Artificial Intelligence and Democracy

European Parliamentary Technology Assessment Network

Report 2024

EPTA

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Teknologirådet

Preface

Artificial intelligence affects all policy areas from culture, justice and industry to defence, health care and education. *Generative* AI is a new generation of AI that can interpret and create text, images, videos and more. While easier to use and more accessible than traditional AI, it is also more powerful and unpredictable.

This report is about AI and democracy. It examines what AI might mean for elections and the public discourse, how it may be used for good in parliaments and public services, and how democratic control and governance of AI may be achieved.

It results from the joint effort of members of the European Parliamentary Technology Assessment (EPTA) network. The network consists of <u>14 full member, and 11 associate member organisations</u> and assists parliaments in exploring interactions between science, technology and society for policy.

19 EPTA members and associate members have contributed to this year's report. Each member provides unique perspectives and experiences from their countries and regions on what policies are required to uphold democratic principles and values in the age of AI. Each Member have assessed the following three topics (see *Appendix 1*):

1   Artificial intelligence in political campaigning and public debate
2   Artificial intelligence in parliaments and the public sector
3   Democratic control and governance of artificial intelligence

The *summary for policymakers* synthesises overarching themes, differences, and similarities in member countries' policy approaches to AI and democracy.

The Norwegian Board of Technology (Teknologirådet) holds the EPTA presidency for 2024 and has initiated and coordinated this analysis of artificial democracy. Contributions were synthesised and summarised by the editorial team: Tore Tennøe, Jonas Engestøl Wettre and Hanne Sofie Lindahl.

The following report, however, is the result of a successful, distributed and unique effort from members in Europe, the US, and Japan, for which we are very grateful. It will be presented and discussed with representatives of 27 parliaments at the EPTA conference in the Storting in Oslo on 21 October 2024.

Tore Tennøe
Director of the Norwegian Board of Technology
Oslo, October 2024

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AI and Democracy: Summary for policymakers

Spanning health, education, science, transport and more, Artificial intelligence (AI) is a general-purpose technology that will become integral to most digital services and transform everything from drug discovery and warfare to how we perform everyday tasks.

This report describes what is at stake in the relationship between AI and democracy and presents policy examples and recommendations to help parliaments reap the benefits of AI while safeguarding democratic principles and values.

A breakthrough for artificial intelligence

ChatGPT has popularised artificial intelligence and revealed the technology's powerful and transformative capacity. ChatGPT is an example of *generative* AI that is powered by large language models.

These are advanced algorithms for interpreting and generating content such as text, images, video and computer code. How they are made is that an imitation of the human brain, a neural network, is exposed to data and creates a statistical model of how words in a language relate. Large language models are increasingly trained on multiple kinds of data, including text, video, code and music.

Three characteristics distinguish generative AI from traditional AI. The technology is (1) easy to use, (2) general-purpose and powerful, and (3) generative and inventive. Equipped with a general sense of language and ability to create, it is able to understand human languages, be deployed for different purposes, and create advanced content.

Generative AI will usher in a future of more powerful, available and autonomous digital services. It will enable self-improving services that scale and spread quickly, and many future digital systems will have it built in from scratch. How advanced these systems will become, is uncertain. Researchers struggle to predict the current and future capabilities of this technology due to its opacity, complexity and speedy development.

How artificial intelligence matters to democracy

Democracy and AI will impact each other in many ways. Principles and values of crucial importance are highlighted in the Council of Europe <u>Framework Convention</u> on Artificial Intelligence and Human Rights, Democracy and the Rule of Law:

- **Integrity of democratic processes and respect for the rule of law.** Use of AI systems should not undermine the integrity of democratic institutions and processes, including the principle of access to justice. Individuals should have fair access to participation in public debate and ability to freely form opinions.
- **Accountability and responsibility.** Accountability and responsibility for adverse impacts on human rights, democracy and the rule of law resulting from the use of AI must be ensured.
- **Equality and non-discrimination.** Use of AI should not compromise equality and the prohibition of discrimination.
- **Privacy and personal data protection.** Use of AI should not compromise privacy rights of individuals, and their personal data should be protected.

Two more general democratic principles should also be considered:

- **Advancing good governance.** Governments should use technology to govern as resource efficient and transparent as possible to offer services that meet public needs.
- **Preserving sovereignty.** Nation states should be able to regulate and promote technologies used on their territory as required to uphold democratic principles.

As democracies are confronted with generative AI, new policies will be required to uphold these principles and values. The collective efforts of EPTA members' contributions to this report break the topic of AI and democracy down into three subareas.

1 Artificial intelligence in political campaigning and public debate
2 Artificial intelligence in parliaments and the public sector
3 Democratic control and governance of artificial intelligence.

The following is a summary of challenges, opportunities and policy examples discussed and presented by 19 EPTA members in each area.

1 Artificial intelligence in political campaigning and public debate

Free elections require independent formation of opinion and that citizens can make informed and fact-based judgments about policies and news. Generative

AI, in turn, distorts peoples' ability to distinguish between what is authentic and fabricated content.

It obfuscates the trustworthiness of information, as it enables both good and bad actors to influence politics by creating and spreading realistic and high-quality images, videos, audio clips and messages cheaply and easily. This is why the World Economic Forum ranks disinformation as the most severe global risk the world is facing today.

Policymakers need to protect people from exposure to harmful content while empowering them to better distinguish between what is authentic and fabricated. The challenge is to achieve this while safeguarding freedom of expression. Generative AI is also a powerful tool for creativity, expression, and for reaching audiences in new ways.

No single policy is likely to obliterate disinformation. A more attainable policy response, highlighted by EPTA members, is to build *digital resilience* through multiple policies implemented simultaneously. Digital resilience is about empowering people and institutions to resist disinformation as required while prosecuting it when needed.

To that end, parliaments and governments mobilise the entire policy toolbox to address AI disinformation. Most countries, including Austria, the Netherlands and Norway, have or are developing strategies to counter disinformation. Some countries also implement new laws, establish new agencies and conclude new guidelines for responsible AI use.

Use of AI in political campaigning

Half of the world's population hit the polls in 2024, including the US, the UK, and the European Parliament. No lasting impact or systematic use of AI to influence elections have yet been observed. However, attempts to influence political debate using AI have been recorded both in Denmark and France among others.

EPTA members argue that it is premature to conclude that this proves that fears of AI election interference have been exaggerated. AI-generated content circulates in closed chats and groups on social media and is hard to detect and measure. EPTA members also caution against narratives of perceived widespread disinformation that might serve to undermine peoples' trust in information unnecessarily.

Deepfake "niece" trending on TikTok. During the French presidential election in 2022, a "niece" of one of the candidates went viral on TikTok and contributed to normalise the candidate's political views. However, the "niece" turned out to be a sophisticated AI-generated deepfake.

Prime Minister abolishing Christmas. In April 2024, the Danish People's Party posted a fake video of Danish Prime Minister Mette Frederiksen, in which she states that the government will abolish holidays such as Christmas and Easter and instead establish Id al-Fitr as Denmark's only public holiday.

Policymakers experiment with AI to create policies and reach voters

AI enables new ways to campaign, reach voters and create policy. Policymakers and political parties now attempt to exploit this. No systematic use of AI for these purposes has been reported. Yet, certain experimental and intriguing use cases are observed.

Chatbot answering policy questions. A Swiss MP with a speech impairment used speech synthesis to spread videos where he presents his values and agenda. Another candidate for the 2023 elections set up a tailored chatbot that citizens could direct questions to about his politics.

Live social media AI-newscasting of policies. Tokyo gubernatorial incumbent candidate Yuriko Koike had an AI-generated newscaster learn her gestures and voice and report the policies of the Tokyo Metropolitan Government live on social media.

AI-generated policy suggestions. The Dutch political party Farmer-Citizen Movement (BBB) used generative AI to distil the essence from contributions made in the House of Representatives by their party leader to generate policy suggestions on various topics for their party program.

Policy initiatives to address disinformation

Regulation

One policy approach to disinformation is to regulate how it spreads and what content users may or may not create. This is what the EU attempts to do with its new regulations. The Digital Services Act requires companies like TikTok and Meta to adopt measures to reduce the risk of harmful content spreading on their services, while the Artificial Intelligence Act requires providers and deployers of generative AI systems to make sure that the content that their systems generate is labelled and detectable as AI-generated.

The Dutch government's disinformation strategy begins from the premise that the government should neither be the one labelling nor refuting disinformation on behalf of its citizens. Meanwhile, countries such as Spain, Germany and France have introduced additional legislation targeting specific aspects of disinformation and deepfakes.

Outlawing deepfakes. A draft law, approved by the Spanish government in June 2024, seeks to criminalise deepfakes, particularly those that are pornographic or defamatory.

Demanding transparency. Adopted in May 2024, the new French SREN law regulates the use of AI for political messaging and targeted advertising campaigns and requires political parties to disclose any use of AI in their communications.

Criminalising to convey harmful and false information. The 2023 UK Online Safety Act makes it an offense to send a message conveying information they know to be false, and which is intended to cause harm.

Monitoring agencies and contingency planning

Another approach includes establishing new agencies and functions to monitor and counter disinformation campaigns, primarily targeted at attempts of foreign information influence. The policy challenge is to reconcile public safety and freedom of expression.

Psychological Defence Agency. Operative since 2022, the Psychological Defence Agency, which responds to the Ministry of Defence, analyses and provides support in countering malign information influence directed at Sweden or Swedish interests by foreign powers.

Counter Disinformation Unit. The National Security and Online Information team, previously the Counter Disinformation Unit, leads the UK government's response to information threats online and works with social media platforms to encourage fast removal of disinformation.

Deepfake contingency plans. The Swiss EPTA members recommends all Swiss organisations and public institutions to develop contingency plans for the handling of harmful deepfakes.

Guidelines for the use of AI in political campaigning

Political parties in several countries, including the Netherlands and prospectively Norway, have developed guidelines for the use of AI in campaigning. Such may empower the public and fact-checkers to easily identify what content originates from the parties. This may promote the trustworthiness of parties and the integrity of elections.

European election guidelines. Ahead of the European Parliament election in June 2024, political parties pledged to ensure ethical and transparent use of AI. This included labelling AI-generated content and refraining from producing, using or

disseminating deepfakes that falsly depict candidates without their consent.

Deepfake policy. Seven parties in the Danish parliament have joined a voluntary deepfake policy. They will not create deepfakes of politicians without consent and commit to label all deepfakes. A common codex on the use of AI in political work will follow in fall 2024.

Declarations of AI use. Several parties in Switzerland have agreed to declare all uses of AI in campaigning and to refrain from using deepfakes discrediting parties or candidates. However, two large parties did not join in on the policy.

2 Artificial Intelligence in parliaments and the public sector

Europe faces an existential productivity challenge. That is the gloomy conclusion of the long-awaited landmark report on European competitiveness by former Prime Minister of Italy and President of the European Central Bank, Mario Draghi. To sustain its social model while decarbonising and increasing defence capacity, Europe must speed up growth. Increased productivity is the only way, as Europe's work force is shrinking. Its population is also rapidly aging, something which puts pressure on public services.

One promise of AI is to usher in more efficient, personalised and accessible public services and administration. In the public sector, AI may automate routine office work and rule-based case management, and augment public agents to make faster and better decisions. It also might empower citizens to access information and claim public services more independently, thus relieving public agents of work.

To integrate AI safely into public services is neither easy nor risk-free. Large language models are opaque, and services built on them are prone to hallucination and bias. This absence of transparency makes it hard to map, discover and adopt measures to uphold fundamental rights such as to privacy, equality and freedom from arbitrary decisions. Even AI researchers struggle to understand and predict how AI models function and will behave. This might prevent public sector from building services based on these models.

EPTA members note that several things are needed for public sector to exploit AI: clear signals from government about what AI may or may not be used for, access to AI competence and talent to avoid private sector dependency, and availability of high-quality data to train AI. Public sector also need clarity on how they should interpret concepts such as AI bias and responsibility, to know when services are safe enough to launch. Caution is advised when using AI to automate decisions that impact peoples' lives.

Authorities stimulate the emergence of trustworthy and safe AI public sector AI services from multiple angles. They issue more or less strict guidelines on how to

use and develop AI, and they convene task forces to speed up public sector innovation.

Parliament and public sector use of AI

Use of AI in parliaments

The Inter-Parliamentary Union (IPU) has underlined 45 use cases of AI in parliaments and grouped them into six categories: classification systems, bill drafting and amendments, transcription and translation, chatbots and user support, public engagement and open parliament, and cybersecurity and application development.

In its draft resolution on the impact of AI on democracy, human rights and the rule of law, the IPU calls upon parliaments to develop policies for the responsible creation, deployment and use of AI technology. It also encourages parliaments to experiment with generative AI and to build prototypes, including training AI models on parliament data.

Low-threshold use cases still dominate in parliaments, but advanced and systematic uses of AI, including generative AI, are on the rise. Systems that transcribe speeches in parliament already exist in Norway, Lithuania and Greece, while Switzerland is close to implement live AI oral translations of Italian, French and German of meetings in its parliament's National Council. Regarding even more advanced use cases:

AI managing amendments to legislation. In France, a language model adapted for parliament and government *summarises*, *comments* and *assigns* amendments to legislation to the appropriate committee and ministry, reducing time spent on this from 6-10 hours for one person down to 15 minutes.

Language model trained on parliament data. Danish parliament administration is developing an in-house language model based on its own data. It has also installed a local tenant version of Microsoft Copilot and will integrate generative AI functionality in its future digital services procurement tenders.

Use of generative AI in the public sector

Governments increasingly adjust and tailor AI models developed by companies such as Meta, Google and Microsoft to their own needs. These are mostly low-threshold use cases. To automate decision-making using AI is still mostly off the table. Chatbots is a use case causing contention. The debate is about how efficient and useful chatbots must be to accept the risk of hallucination or discrimination when they "talk" to citizens.

Ministries get tailored version of ChatGPT. The Austrian Ministry of Education, Science and Research has contracted with Microsoft to use its Azure cloud computing platform with a tailored

service of OpenAI's ChatGPT. It intends to use it to design the next edition of math exams.

Biased and deficient public sector chatbot. In 2023, the Public Employment Service Austria (AMS) deployed a ChatGPT-based AI chatbot linked to AMS sources and tools to answer questions about job profiles, salaries and training. It was criticised for being both deficient, insecure and biased. For instance, the bot offered gendered advice on career choices to young adults.

Policy initiatives to stimulate trustworthy AI

Prescriptive and voluntary guidelines for AI *use*

Most EPTA countries have some kind of guidelines for safe and responsible use of AI in parliament and government. They all encourage labelling AI use, human oversight of AI systems, and fair and secure use of data. Guidelines diverge is in terms of how prescriptive they are and the extent to which they specifically discourage certain use cases of AI or not.

Do not replace human workers with AI. In Luxembourg, a Charta on the use of AI adopted by and for parliament requires any use of AI to provide measurable added value to parliament. It also states that the primary intention of deploying AI never should be to replace human workers.

Impact assessments must precede all AI use. The Dutch government requires all public sector use of generative AI to be preceded by data protection and algorithm impact assessments. ChatGPT and Midjourney do not demonstrably comply with applicable laws and are in principle not permitted.

Regulation and guidelines for AI *development*

Another policy approach is to regulate and guide how AI is developed. The EU *Artificial Intelligence Act* categorises AI systems and usage areas according to the risk they pose to peoples' fundamental rights. It defines technical criteria that high-risk AI systems must comply with to be allowed in Europe. Public sector AI systems that evaluate creditworthiness and eligibility for insurance and public benefits, are regulated strictly.

In cases where specific development guidelines exist, they define how public sector AI should be tested and designed and who should be involved in such testing.

Protocol to safeguard rights in AI tenders. In Catalonia, the Barcelona City Council is finalising a protocol that defines how to safeguard rights in each stage of a tender and implementation process of a municipal algorithmic system. The protocol also establishes governance and supervisory bodies.

Guide for setting up attack simulation teams. In the US, the AI Safety Institute of the National Institute of Science and Technology has specified how to set up and use attack simulation teams (red-teams) to assess how threat actors could bypass safeguards built into large language models.

Task forces to speed up AI use and innovation

Several governments are setting up in-house AI task forces. Here, resources and expertise are pooled to identify generalisable and scalable solutions for the whole public sector and to coordinate their roll-out. Both municipal, regional and national government and public agencies take part in these task forces in certain countries.

GovTech Lab. In Lithuania, the GovTech Lab at the Innovation Agency helps public institutions assess how technologies like AI might resolve a problem. Then it invites start-ups and businesses to create and help integrate solutions into public sector services.

Digital taskforce on AI. A new digital taskforce on AI set up by the Danish government and municipalities association shall identify and resolve barriers to exploiting AI and promote large-scale solutions that can relive workers, reduce administration and improve public services. It gets its own secretariat and seconded staff from relevant ministries.

Incubator for AI. The British *i.AI* incubator with 70 employees is piloting generative AI applications in administrative areas such as analysing entries to public hearings.

3 Democratic control and governance of artificial intelligence

In November 2023, the topic of AI managed to muster 29 countries, including the EU, US and China to the AI Safety Summit at Bletchley Park in the UK. Ten months later, at the UN Summit of the Future, the UN unanimously adopted the Pact for the Future and the Global Digital Compact. Here the UN commits to establish an Independent International Scientific Panel on AI and a government-based Global Dialogue on AI Governance.

Together with the European AI Office, launched through the AI Act to monitor and enforce rules for general-purpose AI models such as OpenAI's GPT-4, the UN Scientific Panel will enable more inclusive and transparent global scrutiny of the capabilities and risks of AI, similar to what already exists for the global governance of climate knowledge.

Democratic control and governance of AI is also about governments' ability to control how technologies are designed, developed and disseminated. Power over AI is currently concentrated outside of Europe. Only a handful of foreign and

largely US companies have enough competence, data and computing resources to build AI models and control how quickly they spread on the global markets.

Access to AI for a country is strategically important. Moving forward, such access will be required both to ensure industrial competitiveness, scientific excellence and high-quality public services. This is because these are all becoming more data driven. To be competitive and of high quality, industry, science and public services will need stable access to AI infrastructure, including relevant data, computing power and tailored AI models.

This also applies to public infrastructure systems such as energy, communications and water management infrastructure. If underpinned by AI, these will largely have to run on domestically developed, operated and controlled AI models for security reasons.

EPTA countries are now lifting AI policy to a higher level of politics. They also create agencies and testbeds to underpin and strengthen the efficient management and safety of AI systems, and they increasingly invest in computing power and domestic AI models.

AI policies and governance structures

Government ministries and parliamentary committees
As the vast opportunities and challenges of AI have become more evident, and to better focus and assign responsibility for its AI ambitions and plans, countries have appointed and created designated new AI ministries and parliamentary working groups.

New parliamentary subcommittee on AI. In Poland, a new parliamentary subcommittee on AI and algorithmic transparency was established in 2023. It has met eight times since then to discuss, amongst other topics, AI in judiciary, safeguarding privacy in the age of AI, and AI ethics.

Working group on AI in the Committee for the Future. In Lithuania, the parliament's Committee for the Future has established the Working Group on Artificial Intelligence. Its tasks include to highlight shortcomings in existing legislation and assess the need for AI guidelines in different sectors.

First-ever minister of AI. France has appointed its first-ever dedicated minister of AI. She will report to the Ministry of Higher Education. Denmark and Norway have also appointed new ministers of digitalisation, although AI is not specifically part of their titles.

Agencies and supervisory roles

Some countries are issuing prescriptive guidelines and creating new operating agencies to supervise public sector adoption of AI. The objective of these policy instruments is to make sure that AI systems in the public sector are easy to access and managed well. They also help maintaining an overview of the total adoption of AI across the whole of government and public sector.

Three new federal AI agencies. In Germany, three new federal agencies are being set up to respectively coordinate, deliver and develop AI services and large language models for the public sector. In addition, all government ministries have set up data labs to safely store and manage data and develop AI tools.

AI talent task force and chief AI officers. The US President has ordered an AI and Technology Task Force to attract AI talent to government. In addition, all ministries including key public agencies are required to designate and establish Chief AI Officers and AI governance bodies to strengthen their AI governance.

Sweeping new agency for AI supervision. The sweeping new Spanish Agency for the Supervision of Artificial Intelligence shall assess opportunities and challenges of AI for Spain, promote public and private innovation, while also being the primary Spanish enforcer of the EU's AI Act.

Testbeds and safety institutes

To map and monitor risks and uncover unforeseen behaviour of precarious AI models and services, countries are setting up testbeds and institutions to observe and research how these services operate in real-world situations. Another purpose of testbeds is to speed up innovation, by convening scientists, developers, ethicists and lawyers to consider how AI must be designed and governed to be safe and comply with legislation.

AI Safety Institute. The British AI Safety Institute tests and assesses how impactful, autonomous, safe and inclined to misuse different AI systems are, with the aim of understanding AI risks and enable AI governance. Launched in November 2023, the institute employs more than 30 technical staff. US and Japan also have AI Safety Institutes, and during the AI Seoul Summit in May 2024, a network and statement of intent toward international cooperation on AI safety science was adopted.

Free Zones of Technology. Portugal is establishing Free Zones of Technology (FZTs) – physical spaces where new technologies may be developed and tested. One of them focuses on innovative mobility solutions to achieve carbon neutrality in cities.

Large language models observatory. In Luxembourg, a large language models observatory evaluates the biases of such models with regards to factors such as sexual orientation, age, race, religion, political views, gender and xenophobia.

Expert councils and commissions

A series of advisory councils and commissions have been convened by governments to inform AI policymaking. It varies what kind of expertise is represented in these groups and what they are intended to achieve.

Advisory group comprised by practitioners. In Poland, a new advisory group comprised exclusively of AI practitioners shall advise the Ministry of Digital Affairs on how the quality and productivity of the public sector may be improved using AI.

Commission on AI competitiveness. A commission to support Swedish AI competitiveness shall analyse and propose how AI may advance Sweden as a leading nation in the spheres of research, industry and welfare. It is comprised by members from both the private, public and academic sectors.

Ministerial commission on AI in public services. In Catalonia, a new commission comprised by all ministries and key public agencies shall promote, supervise and evaluate how AI may impact public services. For example, work is now in progress to standardise how to identify, evaluate, mitigate and monitor AI risk through a dedicated public sector AI risk guide.

Policy initiatives to strengthen AI infrastructure

Many countries invest heavily in computing power

To facilitate data-driven research and AI development, while reducing dependence of foreign providers of cloud computing, many countries now bolster or acquire their own national supercomputers. These are computers with exceptionally high performance.

While the EU currently run and finance nine such supercomputers jointly, these new national supercomputers are mostly intended as standalone national supplements to the EU stock. It varies largely between countries how powerful these are, who funds them, and who gets to use them. They are expensive to build and demanding to operate.

New AI factories initiative. The EU intends to provide increased access for start-ups and small and medium-sized enterprises to their jointly run supercomputers through its new AI factories initiative.

Gefion **computer to become among the world's most powerful.** A partnership comprised of NVIDIA, the Export and Investment Fund of Denmark and the Novo Nordisk Foundation will establish *Gefion*, soon to be one of the world's most powerful supercomputers. Roughly 94 million euro are invested in the project.

Computing power split between researchers and industry. Contrary to most countries' policies, which reserve the use of supercomputers for academic institutions and research purposes, Spain plans to reserve 20 per cent of its computing capacity to industry.

Microsoft to invest 3 billion euro in AI infrastructure. Although not demonstrably linked to supercomputers, Microsoft is investing roughly 3 billion euro spanning two years in cloud and AI infrastructure in Sweden and will over the course of three years educate a total of 250 000 Swedes in generative AI.

Japan already plans its next supercomputer. While its Fugaku supercomputer already ranks <u>fourth</u> among the world's most powerful computers, Japan is already planning for what comes next. Developments might start in 2025.

One quintillion floating-points. The first ever computer capable of performing more than one quintillion floating-points operations per second will be available by the end of 2024 at the research institution Jülich in Germany.

Domestic large language models become a strategic priority
Many countries now develop domestic large language models using their own language data. On top of such models, public sector may build AI services that require accuracy of language. It may also be easier to explain why these models behave like they do and correct their bad behaviour. That makes it possible to deploy them for more purposes and more sectors than, say, a foreign model whose design choices are less transparent. To build such models also may reduce dependency of foreign models and can support critical infrastructure systems and services that cannot rely on foreign AI models.

One challenge is to secure access to enough language and sector data to build models of sufficient quality. High-quality text and image data such as novels, art works or medical scans are proprietary and personal data rightfully protected by copyright and privacy laws. Innovative schemes are required to compensate data owners for use of such data to train language models. Another challenge is how to secure access to enough computing power to train and make these models accessible for users.

Polish language model made available to all. Six state-owned research institutions are training a Polish large language model based on high-quality Polish language data obtained from publishers through license agreements. It will be released freely for everyone to use in December 2024.

Family of models of all languages in Spain. Through its bold new ALIA project, Spain will develop a family of large language models comprised of language data from both Castilian and co-official languages. Models will be used to generate artificial, or synthetic, data for further training, and applications to sectors such as biomedicine and law are envisaged already for 2024.

Five domain-specific language models. Switzerland aims to develop five domain-specific large language models for sciences, education, egocentric vision and robotics, health and sustainability respectively, leveraging *Alps*, the sixth most powerful supercomputer in the world.

Research concludes that high-quality language data matters. A research project commissioned by the government found that Norwegian language models improve across a number of metrics if trained on high-quality data such as books. However, training exclusively on fiction may decrease their grammar and punctuation skills.

Austria

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1   Artificial intelligence in political campaigning and public debate

So far, we have not observed the use of (Generative) AI in political campaigning or public debate. However, the September general elections' electoral campaign is still underway at the time of writing. In the media, we found a few articles with hints of traces of AI use.[1]

With a view to elections, the Federal Chancellery recently initiated a campaign against disinformation with a flyer for the public. There is an inter-ministerial working party on disinformation, focusing, among other issues, on the topic of deepfakes. In 2022, the group, led by the Ministry of the Interior, came up with an "Action Plan Deepfakes", delivered to the Parliament upon their request (following a briefing from the ITA in 2018).

The Austrian Parliament (Nationalrat) solicited a study on the impact of Generative AI on democracy and possible governance measures to cope with its effects. The study is due in October 2024 only, but an interim report has been discussed in the foresight and technology assessment advisory group (FTA-Beirat) of MPs in July. In addition, the Parliament started the campaign "Mehr als ein Kreuzerl" ["more than just a cross"], also involving TikTok. Via the federal KIRAS security research program, a few studies have been solicited regarding the technical detection of disinformation.[2]

The Austrian Council for Sciences, Technology, and Innovation (FORWIT) advocates a national competence centre for AI.

The Institute of Technology Assessment (ITA) delivered a mini assessment of the impact of Generative AI on politics in May 2023, advising the Parliament to address this issue. The preliminary result was that there is indeed some risk for

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[1] See https://oe1.orf.at/artikel/710219/Spuren-von-KI-im-Superwahljahr;
https://www.profil.at/oesterreich/chatgpt-erstell-mir-ein-wahlprogramm-wie-parteien-auf-ki-setzen/402909037; https://www.heute.at/s/ki-bewertet-aussehen-gruene-sind-am-attraktivsten-120056679
[2] See DesinFact (2023-2025), defalsif-AI (2020-2022), defame Fakes (2024)

democracy as we know it. The Parliament finally solicited a study to ITA in the spring of 2024, which is still underway. The interim report from June 2024 focussed on the technology's state, presented the new technology's opportunities (see below), and initiated the risk assessment. The report preliminarily concludes that Generative AI technology is developing dynamically and that there are already many examples of applications related to the political field, especially in the run-up to elections. Furthermore, it can already be stated that many experts and observers have concluded that Generative AI applications, especially deepfakes, have disruptive potential. This means that the framework conditions under which democratic processes have taken place could change quickly, so systemic consequences for democracies cannot be ruled out. This risk potential will be examined and evaluated in more detail in the study, and options for dealing with these risks will be compiled and analysed.

2   Artificial intelligence in parliaments and the public sector

The administration of the Austrian Parliament initiated a comprehensive data governance project in 2023, which analyses AI and parliaments in general and AI use in the Austrian Parliament in particular. The plan is to turn these activities into a comprehensive program for the digitalisation of the administration. It has an interdisciplinary scope that combines ICT, law, ethics, AI literacy, outreach, documentation and data management, risk analysis, and general management. Furthermore, a training program on AI use and working for parliament, respectively, in the interest of democracy, is being set up. In this context, the Research and Support in Parliamentary Matters Department focuses on how digitalisation changes our understanding of democracy.

The first milestone of these activities is the ten-page internal document "AI Guidelines", published in German on the intranet, also pointing at good practice examples taken from everyday situations. The first paragraph reads (in the unofficial English translation): "*The Parliamentary Administration and its employees use AI applications to perform their official duties. The opportunities offered by such applications are designed to strengthen the role of the Parliamentary Administration as a centre of expertise and communication for parliamentarianism and democracy, as well as to enhance the quality of service it provides to members of parliament and political parties*".

Indeed, the list of AI tools potentially used in the Austrian Parliament is long, from ChatGPT, Dall-E, and MS Copilot to DeepL, as well as Alexa, Siri, and many more. Use is, however, prohibited according to the EU's AI Act (prohibited practices, high-risk systems), the GDPR (regarding automated decisions), and, in general, when it comes to providing legal assessments or information. The Guidelines state that if content generated by an AI system is re-used (even in a modified form), this must be indicated.

In practice, some departments of the Parliamentary Administration use commercial products like DeepL for translations or ChatGPT for coding. No empirical evidence is available on the use of AI tools by MPs and their staff;

however, we may assume they are also experimenting with it. They have done a preliminary analysis of possible use cases; on that basis, the stenographers have tested speech-to-text solutions. The tests were preceded by a workshop that included practitioners, companies and researchers. So far, two solutions have been tested (still with mixed results), and legal questions have to be clarified. In addition, the parliamentary documentation department is currently preparing another trial. The idea is to fine-grain the existing attribution of keywords with the encompassing Eurovoc corpus.

The Ministry of Education, Science, and Research (BMBWF) claims to be the first of the federal ministries to use AI systematically. They have contracted with Microsoft to use the cloud computing platform Azure with a dedicated service of OpenAI's ChatGPT. They also plan to build up an AI-supported knowledge base on procurement and use the tools even to design the next edition of math tests during the centrally executed school leaving examination. While the Ministry of the Interior is developing its AI platform, the Austrian Federal Computing Center (BRZ) supports all other ministries in transitioning to AI-supported administration. The BRZ uses predictive analytics, robotics, and intelligent process automation.

A Federal Ministry of Finance unit, the Predictive Analytics Competence Center (PACC), uses predictive analytics and AI to detect tax fraud. As the centre reports, it uses modern machine learning methods to conduct risk assessments to optimise the selection of cases to be inspected. PACC targets all areas of the tax administration, such as labour tax, income tax, corporation tax, and VAT, as well as the identification of wrongful applications for and reception of subsidies and benefits and bogus companies.

In 2023, the Public Employment Service Austria (AMS) released an AI chatbot, the so-called 'AMS Berufsinformat', which aims to answer questions about job profiles, training opportunities, salary levels, vocational training, and similar job-related topics. Based on ChatGPT, it uses sources and AMS tools such as their Job Information System (BIS), Job Encyclopedia, and Training Compass. This system was heavily criticised for technical deficiencies, security gaps, and biased outputs.

The city of Vienna has issued guidelines called "Compass "regarding municipal employees' official handling of Generative AI. Equally, the Federal Ministry of Arts, Culture, Civil Services, and Sport (BMKÖS) published 'Guidelines on Digital Administration and Ethics', a practical guide of AI in administration. It considers AI and its impact on administrators, citizens, and the environment and suggests various approaches to impact assessment for the development and use of AI. The document ends with recommendations for human-centred AI governance, including competence development and training, management decisions on planning, procurement, and use of AI, and certifications, terms of use, and control. See also the internal document of the Parliamentary Administration mentioned above.

In the interim report to Parliament mentioned above, the ITA has assessed the opportunities for Parliament. The following table of use scenarios for Generative AI in the political arena, particularly in the legislature, was developed. However, we have not yet assessed barriers to use and deployment.

USE IN THE (CLASSIC) MEDIA	DEMOCRATISATION OF INFORMATION
- Research tool - Automated journalism - Information processing - Personalised news	- Language translation and simplification - Civic education - Automated summaries - Information search
DISCOURSE IMPROVEMENT	TOOLS FOR EVERYDAY POLITICAL WORK
- Improving political engagement - Constructive discussions - Achieving consensus - Simplified contact with politicians - Citizen participation	- Automated creation of minutes - Document versions in simple language - Research tool - Document analysis - Political consulting - Robocalls in election campaigns - Microtargeting

In 2020, the ITA published a study on an automated decision-making system (ADM) that was to be introduced by the Public Employment Service Austria (AMS) to profile jobseekers and provide them with different levels of support as part of the active labour market program.[3] In 2023, the Austrian Supreme Administrative Court reviewed the case and made it the subject of a further judicial inquiry.

Currently, the ITA is involved in an ongoing cross-national study on "Automating Welfare", focusing on using ADM in the welfare sector. Cases in Austria deal with systems for welfare fraud detection. The project will deliver results on ADM in welfare in Denmark, Sweden, Germany, Estonia, Poland, Italy, and Portugal.

3 Democratic control and governance of artificial intelligence

In February 2024, the Austrian government set up the so-called AI Advisory Board, including as a member the former deputy director of the ITA. In the same month, implementing the European legislation (in particular the AI Act and the DSA), the telecom regulation authority (KommAustria) also became the national "Coordinator Digital Services". In addition, an AI Service Point for the general public has been set up at the RTR.

Two centres provide government data for secondary use, potentially including AI applications: The Austrian Open Government Data infrastructure provides a

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[3] See also https://www.frontiersin.org/journals/big-data/articles/10.3389/fdata.2020.00005/full

platform centralising open, statistical data from public institutions at all levels (federal government, cities, municipalities) that is freely accessible and partly shares their administrative data with researchers. The newly established Austrian Micro Data Center is supposed to manage data access to public institutions more transparently. It centralises, manages, and regulates access to administrative data only for research institutions and for a fee. Both provide government data for secondary use. Furthermore, the Federal Chancellery recently <u>announced</u> the setting up of a supercomputer cluster, named "Musica", as part of the initiative Quantum Austria, targeting in particular AI research.

The ITA has not assessed the need for building or expanding access to AI infrastructure, but this will most likely be part of the conclusion of the study on Generative AI and Democracy mentioned above. However, as part of the above-mentioned "Automating Welfare" project, the ITA is currently conducting interviews with actors involved in the Austrian Open Government Data and the Austrian Micro Data Center to research potentials and challenges of creating public value by opening public data. Furthermore, the ITA is involved in the Austrian flagship project "Fostering Austria's Innovative Strength and Research Excellence in Artificial Intelligence (Fair-AI)," aiming to make it easier for small and medium-sized enterprises to implement the AI Act and to minimise risk.

