessed 7 Apr. 2025].

Reuters, 2024. Brazil proposes $4 billion AI investment plan. Available at: https://www.reuters.com/technology/artificial-intelligence/brazil-proposes-4-billion-ai-investment-plan-2024-07-30/?utm_source=chatgpt.com [Accessed 5 May 2025].

TCU – Federal Court of Accounts, n.d. Portal TCU (English). Available at: https://portal.tcu.gov.br/english [Accessed 7 Apr. 2025].

World Bank, 2023. GDP (current US$) – Brazil. Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=BR [Accessed 7 May 2025].

World Bank, n.d. Brazil – Country policy brief: Opportunities for All. Available at: https://www.worldbank.org/en/country/brazil/brief/opportunities-for-all-brazil-policy-notes [Accessed 7 May 2025].