Catalonia

Consell Assessor del Parlament sobre Ciència i Tecnologia (CAPCIT)
The Advisory Board of the Parliament of Catalonia for Science and Technology

1 Artificial intelligence in political campaigning and public debate

Use cases of AI in the Catalan context of electoral campaigns are still limited. Catalan political parties admit that they use AI tools in their daily work, mainly as support for the development of textual content, but limit it, in most cases, to internal uses. One of the first examples we find of the use of AI in political campaigns is in the May 2023 municipal elections when En Comú Podem (a Catalan left-wing political party) presented a spot consisting of images generated by AI with the double intention to illustrate alternative visions of the future but also to warn about the need to regulate AI. In the run-up to the campaign for the July 2023 Spanish general election, Junts per Catalunya (Catalan centre-right pro-independence party) used AI to produce a false video recreating the image of the Spanish Prime Minister, Pedro Sánchez, apologising for his policies.

During the May 2024 election to the Parliament of Catalonia, Ciutadans (a liberal centre-right Spanish political party) went further and created the first AI-generated campaign poster in the history of Catalan and Spanish politics. The party gave up putting the image of its candidates on the posters to recreate a kiss between the Spanish Prime Minister and pro-independence leader Carles Puigdemont. None of these examples marked the election campaign and did not provoke any significant political controversy, and it is eloquent that no party reported these practices to the Electoral Board. However, they were the first steps in the use of AI in political campaigns and have raised concerns about the potential need to regulate the use of generative AI by political parties as a measure to combat disinformation.

The May 2024 election to the Parliament of Catalonia was also the first in which AI tools were used by the administration to ensure that there were no errors in the vote count. In addition to the improvement in accuracy within the process, adding further transparency and agility to the data transmission are factors expected to reduce the spread of disinformation, thus reducing the risks of electoral misinformation.

Although not specific for information on elections, it is relevant to note that the Catalan Television (3Cat) has recently informed about the creation of a Commission on Responsible AI, with the future goal of managing its implementation with internal self-regulation. This commission is still in its early stages, and has not yet reached any conclusions.

Initiatives to address disinformation

Although the Parliament of Catalonia has not launched any structured initiative on this matter, it has developed several initiatives in recent years. In this sense, awareness-raising activities have been carried out on the topic, such as the Conference on combating disinformation online and fake news in 2019, which was organised together with the Official Association of Journalists of Catalonia and the Catalan Audiovisual Council, an independent body that reports to the Parliament of Catalonia. The Catalan Audiovisual Council warned in its 2022 and 2023 annual reports of the risks posed by the use of AI to freedom of information described in the different European regulations, although there is yet no official statement or recommendation on their side. More recently, in 2024, a round table was also held in Parliament under the title "From fake news to disinformation. Journalism under threat", also co-organised by the Official Association of Journalists of Catalonia.

On the broader phenomenon of disinformation, the Parliament of Catalonia approved Resolution 976/XII, on the fight against disinformation on the Internet, adopted by the Youth Policy Committee on 20 October 2020, although it does not explicitly link disinformation with AI. In this resolution, the Parliament urges the Government to promote responsible use of the Internet, as well as to ensure the independence of fact-checking entities in collaboration with media outlets. It also recommends implementing the European Commission's Code of Good Practice on Disinformation and adopting measures based on five pillars: transparency, media literacy, empowerment, diversity of the media sector, and ongoing research.

Furthermore and along the same lines, the Parliamentary Advisory Council on Science and Technology (CAPCIT) had already studied the issue of disinformation in social networks and published in 2022 the report "Disinformation on Social Media: What It Is and How to Identify It", which highlights that AI tools may foster disinformation by creating fake videos and images that are difficult to detect. These techniques, which use AI to alter visual content, have become a growing threat to public trust. The report recommends enhancing digital literacy to combat these risks, as well as using digital verification tools to identify manipulation and ensure accurate information.

Within EPTA's framework, the Parliament of Catalonia hosted in October 2023 an international conference on AI, where topics such as AI and labour, AI and health, AI and democracy, and AI and education were explored. In the specific area of democracy, the discussions addressed the potential risks AI poses to society, particularly regarding the spread of disinformation.

Finally, it has been announced recently that the Delegation of the Government of Catalonia to the United States and Canada and Catalunya Internacional promote the conference "Democracy at stake: disinformation during elections". This event aims to analyse how AI and fake news can pose a threat to electoral processes and democracy in general.

2   Artificial intelligence in parliaments and the public sector

To date, the Parliament of Catalonia is not using generative AI systems, nor testing any pilots, but it is at an early stage of establishing its *feuille de route*, starting by studying and assessing the possibilities and advantages that this technology can offer against the risks that may arise from a use that would not be accompanied by a proper regulation and training of its users. As a result, the Parliament of Catalonia is focusing on this evaluation in the context of an AI use that will contribute to optimise time, improve efficiency (e.g. supporting the drafting of texts, translations, or automatic subtitling), improve the quality of the work that is based on the ability to analyse large volumes of data, and identify trends and patterns in the data, helping in decision making processes.

There is no legal regulation for the use of generative AI systems in the Catalan public sector either, but the Catalan public administration is carrying out different pilot tests, which are described below.

Before describing these tests, it is important to mention that, likewise, Catalan public sector does use predictive algorithms, for example, in the criminal and penitentiary execution sector for risk assessment and management of the Catalan prison population as a whole. The prisoners risk assessment and the likelihood of recidivism when evaluating whether to allow temporary release from prison or grant licences are carried out through an algorithm called RisCanvi, which is currently using its version 3.0 and is updated every three years. Its use is however not free of controversy, as claimed by some external audits. In this respect, and not only related to RisCanvi but also to the use of AI by the Catalan Ministry of Justice in general, the Parliament of Catalonia has urged the Government in its Resolution 921/XIV, on the use of AI in the prison system, to (a) ensure that AI algorithms have been scrutinised and approved by the Observatory of Ethics in Artificial Intelligence of Catalonia (OEIAC) before deploying them; (b) ensure that algorithms and their corresponding source codes are public, to be able to carry out all relevant controls; (c) ensure that mechanisms are established to review, every two years, the new approved programs that use AI; and d) ensure that the Catalan Ministry of Justice reviews RisCanvi's criteria within twelve months.

In the field of health, the public health system in Catalonia is using different AI systems based on machine learning (ML). For example, an algorithm is used to detect patients who exaggerate the pain of their injuries, when they are on sick leave. It is an algorithm developed by a Catalan public university that helps insurance companies and social security to detect cases of fraud. Similarly, AI-based diagnostic imaging systems are also in use, and public health providers are

using systems based on ML in order to reduce errors in the dosage of medicines. AI-based decision support systems are also deployed to advise physicians when helping patients with trauma. To date, there are 170 initiatives using AI in the public health sector in Catalonia.

For the specific case of generative AI, the Catalan Government launched in late 2023, in cooperation with Capgemini and Google Cloud, the first experimental generative AI chatbot in Catalan, to generate automatic responses to queries, complaints and suggestions that citizens send to the Business Management Office. Given its experimental nature, the Business Management Office staff review the responses generated.

Catalan Government has also used generative AI – as a pilot test – in the *Diari Oficial de la Generalitat de Catalunya* (Official Gazette of the Generalitat of Catalonia) to simplify and summarise complex legal texts for the benefit of the general public. This project was launched in cooperation with Inetum, a private corporation. According to the reports, the test was considered successful and useful to promote the future development of generative AI in the Catalan public administration.

3 Democratic control and governance of artificial intelligence

AI policies and governance

In order to develop its AI strategy, the Catalan Government has created the Data Ethics Committee to encourage ethical reflection on the deployment of the data model and its use by the Catalan public administration (Government Agreement GOV/6/2021). It is also necessary to mention the enactment of the Government Agreement GOV/158/2023, which approves the Data Governance Model of the Administration of the Generalitat of Catalonia and its public sector.

Catalan Government has also approved the creation of the register of algorithms by the Generalitat of Catalonia (Government Agreement GOV/45/2024), whose model is currently under development. This register is part of the Catalan model of digital administration, as established by Act 29/2010, on the use of technology in the Catalan public sector. This very same Government Agreement (GOV/45/2024) has created the Artificial Intelligence Commission (AI Commission). The AI Commission has among its main duties: (a) to propose to the Government the actions to promote and supervise AI in public services; (b) to monitor the methodologies for the assessment of citizens' rights and freedoms in the provision of public services; (c) to supervise the compliance and adequacy with the Data Governance Model of the application of AI systems; (d) to bring to the Data Ethics Committee's attention the ethical questions on the use of AI in public administration; (e) to promote good practice mechanisms to apply AI that take ethical principles and values into account; and, finally, (f) to propose surveillance or human supervision measures with the aim to prevent or reduce to a minimum the risks deriving from the application of AI, especially those deriving from the protection of personal data.

In addition, civil society, especially active in Catalonia, is heavily involved in ensuring spaces for societal participation in the regulation and governance of AI. As an example, multiple Catalan entities participate in AI Ciudadana, a coalition of seventeen organisations working to defend human rights in the context of digital technologies. These organisation are urging the Government of Spain to take measures to ensure that the implementation of the new European artificial intelligence legislation (AI Act) respects human rights through four key actions: banning biometric and emotion recognition in public spaces, creating a more comprehensive registry for algorithms with mandatory public reporting, ensuring AI systems are designed to prevent discrimination, and involving civil society in the governance and impact assessments of AI as well as in shaping public policies related to artificial intelligence.

At a municipal level, it must be highlighted that Barcelona City Council has approved the document "Definition of work methodologies and protocols for implementing algorithmic systems", also known as Barcelona Protocol, which aims to create an internal protocol for implementing algorithmic systems at a municipal level. It is applicable to any algorithmic system promoted by the City Council, and the aim is to guarantee that these systems are used in a proportionate, supervised and grounded way, in accordance with legal, ethical and technical standards. This document defines the mechanisms for safeguarding the rights associated with each stage of the tendering and implementation of an algorithmic system by the City Council and establishes the governance and supervision bodies that will ensure that the impact of AI is in line with ethical principles and legal framework. In addition, through the Eurocities network, the cities of Barcelona, Rotterdam (Netherlands), Eindhoven (Netherlands), Mannheim (Germany), Bologna (Italy), Brussels (Belgium) and Sofia (Bulgaria) have worked together to develop a common model of register of algorithms that guarantees the appropriate use of data.

AI infrastructure: Initiatives and assessments
The Catalan AI Strategy (Catalonia.AI) was published in 2020, aligned with the European strategy adopted in April 2018. This strategy develops, on the one hand, an initial review of existing academic and industrial capabilities, updated in 2024 with the report "AI in Catalonia". On the other hand, it establishes the priorities and lines of action to promote research and innovation, create and retain specialised talent, ensure the necessary infrastructures and secure data access, and encourage the adoption of AI across various sectors, with an emphasis on the importance of ethical AI that aligns with legal, social and cultural norms.

Supercomputing, as one of the fundamental pillars for the development of AI, has played a fundamental role in the deployment of this strategy. The new European supercomputer MareNostrum 5, inaugurated in December 2023 at the Barcelona Supercomputing Center - National Supercomputing Center (BSC-CNS) – and whose upgrade was already approved in May 2024 –, has as one of its critical missions the creation of language models in all Spanish official languages that are open and transparent, avoiding bias and improving the quality of applications.

AI development requires, in addition, large, high-quality datasets, but these datasets are specific to each language. This vast amount of data needed to train large language models (LLMs) has widened the gap between languages with access to such data and those without it. To address this gap and ensure that Catalan remains relevant in AI and natural language processing (NLP) applications, the Government of Catalonia, in collaboration with the BSC-CNS and with financial support from the Spanish Strategic Project for Economic Recovery and Transformation (PERTE) of the New Language Economy, has launched the Aina project. As an example of its activities, the Aina project aims to generate datasets and develop open-source computer models, enabling developers to create AI applications in Catalan with ease using the Aina Kit. To raise awareness and promote the kit's use in various contexts, initiatives such as the Aina Hack and the Aina Challenge have been introduced.

The Catalan effort in supporting a coordinated AI ecosystem as part of the Catalonia.AI strategy is crystallising in initiatives such as the Centre of Innovation for Data Tech and Artificial Intelligence (CIDAI), following the model of the European Digital Innovation Hubs established by the European Commission; the AI Research Alliance of Catalonia (AIRA), which includes the recent launch of the ELLIS Unit Barcelona, integrated into the pan-European network of excellence in research and innovation; the AI community involved in the Digital Catalonia Alliance (DCA-AI); and different sectoral initiatives. In this context, the aforementioned OEIAC (2.1) studies the ethical, social, and legal consequences of implementing AI in daily life in Catalonia, including support to comply with general AI regulation and, specifically, the AI Act, which has recently entered into force. As an example, the OEIAC has developed a proposal for organisational self-assessment on the ethical use of AI data and systems called PIO (Principles, Indicators and Observables) model, which is based on the fundamental ethical principles established by the AI Act: transparency and explainability, justice and equity, security and non-maleficence, accountability and responsibility, privacy, autonomy, and sustainability.

Denmark

Democracy X

1 Artificial intelligence in political campaigning and public debate

Deep Fakes have caused public debate, but no evidence of foreign interference

The rapid uptake of generative Artificial Intelligence (gen AI) is impacting the Danish political landscape, and we have already seen how gen AI is being used to generate content (e.g., images, video or audio) that can be difficult to differentiate from authentic content.

Denmark has seen instances of how AI can be used to influence the public and political discourse. Specifically, there has been two notable occasions regarding the use of deep fakes and AI generated videos. One such example revolved around a member of the Danish parliament who posted a satirical deep-fake video of the prime minister in which she is arguing for political viewpoints that she does not endorse. Further, in a response to the abolition of a national holiday the political party Liberal Alliance shared an AI generated video in the style of a Wes Anderson movie, made to depict how the current government was stealing the holiday away from the Danish people. These are examples of how gen AI is affecting the political landscape and shaping the public discourse. For some, these instances are merely considered as humoristic and satirical, while others argue that using AI this way undermines trust and is harmful to democracies. Politician Morten Messerschmidt, who was behind the deepfake, argued that his video depicting the prime minister was simply satirical and meant to be taken lightly, and that it has an educational effect on the public. Others, such as future analyst and CEO at Elektronista Media, Christiane Vejlø have argued that the dangers posed towards democracy are daunting. And while deepfakes are now part of the online ecosystem, it is not for politicians – the very guardians of democracy – to create or share these.

As the technology develops and utilization matures, it is natural to expect more of such cases, but while these caused great controversy, they were clearly deepfakes. Being an election year, there were concerns that these cases were only the top of the iceberg, and that foreign interference through deepfakes and disinformation would affect the European parliamentary elections in June 2024. A task force with contributions from the Danish Defence Intelligence Service, the

Danish Police Intelligence Service and other public authorities were established to monitor the election. However, the task force found <u>no evidence</u> of systematic or coordinated foreign interference in the election.

Unreliable online information on the political agenda for some time
Already in 2018, the then government implemented <u>an action plan to counter foreign interference</u>, consisting of, among other things, resources for the Danish Defence Intelligence Service, surveillance of fake news targeted at Denmark, a cross-ministerial taskforce setting up counter-actions to hostile influence. In 2019 the political parties in the Danish Parliament entered into a <u>gentleman agreement concerning fake news</u> during election campaigns, providing guidelines for political parties and establishing a network of all political parties eligible for national and European parliamentary elections.

The deepfakes of the Danish Prime Minister, prompted the <u>Minister of Culture to investigate</u> whether deep fakes could be prohibited, and intended to use intellectual property rights and copyrights as legal tools to proscribe deep fakes. In parallel a <u>parliamentary debate</u> on the use of generative AI was organized in May 2024. The aim was to establish a voluntary agreement of the use of the technology, and resulted in a <u>preliminary voluntary agreement</u> that includes agreements on not using deepfakes to replicate or copy politicians or political parties without consent. Further, it covers labelling (using watermarks, text overlays, or audio disclaimers) to make it easy for citizens to identify manipulated content, regardless of context and consent and that any disputes should be resolved internally to maintain good dialogue. A more general and permanent codex will be elaborated in the fall of 2024, and will expand on the abovementioned gentleman agreement from 2019.

The use of AI to foster critical thinking
Democracy X is involved in the <u>TITAN project</u> that seeks to fight disinformation via AI. The aim of the project is to develop a human-centric and trustworthy AI tool that is able to aid citizens in combating disinformation online. By hosting co-creation workshops with citizens, it was found that <u>for such a tool to be accepted it should</u>: Be transparent about data needs, use, and storage, as well as the link between the data collected and the functionalities that they enable; be adaptable to individual user preferences; be user-friendly in its coaching aspect (i.e. how it guides a users' in critically assessing news and information online by using Socratic dialogue that enhances critical thinking); and be trustworthy by clearly communicating its design and reasoning. Findings from the TITAN project underlines the <u>need for creating human-centred technology</u> that are helping us move towards a safer implementation of AI systems that are developed with an interdisciplinary and multi-actor approach that fosters cooperation with the people that will be using them.

2   Artificial intelligence in parliaments and the public sector

Widespread experimentation with GenAI in the Danish public sector
With the exception of the deepfakes discussed above, the use of generative AI by political parties is not a very publicized theme nor something that political parties in Denmark have talked overtly about, apart from the occasional statement that a speech was (co-)written using generative AI.

On the other hand, experimentation and implementation abound among government agencies, as well as among regional and municipal authorities. A major event in that direction was the announcement in June that the Agency for Governmental IT had made a deal to make Microsoft Copilot available to all employees in the Danish state administration. But already before this, utilization of generative AI has been widespread. A couple of examples include:

- The administration of the Danish Parliament has for more than 10 years deployed a language model for speech to text, trained on the parliament's own sources as well as those of two Danish public service media. The parliamentary administration has also installed a local tenant version of Copilot, and is investigating use cases, including for meeting minutes, automatic journaling and classification of documents and more. Further, the administration intends to integrate generative AI functionalities in future procurement tenders.
- The Danish Agency for Digital Government have used generative AI to create a report on the extent to which large Danish companies report on data ethics.
- The Agency for Public Finance and Management has run an exploratory process to investigate use cases of generative AI, and has at least developed two promising GPT models, one for supporting other government agencies and one for drafting and harmonizing decision suggestions.
- The Danish National Association of Municipalities (KL) have initiated the development of a general GPT-model, called KommuneGPT (MunicipalityGPT). The GPT-model will be based on data from various municipal sources, which will give the model access to knowledge on legislation, administrative guidelines and municipal decisions and give the employees access to a tool that can make their work more efficient and of higher quality.

As a general source of reference, the Danish Data Protection Agency published a mapping of AI utilization in the Danish public sector in October 2023, and KL has developed an interactive map of municipal utilization of AI in general.

Significant strategic attention to AI
Denmark saw its first AI strategy in 2019, and has, in addition, had a number of digitalization strategies over the past years that highlight AI and automation as key priorities. The Økonomiaftale for 2025 between the KL, Danish Regions and

the Danish Government establishes a digital taskforce for AI, whose aim is to identify potentials and barriers for AI utilization in the Danish public sector.

The AI strategy has significant focus on responsibility and trustworthiness and dedicates one of four focus areas to "A responsible basis for AI" and one of four aims is that Denmark should have an ethical foundation for AI with the human in centre. The Danish digitalization strategy of 2024 and the Shared Public Digitalization Strategy of 2022 – 25, both extensively invoke AI-based solutions to overcoming a set of challenges for the Danish public sector. However, in both cases there is no mention of 'trustworthy' or 'responsible', while the task description for the digital taskforce mentions the need for AI to act within "responsible frameworks" with a focus on respecting rights of citizens and companies.

The resources published by various public organizations only to a limited extent touch on trustworthiness or responsibility. The Danish Agency for Digital Government has published a guide to generative AI for public authorities, where the consideration on responsible use consists of suggestion to create guidelines and presenting some risks associated with generative AI. The guide Public Authorities' use of Artificial Intelligence published by the Danish Data Protection Authority, mentions responsibility twice, but not in the operational part of the guide. By the same token, trust is mentioned exclusively in the foreword. The resource with most focus on responsibility is the Guide on publicly available services with generative AI published by KL, which dedicates one of six slides to attention points regarding responsible use.

In general, there is a widespread political push but also a bottom-up willingness and motivation to implement AI across different government levels. However, there is no overarching state or public administration guidelines, rules or procedures for application of AI. As was the case for the Danish Parliament's Administration, each organization is responsible for developing their own rules and guidelines. The statement of the former Minister of Digitalization epitomizes the Danish public sector approach to AI, that there is only one red line, and that is that the final decision should be made by a human, beyond that there is no restrictions for what the technology can be applied to.

Recommendations for public sector use of AI
While Democracy X have not carried out any in-house projects on parliamentary or public use, Democracy X participated in the International Republican Institute's Generative AI and Democracy Working Group, and as such contributed to the ensuing white paper *Democracy in the Age of Generative AI*.

The white paper sets forward a host of general opportunities and risks as well as recommendations for industry, CSOs and governments. Among the recommendations for governments are for governments to create an accessible resource with overview of governmental utilization of generative AI, ensure multi-disciplinarity in procurement staff and inclusion of citizen feedback when integrating generative AI solutions. A central recommendation was for governments to consider how generative AI tools could be leveraged to increase

accessibility of government resources and improve service delivery. Another key recommendation was to dedicate resources for building up in-house expertise on generative AI, to avoid dependence on external consultants but even more so to have internal operational capacities.

As part of the conversation, it was highlighted that public institutions developing and deploying generative AI have a special responsibility to ensure explainability and transparency of their services, and should keep this front and centre when developing and deploying generative AI systems.

3 Democratic control and governance of artificial intelligence

National policies on AI

Despite a long history of extensive public digitalization it was not until December 2022 that Denmark got a Ministry for Digitalisation. Even so Denmark has a long history of digitalization strategies going all the way back to 2001, the most of recent of which is the 2024 digitalization strategy, whereas there has so far only been one AI specific strategy, namely the one issued in 2019. The AI strategy has not been updated since 2019, and so does not address generative AI, and even if the newest digitalisation strategy is from 2024, it does not mention generative AI, though it does touch on a potential Danish language model.

As mentioned above, a digital taskforce on AI was established in spring 2024 in collaboration between the Danish government, regions and municipalities. The task force is purposed with identifying and handling barriers to rolling out AI solutions across the public sector at scale, solving organisational, technical and legal challenges along the way. The task force is set to pave the way for Denmark to be world-leading in public sector application of AI, and, as mentioned, the only red line for utilization of AI is that it should only act as decision support.

Under the auspice of the Danish Ministry of Foreign Affairs Denmark has had a Tech ambassador since 2017, aimed at representing Danish technological policy internationally, particularly facing big tech and the EU. Office of Denmark's Tech Ambassador updated its strategy in March 2024, and the new strategy includes a focus on promoting the responsible use of AI specifically based on the emergence of Large Language Models (LLMs).

The Danish policy context also include the politically independent Danish Data Protection Authority, which together with the politically led Danish Agency for Digital Government will implement the provisions of the EU AI-Act and monitor the lawful use of AI in Denmark, as well as provide guidance on the practical use of AI (especially for Danish SMVs), and may issue critique in cases of violation of the rules, whereas judicial enforcement is handled by the Danish police. The same two institutions established a regulatory sandbox for AI projects in 2024, where companies and public authorities have special access to relevant expertise and guidance. It has so far had one round of projects where the focus was exclusively on GDPR compliance, but it is expected that there will be a second round in 2025 which will expand focus to compliance with the EU AI Act as well.

Several expert Councils have published guidelines on AI. They include the Government's <u>Expert Group on Tech Giants</u>, and <u>their recommendations on AI</u>, the establishment of a <u>Governmental Alliance for a safe online everyday life for children and youth</u> and the establishment of a <u>Dataethics Council</u>, which has addressed the ethics of generative AI.

Examples of Civil Society Organisations that are active on the topic of AI and its governance in Denmark include "Safe the Children Denmark", "Børns Vilkår" (NGO working on Children's rights)," Forbrugerrådet Tænk" (Danish Consumer's Council), Danish Industry and the Danish Trade Association.

The Danish AI infrastructure
Denmark will be host to one of the World's most powerful AI super computers. The GEFION supercomputer is housed at the <u>Danish Centre for AI Innovation</u>. The centre was announced on March 2024, and it is funded in a partnership between Export and Investment Fund of Denmark (EIFO), NVIDIA, the Novo Nordisk Foundation, and is estimated to be ready for pilot projects by the end of 2024. Other notable AI infrastructure include, <u>a consortium of public and private actors working to develop a Danish Large Language Model</u> (LLM). The is open to anyone sharing in the values and principles of the consortium. Another LLM is developed at <u>Aarhus University Center for Humanities</u>. Additional larger research infrastructure includes, the "<u>Pioneer Centre for Artificial Intelligence</u>", focused on interdisciplinary and fundamental AI research and the "<u>Digital Research Centre Denmark</u> (DIREC), a national research centre on advanced digital technology, powered in collaboration between the eight Danish universities and the Alexandra Institute.

European Union

Panel for the Future of Science and Technology (STOA) for the European Parliament

1 Artificial intelligence in political campaigning and public debate

While <u>concerns</u> about AI's impacts on the democratic process are <u>not new</u>, voters on both sides of the Atlantic are getting more and <u>more concerned</u>: surveys show that a majority of <u>US adults</u> are concerned that AI could increase the spread of false information during the 2024 presidential election – those more familiar with AI tools being more likely to believe so – and a majority of <u>EU citizens</u> in some Member States are concerned about the threats that AI and deepfake technology pose, making it difficult for voters to distinguish the real from the fake. According to <u>some</u>, synthetic propaganda and deepfakes are capable of distorting our perception of reality in a more fundamental way as, for example, they are more likely to be rated attractive and credible and to be shared by users.

Not only are deepfakes already appearing in connection to political candidates (they were <u>used</u> in the recent election campaigns in Slovakia and Poland), but they are also increasingly used to target key institutions such as established journals. For instance, generative AI could have a <u>negative impact</u> on voter turnout, through 'rumour bombing' to deter voters from going to vote, or on 'swing voters' who make up their minds at the last minute, as AI enables far more precise audience targeting. Although the use of generative AI in political ads has been limited thus far, <u>many</u> anticipate increased usage in the 2024 and beyond. Thus some big tech companies have <u>updated</u> their policies to ban or to require political ads on their platforms to disclose if they were created using generative AI.

During the <u>past</u> European elections on 6-9 June, the EU institutions have played their part in fighting disinformation and information manipulation targeting European democracy. As documented by e.g. the <u>European Digital Media Observatory</u>, disinformation actors from inside and outside the EU seek to undermine the integrity of the electoral process, trust in democratic processes at large and sow division and polarisation in our societies. According to the Eurobarometer, 81% of EU citizens agree that news or information that misrepresents reality or is false is a problem for democracy.

Institutions, authorities, civil society actors and fact-checkers such as the European Digital Media Observatory, the European Fact-Checking Standards Network and EUvsDisinfo have detected and exposed numerous attempts to mislead voters with manipulated information in recent months. Disinformation actors have pushed false information about how to vote, discouraged citizens from voting, or sought to sow division and polarisation ahead of the vote by hijacking high-profile or controversial topics. Sometimes these attempts to deceive consist of flooding the information space with an abundance of false and misleading information, all with the aim of hijacking the public debate. Often top politicians and leaders are targeted by information manipulation campaigns. Several European policies are often targets of disinformation: support to Ukraine, the European Green Deal, and migration.

Disinformation actors have also employed networks of fake accounts as well as fake or impersonated media outlets to manipulate the information environment. Recent revelations by the European External Action Service (EEAS) and national authorities of EU Member States include the False Facade, Portal Kombat and Doppelgänger operations. Recently an investigative report called "Operation Overload" by Finnish software company Check First documented how suspicious accounts contacted more than 800 fact-checkers and media in over 75 countries - to overload them with false information, drain their resources and to try and convince them to spread this false information by way of debunking articles.

Even if no major disruptive information manipulation attempts targeting the European elections were detected ahead and from 6-9 June, analysts did observed an increase in information manipulation attempts. Nevertheless, it was nothing that was not expected nor we prepared for. We know disinformation and interference do not end when votes have been counted. As disinformation actors invest in slow but steady drop long-term efforts to erode trust in institutions and democratic processes and distort the public debate, may rest assured our endeavours to secure European democracy will not cease.

Initiatives to address disinformation
Thanks to the work developed over this legislature, the EU is a major pioneer in Al regulation, and the European Parliament has been at the forefront of this effort, as exemplified by the Special Committee on Al in a Digital Age (AIDA). Given the nature of its mission, STOA has from very early on been looking at Al and its multiple implications, with work on the topic dating back to before this term. With the recent push towards Al legislation, notably with the Al Act, STOA's work had a strong focus on Al during the first part of the past legislature 2019-24. The scene was set early on with a workshop on the future of Al in Europe; further examples of STOA's work in this area include an in-house study on Al techniques and their impacts (Artificial intelligence: How does it work, why does it matter, and what can we do about it?), and studies on the ethics of Al, tackling deepfakes, regulatory divergences of public and private sector obligations, and the use of Al in the workplace.

To facilitate communication and spread awareness of STOA's work, practical access to further information through online resources was offered through the purpose-built Centre for AI and also through the work of the ESMH. As the legislative process on the AI Act entered the home stretch, STOA shifted its focus towards keeping up with continuing AI developments, such as generative AI.

While the threats are there, so are the EU's collective responses. Based on a clear mandate from the political leadership, the EU institutions have been tackling the challenge stemming from foreign information manipulation and interference, including disinformation, for years. These efforts take place in close collaboration and coordination between the institutions and with the involvement of a wide range of other stakeholders, such as EU Member States, media and fact-checkers and civil society, in order to share insights, exchange experiences and best practices and coordinate responses.

Being at the global forefront of addressing threats related to foreign information manipulation and interference, the EU is working in close cooperation with its like-minded partners outside of the EU via fora such as the G7 Rapid Response Mechanism, among others. To raise resilience to external interference attempts, the EU has developed a dedicated toolbox to counter foreign information manipulation and interference, including a set of tools ranging from situational awareness and resilience building to legislation and diplomatic levers. All these efforts always take place in full respect of European fundamental values, such as freedom of expression and freedom of opinion. This comprehensive response to disinformation is centred around the following building blocks:

- developing policies to strengthen our democracies, making it more difficult for disinformation actors to misuse online platforms, and protect journalists and media pluralism;
- raising awareness about disinformation and our preparedness and response;
- building societal resilience against disinformation through media literacy and fact-checking;
- cooperating with other institutions, national authorities or third parties

During the past mandate, the European Parliament's Special Committee on Foreign Interference in all Democratic Processes in the European Union, including Disinformation (INGE and its successor ING2) also shone a spotlight on the issue of foreign interference, including disinformation, and recommended that all of society plays its part, also through non-legislative measures, to tackle them.

The EU institutions have been promoting several activities, including awareness-raising campaigns and media literacy initiatives, to raise societal resilience against disinformation and information manipulation. Examples include:

- the official European elections website with a section on <u>"Free and fair elections"</u>;
- a common press release EP/EC on <u>European elections and disinformation;</u>
- a <u>series of videos</u> by the European Parliament (in 24 official EU languages) informing the public about the techniques used by disinformation actors to deceive people;
- a <u>leaflet</u> by the European Parliament with 10 tips on how to tackle disinformation;
- a <u>toolkit for teachers</u> by the European Commission on how to spot and fight disinformation;
- a joint campaign by the Commission and the European Regulators Group for Audiovisual Media Services with a <u>video</u> running on social media and broadcast around the EU, raising awareness of the risks of disinformation and information manipulation ahead of the European elections;
- A dedicated series of articles and insights on foreign information manipulation and interference on the EEAS' <u>EUvsDisinfo</u>.

In addition to the specific focus on AI, throughout the previous legislature STOA has also provided extensive support for the intense legislative activity linked to the digital transition, when Parliament was particularly busy with the AI-related regulatory package. This support has related to the preparation, for instance, of the <u>Digital Markets Act</u>, the <u>Digital Services Act</u>, the <u>Data Governance Act</u>, the <u>Data Act</u>, the <u>European Declaration on Digital Rights and Principles for the Digital Decade</u>, the Decision establishing the 2030 policy programme '<u>Path to the Digital Decade</u>', the <u>Digital Resilience Act</u>, the <u>Directive on Liability for Defective Products</u>, and the <u>Directive on adapting non-contractual civil liability rules to AI</u>.

STOA and other EPRS units offered practical access to further information through online resources, including the <u>AI Repository</u> of documents, the European Science Media Hub (<u>ESMH</u>) publications and the <u>AI legislative overview</u>) of European Parliament decisions and other EU policy documents relating to AI. STOA's events and publications made a substantial contribution to policy debates on AI and disruptive technologies in the European Parliament and beyond. In an important election year for the European Parliament, the <u>Panel for the Future of Science and Technology</u> (STOA) demonstrated its commitment to embracing and disseminating the most recent social science on democratic participation with the 21st <u>STOA Annual Lecture</u> under the theme 'Making Democracy Work for Everyone'. The lecture acknowledged the intricate tapestry of democratic processes, highlighting the paramount importance of inclusivity. It addressed the generational gaps, socio-economic disparities, and diverse global contexts that can hinder equal representation and participation. A <u>recent opinion</u> of the European Group on Ethics in Science and New Technologies explores several challenges to democracy, and in particular the role of private companies and social media in shaping public spaces and people's opinions. A <u>recording</u> of

the event is available on the STOA website; where you can also find a series of videos with declarations from some of the participating experts.

The contribution of STOA to this debate has been complemented by a series of interviews published by STOA's European Science-Media Hub (ESMH) including experts such as: Michael Bruter, Barbara Prainsack, Nobel laureate John O'Keefe, Henry Ajder, Mike S. Schäfer, Catelijne Muller. Additionally STOA's contribution includes hosting more related events such as "Humanities in the digital age: Securing innovation and empowering democracy" and "Artificial intelligence public perspectives", as well as discussing Chat GPT at ESMH's Summer School for journalists and the release of a series of science media intelligence reports.

Assessments of opportunities and challenges

The European Parliament has worked to define rules for AI systems that strike the right balance between fostering investment in this new technology and protecting fundamental rights.

Since 2020, Parliament has adopted several resolutions outlining how the EU should regulate AI to support innovation, ethical standards and trust in AI technology. It launched a Special Committee on AI in a Digital Age. In May 2022, Parliament adopted its roadmap to AI. Parliament advocated a horizontal, innovation-friendly regulation framework, proportionate to the specific types of risk particular AI systems incur.

The European Commission's 2021 proposed AI Act was the first of its kind in the world. Parliament formally adopted the law in March 2024, and it is expected to enter into force soon. The rules laid down in the act apply to all AI systems sold or used in the EU, to ensure that only safe products are placed on the market. As Parliament advocated, the proposal introduced a risk-based approach: certain AI practices with unacceptable, harmful risks will be prohibited, high-risk AI systems regulated, and transparency obligations will apply for systems with minimal risk.

Parliament secured important changes to the initial proposal. The definition of AI systems is now aligned with the Organisation for Economic Co-operation and Development (OECD) text. Moreover, the list of prohibited AI systems has been extended, and systems that influence voter behaviour are labelled high-risk. Parliament also ensured high-risk systems must undergo a fundamental rights impact assessment before they are brought to market. Thanks to Parliament, citizens will be able to file complaints about AI systems and receive explanations about decisions that affect their rights made using high-risk systems.

Parliament also succeeded in shaping the response to the rapid development of general-purpose AI (GPAI) models powering AI tools like ChatGPT. Characterised by their large size, opacity and the fact that they can be used and adapted beyond the purpose for which they were designed, these models present ethical and social risks: discrimination, misinformation and privacy violations.

The AI Act introduces obligations on transparency and copyright law, and ensures content used for training for all GPAI models is disclosed. More stringent obligations will apply for more powerful, high-impact GPAI models. The newly named European AI Office, established within the European Commission, will have investigatory and enforcement powers over GPAI models, and a link to the scientific community to support its work.

The European parliament has put in place several initiatives to explore the possibilities for the use of AI in parliamentary work. These started with a reflection group on AI that collected the opinion of experts and staff. This was followed by an internal EPRS project on the use of AI that presented its conclusions in June 2024. The key takeaways of this exercise were as follows:

- It would be beneficial to use more generative AI tools that match better EPRS's requirements in terms of accuracy/reliability and plagiarism/authorship. Generative AI tools could help to save a lot of time (e.g. when replying to MEP requests, writing briefings). EPRS staff could free some time, especially, in collecting information and in summarising documents to focus on analysing and providing informed research.
- Generative AI tools still have some shortcomings in terms of accuracy, reliability and authorship. Furthermore, we need to ensure personal data protection and copyright compliance. If we decide to use AI tools for policy research, we could follow a risk mitigation approach to raise EPRS staff's awareness about how to use AI tools in a responsible and lawful way and put in place adequate quality control mechanisms.
- EPRS could liaise with JRC to secure, in the short and medium terms, access to GPT@JRC that seems the most appropriate generative AI tool available so far. GPT@JRC meets very high standards of security and data protection, copyright compliance and reliability of the information generated. JRC has introduced some security features enabling the use of their LLMs in a safe mode (e.g. using only AI models hosted in the GPT@JRC infrastructure and without keeping record of the prompts). Furthermore, JRC has concluded contractual agreement with LLMs providers that ensure copyright protection and implements techniques to limit bias and hallucinations (e.g. real-time Europe Media Monitor's inputs).

2 Artificial intelligence in parliaments and the public sector

AI functionality is swiftly becoming integral to knowledge work and digital services. This can make public services more accessible and efficient, stimulate democratic participation, and support decision-making and policy development. However, the lack of transparency, privacy, and reliability in these systems may pose a risk to citizens' rights and the legitimacy and trustworthiness of the public sector agencies deploying them.

AI can support policy- and law-making in multiple ways. The French Senate, for example, uses AI to generate automatic summaries of parliamentary amendments and legislative proposals. It also helps to identify similar amendments and suggest which ministry to assign the amendment to. Numerous Parliaments (e.g. in Finland, Estonia and the Netherlands) also use AI to transcribe speech into text or to answer citizens' requests. The European Commission identified a range of potential uses for AI tools to support the legislative and policy process in its 2024 communication on the use of AI. The Commission believes that AI could help the process of searching for and analysing legislation. It could also help to assess the impact of new legislation on existing European and national legislation or help monitor national implementation. Furthermore, AI could support impact assessment procedures and legislative negotiations.

The European Parliament acted swiftly in the face of the opportunities and challenges of this new technology. It has set the agenda and shaped the new laws to ensure we can reap the benefits of new AI technologies while protecting our fundamental rights. Parliament's powers fall broadly into six, often overlapping, domains: law-making, the budget, scrutiny of the executive, external relations, and, to a lesser extent, constitutional affairs and agenda-setting.

This graphic shows more examples of areas where The European Parliament used one or more of its different powers to influence legislation mapping the European Parliament's powers in different areas:
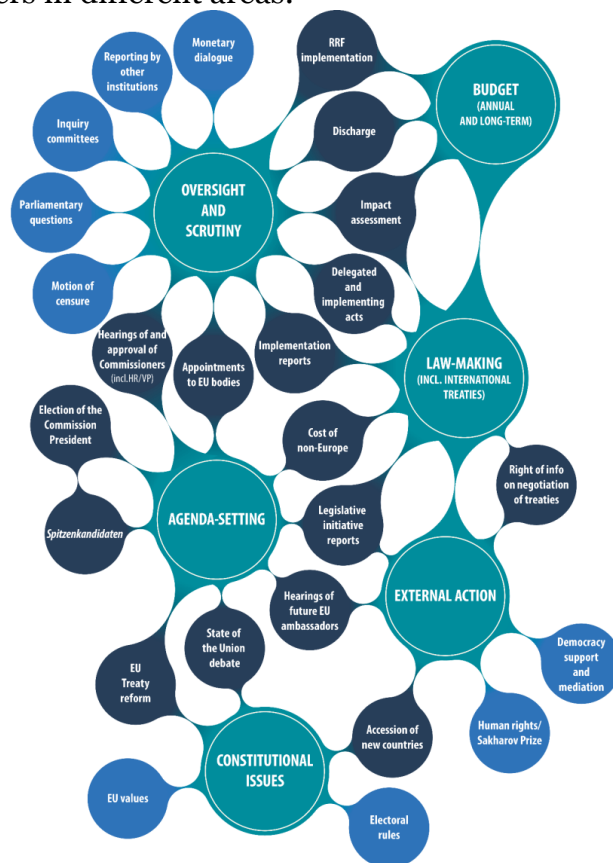
The generative AI tools are rapidly evolving, with the quality of their output becoming increasingly reliable, and users are exploring their benefits. This is opening a door for the staff at the EP's research service, and elsewhere, to start using them in their work, saving substantial amount of time and gaining in efficiency for tasks such as:

- **Summarisation** of one or multiple documents.
- **Answer general research questions**, where although it might lack depth, the answer could be used as a first overview of a new research question.
- **Finding useful sources** on a given topic, that even if incomplete or inaccurate, it can be a first step in searching useful sources.
- **Translation (**likely to be best into English).
- **Proofreading and style editing**, like identifying simple errors (such as style errors) and providing input on the structure and arguments of a draft text.
- **Brainstorming and idea generation**: generative AI tools can evaluate drafts, propose to address other ideas and suggest corrections.

However, such tools raise a range of legal and ethical issues, such as:

- **Hallucinations.** Generative AI technologies can produce 'hallucination's, i.e. content that appears to be well developed, credible and reasonable but is in fact inaccurate, irrational or inconsistent with source data, or even referring to non-existent sources. The content generated by AI tools may provide a partial and incomplete view by focusing on perspectives prevalent in the training data.
- **Time lag.** This happens because the data sets used to train the models are not up to date. This time lag that alters the accuracy of AI generated output because the AI model does not consider the latest information available.
- **Authorship.** AI models do not always provide references or provide unreliable bibliographical information (e.g. non-existent academic papers).
- **Biases.** Generative AI tools can produce content that is discriminatory or not representative, or that includes biases or stereotypes, for example stemming from the data on which they were 'trained' or because of how a user framed the prompts.
- **Intellectual property and copyright.** Using copyright-protected materials like articles or books without proper authorisation to train AI models may infringe on intellectual property rights. Reproduction of the output generated by AI could infringe on copyright if it contains material that is identical or substantially similar to a copyright-protected work.
- **Personal data and confidentiality.** This raises issues of privacy confidentiality if the user uploads documents that he/she should not share

or make public. Such information could end up being used for other purposes, including for training AI models

- **Need for human revision.** Humans need to critically assess the GenAI output.

Policies and guidelines for trustworthy AI

In April 2024, the European Parliament published a set of guidelines to support the EP staff on the safe use of generative AI. The guidelines apply only to third-party publicly available generative AI tools (e.g. Copilot, Gemini, ChatGPT, Midjourney). Generative tools developed or acquired by the European Parliament are assessed on a case-by-case basis in line with current EP IT policies. EPRS explored challenges and opportunities offered by different GenAI tools and prepared its own internal guidance document that proposes some 'dos and don'ts' on how to use generative AI in research activity - in line with the general principles enshrined in the EP guidelines. The following four principles are at the core of the EPRS guidelines:

- **Accountability**: Being responsible for all content generated by the generative AI tools for the whole research process, from idea to the publication. That includes human oversight and making sure the content is accurate, ethical and lawful. Apply proper measures to ensure IP and copyright law compliance.
- **Accuracy**: Ensuring that content generated by AI tools is accurate and impartial, does not include biases, prejudice or result in discrimination.
- **Transparency:** The use of AI tools must be disclosed to maintain research integrity. Identifying content produced using generative AI and disclosing the level of AI input, and documenting all processes that were supported or informed by generative AI.
- **Privacy, confidentiality and sensitive data:** Protecting personal and sensitive information when using generative AI tools.

Assessments of AI in parliaments and the public sector

Generative AI is a form of AI technology capable of performing a wide array of tasks, including the generation of new content (text, code, data, images, music, voice, videos, etc.) based on instructions (also known as prompts) provided by the user or the AI tool. In the last months, a wide range of new generative AI tools has been released based on powerful algorithms, called large language models (LLMs) deployed by private companies.

The EPRS identified and tested several policy/research-related generative AI tools currently used or in a pilot phase in the EU institutions. The European Commission provides a series of AI-Based Multilingual Services as part of its Digital Europe programme. Particularly, the EPRS tested EC eBriefing and EC eSummary: two summarising tools with limited functionalities developed by the European Commission and already available to EPRS colleagues. We tested as well GPTLab, an AI tool developed by the European Parliament's DG ITEC and

<u>GPT@JRC</u>, an AI tool developed by the European Commission's DG JRC.[1] Finally, we tested a few publicly available generative AI tools including Microsoft's <u>Copilot</u> and Google's <u>Gemini</u> to compare their capabilities to the ones currently in a pilot phase in the EU institutions.[2]

Generative AI tools can be used for a large variety of use cases. We tested first some of the uses cases that match the common tasks conducted by policy analysts and information specialists in EPRS, including summarisation of reports and academic articles, text generation (namely answering general research questions) and drawing of bibliographies. We tested as well additional uses cases such as text translation, style editing, and brainstorming and idea generation (e.g. fact checking and critical thinking).

Preliminary findings[3]
We found that generative AI tools lead potentially to a substantial time saving in the production of EPRS products. Those tools could be useful, in particular, for initiating or completing desk research, for gathering information for replies to MEPs requests and for summarising documents (e.g. articles, EU official documents). A major advantage of generative AI tools is their large versatility across a range of different use cases and their ability to adapt their responses to the users' prompt. At the time of testing, however, the AI models remained limited in terms of the length of documents they can summarize, formats they can read and interpret accurately (quantitative data analysis, infographics) as well as working with complex documents containing multiple sections and annexes (e.g. impact assessment documents).

The accuracy and reliability of the information provided is critical for providing Members of the EP and parliamentary committees, with independent, objective, authoritative and non-biased analysis and research. We assessed how each generative AI tool is performing in assessing context, translating, interpreting findings and identifying/weighting the different positions presented in the uploaded document. Overall, the results were very encouraging.

Although improved LLMs were released at a quick pace, we found that even the newest versions of all the AI tools tested still sometimes provide incomplete or incorrect information in a very convincing manner (i.e. hallucinations). Since the dataset used to train the models is sometimes not up to date, it induces a time lag that can significantly alter the accuracy of the AI generated output.

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[1] We tested three versions of GPT@JRC based on LLMs deployed by Open AI and Mistral (GPT 3.5: Model code: gpt-35-turbo-1106; GPT 4: Model code: gpt-4-110; Mixtral: Model code: nous-hermes-2-mixtral-8x7b-dpoto).

[2] We tested, inter alia, the free version of Copilot based on Open AI GPT-4 Turbo LLM, the free version of Gemini based on Google Gemini LLM, and the free version of Perplexity based on the OpenAI Azure LLM.

[3] All testers have filled in testing grids to compare the performance of the different generative AI tools tested.

The generated output's reliability depends largely on how well the prompt is written. Usually, the answer is better with more detailed prompts. Although some translations can be of a very good quality, there were some issues of language approximations and linguistic mistakes (e.g. legal terms not adequately translated), especially for translation into rare languages (e.g. Estonian, Finnish). Updates to the AI systems usually significantly reduce errors and hallucinations. However, due to the design of the generative AI systems, the risk of errors and hallucinations is not expected to disappear. The need for a human revision of the AI generated content will likely remain.

Identifying authorship and avoiding plagiarism is necessary to meet the ethical and academic standards of EPRS. We assessed how each AI generative tool was performing in correctly identifying the initial source and author. The tested AI tools performed unevenly with regard to the authorship identification. Some AI tools were able to correctly refer to different authors/sources in the document generated (e.g. when asked to summarise several documents). Other AI tools did not provide at all references or provided unreliable bibliographical information (e.g. a list of non-existent academic papers) or unauthoritative sources randomly found on the Internet. However, some AI tools (e.g. GPT@JRC) exhibit specific features that increase the reliability of the generated output (see in more detail under 3.) or verify its own answer by searching supporting sources in Google Search (e.g. Gemini).

3   Democratic control and governance of artificial intelligence

Access to AI will become crucial for industrial competitiveness, scientific excellence, and high-quality public services in the years ahead. However, a few companies currently own and control access to the market-leading models. Meanwhile, anticipating the capabilities and risks of future AI systems is becoming increasingly difficult. In summary, this calls for new initiatives to strategically and democratically monitor, govern and secure access to AI for democracies.

Have national/regional AI policies been updated or new governance structures been established after the breakthrough of generative AI? The latter might include AI supervisory authorities, regulatory sandboxes, safety institutes, public investments into AI R&D, or the allocation of new responsibilities to public agencies or parliamentary committees.

- **The EU AI Act** (adopted in June 2024) is designed to ensure that AI systems used in the EU are safe, transparent, ethical, unbiased and under human control. Innovation-friendly and human-centric, it regulates AI where necessary to address risks to health, safety and fundamental rights and ensures a level playing field for innovation, without additional burden for most use cases. With an innovation-friendly AI Act, the EU is contributing to the development of global guardrails for trustworthy AI.

- **EU Data Acts**: The AI revolution will be driven by data. To unleash it, the EU Data Acts open up data sharing by users of all types of connected devices for innovative uses, require contestable and fair data processing services, and establish standards for trusted data intermediaries and data spaces.
- **EU Cyber Resilience Act**: It keeps data safe, by setting high cybsersecurity standards for all connected devices sold in the EU.
- **International Guiding Principles and a voluntary Code of Conduct for Advanced AI systems** (2023): The European Commission supported this agreement by G7 leaders.
- **EU AI Office**: In June 2024, an EU AI Office has been established. The AI Office will play a key role in the implementation of the AI Act, especially in relation to general-purpose AI models. It will also work to foster research and innovation in trustworthy AI and position the EU as a leader in international discussions
- **AI R&D investments**: The EU set a goal of investing more than €1 billion per year in AI research and innovation, with the objective to attract more investment in AI per year over this decade. That goal was largely surpassed in 2022, when more than €3 billion of EU funding were mobilised.

AI infrastructure: Initiatives and assessments
- **GenAI4EU**: In January 2024, an AI innovation package has been launched to support startups and SMEs in developing trustworthy AI that complies with EU values and rules. Both the 'GenAI4EU' initiative and the AI office were part of this package. Together they will contribute to the development of novel use cases and emerging applications in Europe's 14 industrial ecosystems, as well as the public sector.
- **EU Supercomputers**: To develop AI models, access to supercomputers is crucial. This reduces training time for algorithms from months or years, to just weeks. The EU currently has three worldclass supercomputers (based in Finland, Italy, and Spain) and access are granted for European AI start-ups, SMEs and the broader AI community.

A range of potential uses for AI tools to support the legislative and policy process in the European Commission's 2024 communication on the use of AI. The Commission believes that AI could help the process of searching for and analysing legislation. It could also help to assess the impact of new legislation on existing European and national legislation or help monitor national implementation. Furthermore, AI could support impact assessment procedures and legislative negotiations.

However, we should bear in mind that the results generated by AI are not always accurate or reliable. Generated AI can produce 'hallucinations': incorrect or misleading results. These errors may be caused by a variety of factors, including mistakes or biases in the data used to actually train the AI model. Training generative AI models also raises a number of concerns related to

intellectual property rights and personal data protection. In addition, AI can also boost the spread of disinformation and propaganda.

EU Funding opportunities on AI

- **Horizon Europe:** Horizon Europe, the EU's research and innovation funding programme supports technological and societal aspects of AI development and deployment.
- **European Research Council (ERC):** ERC grants support investigator-driven frontier research across all fields based on scientific excellence, including top leading AI research.
- **European Innovation Council:** Funding for promising innovators and SMEs, to turn research into genuine breakthrough innovations.
- **European Partnerships:** European Partnerships bring the European Commission and private and/or public partners together to address some of Europe's most pressing challenges through concerted research and innovation initiatives. The AI, Data and Robotics Partnership is the European Partnership in digital, industry and space in Horizon Europe.

France

Office Parlementaire d'Evaluation des Choix Scientifiques et Technologiques (OPECST)

1 Artificial intelligence in political campaigning and public debate

The use of AI in politics is relatively new in France. While AI is commonly and openly used during election periods in countries like the United States (cf. the deepfake of Taylor Swift falsely endorsing Donald Trump), its role in France is more understated.

AI serves various functions such as analyzing social media and polling data, automating propaganda and targeted communication, assisting with speechwriting, and detecting fake news. Although specific details about candidates' use of AI are still limited, it is clear that campaigns are increasingly relying on data analytics and advanced technology to better understand the electorate.

AI-driven interference is on the rise, particularly from countries like Russia, which actively spread disinformation and deploy bots to target French people during election campaigns. For example, in 2017, false information and leaked documents regarding Emmanuel Macron circulated, with analysts suggesting that foreign-controlled bots, possibly Russian, were used to amplify these misleading narratives. Such incidents have raised significant concerns about the vulnerability of democratic systems to new forms of cyberattacks and AI-based disinformation.

Although there has not yet been a major controversy surrounding the direct use of AI in French elections, several concerns and debates have emerged about AI-related technologies and their impact on electoral campaigns. One significant issue is the use of personal data to target voters with pinpoint accuracy through AI-powered technologies. This practice, reminiscent of the Cambridge Analytica scandal in the United States, raises fears that political parties could manipulate voter opinions by using algorithms to deliver tailored messages that exploit cognitive or emotional biases.

While such practices are relatively uncommon in France, notable exceptions have occurred. For instance, during the 2022 presidential election, a "niece" of the far-right candidate went viral on TikTok, significantly contributing to the

normalization of far-right views in France, primarily through her appearance and humor. However, this "niece" was not a real person but a highly convincing AI-generated deepfake. This example underscores the potential dangers and ethical issues posed by AI. The rise of deepfakes and the manipulation of audiovisual content have sparked debates about the risks of fake videos or doctored recordings being used to discredit candidates during elections.

It is now clear that AI is becoming an increasingly strategic tool in French politics, not just for voter analysis but also for setting up more targeted campaigns. This new trend raises important ethical concerns regarding transparency, the potential influence on public opinion, and the risk of manipulation.

Initiatives to address disinformation

Concerns about the ethical use of AI in elections are looked at by various French authorities, including the *Autorité de régulation de la communication audiovisuelle et numérique (ARCOM)* and the *Commission nationale de l'informatique et des libertés (CNIL)*, both of which advocate for stricter regulations. In response, the French government has enhanced oversight of digital technologies in elections through the 2018 law against fake news. This legislation aims to combat the spread of misinformation during election campaigns and promote transparency on digital platforms. There is however an ongoing debate about the effectiveness of these measures in tackling the new challenges posed by generative AI.

The CNIL also plays a vital role in enforcing the General Data Protection Regulation (GDPR), which governs the use of personal data in France and throughout Europe. This regulation helps prevent the misuse of personal data for political micro-targeting campaigns, often facilitated by AI technologies that analyze and profile user behavior. Any political use of data must be strictly regulated, ensuring clear guarantees regarding individual consent and transparency about the algorithms used.

The Committee on Legislation of the National Assembly adopted in February 2024 a report on the challenges of generative AI regarding the protection of personal data and the use of the generated content.[1]

On a broader legislative level, European regulations such as the *Digital Services Act of 2022* and the *AI Act of 2024* seek to regulate major digital platforms to mitigate the harmful uses of AI, particularly concerning targeted political advertising and disinformation during elections. In France, the law SREN (*Sécuriser et Réguler l'Espace Numérique,* Securing and Regulating the Digital Space), adopted in May 2024, introduces measures to control the dissemination of AI-generated content during electoral periods. This law regulates the use of AI for targeting advertising campaigns and political messages, particularly

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[1] Rapport d'information de Philippe Pradal et Stéphane Rambaud au nom de la commission des lois sur les défis de l'intelligence artificielle générative en matière de protection des données personnelles et d'utilisation du contenu généré – Assemblée nationale n°2207 (16e législature)

regarding campaign expenditures. Candidates and political parties are required to disclose any use of AI services in their communications to ensure transparency about the methods employed to influence voters.

Assessments of opportunities and challenges
OPECST has not yet examined the role of AI in elections, although AI is a topic of significant discussion within Parliament. The Senate has produced several reports on AI, for example "For a Deployment of Artificial Intelligence that Aligns with European Values," published in 2023, or a series of reports initiated in 2024 by the Delegation for Strategic Foresight, focusing on AI and the future of public services. The 2023 report specifically addresses the risks associated with AI, highlighting the importance of trust, security, and ethics in its implementation. It emphasizes the necessity of regulating AI to protect democratic processes, particularly to prevent electoral manipulation via recommendation systems and deepfakes.

2   Artificial intelligence in parliaments and the public sector

Use of AI in the French public sector
In France, the use of AI in the public sector is developing slowly. Although it is not yet widely adopted, various sectors of public service are striving to make the most of AI to optimize their outcomes.

For instance, in 2021, the Ministry of Finance implemented an AI system to detect undeclared constructions, such as swimming pools, in order to recover unpaid property taxes. This system, called "Foncier innovant," uses satellite imagery and compares it with cadastral data to identify anomalies. Between 2022 and 2023, this initiative led to a 4% increase in tax inspections, and in 2023, undeclared swimming pools generated more than 40 million euros in property taxes. The Customs Department is also starting a new AI application in order to scan the million of packages arriving through airfreight and detect prohibited objects.

Another promising application of AI, which could significantly streamline the work of ministries and Parliament, is the development of "LLaMandement" by the Public Finance Department (DGFiP). This AI is based on the "Llama 2" model from Meta (Facebook), developed in partnership with Microsoft. The deployment in February 2024 of this generative AI marks a step forward in the legislative process, particularly for the examination and voting of the budget. LLaMandement can summarize, comment, and assign over 10,000 amendments to the appropriate governmental departments in just 15 minutes, a task that was taking several human beings during 6 to 10 hours. The aim is to expand its use across ministries and parliamentary committees. It was tested for the first time during the examination of the budget for 2024.

Other AI applications have been developed by different public services, especially within the social sphere. The Ministry of National Education created "MIA Seconde," a tool designed to assist 10th-grade students in math and French through personalized learning. During the Paris 2024 Olympic and Paralympic

Games, the use of AI CCTV considerably increased the capabilities of agents in charge of public safety. Generative AI is also used by the Gendarmerie Nationale as one of its investigative tools, for instance to make missing persons look younger or older on photos.

AI Regulation

As the use of AI expands, the need to regulate it becomes more crucial but with caution. The Delegation for Strategic Foresight of the Senate advocates for ethical, transparent, and well-regulated artificial intelligence.

A key issue is the protection of health data used by AI, which has raised significant concerns. This area has been regulated since 1978 by a legislation which aims to ensure that individuals medical data is not used or disclosed inappropriately and that it receives proper protection.

AI is transforming the way this data is processed and it presents new challenges. AI offers unprecedented opportunities in the medical field, enabling significant advances in diagnosing and treating diseases. However, it often requires massive amounts of personal data to function effectively, increasing the risk of data breaches and privacy violations.

The AI Act of March 2024 introduced by the European Commission represents an attempt to regulate the use of AI. This regulation strengthens personal data protection mechanisms and classifies AI into four risk levels, requiring transparency in the use of algorithms and imposing penalties for non-compliance. The AI Act mandates that data can only be used for specific and legitimate purposes, and individuals must be informed about the use of their data. Additionally, health data must be anonymized or pseudonymized whenever possible due to its particularly sensitive nature.

To enhance the protection of health data, the European Commission presented a special framework "European Health Data Space" (EHDS) in May 2022. This project has several objectives, including establishing strict rules for the use of health data for research, innovation, and public policy development.

Finding a balance between data protection and scientific progress is essential. On one hand, confidentiality and respect for privacy are fundamental rights that must be safeguarded. On the other hand, overly restrictive access to data can hinder medical research and the development of new therapies. Therefore, it is imperative to implement robust security measures, transparent data governance policies, and informed consent mechanisms to ensure data protection while fostering medical innovation. This approach will help maintain ethical standards while fully harnessing the potential of AI in the healthcare sector.

In France, the Health Data Hub, also known as the Health Data Platform (HDP), illustrates the attempts to balance health data protection and innovation. The platform was established by an order of November 2019, with the goal of facilitating the sharing of health data. It aggregates data from various sources to

promote research in the health sector. Its missions include the collection, organization, and provision of data, informing patients of their rights, contributing to the development of CNIL guidelines, and supporting research projects.

The issue of data hosting has sparked intense debates in the French Parliament, particularly regarding the location of servers and the associated potential risks. The HDP utilizes servers from the American company Microsoft Azure, thereby subjecting itself to U.S. extraterritorial laws. As a result, the health data of French citizens could be accessible to U.S. intelligence agencies without the affected individuals being informed. Following these controversies over data sovereignty, the HDP has committed to migrating to a trusted cloud by 2025. This transition aims to ensure the protection of French citizens data while supporting research and innovation, which is a priority for the CNIL.

Parliament actions and propositions

In the Senate, the Delegation for Strategic Foresight has taken up the issue of AI in public service and launched a series of reports on AI and the future of public service, focusing on AI and taxation, social benefits, and the fight against tax fraud, on AI and health, on AI and education, AI and environment, and AI and local governments and territories.

The aim of these reports is to inform both the general public and members of Parliament about the various potential applications of AI and the necessary precautions to take. The goal is to strike a balance between regulation and the stimulation of AI research, encouraging French companies like Mistral AI to compete with American giants.

The parliamentary reports insist on ethical, clean, and open-source use of AI, promoting a learning society. In terms of education, for instance, it seems essential to train both teachers and students on AI-related issues, ensure accessibility to education for all, demystify AI, and guarantee teachers the freedom to perform their roles without compromising their profession.

Both the National Assembly and the Senate have set up internal working groups to experiment the use of AI in various fields of parliamentary work and to ouline guidelines fot an ethical use of AI.

3   Democratic control and governance of artificial intelligence

Since 2016, OPECST has considered necessary to debate about the governance of AI. Its first report on AI - adopted in March 2017 "Toward a Controlled, Useful and Demystified Artificial Intelligence" - tried to anticipate the capabilities and risks of AI systems. It advocated controlled, useful and demystified technologies: controlled, because these technologies would have to be the safest, most transparent and fairest possible; useful, because while they must respect humanistic values, they ultimately have to benefit the general public; demystified,

because the difficulties of social acceptability of AI are largely based on unfounded alarmist visions and lack of understanding.

French AI Governance and infrastructures

Before the breakthrough of generative AI, France considered AI as critical for economic competitiveness, scientific excellence and high-quality public services and thus implied a national AI strategy through specific policy. Cédric Villani, president of OPECST, was asked in 2018 by the Government to issue a report with a proposal of a national strategy for AI.

Following this report, the French Government decided to implement a national plan for AI, to set up an AI interministerial coordination group and to create a dedicated national ethics committee. With 1.5 billion euros, this plan developed a network of four excellence interdisciplinary institutes, funded doctoral programs and invested in computing capacities. The supercomputer Jean Zay for instance was included in this program. Its performance has already achieved 36.85 PFlop/s and should reach 125,9 PFlop/s this year.

As part of this national strategy, a committee on generative AI has been launched in September 2023 in order both to develop the use of generative AI but also to suggest how to regulate the risks associated with it. The committee published its recommendations in a report in March 2024. They include developing public technical tools to help private actors to check audio and video content and detect if it is IA generated. Another suggestion is to improve the understanding and spread of AI in the media and cultural productions to facilitate the fight against disinformation.

In September 2024, Clara Chappaz, former French Tech director, has been appointed minister of AI and Digital affairs (the United Arab Emirates was the first state to appoint a minister for AI in 2017). Its supervision is innovative since it is no more connected to the Ministry of Economy but to the Ministry of Higher Education and Research, now led by a former Vice-President of OPECST Patrick Hetzel.

The way France will organize the new supervision regime of the EU AI Act is still uncertain. Each Member State will have to appoint one or more authorities by August 2, 2025. The French Data Protection Authority, CNIL, has experience and expertise in dealing with the impact of AI on fundamental rights and therefore should be designated as one of these authorities, especially to monitor high-risk AI systems and maybe also to coordinate the different sectoral regulation authorities. The National Metrology and Testing Laboratory, LNE, should continue to evaluate and certify AI systems since it has already started to do so even before the adoption of the EU AI Act.

Meeting the challenge of democratic control and private companies domination

European countries are facing ethical, legal, economic, social and scientific challenges with the new AI technologies and one of the most important issues is

democratic control, how to deal with the dominant role of private research, led by American companies and, on a secondary basis, Chinese companies. The transition to a globalized economy dominated by "platforms" (like Google, Meta-Facebook or Amazon) is accelerating, and this can critically damage our democratic governance. Currently, only a few companies, mostly American Big Tech, own and control access to the market-leading models and very often without a real concern for open source. European states give more importance to this issue than other countries and it is an important step toward a more democratic AI.

Since 2015, Hugging Face, a French company turned American, campaigns for open-source AI, which means making models, algorithms and libraries available to all, in an open and free manner. In a collaboration with French public research institutions, it created a large multilingual language model (including 46 languages and 13 programming languages) with 176 billion parameters, called Bloom (BigScience Large Open-science Open-access Multilingual Language Model). Among other defenders of this practice, Meta – through the voice of its French AI director Yann Le Cun – made public the successive versions of its LLM Llama. Last year a French generative AI start-up, Mistral, was created and offered systems rivaling the best US AI technologies, such as ChatGPT 4. Mistral is now valued 6 billion euros and is one of the European leaders in artificial intelligence. Unlike ChatGPT or Bard, its models are frequently open source and intended for developers, who will be able to use it, improve it and market it as they wish, thanks to a very permissive license. A new French AI startup called H raised an initial seed fundraising of 220 million euros in May 2024 with the project to market more autonomous AI models (*agentic models*) focused on business verticals to increase worker productivity through task automation: they will be trained to take actions on behalf of the user. Such innovations should accelerate transformations in the economy.

For OPECST, initiatives to develop European large language models (LLMs) and open source AI should overall be supported by the EU and the Member States. It is an important aspect to democratically govern and secure access to AI for our countries.

Future prospects: ongoing OPECST report & AI Action Summit in February 2025
Despite the absence of a dedicated AI parliamentary committee, OPECST continues its work of analysis and recommendations regarding these technologies. As a consequence of the new context of generative AI systems, the Bureau of the National Assembly and the Bureau of the Senate have asked OPECST to establish a new report about the issues of generative artificial intelligence. It will be discussed by OPECST in November. This political request at the highest parliamentary level shows to what extent a rigorous work on this topic is crucial to our democracies.

After the AI Safety Summit hosted by the UK in November 2023 at Bletchley Park and the AI Safety Summit in Seoul in May 2024, France will host in February

2025 the next summit with the aim of broadening the issues addressed, an aspect to which OPECST is very committed. This is why beyond safety, five essential themes will be discussed during the summit: AI serving the public interest with the question of open infrastructures, the future of work, culture, trusted AI and global governance of AI. France wants this major conference to become the "AI Action Summit".

Germany

Büro für Technikfolgen-Abschätzung beim Deutschen Bundestag (TAB)
Office of Technology Assessment at the German Parliament

1   Artificial intelligence in political campaigning and public debate

Increased public attention, but only few examples of AI use in campaigns and public debate

With the European election, three state elections and several local elections in 2024, Germany was prepared to see public political discourse intensify. The wars in Ukraine and the Middle East and a number of stabbings at public gatherings attributed to radical Islamist organisations further fuelled the debate. Security and campaign experts were expecting deep fakes and AI generated messages to play a significant role in the public debate. Many warnings circulated to step up provisions against disinformation related to political issues, either by technical or social means (knowledge about potential threats and trustful media outlets). But over the course of the year, only few instances of AI generated content were observed, and no decisive influence was attributed to such synthetic media. Deepfake technology has not yet had a noticeable impact on elections in Germany, but cases are on the rise (Source: Konrad-Adenauer-Stiftung). Political actors are not well prepared for deepfakes and appropriate counter measures are not yet available.

Known cases of the use of AI in campaigns include the use of AI-generated images in party communication. In the context of the state elections in Thuringia and Saxony in autumn 2024, "most parties were using the help of AI to a small extent", but mostly limited to using ChatGPT and the likes for support tasks. Some parties, however, used large language models (LLMs) to analyse large amounts of text, as sparring partner in debates to learn about new perspectives. Chatbots were also used to explain the programmes to potential voters. And AI was even used to generate music for their posts on social media.

Perhaps the most prominent case of a political deepfake was a video seemingly showing the German chancellor Olaf Scholz calling for a ban against the AfD. The video was published in November 2023 by activists as part of a campaign aimed at raising awareness of extremist tendencies of the party. There were no labels indicating the AI-generated nature of the video, which was also distributed on platforms such as YouTube, but the authors were notorious for operating at the

border between satire and politics. The German government took legal action against its publication and a Berlin court granted an <u>injunctive relief</u> against the publication of the video. These uses of AI technology in political communication have caused criticism and intense debate about legal or other provisions to counter them.

However, another aspects of the impact of AI on public opinion is of great importance: it was shown that when LLMs such as ChatGPT, Gemini and others are used to get information about current political issues, this likely results in misinformation (Source: a <u>study by the German NGO Algorithmwatch</u>). Although the developers claim that the systems block questions related to elections, the chatbots often do give answers, many of which are either selective or biased or even plain wrong.

There are also <u>interesting creative uses of generative AI</u> in the context of elections. For example it was proposed to feed multimodal image creation systems with various parties' political programmes. If prompted to generate a picture envisioning the future based on the assumption that the parties could fully realize their programmes, the results allowed the users to quickly and easily grasp the differences between the parties' political visions.

Longstanding awareness and new initiatives, but so far, few results in the fight against disinformation
Risks of mis- and disinformation in relation to AI were already addressed in the Bundestag's Study Commission on "Artificial Intelligence - Social Responsibility and Economic, Social and Ecological Potential" in 2020, long before the introduction of ChatGPT. The <u>commission's report</u> highlights the role of algorithms in the distribution of news and risks posed by microtargeting as well as deepfakes and social bots. It recommends to focus on education about the developments, on better technologies to detect influence operations and on agreements of platforms and political parties to safeguard online public opinion formation. Scientists also have <u>addressed AI-related risks for public debate</u> already several years ago, when generative AI was on the verge of becoming a reality.

When LLMs and generative AI became prominent in 2023, the German parliament reacted to the developments by organizing several expert hearings. MPs also closely attended and supported the development of several legal and strategic initiatives by the German government, namely in the context of the EU's AI Act, the implementation of the Digital Services Act in Germany, a first proposal for a "<u>Law against digital violence</u>" that was conceived to specifically address cases of cybermobbing, hate speech and cyberstalking, and with regard to the update of the AI strategy and the development of a <u>strategy for fortifying democracy</u>. The government, in <u>response</u> to <u>parliamentary questions</u>, points to its measures to strengthen prevention and societal resilience and to sensitise the public. The federal ministry of the interior and the foreign office routinely monitor social media to detect manipulative disinformation by foreign agents, the foreign office has <u>developed specific AI-based tools</u> for this purpose. In addition,

an initiative for a <u>new law on deepfakes</u> has been introduced in the Bundesrat (German Federal Council), the state chamber of Parliament, in 2024.

AI offers potential for improving media publics, but likely will have negative effects if left unregulated

TAB was mandated in 2022 to investigate the <u>legal and societal challenges associated with deepfakes</u>, but the study will not be completed until the end of 2024. Two prior TAB studies dealt with opportunities and challenges related to the impact of AI on public opinion. In "<u>algorithms in digital media and their influence on opinion formation</u>" (2022), the focus was on digital platforms in general. The report concludes that the (AI-powered) algorithms play a role in controlling what kind of information the users get to see and discusses several options for regulating them, but it also highlights that individual platforms are just one part of the media repertoire that users consume and that any state inference with public opinion formation is highly sensitive from a democratic perspective. The report also considers the automated generation of news and states that many publishers already use such procedures, but that they need to be labelled transparently. TAB's report on <u>ChatGPT</u> (2023) outlines one scenario of public communication characterized by an increasing use of generative AI, which could lead to more diversified and accessible information, but also to an increase in disinformation and manipulation and a loss of trust in media as a result. More recently, TAB published a short paper on the role of <u>AI in the creative industry</u> (2024), pointing out that generative AI will likely lead to a massive restructuring of business opportunities for artists, but also bring about new forms of creative expression.

2 Artificial intelligence in parliaments and the public sector

Broad variety of use cases across all branches, but still early developments and few results from evaluations

The *German Bundestag* <u>considers using generative AI</u> in the context of its efforts to modernize the parliament's administration. The focus is on automatically indexing press articles for documentation purposes and on supporting the transcription of committee proceedings. Interestingly, one of the motivations cited is to increase the attractivity of the Bundestag as an employer. In a <u>recent speech, the president of the Bundestag</u> stated that 180 potential use cases have been identified by the administration, but that it is still in a phase of experimentation. She also emphasized the potential of generative AI to ease the communication between the political sphere and the citizens, for example by translating official language, by offering a chatbot for the interaction with agencies or by facilitating electronic participation. She mentioned that "some MPs are using AI for their speeches", but underlined that results of generative AI need to be controlled for correctness and that the use of AI in general needs to be controlled to avoid power imbalance, cybercrimes and disinformation.

In the German public administration, AI methods are <u>already used for several years</u>. Federal ministries and agencies use methods such as machine learning, speech-to-text, LLMs and other forms of natural language processing, computer

vision and chatbots, among others. The government lists <u>212 use cases for AI in general</u>. Most use cases involve some form of AI development and do not consist of mere applications of existing systems, although especially generative AI is sometimes used as a commercial service, but with special provisions for data protection and security. Cases that involve generative AI include:

- **Chatbots** – typically used as assistants in research processes and document analysis or as an intelligent search engine, e.g., to answer questions about the EU's AI Act.
- **LLMs** – tools such as ChatGPT or the Luminous model by Aleph Alpha are used experimentally e.g. to pre-structure responses to consultations, to translate, summarise and edit texts, to categorise archived documents, to support research processes and text as well as data analysis (including retrieval augmented generation), to generate answers regarding procedural questions and to transcribe speech to text.
- **Models for image analysis and generation** – used to automatically label images, e.g., at the federal criminal police.

Data labs, which deal with data related to a ministry's area of responsibility and the AI techniques to use it, <u>have been installed at all ministries</u>, most notably at the Federal Ministry of Labour and Social Affairs and the Environmental Protection Agency. They have developed AI tools to ease the formulation of responses to interpellations, to query long documents in chat format and to provide access to generative AI without compromising data protection. Tools and solutions developed in one lab are made available for other agencies and ministries as well.

The <u>OECD</u> calls the German strategy "solid" in its report on AI in the public sector and highlights the role of the data labs in the ministries. But it also sees a need for better conditions to foster the use of AI, for example providing a more systematic overview of public activities involving AI. The <u>Bundesrechnungshof</u>, the supreme audit institution in Germany, criticises that the use of AI procedures is limited to some flagship projects and agencies. The auditors also miss a coherent overview of all AI-related projects at the federal level and identify the lack of data and the lack of qualified in-house personnel as major challenges.

Three new federal agencies <u>are being set up to overcome these challenges</u>: The BeKI (Beratungszentrum für Künstliche Intelligenz in der Verwaltung) acts as central coordinating agency. Once fully operational, it is supposed to bundle the federal AI services in form of a marketplace, accessible for all federal agencies. This marketplace will also serve as a transparent register for AI services in Germany, helping to avoid unnecessary parallel developments. The KIPITZ is a portal to actually deliver AI services, it was started in April 2024 and is continuously developed. It consists of three layers: the AI models (several LLMs, mainly open-source models), a model manager at the intermediate layer and a layer to manage the individual agencies' access to the services, allowing for a high degree of customization and separation of data sets. KIPITZ is mainly used for

working with texts in a variety of ways (including text generation, translation, analysis, editing etc.). A third centre, the AI competence centre, operates as part of the Federal Printing Office (Bundesdruckerei) and develops AI solutions tailored for federal agencies in cooperation with technology vendors.

There are numerous use cases of AI at the Länder and municipal level. E.g., Baden-Württemberg is using Luminous to deal with texts in the administration while respecting data protection and security. The system is still being tested, currently in the context of internal (text summary, research, drafting papers) as well as external communication (interaction with citizens). Several municipalities use chatbots based on this LLM to inform their citizens in interactive ways or to empower the administration's staff. Another example is an avatar that translates texts in sign language to make municipal websites more accessible.

The judiciary branch in Germany is also keen to use generative AI and builds on several years of experience with AI. Generative AI is treated with caution given that LLMs are usually not up to date, tend to fabricate false results and are a threat to data security and privacy, and compromise human decision making powers. On the other hand, the justice system suffers from overload, for example when faced with mass submissions in class actions and similar procedures. There are currently several experiments with LLMs in justice. These include a system to automatically extract characteristic data from mass submissions in cases related to air passenger rights, helping to cluster them and make the work of judges more efficient. A similar system is used in the class action lawsuit against manufacturers of diesel cars. Bayern and North Rhine-Westphalia are jointly developing a generative language model for judiciary purposes. It should conform with the requirements of legal procedures and is tested with anonymised data from real cases, but is still considered a research project.

Tightening regulatory framework, increasingly combining formal and informal rules, public spending for R&D still growing

There was already much work on guidelines for responsible use of AI before generative AI was hitting the market. An example is the EU's approach to AI from 2021, which tries to balance the promotion of innovation with a focus on trust and security and is the result of a an intense policymaking process involving multiple stakeholders. In Germany, the government published it's AI strategy in 2018, aiming to promote "AI made in Germany", but also with a clear focus on human-centred development, on safety and the promotion of values such as self-determination and social inclusion. With the EU's AI Act entering into force in August 2024, there is now a binding, risk-based regulatory framework for the use of AI by public bodies as well as private actors. Some ministries as well as two parliamentary groups in the German Bundestag have published guidelines for their use of (generative) AI, emphasizing that it must be transparent and understandable and contribute to human well-being.

The German AI strategy is being further developed: The 16 Länder complemented own strategies and in 2023 there was an update to the national strategy in form of an action plan, trying to counter trends that countries such as the US and China

are taking the lead in AI research and development (R&D) and that publicly funded R&D only plays a minor role, threatening to lose the focus on ethical, trustworthy and sustainable systems. Public investment in R&D has grown continuously in recent years, with the research ministry's AI budget rising to more than 480 million euro in 2024 and overall AI funding of more than 800 million euro. There are plans to continue along this line, but the pressure on public spending is currently increasing.

Opportunities, but also high stakes in public actors using generative AI due to technological insufficiencies

TAB has no formal assignment to investigate the use of AI in parliament, but in its report on "Artificial intelligence and distributed ledger and blockchain technologies in public administration" (2022), TAB highlighted some options for action for the public sector, including:

- clarifying responsibilities for AI development and rollout
- formulating clear goals for AI-based innovations in the public sector to focus efforts,
- strengthening knowledge and competencies of staff
- collaborating in R&D with partners from academia and private actors to open up administrative practices
- regulating, but leaving room for innovation (e.g., by establishing regulatory sandboxes)
- a focus on citizens' user experience

Newer TAB reports that deal specifically with generative AI point out opportunities, such as more accessible services, but also the risks associated with these tools when used by state actors. The decisions taken in the public administration are usually very important, if not existential for citizens, so that the requirements for the technology with regard to reliability, transparency, non-discrimination and robustness are very high. A similar situation exists in the case of AI for diagnosis and therapy of rare cancers, whereas in the case of AI use in the creative industry, the role of the state is to provide the legal conditions so that individual rights of artists (e.g., personal and moral rights) are protected.

3   Democratic control and governance of artificial intelligence

Emerging AI governance structures following legislative steps at EU level

As mentioned above (2.2), the German AI strategy has been updated by an action plan in response to the emergence of generative AI, with an eye to keep Germany on track of the developments and to keep the development in line with societal values. Regulatory activities have been mainly confined to the development – and now implementation – of the EU's AI Act, a process that the Bundestag, especially the Committee on Digital Affairs and the Committee on Education, Research and Technology Assessment, actively attends to. It is not yet clear which agency (or -ies) will act as the national authority, and standards and guidelines still have

to be defined. Additional regulatory initiatives include reactions to dis- and misinformation as well as to the rise of deepfakes (see 1.2). Along the state institutions, civil society organisations and safety institutions such as Algorithm Watch, KIRA or the TÜV AI lab, to name just a few, are helping to ensure that AI development does conform to democratic and human values. They are supported by research funding organisations and by researchers at institutions such as the ITAS or the Weizenbaum Institute who pursue interdisciplinary work on the foundations of the digital society.

Plans to expand AI infrastructure and innovation to catch up on world leading nations, emphasizing merits of EU cooperation
As outlined above, public sector use of AI is still in its infancy, but experiments and coordinating activities have begun at the federal level. A special focus of public investment is on the development of infrastructure for research purposes and on a "German" LLM. With regard to the first, German research centres are building up exascale computing capacities. The first European computer capable of performing more than one quintillion floating-point operations per second will be available by the end of 2024 at Forschungszentrum Jülich. The OECD ranks Germany among the top three nations in terms of supercomputing power, highlighting the focus on supporting researchers and academia and also the cooperation with European partners. The second special focus, the development of a German national LLM, aims to counter the dominance of foreign companies in the field of generative AI and at strengthening Germany's technological sovereignty. Apart from private initiatives such as Aleph Alpha's Luminous and Pharia models, the project OpenGPT-X was started already in 2021, but it has yet failed to deliver a working model. In 2024, an initiative of researchers from publicly funded AI institutes has published a first bunch of (small scale) LLMs on the basis of Meta's open source models, but with a special focus on European languages and training data. These public initiatives are framed by activities of private actors. German companies and research institutes are actively pushing the development of not only generative, but also new forms of AI (including novel hardware such as quantum and neuromorphic computing), with private funding, but also support from public funding organizations.

The availability and quality of data is seen as a bottleneck for the development of AI applications, especially in fields such as health or transportation. As part of its digital strategy, the German government has formulated a data strategy, focusing on more, better accessible and usable data. A corresponding recommendation had been formulated in the Bundestag's Study Commission on AI in 2020 already, the current strategy is formulated in line with initiatives at the EU level such as the Data Act.

Build on strong public interest in generative AI to balance opportunities and risks of technology and data use
In TAB's early assessment of ChatGPT and LLMs in general, the strong interest in and intensive public debate about generative AI is seen as a positive sign for a constructive, reflected approach to this new technology. Regulation to ensure transparency about AI uses, but also model development is welcomed, and

specific guidelines for sectors such as public institutions are recommended, as well as more public reflection and research on the social and environmental implications of generative AI. With regard to data availability, TAB has investigated the conditions for data mining with a special focus on the health sector. The results support the widespread calls for strengthening infrastructures for data provision and use and corresponding competencies, also in terms of protection of fundamental rights. Specific legal provisions are seen as requirement for better usage of available, but protected data, e.g., across the diverse health institutions, and the risk-based approach common to medical products is recommended as a model for data-intensive technologies. TAB's report on "Energy consumption of ICT infrastructure" in 2022 pointed out that operators of ICT infrastructure are in charge of reducing energy needs (or increasing efficiency, respectively). Authorities could enhance this process by regulating energy use and by facilitating innovations in efficient computing. Apart from these substantive results, the report points out that innovations in ICT often, but not necessarily, go along with increased energy consumption.

Greece

Greek Permanent Committee on Research and Technology (GPCRT)

1 Artificial intelligence in political campaigning and public debate

AI has been used in political campaigning and public debate in Greece. AI tools have been employed to enhance political messaging, target voters with tailored ads, and manage social media strategies. However, the growing role of AI in Greek politics has sparked concerns and controversy, especially around the potential for misinformation and manipulation.

One significant issue has been the fear that AI-driven tools could be used to spread fake news or deepfakes, undermining trust in the political process. Some critics worry that the use of AI to micro-target voters based on their data could lead to undue influence over public opinion, particularly if the AI systems exploit emotional or divisive content to sway voters.
While Greece has not seen any specific scandals directly linked to AI misuse in political campaigns, the increasing use of these technologies has led to discussions about transparency, accountability, and the need for clear guidelines.

Initiatives to address disinformation
Greece has taken steps to address the risks of misinformation and disinformation, particularly as they relate to AI and digital technologies, though the country is still in the early stages of developing comprehensive measures. Here are some key initiatives and measures Greece has pursued:

Adherence to EU regulations and guidelines
- National Digital Strategy: Greece has developed a National Digital Strategy 2020-2025, which emphasizes the role of digital transformation while recognizing the challenges posed by AI and misinformation. The strategy includes efforts to promote media literacy and strengthen cybersecurity to reduce the spread of harmful content online.

Fact-checking and collaboration with civil society
- Ellinika Hoaxes, a leading fact-checking organization in Greece, plays a key role in debunking false information and works closely with media outlets and government agencies. Initiatives like this help counter disinformation, particularly during elections or public debates.

- The Greek government has supported collaborations between civil society, tech platforms, and the media to monitor and respond to disinformation campaigns, especially those linked to foreign interference.

Cybersecurity enhancements
- As part of the broader goal to combat disinformation, Greece has invested in improving its cybersecurity infrastructure. This includes setting up early warning systems and collaborating with the EU's cybersecurity agency, ENISA, which is headquartered in Greece, to detect and address cyber threats related to disinformation, such as coordinated AI-based attacks on digital platforms.

Future directions
- AI Transparency and Ethical Guidelines: Greece is exploring ways to increase transparency in the use of AI in the public sector, which could include guidelines for ensuring that AI systems used in government or media are not contributing to the spread of misinformation.
- Legislation on AI Use in Campaigns: There are growing calls within the political community to introduce laws that would regulate the use of AI in political campaigning, especially concerning voter targeting and AI-generated content that could be used to manipulate public opinion.

Assessments of opportunities and challenges
There is currently no official assessment of AI challenges and risks in the Parliament; we are so far adhering to the guidelines provided by the European Commission and other relevant institutional bodies), coupled with recent bibliography.

Special Permanent Committee on Research and Technology has organized several sittings regarding AI issues, where scientists and govermental officials have shared their insights with our MPs. The Committee and our Scientific Service researchers monitor developments on the sector of AI and we are always in close cooperation with the corensponding Ministries and Scientific Institutes.

2   Artificial intelligence in parliaments and the public sector

The Hellenic Parliament uses a speech recognition system, called 'Dimosthenis', to transcribe the minutes of plenary sessions and committee meetings. This system is based on a speech-to-text application, that processes session recordings and generates transcriptions in text form.

Furthermore, as part of the EU-funded program "Digitization of the holdings of the Hellenic Parliament Library" (2022-2024), managed by the European Programs Implementation Service (E.P.I.S.) of the Hellenic Parliament and implemented through outsourcing, an open-source software repository is currently under construction (DSpace, version 7.3.), promoting connectivity with Europeana through interoperable systems tools. The project involves

digital reprocessing of a vast amount of scans previously available in jpeg form, in order to render them machine-readable.

In that direction, the external partner that undertook the project utilized digital image processing with optical character recognition (OCR). Since the material was typewritten, AI tools were implemented: more specifically, at the text line detection level, a variation of the YOLOv5 Deep Neural Network model (YOLOv5-OBB) was used, while text line recognition was performed, utilizing the open-source, TensorFlow-based Calamari-OCR engine, which employs advanced deep neural networks. As a result, the digitized material will be made available to users in pdf, epub, and txt formats, providing high quality open data. This, in turn, will function as a springboard for strengthening the citizens' access to parliamentary information, inextricably linked with civic engagement.

Public sector agencies and AI use cases

Several public sector agencies in Greece are developing or using AI technologies, some of which have applications in generative AI.

Ministry of Digital Governance

- The Ministry of Digital Governance is at the forefront of integrating AI into the public sector. While it has not fully deployed generative AI technologies, it has been working on various AI applications to improve government services and transparency.
- **Digital public services**: The Ministry has launched digital platforms to streamline public services, and AI-driven chatbots or virtual assistants are used to handle citizen inquiries. These systems could potentially evolve to incorporate generative AI for more advanced interactions, like drafting documents or assisting with personalized responses.
- **Artificial intelligence and smart cities:** The Ministry of Digital Governance, also, funds Smart Cities Initiatives, enabling several municipalities in Greece, including Thessaloniki and Athens, to explore AI applications for smarter urban management. AI technologies like machine learning and IoT are being utilized to optimize traffic management, waste collection, and energy use, improving the efficiency and sustainability of city operations.
- **National cadastre:** The National Cadastre is the first public body in Greece to implement AI for administrative decision-making, specifically in legal contract review. Previously, supervisors manually reviewed contracts, a process taking about 30 minutes per contract. Now, an AI tool, piloted nationwide, analyzes contracts, identifies key elements, applies legal checks, and generates automatic recommendations for supervisors. This reduces processing time by up to two-thirds. The tool, created by the Ministry of Digital Governance using Microsoft Azure OpenAI, is cost-free, user-friendly, and requires no additional training. Final decisions remain with the supervisor.

Ministry of Justice
- In judicial systems, AI and Machine Learning are gradually being applied in areas like legal investigations, predicting judicial decisions, court administration, improving accessibility to justice, and enhancing transparency. Since early 2023, case management systems in Administrative, Civil, Criminal Courts, and the Court of Audit are being upgraded through the Recovery and Resilience Fund. This includes using AI tools for tasks like anonymizing judicial decisions, summarizing judgments, automating small claims decisions, and supporting the Court of Auditors' workflows and payment procedures, with completion expected by Q1 2026.

Ministry of the Interior
- Creation of an AI-based strategic workforce planning tool, that can use big data to provide insights to policymakers to help them have the right skills in the right roles at the right time. The project will include a pilot program, addressed to nine entities (including ministries and other organisations), with a variety of needs and different characteristics. The tool (due to mid2025) is part of a wider reform, implemented by the Ministry of Interior, aiming to modernize the human resources management approach and practices, to design a competency framework and to enhance public servants' skills and capabilities. The reform is funded by the European Union as part of the National Recovery and Resilience Plan.
- Through the application of ePeitharxika, it is possible to supervise and monitor the course of the disciplinary process for the public sector, as well as the outcome of the disciplinary cases before the individual members of the disciplinary bodies and the Disciplinary Councils, at all stages of their development. The application provides the possibility of extracting and analyzing data (DataAnalysis and DataMining) and cross-checking elements in real time to make informed decisions. The application is implemented exclusively by civil servants.
- Online application "Myanarrotikes" (myanarrotikes.gov.gr): The goal is that the entire process of granting sick leave is chartered electronically (submitting an employee application, approval/rejection by the Health Committee, filing an appeal) minimizing the processing time and the corresponding administrative burden.
- Creation of an application for the correlation and interconnection of the postgraduate study titles of the candidates with the announced positions of responsibility in accordance with their responsibilities. In particular, they are developing:
  - Criteria and methodology for matching positions of responsibility with postgraduate and doctoral degrees.
  - The methodology for the categorization of postgraduate and doctoral degrees.
  - The database and the corresponding web application, which interoperates with the corresponding systems of other carriers.

- o The correlation tool contributes to the improvement of the decision-making of the selection boards of public sector executives in positions of responsibility by leveraging a common methodology.
- New way of printing monthly reports for Greek Public Human Resources Register (Census) with the visualization of the elements of human potential through the Microsoft Power BI tool (Business Intelligence Tool).
- HR-app
  - o Developing an application on smart mobile devices, taking appropriate technical and organizational measures, such as the use of privacy-enhancing technologies and the provision of the necessary guarantees to ensure the protection of personal data.
  - o The application will "allow" employees to come into contact more regularly and more closely than they used to, with issues related to human resources functions of their interest.
  - o Through the application it is possible to ensure the connection of employees with the service in the direction of providing personalized information (e.g. seminars, mobility, etc.) while at the same time providing the possibility of using the application for the obligation to observe the schedule.
- Knowledge Management in Public-Creating a digital "treasury of knowledge"
  - o Development of modern administrative practice regarding the systematic collection, organization and dissemination of business knowledge to employees.
  - o Creating a repository of knowledge, the "Knowledge Transfer Guide", where studies/researches prepared by the services or funded by public funds, including universities, strategic and operational plans, public policy analyses/evaluations, special categories of information on management and organization issues, are gathered and classified.
  - o Development of horizontal interconnection with carriers that are pivotal to the enrichment of the Knowledge Repository, such as Business Program Management Services, the EKDDA, University, etc.

Policies and guidelines for trustworthy AI

In 2022, the Hellenic Parliament passed a law (no 4961/2022) regulating the development and use of AI in both the public and private sectors. The law focuses on the obligations of public sector bodies and their contractors who develop and use AI systems, ensuring the protection of citizens from potential risks associated with the operation and use of such systems.

Greece has been actively aligning with European Union policies and developing its own initiatives to stimulate the development and use of trustworthy AI, as well as to regulate and supervise the use of AI in the public sector, including the Parliament. Various policies, guidelines, and frameworks have been put in place to ensure the ethical and transparent use of AI technologies.

i. *Alignment with EU Regulations and Frameworks*

Greece is expected to fully implement the AI Act and comply with the Ethics Guidelines for Trustworthy AI (EU).

ii. *National Digital Strategy*

The National Digital Strategy 2020-2025 provides the foundation for Greece's digital transformation and outlines key areas for AI development in the public and private sectors. Although this strategy is broader than AI, it includes specific goals related to the ethical use of AI:

- **AI for Public Administration:** One of the pillars of the strategy is the digital transformation of public administration. AI is seen as a tool to modernize public services, but the strategy emphasizes the need for trustworthy, transparent, and accountable AI systems. This includes the automation of administrative processes and the use of AI for improving decision-making and service delivery.
- **AI Governance and Regulatory Oversight:** The strategy calls for the establishment of regulatory frameworks to ensure that AI systems used in public administration adhere to ethical and legal standards. This would also apply to the use of AI within the Greek Parliament and government agencies.
- **AI R&D Support:** The government has committed to supporting research and development in AI technologies through partnerships with universities, research institutions, and the private sector. The goal is to stimulate innovation while ensuring that AI development is in line with EU ethical standards.

iii. *National AI Strategy*

Greece is in the process of developing a comprehensive National AI Strategy, which will focus on promoting the development of AI technologies in a responsible and ethical manner. While this strategy has not yet been fully implemented, its key elements are expected to include:

- **AI Regulation and Supervision:** The National AI Strategy will likely include provisions for the regulation and supervision of AI used by government bodies and the public sector. This will involve ensuring that AI systems used in areas like health, education, and public administration meet high standards of transparency and accountability.
- **Ethical Guidelines for AI:** The strategy will build on existing EU ethical guidelines and apply them to national AI development efforts, emphasizing the importance of human oversight, fairness, and non-discrimination.

- **AI in Public Services:** The strategy will aim to harness AI for the digital transformation of public services while ensuring that these systems are trustworthy and aligned with citizens' rights and expectations.

iv.   Data Protection and Privacy Laws

Greece's AI Policy is closely linked to data protection regulations, given that AI systems often rely on large datasets, including personal information. General Data Protection Regulation (GDPR) was incorporated in national legislative framework with law 4624/2019. Any AI system used by the public sector, must comply with GDPR requirements related to data privacy, consent, transparency, and the right to explanation. This ensures that AI systems handling personal data, such as those used in public administration or public services, are subject to strict privacy protections, reducing the risk of misuse or unethical data practices.

Has your institution assessed opportunities or barriers to parliament or public sector agencies' use and deployment of AI? If so, what are recommendations for future policies?

Not yet, but several Departments that are horizontally involved in AI application and management are discussing future initiatives.

Key opportunities

- **Enhanced Decision Support:** AI technologies can assist in analyzing vast amounts of data, allowing Parliament and government agencies to make more informed decisions. This includes using AI for policy impact assessments, real-time data analysis for public safety, or even predicting economic trends. Moreover, AI-driven data analytics could also help in combatting fraud and improving transparency by detecting patterns in financial or administrative data that might indicate irregularities.
- **Citizen Engagement and Service Personalization:** AI systems, such as chatbots and virtual assistants, can improve citizen engagement by providing real-time responses to public queries and enabling citizens to access services more easily. Personalized services, enabled by AI, can offer more tailored responses based on the needs of individual citizens.
- **Document Automation:** The automation of document processing, including natural language processing (NLP) for legislative drafting or reviewing, is seen as a key opportunity to speed up workflows in the Parliament and public agencies. AI could assist in the preparation of reports, summaries, and even assist with drafting or translating legislative texts.

Key barriers

- **Lack of AI Infrastructure and Expertise**: One of the main barriers to deploying AI is the lack of infrastructure and technical expertise.

- **Data Availability and Quality:** AI systems require vast amounts of high-quality data to function effectively. Data fragmentation and the lack of standardized data formats create challenges for AI deployment.
- **Ethical Concerns and Public Trust:** There is a need to ensure that AI systems are designed in a way that respects privacy, human rights, and democratic principles to prevent any misuse of AI by public institutions.

Recommendations for future policies

In response to these opportunities and challenges, the Ministry of Digital Governance has put forward several recommendations to guide future policies regarding AI use in the Greek Parliament and public sector: Development of a National AI Framework for the Public Sector, Investing in AI Infrastructure and Capacity Building, Data Governance and Standardization, Pilot Projects and AI Sandboxes, Ethics and Accountability Mechanisms, Public-Private Partnerships for AI Development, Fostering Public Awareness and Engagement.

3 Democratic control and governance of artificial intelligence

Following the recent advances in generative AI, Greece has undertaken several initiatives to update its AI policies and governance frameworks. The most significant development is the "Generative AI Greece 2030" strategic foresight study, conducted by the Special Secretariat of Foresight, in collaboration with the Ministry of Digital Governance and national research institutions such as the National Centre for Social Research (EKKE) and the NCSR "Demokritos." This study, which has been endorsed by the Greek government, outlines the long-term impacts of generative AI and offers recommendations on national AI strategy development.

While the European Union's AI Act provides a broader regulatory umbrella, Greece is also exploring its own policy tools, including regulatory sandboxes, public investments in AI R&D, and adapting public agencies for AI oversight.

The establishment of specialized AI bodies, alongside parliamentary committees to oversee AI-related legislation, are also under discussion, with a focus on ensuring AI use aligns with privacy, safety, and ethical standards. These steps are crucial as Greece seeks to position itself within the global AI landscape, ensuring sustainable development and resilience in its AI adoption strategy.

AI infrastructure: Initiatives and assessments

Greece has embarked on several initiatives aimed at strengthening its AI infrastructure, with a focus on improving access to high-quality data, developing supercomputing capabilities, and enhancing the use of large language models (LLMs).

Supercomputing and AI Infrastructure: Greece is working to improve its supercomputing infrastructure, and there are plans to build additional data centres and supercomputers for the implementation of AI experiments. For

example, Daedalus, a new supercomputer is going to be accommodated in Greece. In addition, we participate in the European High-Performance Computing (EuroHPC) Joint Undertaking, which enables member states to share access to powerful supercomputers. Through this collaboration, Greece aims to bolster its computing capabilities for large-scale AI projects, such as training LLMs and enhancing AI-driven scientific research.

Data Access and Quality: Recognizing the importance of high-quality data for AI development, Greece is focusing on improving its national data governance frameworks. Policies are being developed to ensure better access to public sector data, while also encouraging the private sector to share valuable datasets. This aligns with EU-wide initiatives, like the European Data Strategy, which seeks to create a single market for data. Greece is working to implement policies that increase data interoperability, access, and sharing across sectors to support AI applications.

Building AI Capabilities and LLMs: Greece is also taking steps to secure access to advanced AI technologies, including large language models (LLMs). As part of the Generative AI Greece 2030 initiative, ways are explored to build our own LLMs tailored to the Greek language and cultural context. This would enhance the country's ability to develop and apply AI solutions across industries, particularly in areas like education, healthcare, and public administration.

AI Research and Public Investments: Public investments in AI research and innovation have increased, with the goal of establishing Greece as a regional hub for AI development. Partnerships between academia, industry, and government agencies are being strengthened to support research in AI and related fields like machine learning and natural language processing. Additionally, the establishment of AI research institutes and the expansion of collaboration with the EU's Digital Innovation Hubs are crucial to building AI capabilities within Greece.

The Hellenic Parliament is currently assessing the AI projects that are scheduled to run in the public sector, in which it can take part and contribute. Additionally, the staff analyses the needs and searches for areas where AI technologies, including LLMs, will be useful, in order to improve the Parliament's everyday procedures and activities.

An immediate further step will include taking advantage of the huge data sets in machine-readable form that the library will possess after the completion of the aforementioned Program, in order to use them as training data for semi-supervised automatic metadata extraction, where the parliamentary material is concerned (historical and contemporary).

Japan

Research and Legislative Reference Bureau (RLRB), National Diet Library

1 Artificial intelligence in political campaigning and public debate

AI gradually reshaping political campaigns
During the 2024 Tokyo gubernatorial election campaign, some candidates introduced AI-based systems that had learned their own policies and used the systems on their behalf. The incumbent candidate, KOIKE Yuriko, had an AI-generated newscaster, learning her own appearance, gesture and voice, report Tokyo Metropolitan Government's policies on social media and other media. One of the other candidates introduced an AI-based system that can accept questions and requests via YouTube or over the phone and respond to them using the candidate's facial expressions and voice. Regarding the use of AI in election campaigns, the following were pointed out: the advantage of reducing the cost of elections, the difficulty for voters in knowing true colors of candidates, and the risk that voters may receive messages not intended by the candidate.[1]

In other cases, the Liberal Democratic Party decided a catchphrase for a political campaign poster using AI. The party said it had the AI learn from materials that have already been made public, such as party pledges and speeches by the then Prime Minister, KISHIDA Fumio, who also is the party president, and create hundreds of proposals.[2]

No cases of AI being used in public debates during elections could be found.

Risk mitigation under review
We could not find any cases of the government or the parliament explicitly addressing the risk of mis- or disinformation associated with AI in political

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[*] As we refer to many materials that are not published online and many that are in Japanese, we are including bibliographic information in footnotes.
[1] "Generative AI; What will happen to the election campaign?" *Asahi Shimbun*, 2024.6.30 (in Japanese); Ms. KOIKE is known as a former television newscaster.
[2] A new catchphrase was selected from over 500 proposals, including proposals by copywriters as usual. "Japan's Ruling LDP Uses AI to Create Catchphrase for New Poster; Focus on Economic Revitalization," *Japan News*, 2024.4.16
<https://japannews.yomiuri.co.jp/politics/politics-government/20240416-180720/>;
"Considering dissolution?; LDP uses AI to create catchphrase for new poster," *Asahi Shimbun*, 2024.4.16 (in Japanese) ; "Use of AI in politics," *Mainichi Shimbun*, 2024.5.12. (in Japanese)

campaigning and public debate. This issue is currently being examined by the "AI System Research Group," which will be described under section 3.

Assessment
We provide information to members of the Diet, such as the opinions of experts, regarding the dissemination and use of AI, but have not assessed this issue.

2 Artificial intelligence in parliaments and the public sector

AI's growing role in politics and governance
In the Diet, AI has not been put to full use. Under deliberation of a House of Representatives' Committee on Cabinet meeting, there was a case where an opposition member experimentally posed a question to the Prime Minister which was produced by the conversational AI service ChatGPT. After the Prime Minister's response, the member also showed the AI-generated response and compared it with the Prime Minister's. While some believe that using AI to draft Diet questions is unsuitable for discussions between politicians, where serious exchanges are required, others are of the opinion that politicians should actively utilize AI because using it can reflect public opinion on the Internet in their questions.[3]

The Government is also considering using AI to draft answers in Diet deliberations to reduce the burden on bureaucrats, but this has yet to be put into practical use. Some expressed acceptance of using AI to draft answers, provided that they are checked afterwards by humans.[4] A scholar of constitutional law pointed out that increased dependence on using AI would make it unclear where responsibility lies in Diet decisions. He also said that reducing deliberations in the Diet would be unsuitable for modern democracy, where representatives of the people make laws through serious debates and people follow them.[5]

For another example, the House of Councillors has introduced a service that uses AI to display real-time captions on live internet broadcast of deliberations, in order to improve convenience for those with hearing difficulties or other issues.[6]

At the government level, the Digital Agency conducted a technical verification aimed at the appropriate use of generative AI from December 2023, and compiled the results of the verification in May 2024. The verification consisted of two parts: (1) verifying whether staff members' work could be improved by providing a web-based chat application, and (2) verifying the use of generative AI for nine specific

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[3] "AI in the Diet; various trials," *Yomiuri Shimbun*, 2023.4.2. (in Japanese)
[4] "Understanding the use of conversational AI to create answers," *Nihon Keizai Shimbun*, 2023.4.14 (in Japanese); "AI-generated answer to Diet questions; At the last step, human intervention is needed," *Yomiuri Shimbun*, 2023.4.20. (in Japanese)
[5] YAMAMOTO Tatsuhiko, "Constitutional issues with using ChatGPT in the Diet," *Yomiuri Shimbun*, 2023.4.22. (in Japanese)
[6] "Introducing a service of real-time caption on live internet webcasts of the House of Councillors within this month," *Yomiuri Shimbun*, 2024.8.12. (in Japanese)

use cases, including the classification and analysis of public comments submitted in response to policies and bills, etc.

At the local government level, as of December 31, 2023, 51.1% of prefectures, 40.0% of designated cities, and 9.4% of other municipalities have already introduced generative AI to administrative services.[7] Including those in the process of demonstration experiments, 95.8% of prefectures, 90.0% of designated cities, and 25.1% of other municipalities have introduced it. Specific examples of applications include "drafting greetings," "summarizing meeting minutes," and "drafting proposals".

Gradual development of AI policies and guidelines
We have not found any policies or guidelines to restrict or supervise the use of AI by the Diet.

At the government level, the Council for the Promotion of Integrated Innovation Strategy has defined Japan's AI strategy. In the latest "AI Strategy 2022" (decided in April 2022), "Strengthen organizations to promote the introduction of AI in government agencies and thereby strengthen and improve administrative functions" has been set as a specific target to promote the implementation of AI in society. In May 2023, based on the rapid technological changes and the G7 Hiroshima Summit in 2023, the "Tentative Discussion Paper on AI" was compiled, which summarized issues that were primarily related to generative AI. Currently, in the work of ministries and agencies, the use of AI is restricted or supervised by the "Guidelines for the Governmental Use of Generative AI: ChatGPT, etc. (Version 2)". The Guidelines are currently being revised based on the contents of the "Guidelines for AI Business Operators (Version 1.0)," which was compiled for business operators in April 2024.

At the local government level, in June 2021, the Ministry of Internal Affairs and Communications prepared a "Guidebook for AI Application and Introduction in Municipalities" (revised in June 2022) based on the findings of demonstration experiments and case study surveys of leading organizations. It is provided as a reference for future efforts by municipalities considering adoption of AI.

Highlighted issue: AI adoption by local governments
A chapter of the Research Materials "Technology and Its Social Implementation in the Digital Era" published by RLRB in March 2024, deals with the state of adoption of AI at the local government level and some advanced examples of AI usage in the field of improving operational efficiency in Japan in comparison with the UK. We pointed out three problems for local authorities in Japan which intend to introduce AI more actively: (1) Data quality/quantity of machine

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[7] Regional Communications Development Division, Information and Communications Bureau; Office for the Promotion of administrative management, Local Administration Bureau, Ministry of Internal Affairs and Communications, "Status of implementation of generative AI in municipalities (2024.7.5.ver.)," Ministry of Internal Affairs and Communications Website (in Japanese) <https://www.soumu.go.jp/main_content/000956953.pdf>

learning; (2) Monitoring system for risks of AI use; (3) Fear of the status of AI usage by local governments being opaque because of a decrease in media coverage.

3 Democratic control and governance of artificial intelligence

Government and experts collaborate on AI regulations and safety standards

The government established the "AI Strategy Council" in May 2023. The council members include the Minister in charge of Digital Affairs, the Minister in charge of Science and Technology Policy, and the Minister of Economy, Trade and Industry, as well as university professors, lawyers, and other experts who are familiar with AI. Currently, discussions are being held on the nature of legal regulations, and as a forum for more detailed discussions, the "AI System Research Group" was established as a sub-organization of the council in July 2024. At the first meeting of the research group, Prime Minister KISHIDA presented four fundamental principles that should be adhered to when considering legal regulations: (1) ensuring both the security and competitiveness of AI; (2) creating a system flexible enough to respond to technological changes; (3) complying with international guidelines; (4) proper procurement and use of AI by the government. It has been reported that, based on the outcomes of the discussions, a bill related to AI regulations is expected to be submitted to the Diet in the first half of 2025.

As for the establishment of new institutions, the Japan AI Safety Institute (AISI) is notable. In February 2024, AISI was established as an organization within the Information-technology Promotion Agency (IPA), an independent administrative agency under the Ministry of Economy, Trade and Industry (METI). This institute conducts research and deliberates on standards related to the safety evaluation of AI.

Advancements in AI development: NICT, Fugaku, and GENIAC initiatives

The National Institute of Information and Communications Technology (NICT) is developing LLMs specialized in the Japanese language. They have already collected 350 GB of training data through web crawling and plan to increase this to 3.5 TB over the next three years. The results are expected to be made available to private companies.[8]

The supercomputer Fugaku, developed by the RIKEN Center for Computational Science and considered to have the world's top-level performance, is being utilized for research in AI model development and the integration of Fugaku's simulations with AI. Additionally, the Japanese LLM Fugaku-LLM, jointly

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[8] "On the Provision of Access to Training Language Data Prepared by the Ministry of Internal Affairs and Communications and NICT," (the 5th AI Strategy Council paper 3-4) 2023.9.
Cabinet Office Website (in Japanese)
<https://www8.cao.go.jp/cstp/ai/ai_senryaku/5kai/datateikyou.pdf>

developed by RIKEN, universities, and private companies using Fugaku, has been made publicly available since May 2024.

In February 2024, METI launched the GENIAC (Generative AI Accelerator Challenge) project to strengthen the development capabilities of generative AI. GENIAC aims to enhance the development of foundation models, the core technological infrastructure supporting various services utilizing generative AI in Japan, by inviting applications from private companies and providing support such as computational resources and data utilization. So far, companies aiming to develop not only LLMs but also foundation models for autonomous agent systems and autonomous driving have been selected and are receiving support. Among the selected companies developing LLMs, there is one that has successfully raised funds and become a unicorn.[9]

Highlighted issue: Fugaku and future plans
In February 2024, RLRB published a report on the development status of supercomputers in Japan. The report provides an overview of the currently operational Fugaku and offers the following two insights:

- Given that continuous improvement in computational performance through conventional technologies is no longer expected, it is necessary to consider incorporating new technologies, such as quantum computers, when planning for the post-Fugaku era.
- While Fugaku is utilized for AI research as well as simulations in various fields such as meteorology, material science, space, and medicine, it has been pointed out that its use is limited to research and development purposes, making it less accessible for private companies aiming for pure commercial use.

In June 2024, after the publication of the report, an expert panel of the Ministry of Education, Culture, Sports, Science and Technology compiled the opinion that the next-generation supercomputer successor to Fugaku should begin operation by around 2030 at the latest.[10] It has been reported that development is scheduled to start in the 2025 fiscal year.[11]

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[9] "Sakana AI hits unicorn status following Nvidia investment deal," Asahi Shimbun, 2024.9.5. <https://www.asahi.com/ajw/articles/15415240>; A unicorn company is a privately owned start-up that has been valued at over US$1 billion.
[10] "Successor to Fugaku to be operational by 2030," *Nihon Keizai Shimbun*, 2024.6.6. (in Japanese)
[11] "Development of Fugaku successor to AI-oriented supercomputer to begin in 2025," *Nihon Keizai Shimbun*, 2024.8.27. (in Japanese)

Lithuania

Committee for the Future of the Seimas

1 Artificial intelligence in political campaigning and public debate

Republic of Lithuania and the European Parliament. In addition, elections to the Seimas of the Republic of Lithuania are scheduled for 13 October. Despite the potential importance of the use of artificial intelligence (AI) in political campaigns and public debates, there has been no high-profile debate or specific known cases of the use of AI in these elections in Lithuania so far.

There are no specific examples of the use of AI in Lithuanian political campaigns. There is also no information on the introduction of any specific measures to assess or regulate the use of AI in politics. However, it is possible to identify the potential impact of AI on elections by looking at areas of AI use such as political programming, analysis and forecasting of voters' opinions, social media analysis, the creation of fake identities and the development of personalised political messages.

However, it can be noted that this topic is touched upon in the public debate, raising important questions about the potential threats and ethical concerns related to the balance between technological innovation and preserving the integrity of the democratic process. Some preventive measures are also proposed, such as the adoption of legislation on the labelling of content produced by the AI and the establishment of stricter guidelines on the use of the AI in political campaigns.

Initiatives to address disinformation
At the end of 2023, the Committee on the Future of the Seimas established the Working Group on Artificial Intelligence, whose mission is to develop and implement a legal framework for artificial intelligence (AI) technologies in line with global and EU standards - in the areas of human rights and rule of law. The Task Force seeks to highlight shortcomings in the national legislative framework and law enforcement, and assesses the need for AI recommendations, guidelines and codes of conduct in different areas of public life. The Task Force invites a wide range of stakeholders - academia, business and civil society - to its meetings. It has already put forward a number of proposals for the responsible use of the AI, focusing on strengthening the legal framework and regulation. In its spring session, the Seimas adopted a resolution on "Principles for the use of artificial

intelligence technologies in the public sector" (<u>No XIV-2620</u>), which includes both legal and educational solutions to combat both the spread of misinformation caused by AI and to strengthen the resilience of public officials to misinformation.

10 May 2024 The world's first anti-disinformation artificial intelligence exercise, the "Security Games", took place in Vilnius on 20 May. The initiative was organised by the Lithuanian Ministry of Economy and Innovation, the Innovation Agency, VU TSPMI, the computer software development company UAB Repsense and the venture capital fund Coinvest Capital, demonstrating Lithuania's commitment to tackling the problem of misinformation. This initiative, organised in cooperation between government institutions, academia and the private sector, aimed to strengthen the country's capacity to identify and combat disinformation through artificial intelligence. The exercise used the Adler AI platform, developed by the Lithuanian company Repsense, to quickly detect and assess disinformation. This shows that Lithuania is quite active in promoting and deploying innovative technological solutions to combat disinformation.

Episodic public information campaigns are also carried out in the public domain to warn the population of possible disinformation, especially in the run-up to important political events. The public is encouraged to be critical of the information they see on the internet, to pay attention to the credibility of sources and not to contribute to the spread of disinformation or propaganda. Particular attention is paid to warnings about the sophisticated social engineering tactics used to spread disinformation, including written, visual and audio media, and information taken out of context. Citizens are also warned about phishing attacks by cyber-scammers, which can be used to spread disinformation.

Assessments of opportunities and challenges

In order to ensure that technological advances are in line with democratic values and societal needs, especially when technology is changing faster than parliamentary elections, the Working Group on Artificial Intelligence (AI) of the Seimas Committee on the Future has proposed a major amendment to the Seimas Statute. This amendment to the Parliament's Statute makes it clear that politicians take direct responsibility for the way in which AI technology will be used in their work, as well as for assessing and managing its impact in the public interest.

This initiative reflects a deeper understanding that preserving democracy in the digital age requires not only technological solutions but also institutional change. The amendment aims to ensure that the use of AI in parliamentary activities strengthens rather than weakens democratic processes, while maintaining citizens' trust and engagement in political decisions.

This is an important step towards a fair, ethical, transparent and effective use of AI that not only serves the public good but also actively contributes to strengthening the democratic process. This approach underlines the need to reconcile technological progress with the fundamental democratic values of transparency, accountability and citizen participation. At the same time, it opens

the way to new forms of citizen engagement, potentially improving the dialogue between society and government and the quality of decision-making.

The current Lithuanian government is also actively promoting the integration of the AI as part of its national digital strategy, by funding research, supporting AI start-ups, and working towards the deployment of AI technologies in various sectors of the economy. Over the last two years, the Lithuanian government has allocated €35 million to develop products for artificial intelligence (AI) technologies and to digitise the Lithuanian language, demonstrating a strong commitment to the technology. These investments are already paying off, as Lithuania has gained international recognition: in 2023, the Government AI Readiness Index ranked Lithuania 35th out of 193 countries.

2   Artificial intelligence in parliaments and the public sector

AI functionality is swiftly becoming integral to knowledge work and digital services. This can make public services more accessible and efficient, stimulate democratic participation, and support decision-making and policy development. However, the lack of transparency, privacy, and reliability in these systems may pose a risk to citizens' rights and the legitimacy and trustworthiness of the public sector agencies deploying them.

Preparation of transcripts of meetings and events, i.e. audio-to-text technologies for the verbatim transcription of parliamentary, committee or other working group meetings, with preliminary automatic voice recognition of speakers or linking to video.

Document analysis: AI is used to analyse large volumes of documents of all kinds (e.g. draft legislation), as well as to search for information on institutional websites or document platforms.

The public sector in Lithuania does not yet use AI tools for automated decision-making. However, at least one in four institutions (12 out of 53)[1] in Lithuania use algorithmic tools to improve productivity, optimise processes, and monitor performance. One example is the Employment Service, which, in order to improve customer service, has implemented a smart chatbot that allows it to receive answers 24/7. Such solutions are becoming increasingly popular, and more and more Lithuanian public sector organisations are deploying chatbots and automated service systems to help solve customer problems faster and more efficiently without human intervention. For example, the Public Procurement Service's Procurement Performers Map - a dashboard for real-time monitoring of

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[1] These 12 institutions are the Ministry of National Defence (MoND), the National Paying Agency (NPA), the National Judicial Administration (NJA), the Police Department, the Fire and Rescue Department (PAGD), the Šiauliai City Municipality, and the Employment Service; State Tax Inspectorate (STI); State Social Insurance Fund (SODRA); Public Procurement Service (PPT); Lithuanian National Radio and Television (LRT), the Chief Election Commission (CEC)) gave 18 examples of such algorithmic tools.

strategic procurement indicators. It allows for monitoring the values of the target indicators set out in the Public Procurement Laws, sub-legislation and other strategic documents, for the overall assessment of procuring entities in terms of the results of the indicator values achieved, and for the verification of compliance with the provisions of the procurement rules related to the publication of contracts.

Policies and guidelines for trustworthy AI
In April 2019, the "Lithuanian Artificial Intelligence Strategy" was presented by the Ministry of Economy and Innovation and participants of the "Create for Lithuania" programme. The document is called a strategy, but it can be seen as a possible strategic vision. It was the second AI strategy among EU countries but remained a ministerial-level document. The document set out specific objectives that the national strategy was to develop - to create a legal and ethical framework for the application of AI in Lithuania, to create the preconditions for the development of business and science, and to apply AI solutions to maximise its economic potential.

29 April 2024 The Ombudsman for Academic Ethics and Procedures approves the Guidelines for the Ethical Use of Artificial Intelligence in Science and Studies. According to the Office of the Ombudsman for Academic Ethics and Procedures, these guidelines address the significant challenges that arise, the general principles of the ethical use of AI, intellectual property rights and consumer protection. It also provides an overview of the ethics of AI and open science and publishing and discusses the evaluation and validation of AI tools.

On 9 May 2024, the Parliament adopted a Resolution on the principles for the use of Artificial Intelligence (AI) technologies in the public sector. This document aims to establish clear principles and guidelines for the application of AI in the public sector. This includes transparency, openness, equity, equality and respect for ethical principles. All AI systems must be developed and used in a transparent manner, ensuring public awareness and participation in decision-making. Algorithms and data must be open to investigation and review, and public authorities must adhere to the highest standards and guidelines. It is important to stress that each one of us who uses AI technologies must take full responsibility.

On 18 July 2024, Lithuanian companies implementing advanced digital tools took the lead in organising public and private sector organisations to ensure the safe and secure use of AI solutions. "EPSO-G, Ignitis Group, LTG Group, the Bank of Lithuania and the Centre of Registers developed and presented guidelines for the safe use of Generative Artificial Intelligence (GenDI) systems to the National Cyber Security Centre (NCSC). This document sets out the principles to ensure the legal, uniform, consistent, secure and regulatory compliant use of GenDI systems.

With the new regulation, the European Union (EU) Artificial Intelligence (AI) Act, coming into force on 2 August 2024, the Ministry of Economy and

Innovation is preparing to submit to Parliament draft amendments to the law that will lay the foundations for creating a favourable environment for the development of AI technologies in our country. As part of the implementation of the Act, the Ministry will submit for consideration amendments that foresee the upgrading of two national institutions: the Innovation Agency will be entrusted with the functions of a notifying authority and will set up a pilot AI regulatory environment within the Agency, while the Regulatory Authority for Telecommunications (RRT) will be entrusted with the functions of an AI market supervisor and a single contact point.

Assessments of AI in parliaments and public sector
"Transparency International Lithuania conducted an exploratory transparency study on the use of AI in the Lithuanian public sector in 2023 and identified the following main risks and barriers to the use and deployment of AI in the public sector:

- **Algorithm bias** - AI technologies can make biased decisions based on inadequate or biased data. For example, in employment or social security, decisions can be discriminatory on the basis of gender, race, age or other personal identity traits.
- **Inadequate testing and contextualisation** - AI systems are not always adequately tested before use, which can lead to errors, especially when dealing with situations involving vulnerable populations. In addition, tools are often not adapted to the local context, which reduces their effectiveness.
- **Inappropriate use of data** - The datasets used may be inappropriate or insufficiently anonymised, which poses data protection risks. This is particularly true when using sensitive data such as health or personal identity data.
- **Misuse of technology** - AI can be used for illegitimate personal gain or to manipulate systems. For example, algorithms used for recruitment processes can be tricked or corrupted.
- **The 'echo chamber' effect** - AI can provide information based on an individual's behaviour, creating a bubble of information and manipulating public opinion. This can be used to influence political decisions or elections.
- **Procurement risks** - AI systems used in the public sector can be risky due to inadequately formulated technical specifications and contractual terms. This can lead to lower quality technology or inaccuracies in decision-making.
- **Dependence on technology** - Relying solely on AI solutions, especially in simple situations, can reduce the importance of human intervention, which can lead to poorer decisions, especially in situations requiring human expertise.

Following the adoption by the Parliament on 9 May 2024 of the <u>Resolution on the principles for the use of artificial intelligence (AI) technologies</u> in the public sector, the following key principles can be identified:

- **Human control and review** - AI decisions must be subject to continuous oversight and are subject to human review, especially if complaints are made.
- **Person-driven** - Remote biometric identification should only take place at the request of the individual, ensuring compliance with security requirements.
- **Accountability** - Public sector bodies take responsibility for decisions, whether they are made by humans or by AI technologies.
- **Traceability** - The impact of AI on performance must be transparent.
- **Quality assurance** - The use of AI must ensure a consistently high quality of performance across all areas of the public sector.
- **Equality** - All individuals must be treated equally, regardless of their personal characteristics or status.
- **Non-abuse** - AI technologies must be used strictly for their intended purpose and in accordance with the law, avoiding misuse.
- **Personalised solutions** - AI solutions must be tailored to the unique characteristics of each individual, not to generic features.
- Transparency - The public sector must make publicly available information on the use and impact of AI technologies.
- Rule of law - AI technologies must comply with the law, regardless of the digitisation process.
- Priority of human interests - The use of AI must give priority to the protection of human rights and interests in the creation of social good.

3 Democratic control and governance of artificial intelligence

Access to AI will become crucial for industrial competitiveness, scientific excellence, and high-quality public services in the years ahead. However, a few companies currently own and control access to the market-leading models. Meanwhile, anticipating the capabilities and risks of future AI systems is becoming increasingly difficult. In summary, this calls for new initiatives to strategically and democratically monitor, govern and secure access to AI for democracies.

AI policies and governance
<u>The Ministry of Economy and Innovation</u> has prepared an Action Plan for the Development of AI Technologies in Lithuania 2023-2026. It sets out how to stimulate a breakthrough in the development and deployment of AI technologies and solutions in Lithuania. The main objectives are to create the conditions for high-tech AI innovation and strengthen the AI technology ecosystem, as well as

to promote the deployment and use of AI in all sectors, including the public sector.

The proposals of the Strategy and the Action Plan for the Development of AI Technologies 2023-2026 have been integrated into the Ministry's measures for the growth of the AI ecosystem and the financing of the development of AI technologies.

Following the adoption of the amendments by the Parliament, the Innovation Agency will assess the compliance of conformity assessment bodies (companies, research and education institutions, etc.) wishing to become Notified Bodies with the requirements of the EU AI Act. Notified Bodies will carry out conformity assessment and certification of high-risk AI systems. This will ensure that AI systems placed on the market, or products incorporating them, are reliable and safe.

It is also foreseen to set up an AI regulatory pilot environment at the Innovation Agency. This environment will foster innovation and facilitate the development and testing of AI systems before they are put on the market. Companies will be able to call on the Agency's experts to provide expert and legal advice on how to ensure that the solutions they develop comply with the requirements of the AI Act. It is also foreseen that in a pilot environment, companies will have the opportunity to test the AI systems they are developing and deploying, and to have access to the necessary technical infrastructure.

It is envisaged that the RRT will act as an AI market watchdog. This means that the RRT will provide market oversight of AI systems and ensure that the AI systems placed on the market, or the products in which they are integrated, are reliable and safe. The RRT would also act as a single point of contact. This will foster cooperation with other market surveillance authorities and liaise with the public, business and international partners on the development, safety and reliability of AI.

AI infrastructure: Initiatives and assessments
€110 million is earmarked for the digitisation of public services, including solutions that use AI technologies. In addition, a €35 million measure to create digital resources for the Lithuanian language, which are needed to develop and adapt AI solutions for the Lithuanian language, has been planned, with calls for projects launched this year.

The Ministry of Economy and Innovation has planned measures for the development of AI innovation and technology in the public sector. This will be the responsibility of the GovTech Lab at the Innovation Agency, which will work with researchers and innovative businesses to find solutions to exploit the potential of the AI and to test the application of these technologies in public sector institutions and integrate them into public services.

In order to ensure the effective use of AI in the public sector, the Innovation Agency has set up a GovTech Lab, which enables the public sector to experiment and, in partnership with start-ups and SMEs, to test emerging technologies in practice to address public sector challenges.

Since the launch of the sandbox in 2019, more than 60 innovative companies have helped solve over 70 public sector challenges. The programme provides financial support and expertise to public sector institutions and technology co-developers, in particular by helping them to assess whether it is possible to solve a particular challenge with digital technologies. If so, the sandbox invites start-ups and innovative companies to work with research and academic institutions to develop new innovative digital solutions or to test innovative digital solutions already existing in the market. The programme also analyses and initiates the regulatory, process and behavioural changes needed for proactive and successful technology adoption.

Aim of the 2024 activities: to implement a pilot version of the GovTech Sandbox AI in two different directions:

- Testing of AI solutions (13 solutions tested, €250k);
- Reimagining future government with AI (6 concepts, €100k).

To ensure that we all have access only to reliable AI solutions, the Innovation Agency has launched an AI Sandbox for Business, where companies can get expert/legal advice on the compliance of their solutions with the AI Act, the GDPR, UNESCO's AI Ethics Guidelines and other legislation on the use of AI. The financial risks to business of non-compliance with the AI Act are extremely high, with significant fines, and businesses can turn to the experts at the AI Sandbox to help them mitigate the potential financial risks. Businesses will also have the opportunity to test their solutions and gain access to the necessary infrastructure: computing capacity, data, etc.

With no analogous sandbox currently available in any EU country, this is an excellent opportunity for Lithuania to become the epicentre of AI applications across the EU.

The Lithuanian Action Plan for the Development of Artificial Intelligence Technologies 2023-2026 has three objectives, corresponding to the three axes on which we are focusing our efforts and resources:

1. **Developing the AI ecosystem** (improving the conditions necessary for AI development);
2. **Applying the AI in all sectors** of the economy (ensuring national competitiveness);
3. **Fostering AI innovation** (to achieve a technological breakthrough in AI at national level).

Given the smaller size of the Lithuanian market, the development of generative language models based on the Lithuanian language is not very attractive for business. To address this problem, the development of Lithuanian language resources for AI solutions in Lithuanian has been launched (€35 million calls planned by the Ministry of Economy and Innovation for 2024). The developed resources will be publicly available and free for all to use in order to adapt AI systems and services for use in Lithuanian.

In order to expand access to artificial intelligence (AI) infrastructure in Lithuania, such as large language models (LLMs), computing power or high-quality data, the Working Group on AI of the Seimas Committee on the Future believes that several important insights need to be taken into account and concrete steps taken:

- **Investing in high-performance computing infrastructure** - Lithuania needs to increase investment in advanced computing infrastructure, as modern AI research requires high processing power. An example is the use of the supercomputer HPC Sunrise, which already helps researchers process large amounts of data, but its development is necessary to remain internationally competitive in AI research.
- **Access to large and high-quality datasets** - It is important for Lithuania to ensure access to datasets that are tailored to the national context, especially in the area of Lithuanian language, culture and other socio-economic data. For example, Lithuanian language models are still limited compared to other languages, and large amounts of data need to be collected, managed and opened up in order to develop high quality Lithuanian AI applications.
- **Strengthening cooperation between academia, business and the public sector** - The development of an AI infrastructure requires close cooperation between universities, businesses and public authorities. For example, the Mykolas Romeris University AI Centre of Excellence collaborates with the public and private sector in the development of AI solutions. This model should be expanded to allow sharing of infrastructure and knowledge.
- **Specialised AI Centres of Excellence** - The creation of specialised AI Centres of Excellence in strategic areas of the economy, such as transport, healthcare or finance, where AI can have a significant impact is recommended. An example would be the Vilnius Innovation Industry Park, where the conditions for the development of AI solutions in industry are created.
- **Investing in training and attracting AI professionals** - In Lithuania, it is necessary to increase investment in training AI professionals, as there is a shortage of professionals in this field. For example, Vilnius University and other higher education institutions already offer AI degree programmes, but more talent needs to be attracted,

including international experts, so that Lithuania can become a leader in AI development in the region.

- **Promoting research and development in quantum computing** - Although quantum computing is not yet widely used, it is worthwhile for Lithuania to invest in research and development of this technology. Quantum computing has the potential to revolutionise the development of AI, especially for highly complex tasks that require enormous computing power.

Luxembourg

Cellule Scientifique de la Chambre des Députés

1   Artificial intelligence in political campaigning and public debate

In 2023 and 2024, Luxembourg held legislative, municipal, European and social elections. Prior to these events, the National Commission for Data Protection (CNPD) released a thematic dossier titled "Personal Data Protection for Election Campaigns" in 2023. The General Data Protection Regulation (GDPR), which governs this independent public body with financial and administrative autonomy, outlines its mission.

The CNPD dossier reiterates the principles derived from the GDPR, emphasizing the rights of data subjects and the responsibilities of data controllers within the electoral context. The CNPD emphasizes that it is a criminal offense to discriminate against individuals, particularly based on distinctions related to origin, gender, or actual or perceived membership or non-membership in a specific ethnic group, nation, race, or religion.

It also clarifies that, since 2022, the electoral law in Luxembourg has significantly restricted the purposes for which electoral rolls can be accessed. Political parties are no longer permitted to obtain copies of these rolls for canvassing purposes. Adhering to data protection legislation is crucial for ensuring free and fair elections, and political parties and candidates are urged to respect these rules during their campaigns.

The CNPD cautioned against the excessive use of targeted advertising on social media, as it can impede the free flow of information.

There have been no significant controversies or debates in Luxembourg regarding the use of AI in electoral processes, indicating a general compliance with ethical and GDPR standards. The few instances of deepfakes featuring Luxembourg politicians or the Grand Duke that appeared on YouTube had little impact.[1] The

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[1] For examples of these instances, see: RTL Today, "Deepfakes of Luxembourg politicians surface on YouTube", 18 December 2023, https://today.rtl.lu/news/fact-check/a/2148654.html, accessed 16 September 2024 ; RTL Today, "The 'Maison du Grand-Duc' requests for the videos to be deleted", 30 May 2024, https://today.rtl.lu/news/luxembourg/a/2200136.html, accessed 16 September 2024.

CNPD recommended that candidates and political parties establish verified accounts on social networks to ensure clear identification and to help combat the spread of false accounts and disinformation.

One story published in a Luxembourgish news outlet shows the possible biases of generative AI in the context of elections and based on the data it relies on, though it was not a major incident. When ChatGPT was asked to answer questions on the Luxembourgish version of the smartvote platform, "Smartwielen", it announced that it would vote for the Liberal Party, the Greens, or the Pirate Party in Luxembourg, out of thirteen lists of registered parties and groups in total.

2   Artificial intelligence in parliaments and the public sector

AI functionality is swiftly becoming integral to knowledge work and digital services. This can make public services more accessible and efficient, stimulate democratic participation, and support decision-making and policy development. However, the lack of transparency, privacy, and reliability in these systems may pose a risk to citizens' rights and the legitimacy and trustworthiness of the public sector agencies deploying them.

In July 2024, the Luxembourg Chamber of Deputies published a Charta on the use of AI systems within the parliament to guide the transparent, ethical, and responsible use of artificial intelligence. The Charta identifies, among other aspects, the need for risk assessment, staff training and quality control mechanisms. It also stresses the importance of the implication of the parliamentary staff. A committee has been established to work on the practical implementation of the AI Charta.

As part of this initiative, the University of Luxembourg is currently developing an AI-based tool for automatic speech recognition and speech-to-text transcription in Luxembourgish. This tool is based on audio data from parliamentary debates, transcribed by a dedicated service of the parliamentary administration. In addition, another AI tool is in development that can analyse documents and automatically determine retention periods, significantly reducing the workload of the archives unit and enhancing the transparency and communication capacity of the Chamber's archive.

Recently, several meetings were organized with all services of the parliamentary administration to identify their specific needs for AI tools that could reduce workloads and increase efficiency.

Members of Parliament are aware of the opportunities and risks posed by AI, as evidenced by a high number of parliamentary questions concerning AI-based profiling, biometric identification systems, and the use of AI in education and justice (for instance Q-2021-O-E-6416-01, Q-2023-O-E-0093-01, Q-2023-O-E-1065-01).

Since 2019, Luxembourg has pursued an <u>artificial intelligence strategy</u> based on a human-centric approach, emphasizing local AI solutions to maximize IT security. The <u>AI4Gov interministerial committee</u> actively encourages and supports the development and use of AI within ministries and public administrations.

A working group within the AI4Gov initiative also conducts preliminary assessments of the legal and ethical risks associated with these projects, ensuring a risk-based approach to AI governance in the public sector. AI4Gov also raises awareness of AI-related issues among government employees through newsletters and webinars. Additionally, a common infrastructure featuring specialized machines with GPU-type processors is accessible to any interested state entity.

The current <u>government's coalition agreement</u> (2023-2028) underscores the potential of AI to boost the economy and simplify citizens' lives. It also affirms the government's commitment to respectful AI governance and the implementation of the European regulation on artificial intelligence (AI Act).

3 Democratic control and governance of artificial intelligence

Access to AI will become crucial for industrial competitiveness, scientific excellence, and high-quality public services in the years ahead. However, a few companies currently own and control access to the market-leading models. Meanwhile, anticipating the capabilities and risks of future AI systems is becoming increasingly difficult. In summary, this calls for new initiatives to strategically and democratically monitor, govern and secure access to AI for democracies.

AI policies and governance
The definition of "breakthrough" might depend on the chosen perspective. The history of AI goes back to the mid-20th century. In the 1960s, the ELIZA computer program simulated a conversation with a human and was one of the first programmes capable of attempting to pass the Turing Test.[2] In the 1970s, artists and computer scientists used generative AI to create visual artworks. The deep neural network, the foundation of generative AI today, was introduced in the 1960s, but it was limited by the computational performance needed. The "modern era of generative AI" started around 2014, when new network architectures were introduced.[3]

Generative AI has undergone important developments, including the release of tools that have known a significant dissemination and elicited much debate in the public realm. In the Luxembourgish context, virtually all projects and initiatives

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[2] Michael Haenlein, and Andreas Kaplan, "A Brief History of Artificial Intelligence: On the Past, Present, and Future of Artificial Intelligence", in *California Management Review* n° 4 (vol. 61, 2019), p. 6.

[3] Kyle Stratis, *What is generative AI?*, Sebastopol, CA : O'Reilly Media, 2023.

presented in the present report date from the most recent years. Many initiatives may not be directly linked to generative AI, but all of them are undoubtedly linked to efforts in promoting, supervising and guiding AI development and deployment.

Government level
AI policies may be subject to or conceived by several ministerial departments. The Ministry for Digitization is responsible for matters related to AI policies but shares competencies with other relevant ministries in some matters, such as the development of a national AI strategy.[4] The Ministry of State runs a Department of Media, Connectivity and Digital Policy, which manages since 2014 the Innovative Initiatives platform, formerly Digital Luxembourg. In 2019, the government published a strategic vision of AI for Luxembourg still under the banner of Digital Luxembourg. The paper highlighted, among other things, that Luxembourg cannot rely on a critical mass necessary to autonomously generate datasets necessary to AI, but the government expressed its intent to develop "R&D activities based on the regulatory frameworks concerning data usage to power AI" (p. 6). However, the strategy focused on AI in general, including but not limited to generative AI.

Another public initiative is the Luxembourg House of Cybersecurity (LHC), inaugurated in 2022 and a successor to "SECURITYMADEIN.LU". The LHC hosts several public entities and activities that are cybersecurity-related, and from a range of domains such as research, health, defence or industry. Additionally, the LHC acts as a platform to bring together private companies and public resources. Through one of its hosted actors, the Computer Incident Response Center, individuals can file incidents related to cybersecurity such as hacking, phishing or software vulnerabilities.

The National Commission for Data Protection (Commission nationale pour la protection des données, CNPD) developed a "regulatory sandbox" to support professional stakeholders using AI in the development of a data protection plan for innovative projects. The programme aims to raise awareness on the challenges related to the confidentiality of data and the use of AI.

In a similar vein, the Luxembourg Institute of Science and Technology (LIST) offers an AI sandbox "to help the Luxembourg ecosystem grow awareness and capabilities to improve the trustworthiness of AI models and reduce the risks for their users." This sandbox was created with the European AI Act in mind and to help stakeholders being prepared for the new regulations. Part of the LIST sandbox is the LLM Observatory, which evaluates the biases of the LLM towards certain groups.

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[4] Journal official du Grand-Duché de Luxembourg, "Règlement interne du gouvernement", 27 November 2023, https://legilux.public.lu/eli/etat/leg/ri/2023/11/27/a779/jo, accessed 16 September 2024.

In September 2022, the Ministry for Digitization created the High Committee for Digital Transformation (Haut Comité à la transformation numérique), bringing together officials from different ministries, representatives from civil society and employers, as well as experts with various backgrounds. However, the official presentation of the committee did not explicitly mention generative AI. Among its missions range the identification of major developments in digital transformation, the suggestion of initiatives and projects to improve eGovernement, and the identification of potential initiatives that strengthen digital inclusion. In 2024, the committee has organized workshops on AI for representatives of various ministries and civil society.

In May 2024, the Ministry for Digitization published guidelines for best practices for public sector's data scientists. Besides legal and ethical considerations, the publication dedicates a chapter to best practices pertaining to machine learning (choice of model, quality of data, etc.).

Parliament (Chambre des Députés)
Besides the AI Charta mentioned above, at political level, a parliamentary commission regroups research, higher education and digitalisation. The commission is currently discussing a draft law on the treatment and protection of personal data by public entities in the context of the introduction of the "once-only" principle, implementing certain dispositions of EU regulations. While not directly related to AI, a couple of dispositions concern the use of AI by public entities. The draft law forbids the use of AI solutions for the treatment of personal data unless explicitly included in a "confidentiality plan" or previously certified and evaluated.

AI infrastructure: Initiatives and assessments
Besides the specific infrastructure and projects to which we will get below, the Luxembourg Government approved the National Research & Innovation Strategy in 2019. This strategy aims to develop a "diverse and sustainable knowledge-based society by 2030". AI is included in this strategy, insofar as it is regarded as a "key enabling technology" used in the four research priority areas: industry and services, personalised healthcare, sustainable and responsible development, and education. Between 2019 and 2023, the National Research Fund financed 166 projects using or developing AI.

In 2020, the government created the GovTech Lab, a joint initiative by the Ministry for Digitization and the Government IT Centre, to promote research and innovation in eGovernment and find solutions to challenges faced by public administrations. The GovTech Lab regularly launches calls for solutions to which external actors can apply. Through its activities, GovTech lab promotes partnerships between the private and public sectors. A list of past and current calls for solution is available on the official webpage. While the calls do not explicitly mention generative AI, some might need solutions based on this technology, such as real-time transcription into several languages of press conferences (Transcribo Vox) or the possibility to translate pages of public

<u>authorities into simplified language</u> (easy-to-read and easy-to-understand) with AI assistance.

One might also include here the above-mentioned AI4Gov interministerial committee, encouraging the use of AI in public administrations.

<u>The Luxembourg Digital Innovation Hub (L-DIH)</u> supports the digital transformation of the industry through training and networking. Industry stakeholders can contact the L-DIH either to receive support in their digital transformation or to apply their skills and get in touch with potential customers and investors. The L-DIH was launched in 2019 and has been managed by the national agency Luxinnovation.

Luxembourg invests in the development of a supercomputing infrastructure and its use for research and innovation by companies, research centres and public administrations, via the <u>National Competence Centre in High-Performance Computing</u>. The deployment of the <u>MeluXina supercomputer</u> happened on the backdrop of these investments.

<u>In 2019, the Luxembourg Government, several research centres and NVIDIA established a partnership for AI and high-performance computing</u>. The AI laboratory created by this partnership is accessible to researchers.

At the request of the Ministry for Digitalisation of the Grand Duchy of Luxembourg, the OECD conducted in 2022 a <u>review</u> to support Luxembourg's digital government transformation and offered recommendations for more digital, innovative, and inclusive public services.

The Netherlands

Rathenau Instituut

1   Artificial intelligence in political campaigning and public debate

National elections were held in the Netherlands on November 22th, 2023.When the Dutch news radio outlet BNR asked political parties about their use of AI, they found the following.

Staff from the BBB employed their own ChatGPT-based extension to distill the essence from contributions made in the House by their party leader, to generate suggestions on various topics for their party program. Volt experimented with an AI chatbot to answer party members' questions about the EU policy they advocate. CDA, PVDD, VVD, D66 and SGP claimed not to use or plan on using AI, for instance out of privacy concerns. All other parties did not respond to BNR's requests. The parties that did, unanimously disapproved of generating political imagery using AI.

When the five parties mentioned above claimed they did not use AI, they might have been referring specifically to generative AI chatbots. Because Meta's 'advertisement library' showed that some of them, as well as other parties, spent thousands of euro's on social media microtargeting (GroenLinks-PvdA, who came in second in elections, spent by far the most). The chairman of the Dutch data protection authority (AP) expressed concern: "Secretly manipulating voters based on prohibited profiles is very dangerous in a democracy [...] It is an unlawful violation of fundamental rights."

Following a non-binding Dutch Code of Conduct on Transparency of Online Political Advertisements from 2021 (signed by eleven political parties and Facebook, Google, Snapchat and TikTok), the Ministry of the Interior and Kingdom Relations is now working on restricting political microtargeting with a proposal for the Political Parties Act. One goal is to create the Dutch Authority Political Parties, which will start a register with information about political advertisements that parties will be obliged to provide. The Dutch Data Protection Authority has doubts about this approach, given the EU rules currently in development, which will address political microtargeting at the source (the provider), and how difficult it is to monitor what parties do online. Some parliamentarians even want to prohibit political microtargeting in the 90 days prior to an election, but their resolution has not been voted on yet.

Apart from political parties, there were creative developers that used generative AI to provide voters with insight into the 2023 national election: chatbots with different personas and satirical communication styles that answered questions about party programs, and a website that showed posters made by DALL-E3, based on party program summaries by ChatGPT.

More recently, in the run-up to the 2024 European Parliament elections, a study conducted by Dutch news outlet Nieuwsuur and AI Forensics, led to Microsoft and Google restricting the output of their AI chatbots. The study showed how ChatGPT, Copilot, and Gemini, when asked to design campaign strategies for the EU elections, gave answers that violated the terms of use, circumvented technical guardrails, and defied commitments (like the AI Elections Accord signed in Munich in 2024). The output contained all kinds of problematic advice, like 'spread fear', and 'disseminate misleading statistics and fake news'.

After questions following the study, Google and Microsoft improved the technical guardrails, so Gemini does not longer generate any campaign advice, and Copilot does not suggest any campaign strategies including disinformation. However, a new study by AI Forensics found that while Gemini is 98% effective in ignoring election prompts, the effectiveness of Copilots guardrails greatly varies: it blocks 90% of questions asked in English, but only 28% of Dutch questions. The percentage is even lower for some other European countries.

Initiatives to address disinformation

The Dutch government acknowledges that generative AI enables faster and larger-scale spread of credible disinformation through text, images, and audio, with particular concerns about coordinated campaigns by state actors. In response, the government launched a government-wide strategy to effectively address disinformation. This strategy was presented December 2022, and updated June 2024.

The strategy consists of three parts and is based on the premise that labeling disinformation and refuting it, is not the task of the government. The first part focuses on tackling both the spread and the spreaders of disinformation. The government is exploring the possibility of establishing an independent, out-of-court dispute resolution body in the Netherlands, as mentioned in Article 21 of the DSA, which would allow citizens from across the EU to resolve disputes related to content moderation on social media platforms. Ministries hold 'trustedflaggerstatus', ensuring their reports on disinformation incidents are treated with priority. Additionally, pro-social uses of generative AI, like factual chatbots, are encouraged.

Secondly, the strategy focuses on strengthening citizen resilience. The government supports factchecking initiatives like BENEDMO, funding research into sustainable models for independent factcheckers. Critical thinking is

promoted through the website isdatechtzo.nl, and the government's own public channels regularly shares tips on recognizing disinformation.

The last part focuses on improving knowledge about the problem and effective solutions. This involves studying the local impact of disinformation, improving researchers' access to data from social media platforms, and fostering debate among experts.

Assessments of opportunities and challenges
The Rathenau Institute's ongoing research on the relationship between Trust in science, Misinformation and Social media suggests that the scientific community, policymakers and media professionals should be careful with spreading alarmist narratives about a perceived widespread mis- and disinformation. Recent research has shown that this narrative can backfire and have a negative side effect: people overestimate the spread of mis- and disinformation and start to distrust factual information as well.

To further inform effective policies and communication strategies, a more nuanced understanding of the complex interplay between mis- and disinformation, social media, and institutional trust is needed. The Rathenau Instituut aims to contribute to this understanding by researching the impact of misinformation on social media platforms, with a focus on its impact on trust in science.

2   Artificial intelligence in parliaments and the public sector

In January 2023, two Members of Parliament (D66) filed a resolution written by ChatGPT. It requested the government to develop a strategy for the use of AI in education. Furthermore, the committee for Digital Affairs in the House of Representatives organised a Masterclass to learn about the use of ChatGPT. In November 2023, the Ministry of the Interior and Kingdom Relations published a 'quick scan' on the impact of generative AI on government personnel. They sent a questionnaire to all Chief Technology Officers about the current (experimental) use of generative AI systems, the impact on IT and other personnel, and the risks and opportunities they see. Eight government organisations responded, including the Ministry of Justice and Security, the tax authority and the Department of Waterways and Public Works.

Regarding the current situation, the report concludes that all organisations already experiment with generative AI or are planning to do so. It mostly involves experiments in secure and closed lab environments (AI and data labs). Furthermore, the study shows that many government employees are currently using commercially accessible applications, such as ChatGPT, for support in tasks like writing code, summarizing documents, extracting information, or translating text to the B1 language level required for citizen communication.

Regarding expected impact on IT personnel, organisations mention productivity improvement in the long run, through lowering administrative and overhead tasks, more efficient problem solving, information processing, document management and template development, automated data labelling and entry, et cetera. Also, generative AI could support developers by generating (initial versions of) code, debugging or testing. Using chatbots for IT service desks is also mentioned. The organisations anticipate the loss of some jobs due to automation, but also new jobs surrounding development and maintenance of generative AI systems. They also mention the importance of new skills and knowledge to responsibly use the technology.

In the context of impact on other government personnel, the focus is on benefits for administrative tasks. Organisations see a lot of short-term opportunities with systems like ChatGPT. Examples of generative AI applications include writing bullet point memo's, inspiring brainstorm sessions, creating audiovisual presentations, providing service through chatbots, creating and managing documents, analysing bigger datasets faster, creating more inclusive and accessible communication, automatic notetaking, transcribing and summarizing, improving information management and responding to freedom of information requests.

Lastly, the quick scan discusses opportunities and risks for different terrains of government functioning. In some categories, like 'legal', the opportunities need further examination, while certain risks are already clear, like legal accountability questions and intellectual property concerns. In other categories, risks are set against benefits. For instance: regarding 'social economic impact', generative AI could free up more time and attention for human tasks and contact, or it could lead to devaluation of human labour. As regards 'information integrity', inspiration and creativity for brainstorming are possible benefits, while incorrect information, hallucinations and disinformation are risks. 'Inclusion' could be increased through translated or more accessible language, but also decreased because digitally literate citizens might benefit less from AI. And so the scan goes on for many aspects of government functioning.

Policies and guidelines for trustworthy AI
In December 2023, following the quick scan discussed above and advice from the state lawyer and the data protection authority, the government published its 'Preliminary position for State organizations when using generative AI'. Its starting point is compliance with laws and regulations. This means every application needs to be preceded by a Data Protection Impact Assessment and algorithm impact assessment (like the Dutch Impact Assessment Human Rights and Algorithms) and discussion with the Chief Information Officer and Data Protection Officer.

Contracted generative AI applications need to comply with the General Government Conditions of IT Contracts 2022, and with departmental

procurement rules. Non-contracted applications, like ChatGPT, Bard and Midjourney (which government employees were using, according to the quick scan), because they generally do not demonstrably comply with privacy and copy right laws, are in principle not permitted, unless users can prove otherwise. The Minister for Digitalisation states that it is essential for government employees to be informed about the responsible use of generative AI, through training or guidelines. Currently, the Ministry of the Interior and Kingdom Relations is finalizing its guidelines on generative AI for government organisations (the contents of which remain unknown).

Following the preliminary position discussed above, the Association of Netherlands Municipalities (VNG), asked the state secretary for more clarification on which non-contracted generative AI applications can be considered to comply with the law. Furthermore, the Chief Information Officer of the central government is working on a new version of the code of conduct for digital resilience, among other things to address the risks that AI poses to data security and cybersecurity. Lastly, in May 2024, a resolution passed in the House of Representatives, promising a handbook for municipalities containing relevant and safe AI applications that can reduce workload and increase job satisfaction.

Assessments of AI in parliaments and the public sector
The research Rathenau Instituut has done on generative AI resulted in a 'scan' (a relatively short report) that aims to provide an initial overview of the technical capabilities, limitations and developments, the societal risks and opportunities, the governance landscape including policy gaps, and possible courses of action for policy makers. It does not provide specific recommendations on policies relating to AI use by parliament and public sector organisations. However, we emphasize that elected representatives and the government should lead by example.

Besides, the recommendations summed up below (and detailed in the report) are also meant to mitigate the risks and foster the benefits of generative AI use by public bodies:

- Make it possible to take harmful GAI applications off the market (specifically through the AI Act);
- Ensure that legal frameworks (specifically those addressing data protection, discrimination, consumer safety and cybersecurity, disinformation and copyright) are future-proof;
- Invest in international AI policy to guide global innovation processes of technology companies;
- Set an ambitious agenda for socially responsible GAI;
- Encourage public debate on the desirability of GAI.

3   Democratic control and governance of artificial intelligence

Have national or regional AI policies been updated or new governance structures been established after the breakthrough of generative AI?

Following the breakthrough of generative AI, in 2023 the Ministry of the Interior and Kingdom Relations, and the (then) Minister for Digitalisation and Kingdom Relations, asked Rathenau Instituut to conduct a study into this upcoming technology, which resulted in the scan mentioned under Paragraph 2.3. In January of 2024 the government published the 'Government-wide vision on generative AI of the Netherlands', a document based on the Rathenau report and many other sources and consultations, that sets forth the cabinet's position, expectations and policy agenda. To ensure that society harnesses the technology's potential, while being protected from its risks and contributing to safe and ethical development, the government has set out six 'action lines': A) Collaborating; B) Closely monitoring all developments; C) Shaping and applying laws and regulations; D) Increasing knowledge and skills; E) Innovating with generative AI; F) Strong and clear supervision.

Each action line contains many different actions, with different timelines, and different owners (ministries or organisations that are involved and responsible). The Dutch government aspires a pioneering role within the EU. It plans to apply a learning approach, strengthen the capacity of supervisory bodies, and guide and monitor the implementation of new EU law, such as the Digital Services Act and AI Act.

However, in a letter to parliament (which will be published prior to an upcoming debate on digital rights), we address our concerns that remained after reading the government vision. In Rathenau's view, the action points are not specific enough and leave gaps that need to be filled to protect democracy and fundamental rights in the age of generative AI. As we explain in our report, laws like the General Data Protection Regulation, Digital Services Act and AI Act should be critically and continually reviewed and potentially revised – something our government can play an active part in. Furthermore, the new laws require the government to elaborate and clarify the new roles and division of tasks between different supervisory bodies. Concrete steps need to be taken to strengthen their capacity and shape coordination.

AI infrastructure: Initiatives and assessments
The government-wide vision on generative AI also describes the ongoing initiatives and public-private partnerships around safe and responsible innovation with generative AI. For example, a 'Government AI Validation Team' has been established, which includes software engineers who – together with policy makers – aim to develop practical tools and benchmarks for measuring the risks and opportunities of (generative) AI. For example, they want to develop methods for bias detection based on democratic input.

Also, since 2023, when 13.5 million in funding was secured, non-profit organisations TNO, NFI and SURF have been working on GPT-NL, "to develop a language model that aligns with Dutch and European values, ensuring transparent, fair, and verifiable use of AI while respecting data ownership". Eventually, they want to connect the model to the national supercomputer hosted at SURF. The developers encourage organisations from all sectors, including security, health, education and government, to contribute data so the model can be trained and improved. The aim is to offer all these sectors a responsible and transparent alternative to commercial LLMs. However, one of the main challenges turns out to be this data collection through asking permission: how will GPT-NL be able to compete with the enormous models of international tech giants, that scrape data of the internet? They are also still debating questions surrounding, for instance, bias: how do you best represent the different Dutch demographic groups and which bias detection methods are most efficient and fair?

Furthermore, the Open State Foundation is currently carrying out a project on LLMs using open government data, such as parliamentary and other governmental letters, resolutions, notes, debates, speeches, et cetera. The project is funded by the Ministry of the Interior and Kingdom Relations. One of the goals is to identify the opportunities and risks that LLMs pose to democracy, by finetuning two LLMs and making them debate – analysing what goes wrong.
Lastly, in 2024 and 2025, the government plans to explore "the establishment of a secure and usable public national AI (testing) facility for responsible (generative) AI". How this will take shape in practice, however, remains to be seen. Lastly, AiNed runs InnovationLabs, supporting partnerships between public knowledge institutions and (SME, start-up and scale-up) private entities, to promote knowledge transfer and (generative) AI innovations that benefit industry and society. ELSA (Ethical, Legal and Societal Aspects) Labs are also part of the AiNed programme.

Common threads throughout the Rathenau Scan on Generative AI, are the impact of generative AI on democratic processes and debate, and the creation of public knowledge, as well as democratic control over a technology which is increasingly being applied in public domains, while it's developed by private companies which evidently don't prioritize public values. This is one of the reasons we encourage the government to set an ambitious agenda for socially responsible generative AI, including inter alia investments in alternative technology (public-private partnerships, open-source development, et cetera) and the monitoring and guidance of the use of generative AI in different sectors, from education to health to business.

Norway

Teknologirådet
Norwegian Board of Technology

1   Artificial intelligence in political campaigning and public debate

Few examples, yet Liberal party wants AI guidelines for campaign use
Use of AI in political campaigning and public debate in Norway is still in its early stages, and few public examples yet exist. The last parliamentary elections took place in September 2021, prior to the breakthrough of generative AI, and the next election is scheduled for fall 2025.

One issue that caused controversy concerned Amnesty International Norway. In April 2023, Amnesty was underlined criticised for posting AI-generated photorealistic AI-generated images of activists being arrested to illustrate how the Colombian police harasses civilians. Colombian activists had themselves encouraged AI use to prevent real humans from being identified.

As a precautionary measure ahead of the 2025 elections, the Liberal Party of Norway has proposed a cooperation between political parties in the Norwegian parliament to establish common rules for the use of generative AI in political campaigning.

Election task force, fact-checking centre and disinformation strategy
New government strategy against disinformation. The Ministry of Culture and Equality formally assumed responsibility for the government's efforts to strengthen public resilience against disinformation and has announced a new strategy for June 2025. This is intended to prepare the ground for new media policies suited for the AI age and to identify measures to empower the public to better assess the credibility of information.

Expert group on AI and elections. The government has formed an expert group on AI and elections. The group shall keep track of and analyse global election experiences from 2024 and develop recommendations ahead of the 2025 parliamentary elections.

Calls for new national centre for fact-checking. Media businesses, members of the Norwegian Press Association, and fact-checking organisation Faktisk.no have launched a bid for government funding to establish a national centre for fact-checking. The aim is to establish a specialist environment for fact checking and

critical media use and enhance public resilience against disinformation and propaganda. The annual cost is estimated to 6-8,5 million euros.

AI labelling, content verification, and a psychological defence
In its reports *Generative AI and Freedom of Expression* and *Generative Artificial Intelligence in Norway*, the NBT makes five recommendations to help address the situation and enhance digital resilience. Calls for AI guidelines and a new fact-checking centre is being acted upon.

1) Develop guidelines for openness and labelling of AI-generated content.
2) Support the development of technical solutions to verify Norwegian online content.
3) Establish cross-party guidelines for the use of AI in election campaigns.
4) Increase fact-checking-efforts, possibly through establishing a new fact-checking centre.
5) Create a psychological defence function to identify foreign disinformation campaigns.

2   Artificial intelligence in parliaments and the public sector

High ambitions for public sector use, yet modest results thus far
Norway faces long-term challenges such as a declining number of workers per retiree, increasing needs for labour in the health and care sector, declining cash flows from the petroleum industry, and increasing public welfare expenses. To exploit AI to make public services better and more efficient and thus increase productivity, is official policy.

In April 2024, Minister of Digitalisation and Public Governance, Karianne Tung, proclaimed that 80 per cent of public sector shall use AI by 2025. By 2030, *all* public agencies shall use AI, according to the government's new digitalisation strategy. Less than 50 per cent of public sector agencies has any experience with AI use today. This is because Norway lacks key prerequisites for large-scale AI adoption such as access to supercomputers and strong coordination, the Office of the Auditor General of Norway has found.

Out of those 130 registered public sector AI projects reported to the Auditor, roughly 70 per cent are in agencies that report to – in descending order – the Ministry of Health and Care Services (111), the Ministry of Education and Research (81), the Ministry of Finance (66), and the Ministry of Trade, Industry and Fisheries (49).

Some examples also exist of *generative* AI projects in the public sector:

Speech recognition in Parliament. An AI system in Parliament transcribes speeches in Norwegian languages Bokmål or Nynorsk, according to the individual preferences of MPs.

Large language model for health. The Western Norway Regional Health Authority is developing a large language model based on nurses' notes and patient journals with the aim of enhancing case management efficiency. Patients may opt out of having their data being used.

Information flow analysis. The Norwegian Ministry of Foreign Affairs uses AI to categorize, summarize, and enable targeted searches within the 6000 reports that the ministry annually receives from its diplomatic missions and embassies around the world.

Handbook chatbots. The Norwegian Public Roads Administration is developing AI-based "handbook chatbots" to help case managers provide more efficient and united advice about the rules of road management. The Norwegian Tax Administration is running a similar project with the aim of providing better and more efficient tax advice.

Principles and guidelines for AI preferred to detailed prescriptions
The guidelines and supervision on public sector AI use that exist are general, broad, voluntary and non-prescriptive. One example includes the guidelines for responsible public sector use of generative AI by the Norwegian Digitalisation Agency. Key excerpts from these include:

- **Copyright.** Agencies should take note of the legislative issues in relation to copyright, whenever generative tools are used to generate images.
- **Hallucination and bias.** Agencies should be aware that generative AI models are not trained to tell the truth or to be aligned with societal values.
- **Transparency.** Caution is advised when generative AI tools are used by public institutions to interact with the public. There should always be transparency about such use for users.

Public agencies like the Norwegian Tax Administration and the Municipality of Oslo have developed more detailed guidelines that list use cases and show how principles such as openness, data governance, responsibility and robustness may be interpreted in practice.

Norway already has a regulatory privacy sandbox for AI within the Norwegian Data Protection Authority. Its objective is to stimulate privacy-enhancing innovation and digitalisation within the framework of the General Data Protection Regulation (GDPR). While generally an appreciated measure, certain actors demand more practical and technical guidance from the sandbox to find innovative technical solutions that respects the GDPR.

In September 2023, the government earmarked 1 billion NOK (87,5 million euro) to research into AI and digital technologies. One out of three research tracks will address the _use_ of digital technologies to promote public and private sector innovation.

Need for AI incubator, problem solver, and strong AI Act coordinator
Overall, the NBT and others find that public sector agencies want to use AI, but that they struggle with finding relevant use cases and lack the necessary competence to get started. Agencies are uncertain about the legality of certain kinds of use, and about how to interpret and address new risks particularly associated with generative AI, such as hallucinations.

In *Generative artificial intelligence in Norway*, the NBT makes three main recommendations to help public sector agencies overcome these challenges:

1) **A national incubator for AI.** A designated government AI incubator should be mandated to find, test and develop general application for public agencies and administration. It is both inefficient and overambitious to demand each single individual public sector agency to identify, acquire and implement generative AI use cases and solutions on its own.

2) **A "problem solver" for public administration.** It is hard to achieve scaling of generative AI without united interpretations and acceptance of best practices and risks. How reliable should a chatbot should be before it might be launched to advise citizens on a government website? A permanent working group with people from key agencies should be established to obtain agreement on common practice regarding AI risks.

3) **A strong coordinator for the AI Act.** To ensure predictable guidance, legal clarity and resource-efficiency, the new national functions established by the AI Act – which does apply in EEA country Norway – should be concentrated as much as possible. Supervisory agencies should prioritise guidance on interfaces between legislation in the digital domain and map future regulation needs triggered by new technologies.

3 Democratic control and governance of artificial intelligence

AI governance strengthened with new ministry and high-level forum
On January 1st, 2024, the government established a new Ministry of Digitalisation and Public Governance. This should entail more economic leeway for digitalisation and AI initiatives, as the ministry will get its own chapter in the National Budget. Previously, digitalisation resided as a subfield within the Ministry of Local Government and Regional Development.

The government is also establishing a new digitalisation forum, led by the Prime Minister, and consisting of key trade unions, employers' organisations, business and public agencies such as the Norwegian Tax Administration and the Norwegian Labour and Welfare Administration. The forum shall advance cooperation and understanding of opportunities and challenges associated with digitalisation between government, business, trade unions and employers.

How the government will organise the new supervision regime of the AI Act is still uncertain, including market surveillance authorities, national coordinator,

and new regulatory sandboxes. The Norwegian Agency for Public and Financial Management has <u>recommended</u> that the Norwegian Communications Authority (Nkom) becomes the national coordinator.

Norway lags in computing, but is ahead in access to language data
Data – Large pool of language data, but infrastructure for sharing are lacking
Both public and private sector actors <u>struggle</u> with low access to high-quality data for AI development in Norway. The problem spans low data quality, a lack of infrastructure to store, share and analyse data, and absent judicial clarity regarding use and sharing of data.

To resolve these issues, a government-commissioned <u>green paper</u> has proposed to make it obligatory for public agencies to share certain kinds of data. The paper suggests establishing a national prioritisation council for sharing and reuse of data from public agencies that will make recommendations on what data agencies should be obliged to share.

In the 2024 digitalisation strategy, the government describes plans to investigate the establishment and organisation of a data ethics council after Danish <u>model</u> to assess principled questions in trade-offs between privacy and other key interests. These plans await financing.

Norway is fortunate when it comes to *language* data. The National Library has <u>digitised</u> its entire collection of books, newspapers and audio files since 2006. This seems to prove a good fit for Norwegian large language model development.

A research project <u>commissioned</u> by the government has found that Norwegian large language models <u>significantly</u> improve across a number of metrics if trained on copyrighted Norwegian data such as books. The project revealed a peculiar "Jon Fosse paradox", named after the Norwegian Nobel Prize laureate. Training large language models solely on fiction decreases their grammar and punctuation skills.

Next, the library will explore prospects for a compensation scheme for intellectual property utilised to develop large language models. The government also intends to investigate how data from public sector institutions may be used to train such models. This includes leveraging court decisions from <u>Lovdata</u>, a foundation that publishes judicial information.

Supercomputers – Norway lags neighbouring countries Sweden and Denmark
Norway lags its neighbours in access to supercomputers. In June 2024, the government announced the <u>purchase</u> of a supercomputer named *Olivia* with <u>17 petaFLOPS</u> computing power capacity for 19,1 million euro. Meanwhile, Sweden's *Berzelius* delivers 300 petaFLOPS, while Denmark's new supercomputer *Gefion* will deliver 6000 petaFLOPS.

The Research Council of Norway has <u>argued</u> that Norway needs more compute and that more actors should get access to them. Access to compute will become

increasingly important not only for research purposes, but for weather forecasting, seismic monitoring, disease modelling and large language model operation. The council calls for a total compute investment of 2,6 billion NOK (220,5 million euro) over the next five years.

While today's Norwegian supercomputers are primarily reserved for research purposes, a yet unsolved issue is how to open access for those who might want to develop, distribute and operate large language models, such as in the public administration or health sector.

Large language models – strong initiatives, yet uncertainty about distribution
Both the University of Oslo and the Norwegian Research Centre for AI Innovation (NorwAI), whose partners include Norway's largest bank DNB, broadcaster NRK, telecom operator Telenor, and media group Schibsted, are developing Norwegian large language models from scratch. In addition, the National Library has fine-tuned publicly available large language models like Meta's Llama and OpenAI's Whisper with Norwegian text and audio data.

In its digitalisation strategy, the government describes plans to develop a national infrastructure for AI that provides access to large language models based on Norwegian and Sami languages and values. It invests 3,4 million euro in this in 2025. However, no policies yet exist for the ensuing operation and distribution of such models to public sector and industry actors.

Data, compute and AI models should be public infrastructure
The NBT recommends that Norway complements market-leading AI services and large language models by developing its own AI infrastructure with new policies for data, supercomputers and AI models. This will strengthen competitiveness, maintain high quality research environments, help build competence, enable democratic control of AI used in areas such as public administration and education, and ensure technological sovereignty.

A key question concerns how to increase access to high-quality data like newspapers and books for Norwegian language model development while avoiding that private, foreign companies such as Google, Meta and OpenAI get too easy access to these data. This concerns strategic governance of access to data as scarce and valuable resource for AI innovation.

1) **Secure access to high-quality data in Norwegian.** The government should enable data administered by the National Archive of Norway and judicial decisions to be utilised to develop Norwegian large language models. A new mandate should enable the National Library to develop and make available tailored datasets for such model development, as well as to design and enter into juridical agreements with public and private agencies and rights-holders about compensations schemes for the use of data for these purposes.

2) **Invest in compute as national infrastructure**. The government should invest in more and increasingly powerful supercomputers in Norway. As national infrastructure, compute might increasingly be financed and governed by the Ministry of Transport or the Ministry of Trade, Industry and Fisheries. Moreover, it should become easier to utilise Norwegian supercomputers also to operationalise and distribute large language models and services.

3) **Large language models as a public infrastructure service.** The government should support the development of at least one Norwegian large language model from scratch. A public agency should be established to govern, manage and provide access to selected Norwegian models as a public service to researchers, industry and public administration. To enable informed selections between such models, model benchmarks specific to the Norwegian context should be developed.

Poland

Bureau of Research of the Chancellery of the Sejm (BEOS)

1 Artificial intelligence in political campaigning and public debate

A key player in the area of security of Polish civilian cyberspace is the Research and Academic Computer Network (NASK) – a specialized research institution which reports to the Ministry of Digital Affairs. According to NASK, although there are no official reports that fully document the use of AI in disinformation campaigns in Poland, there are numerous indications that AI tools are being used in disinformation campaigns in national politics and public debate.[1] Given the rapid pace of development and innovation of AI technology, an accurate assessment of the extent and nature of the phenomenon remains a scientific and technical challenge.

AI is used in tools that automate user profiling available on online platforms and the ones that enable the generation of synthetic textual and audiovisual content. This type of content can mislead the public, negatively influence perceptions of reality, increase social polarization and manipulate political narratives. AI also enables the automation of large-scale disinformation campaigns using bots. In Poland, there is evidence of the use of bots on social media to promote certain political narratives, attack opponents or polarize public debates.

Since the beginning of 2024, NASK researchers and experts have recorded more than 7,600 incidents of disinformation on social media. More than 540 unique fake AI-generated audiovisual materials have been identified, using the image of 170 public figures, including politicians, journalists and opinion leaders. NASK's analysts look at the issue of disinformation in a broad sense, i.e. without separating content into units created by AI, as posts and articles merge into whole narratives or disinformation campaigns. From this perspective, they are categorized and further assessed and analyzed. The following areas, trends, and disinformation campaigns emerged in Poland:

- creation of videos and images with politicians to change voters' beliefs;

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[1] We would like to sincerely thank our colleagues from NASK for the invaluable information provided in this and the next section and thus contributing to this EPTA report.

- AI used to create or change specific views, e.g. fake news about the European Green Deal or CPK[2];
- use of celebrity images in advertisements on social media platforms to support a particular thesis and build support among the audience;
- disinformation campaigns about migrants;
- creation of fake footage and images to undermine support for Ukraine and Ukrainians;
- attempts to undermine scientific evidence, in particular trends related to vaccinations or medicines.

Free access of users to tools that allow easy and quick modification of photos, audio and video material has an impact on the increasing appearance of this type of content in the Polish information space. The extent of the phenomenon of content created using AI is not precisely known, but there is a growing trend. Access to data that would confirm it is often impossible because it belongs to private companies (social media platforms). Location manipulation through easily accessible VPNs and the creation of supporting troll farms also make such processes difficult. With the ongoing war in Ukraine, one cannot exclude the possibility that AI is being used by the special services of the Russian Federation to destabilise the political and social situation in Poland.

Fieldwork: mitigating mis- and disinformation risks associated with AI

NASK carries out numerous activities related to the study of and the fight against disinformation in the digital communication environment. They are horizontal and technology-neutral, i.e. they are designed to achieve an objective regardless of the methods or techniques used by the people and institutions carrying out these activities. NASK aims to develop state-of-the-art multimodal algorithms and systems to support the detection of manipulated audiovisual material, including deepfakes, which are crucial in the fight against disinformation. Existing or ongoing initiatives in this area include:

- preparation of a pilot DROZD (Deepfake Detection and Disinformation Detection) system for a selected group of people with a high impact rate;
- development of BD4DD (Biometric Dataset for Deepfake Detection), a multimodal biometric database containing source data acquired under different measurement conditions and fake data created using the developed attack tools, to support machine learning in forgery detection systems using AI in identity attacks;

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[2] The Centralny Port Komunikacyjny (CPK, Central Communication Port) is a government megaproject aimed at creating a modern national transportation system that integrates air, rail, and road transport. A key element of CPK is a huge state-of-the-art airport designed to serve up to 34 million passengers anually to be built approx. 40 kilometres southwest of Warsaw. Webite: https://www.cpk.pl/en/.

- SFERA project (Scam & Fraud Events Recognition Algorithms) aiming at developing an advanced analytical system for the detection, analysis and reporting of online fraud, in particular related to financial instruments and other forms of fraud, the so-called 'scams'. The system uses image recognition, audio analysis, speech processing and machine learning techniques to identify and classify scams based on image, voice, logo and content analysis;
- The DeepVeri project: a plug-in tool to combat disinformation content based on deepfake technology, which enables the analysis of synthetic audiovisual material.

The following activities run by NASK form part of the work carried out from 2022 to protect the public against false content, including materials published using AI:

- continuous monitoring of the information space to identify disinformation campaigns and disinformation actors, as well as networks of accounts publishing false advertising. This content is regularly reported and alerted to the Ministry of Digital Affairs with relevant recommendations;
- based on the identified themes, fact-checking databases are being developed in various thematic areas, which will be made available to relevant stakeholders for pre-bunking purposes in the future. Examples include the war in Ukraine and Russian and Belarusian propaganda activities, health issues (including the broad topic of the COVID-19 pandemic), climate change issues, and discrimination against minorities;
- carrying out educational activities for public administration, local government, senior citizens, children and youth in the form of lessons, trainings, workshops and information campaigns;
- the project on election campaigns in Poland (known as Safe Elections);
  - Handling reports of harmful content with disinformation potential from citizens and institutions, based on an established cooperation path with the owners of social media platforms. In this context, continuous measures are taken to improve both the handling of submissions and to identify potential areas for improvement for platform owners in order to counter the spread of disinformation. It currently handles submissions from Meta, Google, TikTok and X services. NASK is applying for Trusted Flagger status in the area of disinformation.

According to NASK, the implementation of the Digital Services Act (which the government is currently drafting) should be a big help as it will require social media platforms to effectively remove content deemed illegal, harmful or infringing copyrights.

2   Artificial intelligence in parliaments and the public sector

New guidelines for the public sector to use GenAI
Due to the diversity of the public sector (many institutions with separate budgets and lots of leeway regarding which AI-based tools to potentially use in their processes) in August 2024 the Committee of the Council of Ministers for Digital Affairs released a 11-page-long draft document with the recommendations for civil servants in central government units regarding the use of GenAI. It contains guidelines how to safely use GenAI to streamline daily tasks and operations, as well as what aspects should be taken into account when deciding which GenAI tools should be purchased. The Committee is currently in consultation with other governmental units regarding the contents of this document, so its final version is yet to be published.

The Polish parliament is lagging behind the private sector in AI implementation
As of today, no AI-based tools or products have been implemented at the Chancellery of the Sejm (i.e. in the lower house of the Polish parliament). The same situation is occurring in the upper house (the Senate). The most important limitations to embracing AI in the parliament are security of the data, integration with the software which is currently used, and legal liability and potential costs for mistakes made with the use of AI-based tools.

The Bureau of Research has not assessed opportunities or barriers to the parliament or public sector agencies use and deployment of AI. According to the latest data available (results of a survey commissioned by the Ministry of Digital Affairs and carried out in June 2023) 24% of central government units (ministries and government agencies) used AI, mainly to analyse data, whereas 60.4% of Poles (a survey conducted in April 2024 by the Polish Economic Institute) believe that the state should use AI in creating digital public services for citizens

3   Democratic control and governance of artificial intelligence

New Subcommittee on AI and Algorithmic Transparency
AI-related issues fall within the remit of the Sejm's Digital Affairs, Innovation and New Technologies Committee. At the beginning of the current term (autumn 2023), a dedicated standing Subcommittee on AI and Algorithmic Transparency was established to discuss and monitor these issues. As of September 2024, the Subcommittee met eight times and discussed, among others, the implementation of the AI Act; the reimbursement system for the use of non-drug digital technologies which use AI in health care; the protection of fundamental rights and personal data in the context of the rapidly increasing use of AI; ethical aspects of AI deployment; AI in judiciary. To date, neither the Committee nor the Subcommittee has adopted an opinion on opportunities and challenges related to the dissemination and use of AI in political/electoral campaigns and in public debate in Poland.

The national AI strategy to be revised and a new supervisory body to be established

In December 2020, the previous Polish government adopted the national AI strategy (titled Policy for the development of artificial intelligence in Poland from 2020) whose goal is to support society, businesses and public administration in seizing AI-related opportunities. It defines goals and actions in the short, medium and long term in six areas: society, innovative firms, science, education, international cooperation, and the public sector. However, this strategy is considered by many AI experts to be outdated and rather ineffective. This opinion was echoed to a large extent by the new government in its mid-2024 review of this document for the years 2020–2023. The new government has started the process of updating this strategy or even replacing it with a new one which would better correspond to the current AI landscape and tremendous technological progress that has been made in AI and its applications since 2020.

A noteworthy recent development was the formation at the Ministry of Digital Affairs in January 2024 of an AI advisory group which comprises exclusively AI practitioners (successful entrepreneurs and AI experts). The goal of this group is to identify AI-related opportunities and to advise the Ministry on the implementation of AI-based solutions to improve the quality of public services and to boost productivity in public administration. In June 2024 the group produced its first report on the progress of the projects connected with health care, education, effective state, AI ecosystem, and security. It should be noted that it is the second AI working group at the Ministry. The first one (GRAI) was established in 2021, originally at the Chancellery of the Prime Minister; it brings together a much broader representation of the Polish AI market and its stakeholders. GRAI has had an interesting track record (reports, expert opinions and recommendations) but the translation of this useful AI knowledge into action in the Polish public administration leaves much to be desired. There is also a governmental portal dedicated to the AI issues run by the Ministry of Digital Affairs.

By the end of the 4th quarter of 2024, the government will propose a bill on AI systems which is to enable effective application of selected provisions of the AI Act. It will assign AI oversight to a new institution called the Commission for the Development and Security of Artificial Intelligence. The establishment of the Commission will also enable other functions envisaged by the AI Act, such as regulatory sandboxes for AI (Poland currently does not have one) which will allow testing of new innovative AI systems. An additional national competent authority for market surveillance of AI systems will be the President of the Personal Data Protection Office (PUODO). The government hopes that passing this bill will provide the much-needed legal framework and clarity in order to accelerate the implementation of AI tools in the public sector and the wider economy.

Boosting AI infrastructure

In November 2023, an initiative was launched in Poland to develop its second national open large language model together with a virtual assistant. It is called PLLuM (abbreviation of the phrase Polish Large Language Universal Model) and

it is being developed by a consortium of six state-owned research institutions (including two universities and the Institute of Slavic Studies of the Polish Academy of Sciences) led by the Wrocław University of Science and Technology. The PLLuM consortium received a grant from the Ministry of Digital Affairs of PLN 14.5 million (approx. EUR 3.4 million). The model is being predominantly trained on high quality Polish language content obtained from the publishers through licence agreements, resources owned by the consortium members, and materials which are in public domain or were released under Creative Commons licences. This national LLM will be made available in December 2024 under free, open source licenses via API and GUI interfaces. The users will be able to use PLLuM freely for any purposes, so it will contribute to democratisation of AI and foster AI implementation in Poland. The experts hope that having a national LLM will trigger more AI projects especially in the public sector (the Ministry of Justice, which supervises processes particularly ripe for AI-driven innovation, has already taken note and signed a letter of intent with the PLLuM consortium).

In April 2024, a new supercomputer Helios was installed at the Academic Computer Centre Cyfronet of the AGH University of Kraków with computing power of 35 petaFLOPS and computing power for AI computing of 1.8 exaFLOPS. Helios has been used to train the newest version of the first Polish LLM called Bielik (a joint project by SpeakLeash Foundation and AGH).

In 2023, the government launched a strategic multi-year ICT programme called National Data Processing Centre (KCPD): the construction in central Poland of three state-of the-art scalable data centres up to 2,000 m2 connected by optical fibres. When completed in 2026, they should provide ample (for the next couple of years at least) data storage for Polish public administration and much needed capacity for the provision of secure digital and cloud services. According to the government, it will not only increase data security (currently each public sector agency organizes how and where its data is stored and what ICT infrastructure is used independently) but also strengthen digital sovereignty, ensuring more independence from global technology companies. KCPD is the largest project of that kind in Central Europe. In 2023, the parliament even passed dedicated legislation introducing simplified and fast-track procedures for the preparation and implementation of KCPD investments.

The current value of the programme exceeds PLN 1 billion (EUR 235 million). It is overwhelmingly financed by the UE through the Recovery and Resilience Facility (RRF) for Poland. Another interesting project (also financed through the RRF) is equipping 12,000 Polish schools (8,000 primary and 4,000 secondary ones) with AI laboratories.[3]

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[3] Annex to the Proposal for a Council Implementing Decision amending Implementing Decision (EU) (ST 9728/22 INIT; ST/9728/22 ADD 1) of 17 June 2022 on the approval of the assessment of the recovery and resilience plan for Poland, COM(2024) 284 final, pp. 118, 126–127.

Portugal

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1   Artificial intelligence in political campaigning and public debate

As mentioned in the introduction to this volume, artificial intelligence (AI) functionalities are swiftly becoming integral to knowledge work and digital services. They are, however, also applied in all areas of human work. That is making the public services in Portugal more accessible and efficient.

Since mid-90s, with the national strategy towards the Information Society (Missão para a Sociedade da Informação), a wide program for the promotion and development of public digital services have started. In the last decades, and with the definition of this national strategy, successive governments and the national parliament have contributed to stimulate democratic participation, and support decision-making and policy development.

However, the lack of transparency, privacy, and reliability in these systems may pose a risk to citizens' rights and the legitimacy and trustworthiness of the public sector agencies deploying them. The national debate on these topics is not yet strong, and that can represent a weak aspect to promote AI trust and public awareness on the risks of digitalization.

There are no use cases in the Portuguese Parliament (Assembleia da República) related to AI. However, recently there were some discussions involving the MP on the topic.

For example, the organization of the 2nd Lisbon Conference of the OSCE Parliamentary Assembly, which was held by the Portuguese Parliament and co-hosted by the Organization for Security and Co-operation in Europe (OSCE), was a good example. The event aimed to raise awareness about AI's profound security implications, facilitate dialogue among policymakers and key stakeholders, as well as to explore effective policy frameworks and international co-operation avenues to mitigate AI-related threats. Participants at the conference acknowledged the need for Governments, parliaments, and international organizations to enhance co-operation and develop robust, comprehensive

policies to address the multifaceted challenges posed by Artificial Intelligence (AI).

The conference was titled "Security in the Age of Artificial Intelligence" and brought together around 170 participants, including 70 parliamentarians from 27 OSCE participating States and numerous experts from academia, international bodies, such as the European Parliament and the Council of Europe, and the private sector. José Pedro Aguiar-Branco, President of the Assembleia da República of Portugal, highlighted the need to stay ahead of AI's rapid advancements. "As profound changes unfold quickly across many domains of our daily lives, it is urgent that parliaments address this issue," he said.

During the conference concerns were raised over digital manipulation, disinformation, privacy and copyright infringements, swarming technology, mass jobs displacement, autonomous decision-making, as well as brain-computer interaction were highlighted, urging the development of mechanisms for independent monitoring and coherent policy-making. Participants emphasized the need for a unified global approach to AI governance. They have also highlighted the pivotal role of national parliaments in navigating AI's regulatory complexities, stressing the importance of adopting forward-looking regulations. In 2022 was presented a report issued by the National Ethics Council for Life Sciences and presented to the parliament. The report was on the state of new disruptive technologies application to human life. In particular, it was analyzed the genomic editions by AI.[1]

2   Artificial intelligence in parliaments and the public sector

The national Agency for Administrative Modernization (Agência para a Modernização Administrativa - AMA) plays a pivotal role in the digital transformation of public services in Portugal, focusing on innovation, data utilization, and electronic governance. The LabX initiative under AMA has been driving innovation within the public sector, including AI applications aimed at simplifying administrative processes.

In Portugal, there is growing interest in the deployment of generative AI (GenAI) across various public sector agencies, although the adoption is still emerging.
Public administration in Portugal, like other global governments, is starting to explore generative AI to improve service delivery, operational efficiency, and citizen engagement. One notable example is the integration of AI tools into public-facing services, such as virtual assistants that help citizens navigate government services more effectively.

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[1] Relatório sobre o Estado da Aplicação das Novas Tecnologias à Vida Humana e respetivas implicações de natureza ética e social, dedicado às Tecnologias Disruptivas em Saúde: Edição Genómica Inteligência Artificial - Conselho Nacional de Ética para as Ciências da Vida - Dezembro 2022.

From the <u>Final Report on the ICT 2020 Strategy implementation</u>[2] we can find several references to the deployment of AI-related technologies in Portugal's public sector:

- **Sigma Virtual Assistant:** Deployed on the ePortugal platform, Sigma uses natural language recognition, a subfield of artificial intelligence, to respond to queries about over 1,000 public services, including changing addresses and providing voting information. This project leverages AI tools to enhance citizen interaction with public services

- **Intelligent Virtual Assistant (AVI):** This AI-powered virtual assistant was developed by ANSR (National Authority for Road Safety) for online customer service. It handles common inquiries via a chatbot on their website and Facebook page, helping with service requests and improving user satisfaction.

These examples highlight how AI, including generative elements such as natural language processing, is being used to streamline public administration services in Portugal.

Moreover, several examples of cases being developed can be found in the <u>Public Sector Tech Watch</u> platform, in the <u>Digital Knowledge Base</u> (Base do Conhecimento Digital) and Portugal's <u>eGov Innovation Hub</u>.

The Digital Knowledge Base is a platform which centralizes information and resources related to Portugal's digital government strategy and the Portugal's eGov Innovation Hub is a collaboration between AMA, the United Nations University, and the University of Minho, that focuses on research in electronic governance, open data, and AI, promoting digital administration solutions.

Policies and guidelines for a trustworthy AI

There were some strategies developed, aligned with the European policies:

The Portuguese government's AI strategy, known as "<u>AI Portugal 2030</u>" (published in 2019), focuses on leveraging AI and data science to enhance public services and optimize administrative processes. Specific initiatives include collaborative R&D projects aimed at modernizing public services, improving data access through a centralized national data infrastructure, and reinforcing the AI skillsets of public sector employees. It was aligned with the European Coordinated Plan on Artificial Intelligence with Member States. This plan promotes the use of AI in solving the global challenges, such as the ones in health, climate action, agriculture or cybersecurity.

<u>The Advanced Computing 2030</u> is a science, innovation and growth strategy to foster Advanced Computing in Portugal in the European context, oriented towards building a world-reference high-performance computing ecosystem.

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[2] See also <u>Relatório Execução Estratégia TIC 2020; https://digital.gov.pt/documentos/relatorio-execucao-estrategia-tic-2020 (visited on 27/09/2024)</u>

As other challenges became more evident, such as the ones related with openness and transparency, ethical and responsible use of data and of data science and AI based solutions, cybersecurity and introduction of emergent technologies like, for example, 5G, Internet of things, blockchain and augmented reality, additional documents have been approved by the government.

The resolution of Council of Ministers (Resolução do Conselho de Ministros) n.º 36/2015 approved the National Strategy of Cyberspace Security 2019 -2023 and its Action Plan. The objective is to go deeper in network and information systems security and boost a free, safe and efficient use of cyberspace by all citizens and public and private organizations.

The resolution of Council of Ministers (Resolução de Conselho de Ministros) n.º 30/2020 approved the Action Plan for Digital Transition in Portugal, and it includes 3 pillars of action. The first pillar is related with the capacitation and digital inclusion of people; the second one is related with the digital transformation of business and the last one is on digitalizations of the Public Sector.

The resolution of Council of Ministers (Resolução do Conselho de Ministros) n.º 131/2021 approved the Strategy for Digital Transformation of the Public Sector (2021-2026) and its Transversal Action Plan. This resolution is particularly addressed towards the need to use AI application in the public sector.

In Portugal there was no assessement of opportunities or barriers to parliament or public sector agencies' use and deployment of AI. There is some debate held on the topic, organized mostly by the National Association for the Development of Information Society (APDSI).

3 Democratic control and governance of artificial intelligence

The national AI policies have been updated after the breakthrough of generative AI, although most measures could be adapted. Legal, regulatory and ethical frameworks are essential to develop standards in AI as for transparency, accountability, liability and ownership. In this respect, several actions are planned and implemented:

- AMA (Agency for the modernization of Public Administration) has developed a guide, AMA - GuIA para a IA na Administração Pública, with orientations for the responsible use of Artificial Intelligence (AI) in Public Administration. This guide was elaborated based in five dimensions of AI projects assessment: responsible, transparency, explainability, justice and ethics, and constitutes a reference for the implementation of an ethical, transparent and responsible AI, by the public sector. In it, it can be found principles, guidance and a model for elaborating projects of ethical, transparent and responsible AI in the public administration.
- As proposed in the Action plan for the digital transition, general principles have been established for the creation and regulation of Free Zones for

Technology (FZTs). FZTs are physical spaces to support the demonstration and testing of new technologies, through the creation of specific and adapted regulatory regimes (regulatory sandboxes). These regimes aim to promote a culture of experimentation in Portugal, including for AI-based solutions and robotics (mentioned above at the Action Plan for Digital Transition in Portugal).

There are already in place two FZLT:

- **ZLT Infante D. Henrique:** ZLT Infante D. Henrique is an area dedicated to the experimentation and testing of autonomous and non-autonomous systems at the terrestial and wet surface, subsurface and aerial. Other technologies and sensores associated with dual use are also in the scope of this ZLT.[3]
- **ZLT Matosinhos:** ZLT de Matosinhos will contribute for Portugal to become a reference in the development, testing and experimentation of innovative mobility solutions oriented to achieve carbon neutrality in cities.[4]

The resolution of Council of Ministers n.º 94/2024 creates the Digital Council in Public Administration with the mission to promote the study of digital transformation in the Public Sector. It includes the analysis of the information systems and organizational structures, as well as contributes to the National Digital Strategy and its Action Plan, by monitoring KPIs, provide assessments new actions and recommendations.

We would like also to highlight the project Bridge AI which was funded in the call Science4Policy 2023 (S4P-23). This call is an iniative of the Competence Center of the Public sector, for Planning, Policy and Foresight (PlanAPP) and the Foundation for Science and Technology (FCT) with the focus on scientific studies for Public Policies.

This project tries to respond to the challenges and also unique opportunities for the implementation of the AI Act. It has the ambition to place Portugal at the forefront of the AI Act implementation, by showing it is possible to lead these efforts and create a unique ecosystem and responsible accelerator of innovation. The work begun this year, 2024, with the creation of 5 working groups covering different dimensions of the AI Act application. The project will issue recommendations for the policy makers. These recommendations will be based in experts' scientific knowledge and concrete cases of the Center for Responsible AI.

Initiatives to develop AI
The Portuguese strategy envisages the following actions to support the AI infrastructure:

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[3] ZLT Infante D. Henrique Portaria n.º 189/2022, de 25 de julho
[4] ZLT Matosinhos Portaria n.º 165/2023, de 21 de junho

- Creating the National Data Infrastructure, a centralised repository for administrative data. This action also provides guidelines about data sharing in the scientific community, likewise the Open Data Policy of the Portuguese Foundation for Science and Technology (FCT);
- Establishing supercomputing and quantum computing facilities thanks to the national program Advanced Computing Portugal 2030 (already mentioned in reference [9]) that defines the objectives of high-performance computing in Portugal;
- In 2021 the new Vision supercomputer was installed at the University of Évora. It is designed to enhance the application of AI methodologies to the various national strategic domains. With a maximum performance of 10 petaflops, this supercomputer allows machine learning and deep learning techniques to be tested and optimised within the National Network of Advanced Computing;

The National Network for Advanced Computing (RNCA) is a collaborative platform which brings together infrastructures, human resources and partnerships related to Advanced Computing in Portugal.

The RNCA is an organisation led by FCT that brings together all four Portuguese advanced computing centres with the objective of aligning under a single strategy the main public funded computational resources and services. It was created by a resolution of the council of ministers on March 8th of 2018, as a computing network to be developed under the National Digital Skills Initiative (Portugal INCoDe.2030).

The RNCA relies on resources distributed over the national operational centres, and will soon, also, on the new Spanish supercomputer MareNostrum 5, through a 5% participation of Portugal in the project. It integrated in 2021 a large HPC machine, named Deucalion installed in the Minho Advanced Computing Centre (MACC) in the North of Portugal, through an ongoing EuroHPC effort to increase Europe's HPC capacity.
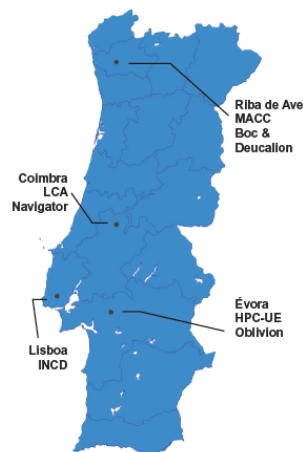
The above figure shows the map of mainland Portugal and the location of each of these 4 operational centres:

- **MACC:** Minho Advanced Computing Centre
- **LCA-UC:** Laboratório de Computação Avançada da Universidade de Coimbra
- **HPC.UE:** High Performance Computing da Universidade de ÉvoraINCD: Infraestrutura Nacional de Computação Distribuída
- **INCD**: Infraestrutura Nacional de Computação Distribuída

The National Network for Advanced Computing contributes towards the goals of the Portugal INCoDe2030 initiative, namely in its axis 5, which aims to guarantee the conditions for the production of new knowledge and active participation in international R&D networks and programmes. In this context, the following objectives are already defined for the RNCA:

- Promote the increase of national digital competences in the area of advanced computing;
- Promote the increased use of advanced computing by the national research and innovation communities;
- To network the various existing and emerging national digital infrastructures in terms of the development and operation of advanced computing services.
- Ensure the international articulation of national advanced computing resources, namely with the TACC, the BSC and the European advanced computing networks.

Spain

Oficina de Ciencia y Tecnología del Congreso de los Diputados (Oficina C)
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1   Artificial intelligence in political campaigning and public debate

The onset of generative AI in Spanish political campaigns holds potential for controversy

The use of AI in political campaigns in Spain gained attention during the 2023 general election when a regional political party, Junts per Catalunya, released a video featuring AI-generated images and the voice of Prime Minister Pedro Sánchez. That same year, during municipal and regional elections, another political group, En Comú Podem, used AI to create its campaign video. Later, in Catalan regional elections in 2024, Ciudadanos party, utilised AI to produce a campaign poster depicting a fake image of two prominent political figures, Carles Puigdemont and Pedro Sánchez. Although AI's use in Spanish political campaigns has been limited, it has sparked controversy, particularly on social media.

Recent legislative efforts addressing mis- and disinformation risks, but scarce links with AI

While there have been several initiatives on disinformation at both parliamentary and government levels, few have specifically focused on AI. One exception is the government's <u>draft</u> Organic Law for the Protection of Minors in Digital Environments, which addresses the criminalization of deepfakes, particularly those that are pornographic or defamatory. Additionally, in late 2023, the Forum against Disinformation Campaigns, led by the Department of National Security, <u>outlined</u> the key risks and opportunities related to disinformation and IA. In the Congress of Deputies, recent legislative efforts include a <u>non-legislative proposal</u> to regulate AI use in electoral campaigns and prevent disinformation, as well as a

draft Organic Law focused on regulating deepfakes[1], among other ongoing initiatives and discussions.

Disinformation in the digital age. An assessment by Oficina C
In 2023, Oficina C presented a <u>report</u> on disinformation to the Spanish Congress of Deputies, highlighting AI's growing role in both amplifying and combating the issue. The report emphasizes that while AI could be a game-changer and provide several opportunities, it also comes with serious risks. AI-driven algorithmic curation and micro-targeting of information challenges its neutrality, promoting disinformation in the race for user attention. Other tools, like bots and fake accounts in social media, have become more effective at spreading false narratives and shaping public opinion. Additionally, technologies like large language models (LLMs) and deepfakes hold the potential to escalate disinformation to new, troubling heights.

The continuous development of such technologies raises concerns about the need for regulation, as these advances could undermine fundamental rights and erode the trust in the once reliable 'seeing is believing' notion. But conversely, AI also offers tools for detecting and combating disinformation. It can trace false narratives back to their sources, connect them to larger patterns, and amplify efforts to refute them. But applying AI at large scales still comes with challenges, such as data fragmentation, biases, lack of transparency, and ethical concerns regarding privacy and accountability, among others.

2 Artificial intelligence in parliaments and the public sector

AI is not implemented within the Congress of Deputies, but public sector agencies start to use and deploy generative AI technologies guided by a national strategy

Congress of Deputies
There are no institutional uses of AI nor generative AI within the Congress of Deputies. Through the European Center for Parliamentary Research and Documentation, the Congress has stated that AI has not been used for reporting nor translating. Simultaneous translation of debates is provided by professional interpreters. However, recently, automatic subtitling of sessions within the chamber for accessibility, for example for deputies with hearing loss[2]. Still, parliamentary rules have not been approved on AI matters.

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[1] Congreso de los Diputados. *Proposición no de Ley relativa al uso de la inteligencia artificial en los procesos electorales. (161/000854). BOCG. Congreso de los Diputados, serie D, núm. 153, de 04/06/2024.* (2024).

[2] Moreno, L. D. Las pantallas del Congreso no se colocaron para la traducción. *Newtral* [12/09/2024].

National strategy
In 2024, the Spanish government has updated its AI national strategy (funded with more than 600 million euros). It builds on previous strategies and includes breakthroughs like generative AI. Its main goals are (1) the reinforcement of AI development, (2) facilitate the incorporation of AI in the public and private sector (fostering innovation and cybersecurity), and (3) developing a transparent, responsible and humanistic AI. The integration of AI into the General State Administration, it is an ambitious goal aimed at improving efficiency, personalization, and accessibility of public services, as well as to enhance data-driven decision-making. The plan seeks to position Spain as a leader in public sector AI adoption.

Pilot projects
A pilot, the 'GobTechLab project', focuses on specialized language models, the development of a platform to share and reuse AI solutions among different public organizations, including intelligent chatbots and a common knowledge base, and the establishment of a regulatory and organizational framework to guarantee the security, quality, and privacy of the data used through AI.

Regional initiatives
Public sector regional agencies are exploring generative AI, although still at a developing phase. For example, the Madrid Health Service is collaborating with other stakeholders in the genIA initiative to enhance the diagnosis of rare diseases based on OpenAI's GPT-4. Similarly, the government of Catalonia, is testing a chatbot which automates responses to citizen queries in Catalan, helping to streamline communication and improving access to public services.

Spain is strongly committed to develop and use trustworthy AI aligned to the AI Act

The AI Act came into effect in August 2024, although most of its provisions will do it by 2026. It will classify AI systems according to risk. High risk AI systems will be subject to strict obligations before they can be introduced to the market, such as evaluation, training with high-quality datasets, and ensuring traceability of outcomes, among others. In parallel, the Council of Europe Framework Convention on Artificial Intelligence and human rights, democracy and the rule of law is the first international legally binding treaty, so far including 46 countries. It seeks to address any legal gaps that may arise from rapid technological advancements.

At the national level, one of the thematic axis of the Spanish Strategy of Artificial Intelligence 2024 focuses on developing responsible, transparent, and humanistic AI which will be monitored through a public agency of new creation (see more details below), devoted to follow the highest standards and facilitate responsible and humanistic implementation. Funding calls also contain the requirements for trustworthy AI, such as the Strategic Projects for Recovery and Transformation (PERTE) for Cutting-Edge Health and for the New Language Economy. Finally, at the regional level, different regions are publishing guidelines on AI, like the ones from Catalunya and Canary Islands about AI and education.

Assessment of opportunities and barriers to use and deploy AI in Education and Healthcare in Spain
Oficina C has studied AI in the context of health and education, and in some cases, how these are connected to public sector agencies. In both reports we have highlighted the relevance of a pilot AI regulatory sandbox, a digital space to connect the authorities and the administration, with developer companies, to define good practices regarding the future implementation of European AI regulation.

Regarding healthcare, despite of a growing interest and research into AI applications, there is no generalized transfer of this technology for use in clinical practice due to a series of challenges. In our AI and Health report, we summarized challenges, such as achieving a trustworthy AI, the need for large amounts of high quality health data, the protection of patient privacy, and the need to create new frameworks and regulations an professional transformation, applicable to health public agencies such as AEMPS (Agency of Medicines and Medical Products). Current software regulation in Spain derives from EU law, adopted in 2023.

In the field of education, more research is needed regarding the effects of introducing AI into the education system or its capacity to improve learning.[3] There is also a need to train teachers in AI, as preliminary studies indicate that most have limited knowledge of or experience with AI tools[21]. An agency under the Ministry of Education (INTEF), offers various training programs. The digital divide is another significant issue, as AI relies on basic digital infrastructure, which remains unevenly distributed[4]. In our AI and education report we discuss other challenges, like the need for publicly developed AI tools, the environmental costs or how to protect personal data and privacy. Experts emphasize the importance of discussing how AI integrates into the education system, considering the perspectives of all stakeholders, including social scientists, policymakers, and the educational community.[5]

3   Democratic control and governance of artificial intelligence

Spain has created the first supervisory agency of artificial intelligence
Spain is pioneering AI governance with the creation of the "Spanish Agency for the Supervision of Artificial Intelligence" (AESIA), which will implement the Spanish AI strategy (in particular, the third axis of the 2024 strategy) and supervise the application of the EU AI Act.

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[3] See for instance -Holmes, W., Persson, J., Chounta, I.-A., Wasson, B. & Dimitrova, V. *Artificial intelligence and education: a critical view through the lens of human rights, democracy and the rule of law*. (Council of Europe, 2022). ISBN: 978-92-871-9236-3.
[4] Amo-Filva, D. Inteligencia artificial en la educación pre-universitaria. Diagnóstico para España y América del Sur. *(In press)*.
[5] Oficina de Ciencia y Tecnología del Congreso de los Diputados. *Inteligencia artificial y educación. Retos y oportunidades en España. (In press)*. (2024).

The agency has defined five main missions:

- Act as a Think&Do tank anticipating tendencies, communicating and dynamizing the social conversation regarding the possibilities and limits of AI.
- Develop functions assigned by AI Act, supervising high risk systems, promoting good practices, evaluating AI-models, and coordinating with market vigilance authorities.
- Coordinate the application of the AI Act with the European Office of AI and the rest of authorities to guarantee a uniform application, while adapting to technologic and market changes.
- Promote public and private innovation while facilitating the implementation of good practices. To achieve it, the institution prioritizes the development of sectorial sandboxes.
- Participate in the global debate about AI in forums.

Recently, Spain has also created the AI Advisory Council (Consejo Asesor en Inteligencia Artificial), to provide guidance to the Ministry of Digital Transformation and Public Function on AI.

Strengthening AI infrastructure and building LLMs in Spanish and co-official languages

According to the Spanish Strategy of Artificial Intelligence 2024, Spain has plans to strengthen AI infrastructure. It has recently completed the construction of the supercomputer Marenostrum 5, in the Barcelona Supercomputing Center (BSC-CNC), one of the top-notch computing facilities in Spain. Furthermore, the AI strategy plans to reinforce supercomputing capabilities in the Spanish network and provide services to the industry (20% of its capacity). In addition, it plans to generate sustainable data processing and storage centres through a new regulatory framework that facilitates the planning of these infrastructures, while ensuring an efficient use of resources.

In addition to physical infrastructure, large language models (LLMs) are strategically important to Spain. Despite Spanish being amongst the most spoken languages globally, English dominates technical developments. Since 2015, Spain has pursued language technology strategies, continued by the PERTE "New language economy", now crystalized in the AI strategy, with the overarching goal of boosting the digital use of Spanish. To achieve this, Spain is currently building and securing access to large language models (LLMs) in Spanish and co-official languages promoting ALIA, a model for generative AI that reduces biases and improves quality, trained with at least 20% of Spanish and co-official languages, in contrast to the 5% of current models. Such initiative follows previous initiatives such as MarIA in Spanish, AINA in Catalan, Nós in Galician, or Gaitu in Euskera. Furthermore, the Spanish government is collaborating with the company IBM to accelerate the implementation of the National Strategy on AI, and to build AI models natives in Spanish and other co-official languages. Another public project,

ILENIA, aims to enhance digital integration and improve public sector efficiency, to develop technologies and resources in all the official languages of the state.[6]

Lack of detailed assessments regarding building or expanding access to AI infrastructure

Oficina C has not yet broadly assessed the need for building or expanding access to AI infrastructure, LLMs, computing power, or high-quality data in Spain. Still, in 2022, in the report "Artificial Intelligence and Health", Oficina C highlighted as an important limitation the availability and access of high-quality health data develop AI applications in healthcare. A study from the European Commission indicates a loss of healthcare efficiency because of a scarce interoperability, standardization and semantics, and difficulties in accessing, exchanging, and massively analyzing health information. In the other hand, a national advantage, is the high digitalization in Spain of clinical health records, image repositories, genomic biobanks, or cancer registries, despite being underused in R+D.

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[6] For more details see https://www.bsc.es/ca/research-and-development/projects/ilenia-nel-aina

Sweden

Evaluation and Research Secretariat (ERS) of the Swedish Riksdag

1   Artificial intelligence in political campaigning and public debate

AI use

The Evaluation and Research Secretariat has conducted a small survey directed at members of the Committee on the Constitution and the eight party secretariats. The results show that while few of the members use AI in their day-to-day parliamentary activities, most party secretariats have integrated AI tools into their daily work, e.g. to summarise information, edit pictures and text, review foreign-language drafts, and to find links and sources on a particular subject matter. Some party secretariats point out that AI is integrated in commonly used software, which means that most people are using AI whether or not they are aware of it.

AI use in political campaigning is not common. Examples include using AI-generated images in advertisements (instead of stock images), adding subtitles to film clips, and using AI voice translation. Two secretariats added that AI algorithms are used in advertisements on social media to tailor content to their main target groups, but these algorithms are not known or controlled by the parties themselves. AI is described by some parties as not more controversial than other IT tools. Others state that they are conducting internal discussions regarding how AI should be used, that they are "cautious", and emphasise the importance of always cross-checking AI-generated replies due to the problem of AI "hallucinations".

One committee member raised concerns regarding the legal status of AI, with respect to threats to free speech and the difficulty in differentiating between AI-generated content and content created by non-AI accounts, and in cases of defamation where the agent is an AI. The use of AI voice translation has sparked considerable debate, but this was more related to the content of the message than the tool itself. Recently, a deep fake of a party leader has been <u>used</u> on social media in an attempt to commit fraud.

The Swedish Defence Research Agency (FOI) has <u>analysed</u> the Swedish information environment on social media in connection with the 2022 election campaign. The study focuses on four social media platforms: Instagram, Tiktok, Twitter, and YouTube. The analysis shows that there were some discussions

about electoral fraud, driven mainly by a few influential accounts on Twitter and Youtube. In addition, it identifies suspected non-authentic activity (bot-like behaviour) on social media, on about the same level (15 %) as in previous elections. Twitter discussions regarding election fraud did not seem to reach outside the platform. In an earlier study regarding the 2018 election, researchers classified 11–16 % of Twitter accounts using the hashtags #svpol and #val2018 as bots.[1]

Measures to address risks
The Swedish Security Service (Säpo) has observed the threat as well as the possibilities inherent in AI in its <u>annual situational assessment</u>. It describes a sharp increase in social media manipulation, disinformation and non-authentic material on digital platforms, which makes it difficult to ensure the credibility of the information provided. Säpo states that built-in security mechanisms in openly available AI tools and watermarking of AI-generated material may potentially mitigate these threats. However, antagonistic states that have their own capacity to develop AI models are unlikely to be particularly affected by such regulation.

The Psychological Defence Agency (MPF) identifies, analyses and provides support in countering malign information influence and other misleading information directed at Sweden or Swedish interests by antagonistic foreign powers. As part of its <u>mission</u>, it educates agencies, municipalities, regions, NGOs and the Swedish population on how to identify malign information influence, for example by publishing handbooks directed at journalists and the general public, by funding research on threat actors, democracy and defence willingness, and through cooperation with other state agencies, businesses and NGOs.

Opportunities and challenges identified by parliament
The topic for the Riksdag's annual Research Day in 2024 was artificial intelligence. Researchers on AI participated in thematic committee meetings as well as at a general event for all MPs and invited researchers. At the general session, the first presentation framed the discussion by taking a broader look at technology's impact on society. Other presentations concerned the limitations of technology and the risks of humanising machines, the impact of AI on jobs and education, legal aspects and the need for a responsible approach to AI that involves regulation, governance, and awareness. The topic discussed by the Committee on the Constitution was AI and the democratic dialogue, advocacy and disinformation. In this session, researchers presented and discussed e.g. how AI is used to create and spread disinformation, but also how to utilise AI to detect malign language in social media and to strengthen democratic values es.

2 Artificial intelligence in parliaments and the public sector

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[1] Fernquist, J et al. (2018), Botar och det svenska valet. Automatiserade konton, deras budskap och omfattning [Bots and the Swedish elections. Automated accounts, their messages and their spread]. Swedish Defence Research Agency FOI. FOI MEMO 6458.

AI use

Apart from large language model (LLM) text-to-text systems, the Riksdag Administration has not yet experimented with multimodal generative AI systems (creation of images, charts, video, voice-to-voice interaction etc.) to generate content for parliamentary documentation. The use of available (currently only external) AI tools, such as ChatGPT, is restricted to public information.

According to analysis by Statistics Sweden (SCB), 27 % of Sweden's government agencies used AI in 2021, 65 % of regional authorities (responsible for health care and public transport), and 24 % of municipalities. AI was used for a range of purposes, but the most commonly cited reason was to improve an existing product or service. Among regional authorities, the most common purpose cited was to develop a new product or service. The main obstacles identified to using AI were lack of knowledge, skills and experience. Other cited obstacles were incompatibility with existing IT infrastructure, and concerns regarding data security and privacy protection.

The Swedish Agency for Public Management has analysed government authorities' use of AI, as well as what risks and opportunities its use entails. The study shows that among the largest authorities, most are using AI in some way, or have plans to start using the technology. AI is most commonly used to save resources in administrative activities, or to streamline communication with the public. There are a few examples of authorities using AI as a tool to support decision-making in the exercise of authority, but no entity allows AI to independently make decisions. Many are aware of the security risks when authorities process large amounts of sensitive personal data, while there are uncertainties about what data authorities may use to train AI systems, and to what extent they may exchange data with each other. Several entities express the need for coordination around AI issues in the public sector. This uncertainty regarding the legal aspects is also highlighted by the Agency for Digital Government, which assesses a great need for increased governance.

Policies and guidelines

In March 2024, AI Sweden presented an AI strategy with a vision for Sweden and strategic principles for the successful and large-scale use of AI. AI Sweden is a collaborative effort between the Government and more than 130 partners across the public and private sectors, as well as academia. The strategy will guide politicians, business leaders, decision makers, officials and changemakers who have the ambition and responsibility to lead and develop Sweden, the Swedish AI ecosystem, or individual organisations and companies. The strategy does not have official status as a policy or legal mandate.

In 2023, the Government appointed an AI Commission with the aim of strengthening Sweden's competitiveness and contributing to the development and use of artificial intelligence in Sweden. Among other things, the AI Commission will analyse how the use of AI can affect and promote Sweden's security and counteract undue influence on democracy. The Commission will identify priority issues in security and AI where further research is needed from

a Swedish perspective. It will also analyse and propose how Sweden can proactively contribute to the design of international policies and regulations in the field of AI, in particular through the EU, but also in the context of other international forums, with a view to promoting competitive, safe and ethical AI. The Commission consists of representatives of the business sector, media, trade unions and the research community. A report is to be submitted by July 2025. The terms of reference do not explicitly mention generative AI.

Opportunities and barriers to AI use in the Riksdag
As in most research services, the three units within the Riksdag Administration (RA) which focus on research and knowledge[2] have concluded that generative AI tools have the potential to be of great benefit in our work, and that we should learn how to use them. There are also several other areas (and units within the RA) that could be of interest for pilot projects related to generative AI, such as converting speech to text for the parliamentary record, translation during meetings and sessions with external participants, categorisation of individual members' motion proposals to facilitate the planning and work in the committees and their secretariats, and predicting the duration of debates based on participants, subjects, etc. Internal guidelines regarding the use of AI within the three above-mentioned units have been compiled and are used by these three units, but no formal decision has yet been made to adopt similar guidelines for the whole of the RA. A barrier to initiate AI use is the threat to information security, which is also the reason why this process is likely to take some time.

3   Democratic control and governance of artificial intelligence

The impact of generative AI on policies
There have been no parliamentary decisions regarding policies or guidelines on the use of AI yet.

Initiatives regarding AI infrastructure
Education and research are crucial for Sweden's opportunities to realise the potential of AI. From the autumn term 2024, AI will be incorporated in school curricula for science, technology, engineering and mathematics (STEM) programmes at upper secondary school. The AI Commission will also focus on higher education and research. During the course of its work, if the Commission identifies measures for the education system, it will consider the various opportunities and risks that AI may entail. These may, for example, concern opportunities to deepen knowledge within the various STEM disciplines.

The Agency for Digital Government (DIGG) are currently developing a guide and a number of tools for public entities wishing to start using AI in their operations. A similar resource is also available for the municipal social services. This resource

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[2] The Riksdag Library (RB), Evaluation and Research Secretariat (RUFS) and the Research Service (RUT).

platform was <u>developed</u> by several government agencies, in partnership with the Swedish Association of Local Authorities and Regions (SKR) and AI Sweden.

Vinnova (Sweden's innovation agency) and AI Sweden are currently carrying out a four-year collaboration to provide municipalities and civil society with tailored assistance to understand how AI can be used, as well as the opportunity to seek funding for concrete projects. Participants will receive training, workshops, and access to AI Sweden's network. Together with Swedish actors, AI Sweden has developed a large-scale generative language model for the Nordic languages, primarily Swedish. GPT-SW3 has been released with an open license. All models are available from <u>AI Sweden's code library on HuggingFace</u>. AI Sweden and Fraunhofer IAIS will also develop a series of open, large multilingual language models for 45 European languages and dialects, including all 24 official EU languages.

In June 2024, Microsoft announced plans to invest SEK 33.7 billion over two years on cloud infrastructure and artificial intelligence (AI) on the Swedish market. The initiative aims to accelerate Sweden's adoption of AI, increase the country's long-term competitiveness through skills development of the current and future labour force, and create long-term benefits for the Swedish economy. The investment also includes an effort to boost AI skills, safety and knowledge within organisations, schools, universities, the public sector and society at large by providing skills training for 250,000 people over three years.

Parliamentary initiatives regarding access to AI infrastructure

No specific parliamentary decision or other formal initiative has been taken by the Riksdag with regard to access to AI infrastructure. It remains to be seen to what extent the Swedish Government will – e.g. in light of the analysis and recommendations from the Government's AI Commission – submit any proposal for laws or new budget appropriations with regard to AI.

Concerning the Riksdag itself and its internal work, the Riksdag Administration is constantly working to improve the different IT tools available for both MPs and officials. This includes upgrading software to new versions, which probably within the near future will include AI-driven functions or specific AI assistants within the software (e.g. Microsoft 365). As an example, the Evaluation and Research Secretariat is currently using an AI-tool (Claude 3.5) in its support to the Committee on Civil Affairs and the committee's evaluation project on housing provisions

Switzerland

Swiss Foundation for Technology Assessment (TA-SWISS)

1   Artificial intelligence in political campaigning and public debate

The Swiss parliamentary elections of October 2023 were the occasion of a few uses of generative AI in campaigning. In July 2023, one political party designed an AI-generated campaign poster representing a fictitious climate demonstration blocking an ambulance. This triggered controversies on the consequences of AI content in this context (e.g. is this akin to fake news, or nothing new compared to other fabricated images?).

In September 2023, several political parties agreed to declare AI uses in campaigning and to refrain from negative campaigning with AI, for instance using deepfakes discrediting a candidate or party. Two large parties stayed out of the agreement, pointing to diverging interpretations of political messages as an obstacle in a press statement (upon request). In October 2023, an MP diffused a video deepfake of another MP saying something running against her convictions. She filed a civil and criminal complaint, and the case was largely commented in the media. During the campaign, another MP, who was first elected in 2023 and has a speech impairment, used speech synthesis to diffuse videos of him presenting his values and agenda. Another candidate set up a chatbot for interested citizens to ask questions on his views, as an experiment with LLMs.

Regarding measures against mis- and disinformation risks associated with AI, a recent report published by the Swiss government in June 2024 on disinformation and influence advocates for resilience building by means of sensitisation and reinforcement of media skills. Thereby, the focus should lie on sensitisation and prevention ('pre-bunking'), rather than the reactive debunking of fake claims, which often appears to have a counter-productive effect. Such measures touch upon support for the media on this issue, the adaptation of school programmes, media monitoring by official bodies and the monitoring of emerging technologies, including in the defence sector.

TA-SWISS's study on deepfakes and synthetic media, published in June 2024, assesses the risks and opportunities of these new technologies for Swiss politics. Deepfakes could be used to manipulate opinion and spread false information, to discredit or harass opponents, to simulate grassroots movements with fake profiles, to fuel divisive narratives, or to create distrust in common sources of information. Given Switzerland's direct democracy mechanisms (initiatives and referenda), this could entail an influence

on both elections and votes on particular issues. At the same time, deepfakes may also serve legitimate political expression, as in entertaining, humoristic or satirical formats, or even for educational channels. As such, they are protected by freedom of expression – a pillar of democracy – and may foster deliberation and participation.

To tackle the threats posed by deepfakes in politics, the study recommends a combination of several measures, as no isolated measure can contain this multifaceted phenomenon. To begin, platforms should be regulated, as this is where many deepfakes circulate. This encompasses the obligation to "delete or block reported deepfakes when there is a well-founded suspicion of a violation of law", as well as a compulsory "system for reporting unlawful content", accompanied by "transparency requirements and appeal options" in case of unjustified deletion.[1]

Furthermore, media skills should be encouraged in education programmes, and awareness raised on one's personal responsibility when creating or sharing AI content. The media should also maintain high journalistic standards to be able to inform the public on deepfakes whenever appropriate. Organisations across Switzerland – including public institutions – should prepare reaction strategies in case of a harmful deepfake, given the likelihood of an increase of AI image, video and audio content.[2]

2 Artificial intelligence in parliaments and the public sector

Due to Swiss federalism, the distinction between the federal, cantonal and municipal levels must always be kept in mind when investigating AI policies in the public sector. While this brief report focuses on the federal level, many activities take place on the other levels too, such as guidelines, pilot projects and active communication on AI use.

Use cases in the Swiss public sector
When it comes to the operational work of the Swiss Parliament, the Parliamentary Services have conducted a pilot project for a real-time AI transcription of council debates for the Official Bulletin (the comprehensive verbatim record of MPs' interventions). In addition, a research tool for official sources and a chatbot to assist replies to simple citizens' queries are currently being tested. More projects are to come by the end of 2025, including the automatic indexation of parliamentary objects and press reviews, more data analysis with machine learning, and knowledge transfer workshops.[3]

As for MPs themselves, the National Council has recently adopted a proposal from its Political Institutions Committee to consider a project using AI simultaneous translations of all committee meetings, which take place in German, French and Italian alike. The argument is that debates in the National Council are already being

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[1] See Murat Karaboga et al. (2024), «Deepfakes und manipulierte Realitäten. Technologiefolgenabschätzung und Handlungsempfehlungen für die Schweiz», TA-SWISS, p. 40.
[2] Ibid, p. 40-41. Deepfakes are defined as a video, image or audio content "synthesised or manipulated" with AI techniques, "which appears to be authentic and in which a person says or does something that he or she has never said or done" (p. 29).
[3] On AI projects in the Swiss parliament, see the presentation of the parliamentary library (June 2024).

simultaneously translated (by human interpreters) and that committee debates can be highly technical and difficult to master in several languages, especially for newly elected MPs.[4] Four official languages are spoken in Switzerland, and the ability to express oneself and be understood in one's native language is a crucial component of the country's political identity, which also holds for parliamentary debates.

As for the Federal Administration, which supports the Swiss government (called the Federal Council), documented use cases and pilot projects can be consulted in the project database of the official Competence Network for Artificial Intelligence (CNAI). The aim of its database is to foster the exchange of know-how, as well as to ensure transparency on AI use in the administration. To mention a few use cases, these range across chatbots for official websites and queries on statistics or official resources, automatic document scanning, internal distribution of tasks within offices, monitoring of natural processes for the agriculture sector, data analysis and predictions in various areas (e.g. social insurances, energy consumption, weather forecast), or observation sensors and unmanned vehicles in the defence sector. Further, due to Switzerland's four official languages, the Administration is increasingly resorting to Deep-L Pro for its numerous translations.[5]

Measures on AI use in the public sector
The Swiss government's measures on AI use in the public sector also include the Guidelines on Artificial Intelligence for the Confederation in 2020. These emphasise the priority of human rights and the common good, the fostering of conditions favourable to AI innovation and Switzerland's strong position in this area, as well as the values of transparency, data protection (while facilitating secondary data use), accountability, the safety of AI systems, and Switzerland's active work for the international governance of AI (see below). The application of these guidelines is being monitored on a two-year basis by the Federal Office of Communications. In addition, the Competence Network for Artificial Intelligence (CNAI, mentioned above) was founded in 2022 by the government to promote the "use of and confidence in AI" in the Federal Administration "and beyond", as well as to provide information to the public and foster exchanges on AI. Harnessing the opportunities of AI is also part of the Digital Switzerland Strategy, which "sets the guidelines for Switzerland's digital transformation". This strategy is binding for the Federal Administration and intended as an "orientation" for other actors in the public and private sectors, as well as in society. A common approach for all levels of the public sector (i.e. the federal government, cantons and municipalities) has also been defined in the Digital Public Services Switzerland strategy for 2024-2027. On another note, some guidelines on the use of generative AI were issued for administration employees, with the motto: "Make your own experiments, but in a responsible manner!" (our translation).

AI use in the Swiss public sector also lies at the core of several discussions in Parliament, as various parliamentary objects attest – for instance, regarding the risk

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[4] The Committee also stresses that such a tool would not imply the devaluation of the learning of the other national languages and would be less costly than hiring professional interpreters. See item 24.3813 and the corresponding press release of the Committee (June 2024).
[5] See Federal Council's latest press release on this matter.

management and impact assessment of AI use by the federal government, efficiency optimisations in the Federal Administration AI, the coordination of public authorities' work on AI, or the increase of resources for the CNAI or other entities relating to AI.[6]

TA on AI in the public sector

TA-SWISS investigated the realms of administration and jurisdiction in its study on AI as a general technology in 2020.[7] The study recommends "higher regulatory requirements" for the government than for private entities whenever the citizens' rights are potentially affected. This goes along with transparency requirements and measures enabling citizens "to assess the legality of such action taken by the government."[8] Moreover, public administrations "should define the criteria needed to determine how a responsible use of AI by the government can be implemented in practice" and "ensure that data used in AI by the government is of sufficient quality".[9] Among the risks highlighted by the study when it comes to governmental use are "the danger to the presumption of innocence, non-transparent procedures and servility to machines".[10]

3   Democratic control and governance of artificial intelligence

When it comes to AI policies, Switzerland has officially followed a sector-based and technology-neutral approach, rather than overarching dispositions on AI in general. The country's authorities are also eager to provide good conditions for AI innovation in Switzerland and to keep promoting its position in this area. As such, the breakthrough of generative AI did not entail a fundamental policy change, even though it now lies at the core of many discussions. As we are writing this report (September 2024), the Swiss government is preparing a report on possible approaches to the regulation of AI for Parliament, which is expected by the end of the year and will notably assess the impact of the European Union's AI Act for the country. In parallel, the Swiss government plans to issue a proposal for the regulation of online platforms and send it for public consultation in autumn 2024 (which will notably address personalisation algorithms). On the international stage, Switzerland presided the Council of Europe's Committee on Artificial Intelligence from 2022 to 2024, the year of the adoption of its <u>Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law</u> – "the first binding international treaty on AI".

As for public investments into AI research and development, AI has already been on the agenda for some time. For this reason, no major strategic shift has been observed with the boom of generative AI, even though funding decisions may be expected to accommodate these recent developments.[11] In this vein, previous plans to strengthen

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[6] See for instance items 24.3582, 24.3611, 24.3733 and 24.3796 in Swiss Parliament's public <u>database</u>.
[7] Markus Christen et al., "<u>Wenn Algorithmen für uns entscheiden</u>: Chancen und Risiken der künstlichen Intelligenz", TA-SWISS (2020), p. 209-222 and 270-280.
[8] Ibid., p. 26.
[9] Ibid., p. 29.
[10] Ibid., p. 25.
[11] See for instance the <u>flagship initiative</u> of the Swiss Innovation Agency Innosuisse on AI in Life Sciences and health.

AI infrastructure in Switzerland continue to be encouraged, especially in research institutions. In particular, the supercomputers operated by the Swiss National Supercomputing Centre (CSSS) in Lugano provide world-class high-performance computing resources to national and international researchers, as well as to the private sector.

This year, the CSSS is notably setting up the new supercomputer "Alps", with over 10,000 GPUs of the new NVIDIA Grace Hopper superchip. This is part of the Swiss AI initiative, which aims to deploy five domain-specific foundation models "to advance the foundations of LLMs and large-scale AI models towards trustworthiness and efficiency" (i.e. foundation models for sciences, education, egocentric vision and robotics, health and sustainability/climate). As regards initiatives for access to high-quality data, the government is currently preparing a law facilitating the secondary use of data, at Parliament's request. In addition, it is working on a code of conduct to promote trustworthy data spaces and will establish a contact hub for the coordination of Swiss data spaces in the Federal Chancellery by the end of 2024.

United Kingdom

Parliamentary Office of Science and Technology (POST)
Authors: Oliver Bennett MBE (Head of POST), Devyani Gajjar (Physical Sciences and Digital Advisor), Simon Brawley (Physical Sciences and Digital Lead)

1 Artificial intelligence in political campaigning and public debate

In the past year examples have emerged of AI-enhanced images of UK politicians around elections, including (Cyber security of elections):

- a deepfake audio clip of Labour Party leader Sir Keir Starmer verbally abusing party staffers and criticising Liverpool that went viral in September 2023
- a fake audio clip of the Mayor of London Sadiq Khan saying Remembrance Day should be postponed in November 2023

However, there is limited evidence directly linking people exposed to disinformation and a change in their voting intentions (POSTnote 719). Some researchers say that the spread of AI-generated fake information alone may not affect election outcomes and that measuring the impact of AI-generated content to election outcomes is a "notoriously difficult task" (Cyber security of elections).

Initiatives to address disinformation

The UK Government defines disinformation as "deliberate creation and spreading of false and/or manipulated information that is intended to deceive and mislead people, either for the purposes of causing harm, or for political, personal or financial gain". However, intent is difficult to measure. It defines misinformation as "the inadvertent spread of false information". AI-generated images, audios and videos for malicious purposes are commonly referred to as 'deepfakes.'

The UK Government, social media companies, and third-sector organisations have attempted to address the production and spread of disinformation through various strategies, including (POSTnote 719):

- Limiting the spread of disinformation. This includes fact checking, removing content, or labelling it as false.

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- Preventing people from engaging with disinformation, including media literacy.

UK Government policies to counter disinformation include (PN 719):

- The Online Safety Act (2023). This legislation makes it an offence for a person to send a message that conveys information they know to be false, which is intended to "cause non-trivial psychological or physical harm to a likely audience." It gives the regulator Ofcom powers to require social media companies to clamp down on mis- and disinformation on their platforms.
- The National Security Act (2023). This act defines electoral interference and state-sponsored disinformation to manipulate political debates or weaken the integrity of democratic institutions as a national security threat.

The Department for Science, Innovation and Technology's Counter Disinformation Unit has a remit to respond to election disinformation that can pose a risk to national security. It does this by "identifying harmful false narratives and working closely with the major social media platforms to encourage them to swiftly remove disinformation".

Assessments of opportunities and challenges
POST has assessed opportunities and challenges related to the dissemination and use of AI in political campaigning and elections, and has produced various reports including:

- Cyber security of elections
- Disinformation: sources, spread and impact
- Policy implications of artificial intelligence

Many academic, industry and public-sector experts are concerned about an increased spread of deepfakes and AI generated mis- or disinformation around elections and their potential to impact election outcomes by (Cyber security of elections):

- eroding trust in online news, democratic institutions and election processes
- directing people to polarising content that can shape opinions about political candidates, parties and processes

Some experts think this is a potential national security issue. Others warn of exaggerated risks as concerns about manipulated images and news have been around for years (Cyber security of elections).

There are also concerns around politicians using the atmosphere of distrust to discredit genuine evidence of their actions by claiming that it is AI generated (POSTnote 708).

AI could also be used to strengthen democracy. AI could be used to engage the public with politics and the electoral process. It could help voters understand manifestos and identify which candidates or political parties may best align with their priorities (POSTnote 708)

2 Artificial intelligence in parliaments and the public sector

Parliamentary guidelines outline potential use cases but also make staff aware of risks of generative AI, such as of bias, accuracy and copyright. Examples of how parliamentary staff in Research and Information are using generative AI include:

- finding initial leads on information
- aiding understanding of particular topics
- providing a 'sense check' that nothing important has been missed
- as a self-editing aid
- reducing word counts in reports
- finding researchers with a particular expertise
- to help write speeches

Policies and guidelines for trustworthy AI
While there is no current body of UK law specifically regulating AI, there are numerous laws that restrict how AI can be used in practice, including (HoC Library briefing on AI and employment law):

- data protection law, such as the Data Protection Act 2018, that affects data collection and processing for AI development, and is the remit of the Information Commissioner's Office
- equalities, privacy and common law, such as the Equality Act 2010 and the Human Rights Act 1998. These laws affect the outcomes of AI systems and decisions which may have discrimination and human rights implications, and are the remit of the Equalities and Human Rights Commission. Privacy and common laws may limit the degree to which employers can substitute AI decision-making for their own judgement and places some restrictions on the use of surveillance tools to monitor workers
- intellectual property law, such as the Copyright, Designs and Patents Act 1988, which governs ownership and legal use of any intellectual property in outputs or in datasets, and is the remit of the Intellectual Property Office.

In the 2023 white paper 'A pro-innovation approach to AI regulation', and its consultation outcome published in February 2024, the Government outlined five AI regulation principles:

- safety, security, and robustness
- appropriate transparency and explainability
- fairness
- accountability and governance
- contestability and redress

Assessments of AI in parliaments and the public sector

Potential recommendations by experts for future policies include (POSTnote 708):

- A law to enshirine a right to human intervention in automated decision-making. Other legal scholars have proposed banning uses of automated decision-making and live facial recognition akin to the AI act in the European Parliament.
- Allowing open access to underlying AI code and related documentation for transparency on how the models work and improving the accessibility of AI developments.
- Placing a duty to carry out impact assessments of automated decisions on companies and public bodies.
- Creating a resource of expertise on AI that regulatory bodies could consult in order to respond to AI related matters that concern their individual remits.

3 Democratic control and governance of artificial intelligence

In November 2023, the UK Government launched the AI Safety Institute. Its mission is 'to understand the risks of advanced AI and enable its governance.' In July 2024, the King's Speech announced a Product Safety and Metrology Bill which would respond to 'new product risks and opportunities to enable the UK to keep pace with technological advances, such as AI'.

Investments have been made in AI infrastructure: when the UK Government published a white paper outlining a 'pro-innovation approach to AI' in 2023, they also announced £900m for an 'exascale' supercomputer.

The AI Foundation Model update paper by the UK Competition and Markets Authority says fair, open and effective competition may be negatively affected when Foundation Models, such as ChatGPT, are made by a small number of large companies that have the resources to do so. Three reported risks from the document were:

- 'Firms that control critical inputs for developing FMs may restrict access to them to shield themselves from competition.'
- 'Powerful incumbents could exploit their positions in consumer or business facing markets to distort choice in FM services and restrict competition in FM deployment.'
- 'Partnerships involving key players could reinforce or extend existing positions of market power through the value chain.'

Some computing hardware, such as the 'accelerator chips' used to train and use AI, is dependent on supply chains that are highly concentrated and at risk of disruption. Cost changes or disruption to hardware or cloud computing could impact the training, use and deployment of AI models in the UK (POSTnote 721).

United States of America

U.S. Government Accountability Office (GAO)

1 Artificial intelligence in political campaigning and public debate

The U.S. GAO has not assessed topics in this area.

There are several acts introduced in Congress at this time, but they have not been passed into law. These include:

- S.1596 - REAL Political Advertisements Act
- H.R.3831 - AI Disclosure Act of 2023
- S.3875 - AI Transparency in Elections Act of 2024
- S.2691 - AI Labeling Act of 2023

2 Artificial Intelligence in parliaments and the public sector

GAO is developing internal use of AI to make our work for Congress and taxpayers more productive, in-depth, and effective. Our Innovation Lab is prototyping eight AI projects to enhance our oversight and operations. One of these AI tools is a large language model we recently began deploying to explore generative AI capabilities like those found in industry, augmented with GAO-specific information and appropriate security controls. See table below for information on use cases under development at the GAO.[1]

Table 1: GAO Planned Artificial Intelligence Use Cases, as of January 2024

Use case	Potential benefits	Maturity phase	Relevant techniques
Organizes large volumes of text, such as public comments from Regulations.gov	Groups contents by similar themes Prioritizes reviews based on relevant hierarchical topics	Late-stage prototype	Natural language processing Topic modeling Sentiment analysis Semantic matching

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[1] More information can be found at https://www.gao.gov/science-technology/artificial-intelligence-use-cases

Summarizes draft GAO legislative mandates	Increases efficiency and reduces manual processes	Late-stage prototype	Natural language processing
			Large language model
	Highlights potentially fragmented and duplicative mandates		Semantic matching
			Regular expressions
Assists with copyediting according to GAO's style guide	Automates select copyediting tasks	Late-stage prototype	Natural language processing
	Enables staff to focus on		Neural network modeling
	narrative structure and clarity		Sentiment analysis
Provides automated responses to chat questions on published GAO work	Summarizes published GAO content to enhance knowledge management and increase efficiency	Early-stage prototype	Large language model configuration
			Prompt engineering
	Enhances specificity and accuracy of results		Retrieval-augmented generation
			User telemetry measurement
Summarizes qualitative responses from annual GAO Employee Experience Survey	Identifies trends, patterns, and sentiments quickly	Early-stage prototype	Natural language processing
	Improves survey interpretation with less manual intervention		Large language model
	Assists with root-cause analyses		
Monitors information about congressional committee calendars, press releases, and web content	Matches congressional interests with relevant GAO work	Early-stage prototype	Natural language processing
	Enhances timeliness of outreach and		Large language model
			Semantic matching

	technical assistance		
Enhances GAO auditing through use of extended reality glasses	Improves data collection and collaboration across locations Reduces costs and risks Enables new data capturing and analysis opportunities	Concept exploration	Computer vision and object recognition Real-time image, video, and sensor data processing
Triages IT help desk requests and answers internal GAO policy questions	Provides 24/7 self-service assistance to GAO employees Allows support staff to focus on more complex requests	Concept exploration	Natural language processing Large language model Sentiment analysis Integrated workflow and escalation

The U.S. GAO has not reviewed AI implementation in other legislative-branch agencies or in Congress. However, The Government Printing Office and the Library of Congress have AI use cases; see <u>GPO AI use cases</u> and <u>LOC AI use cases</u>. Congress is also looking at using AI – for example, the Committee on House Administration has identified use cases for the House of Representatives such as AI-assisted scheduling and drafting of materials.[2]

Turning to non-legislative agencies, in 2023 GAO <u>reviewed</u> artificial intelligence implementations across 23 executive agencies. Twenty of 23 agencies reported about 1,200 current and planned AI use cases. Three agencies reported not having uses for AI. Agencies' reported uses included analyzing data from cameras and radar to identify border activities, analyzing photographs from drones, and targeting of scientific specimens for planetary rovers. The National Aeronautics and Space Administration (NASA) and the Department of Commerce (Commerce) <u>reported</u> the highest number of AI use cases.

Policies and guidelines for trustworthy AI
The US government has produced several executive orders (EO), laws, and guidance for artificial intelligence over the past five years, including:

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[2] U.S. House, Committee on House Administration, <u>Flash Report: Artificial Intelligence Strategy & Implementation</u> (Washington, D.C.: December 18, 2023).

- In February 2019, the President issued <u>EO 13859</u>, establishing the American AI Initiative, which promoted AI research and development investment and coordination, among other things.
- In December 2020, the President issued <u>EO 13960</u>, promoting the use of trustworthy AI, which focused on operational AI and established a common set of principles for the design, development, acquisition, and use of AI in the federal government.
- In December 2020, the AI in Government Act of 2020 was enacted to ensure that the use of AI across the federal government is effective, ethical, and accountable by providing resources and guidance to federal agencies.[3]
- In June 2021, GAO issued an <u>AI Accountability Framework</u> to help managers ensure accountability and responsible use of artificial intelligence (AI) in government programs and processes.
- In December 2022, the Advancing American AI Act was enacted as part of the James M. Inhofe National Defence Authorization Act for Fiscal Year 2023 to encourage agency AI-related programs and initiatives; promote adoption of modernized business practices and advanced technologies across the federal government; and test and harness applied AI to enhance mission effectiveness, among other things.[4]
- In October 2023, the President issued <u>EO 14110</u> which aims to advance a coordinated, federal government-wide approach to the development and safe and responsible use of AI.
- In March 2024, OMB issued a <u>memorandum</u> that directs federal agencies to advance AI governance and innovation while managing risks from the use of AI in the federal government.
- In May 2024, the Bipartisan Senate AI Working Group issued a policy roadmap, which was developed to serve as a <u>roadmap</u> for AI policy in the U.S. Senate.

Assessments of AI in parliaments and the public sector
GAO has conducted work looking at public sector agencies and their use and deployment of AI. Recent work includes:

- <u>GAO-24-105980</u> (December 2023), assessing agency compliance with existing laws and guidance on the use of AI. Not all requirements have been met by agencies, hindering their ability to effectively address AI risks and benefits. GAO recommended, among other things, that some agencies update their AI use case inventories to include required information and align them with guidance; that government-wide guidance related to AI be developed by certain agencies; and

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[3] AI in Government Act of 2020, Division U, Title I of the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, Div. U, Title I, 134 Stat. 1182, 2286-89 (2020).
[4] James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Pub. L. No. 117-263, div. G, title LXXII, subtitle B, §§7221-7228, 136 Stat. 3668-3676 (2022) (codified at 40 U.S.C. § 11301 note).

that agencies fully implement AI requirements laid out in law, policy, and guidance.

- GAO-24-106293 (April 2024), looking at biometric identification technologies and their use of AI. GAO identified several key considerations in addressing challenges associated with federal agency use of these technololgies, including enacting comprehensive privacy laws or guidance and providing users with additional training and guidance on how to select and use technologies appropriately.
- GAO-24-107332, (September 2024), finding that federal agencies have complied with 13 selected requirements of Executive Order 14110, laying the groundwork for government-wide AI efforts. For example, the Executive Office of the President has established an AI talent task force and the White House AI Council; the Office of Management and Budget has issued AI guiveance to agencies and convened the interagency Chief AI Officer Council; and the Office of Personnel Management has coordinated AI hiring action across agencies and issued guidance on AI-related pay.

3 Democratic control and governance of artificial intelligence

AI policies and governance
Some new national guidance has been issued after recent generative AI advancements. For example, in March 2024 the Office of Management and Budget (OMB) issued OMB Memo M-24-10 to establish requirements and guidance for AI governance, innovation, and risk management. In July 2024 the National Institute of Standards and Technology released a framework for risk management specific to generative AI, see NIST-AI-600-1 Generative AI Profile.

AI infrastructure: Initiatives and assessments
Examples include Executive Order 14110, directing agencies to pursue the development and use of AI in accordance with eight principles, among which are safety and security, responsible innovation and competition, commitment to supporting workers, and advancing equity and civil rghts. This EO also directed OMB to develop guidance to, among other things, help agencies reduce barriers to responsible AI use, including barriers related to IT infrastructure.

Subsequent guidance, such as OMB Memo M-24-10, further details the requirements and guidance that agencies must follow by, for example, providing recommendations for how agencies should reduce barriers to the responsible use of AI, including barriers related to IT infrastructure, data, cybersecurity, workforce, and the particular challenges of generative AI.

EPTA REPORT TEMPLATE 2024

ARTIFICIAL INTELLIGENCE AND DEMOCRACY

1. Artificial intelligence in political campaigning and public debate

Half of the world are heading to the polls in 2024, including EPTA members such as the US, the UK, the European Parliament, Austria, France and South Korea. Meanwhile, determining what digital content is true or false, human or AI-generated, is becoming increasingly challenging. AI may now create realistic and personalised high-quality images, videos, audio clips, and messages, and has made it cheaper and easier to automate and disseminate deepfakes and disinformation.

- Has AI been used in political campaigning or public debate in your country/region? Has this caused any controversy?
- What initiatives and measures have your government or parliament proposed or implemented to address mis- and disinformation risks associated with AI?
- Has your institution assessed opportunities and challenges related to the dissemination and use of AI in these contexts? If so, what are key takeaways?

2. Artificial intelligence in the public sector

AI functionality is swiftly becoming integral to knowledge work and digital services. This can make public services more accessible and efficient, stimulate democratic participation, and support decision-making and policy development. However, the lack of transparency, privacy, and reliability in these systems may pose a risk to citizens' rights and the legitimacy and trustworthiness of the public sector agencies deploying them.

- What use cases of AI currently exist within your parliament? Are there any examples of public sector agencies developing, using or deploying *generative* AI technologies?
- What policies and guidelines exist in your country to stimulate the development and use of trustworthy AI, or to restrict or supervise parliament and public sector use of AI?
- Has your institution assessed opportunities or barriers to parliament or public sector agencies' use and deployment of AI? If so, what are recommendations for future policies?

3. Democratic control and governance of artificial intelligence

Access to AI will become crucial for industrial competitiveness, scientific excellence, and high-quality public services in the years ahead. However, a few companies currently own and control access to the market-leading models. Meanwhile,

anticipating the capabilities and risks of future AI systems is becoming increasingly difficult. In summary, this calls for new initiatives to strategically and democratically monitor, govern and secure access to AI for democracies.

- Have national/regional AI policies been updated or new governance structures been established after the breakthrough of generative AI? The latter might include AI supervisory authorities, regulatory sandboxes, safety institutes, public investments into AI R&D, or the allocation of new responsibilities to public agencies or parliamentary committees.
- Describe plans or initiatives to develop or strengthen AI infrastructure in your country/region. This might for example include initiatives to secure or increase access to high quality data or supercomputers, or to build or secure access to large language models (LLMs).
- Has your institution assessed the need for building or expanding access to AI infrastructure such as LLMs, computing power or high-quality data in your country? What are the most important insights?