

Artificial Intelligence and Democratic Values

Germany

National Strategy

The German government published its national AI strategy in November 2018.³⁸² The three main goals are:

- 1) “to make Germany and Europe a leading centre for AI and thus help safeguard Germany’s competitiveness in the future”
- 2) To ensure “a responsible development and use of AI which serves the good of society”
- 3) To “integrate AI in society in ethical, legal, cultural and institutional terms in the context of a broad societal dialogue and active political measures”

The guiding slogan for the strategy is “AI made in Germany.” One section of the AI Strategy states: “The Federal Government advocates using an “ethics by, in and for design” approach throughout all development stages and for the use of AI as the key element and hallmark of an ‘AI made in Europe’ strategy.” The Strategy continues, “The Federal Government is engaging in dialogue with national and international bodies, including the Data Ethics Commission or the EU Commission’s High-Level Expert Group on AI and will take into account the recommendations of these bodies as it develops standards on ethical aspects at German and European level.”

The German government further emphasizes transparency for the development of AI to ensure civil rights as well as maintain trust in businesses and institutions. The AI Strategy proposes “government agencies or private-sector auditing institutions that verify algorithmic decision-making in order to prevent improper use, discrimination and negative impacts on society.” AI ethics is a core component of the AI Strategy.³⁸³

There are several programs underway to implement the National AI Strategy. According to the OECD, there are approximately 29 initiatives on

³⁸² Die Bundesregierung, *Artificial Intelligence Strategy*, (Nov.2018), https://www.bmbf.de/files/Nationale_KI-Strategie.pdf

³⁸³ The Federal Government of Germany, *Artificial Intelligence Strategy* (Nov. 2018), https://www.ki-strategie-deutschland.de/home.html?file=files/downloads/Nationale_KI-Strategie_engl.pdf

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AI across several topics and institutions.³⁸⁴ They range from the ethical guidelines to initiatives that foster fruitful business environments. There are four that specifically focus on ethics.

First, the Ethical Guidelines for Automated and Connected Driving set out 20 ethical principles for autonomous and semi-autonomous vehicles.³⁸⁵ This was among the first guidelines worldwide to establish ethical guidelines for connected vehicular traffic. The Ethical Guidelines led to an action plan and the “creation of ethical rules for self-driving cars” that was adopted by the Federal Government.³⁸⁶

Second, the German AI Observatory forecasts and assesses AI technologies’ impact on society. The AI Observatory also develops regulatory frameworks that help deal with the rapidly changing labor market in an attempt to ensure that social aspects of these changes are not neglected.³⁸⁷

Third, the Ethical, Legal and Social Aspects of Modern Life Sciences Funding Priority, launched originally in 1997, funds research with the goal of establishing “findings regarding the opportunities and risks presented by modern life sciences” and developing a basis for discourse amongst involved stakeholders.³⁸⁸

Fourth, the Federal Ministry for Economic Cooperation and Development launched the Development Cooperation initiative FAIR Forward in 2019. The initiative aims to promote more “open, inclusive and sustainable approach to AI on an international level” by “working together with five partner countries: Ghana, Rwanda, South Africa, Uganda and

³⁸⁴ OECD.ai, *AI in Germany*, <https://oecd.ai/dashboards/countries/Germany/>

³⁸⁵ Federal Ministry of Transport and Digital Infrastructure, *Ethics Commission: Automated and Connected Driving (2017)*, <https://www.bmvi.de/SharedDocs/EN/publications/report-ethics-commission-automated-and-connected-driving.pdf>

³⁸⁶ Federal Ministry of Transport and Digital Infrastructure, *Automated and Connected Driving*, <https://www.bmvi.de/EN/Topics/Digital-Matters/Automated-Connected-Driving/automated-and-connected-driving.html>

³⁸⁷ Denkfabrik: Digitale Arbeitsgesellschaft, Policy Lab Digital, Work & Society: Re-imagining Work, <https://www.denkfabrik-bmas.de/en/about-us/policy-lab-digital-work-society-re-imagining-work>

³⁸⁸ Federal Ministry of Education and Research, *The ELSA funding initiative* (June 2016), https://www.gesundheitsforschung-bmbf.de/files/bmbf_flyer_ELSA_funding_initiative_e.pdf

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India.” The FAIR Forward goals are to: Strengthen Technical Know-How on AI, Remove Entry Barriers to AI, and Develop Policy Frameworks ready for AI. Several projects are underway in partner countries.³⁸⁹

Further, the Federal Ministry for Economic Affairs and Energy launched a Regulatory Sandboxes initiative in 2018. This initiative focuses on “testing innovation and regulation which enable digital innovations to be tested under real-life conditions and experience to be gathered.”³⁹⁰

In response to the White Paper on AI, Germany called for tighter regulation of AI on the EU level. The German government stated they welcome new regulations but want more specific definitions and tighter requirements for data storage, more focus on information security and more elaborate definitions of when human supervision is needed.³⁹¹

Public Participation

One AI initiative, *Plattform Lernende Systeme* (Platform for Artificial Intelligence), focuses specifically on fostering dialogue between different stakeholders, like civil society, government and business on the topic of self-learning systems. The Platform for AI also aims to “shape self-learning systems to ensure positive, fair and responsible social coexistence” as well as strengthen skills for developing and using self-learning systems.³⁹² The IT Security, Privacy, Legal and Ethical Framework working group has published two papers concerning AI and Discrimination as well as AI and IT Security.³⁹³

³⁸⁹ Toolkit Digitalisierung, *FAIR Forward – Artificial Intelligence for All*, <https://toolkit-digitalisierung.de/en/fair-forward/>

³⁹⁰ Federal Ministry for Economic Affairs and Energy, *Regulatory Sandboxes – Testing Environments for Innovation and Regulation* (June 2019), <https://www.bmwi.de/Redaktion/EN/Dossier/regulatory-test-beds-testing-environments-for-innovation-and-regulation.html>

³⁹¹ Die Bundesregierung, *Stellungnahme der Bundesregierung der Bundesrepublik Deutschland zum Weissbuch zur Künstlichen Intelligenz – ein europäisches Konzept für Exzellenz und Vertrauen* (2020), https://www.ki-strategie-deutschland.de/files/downloads/Stellungnahme_BReg_Weissbuch_KI.pdf

³⁹² Lernende Systeme, *Mission Statement*, <https://www.plattform-lernende-systeme.de/mission-statement.html>

³⁹³ Lernende Systeme, *WG 3: IT Security, Privacy, Legal and Ethical Framework*, <https://www.plattform-lernende-systeme.de/wg-3.html>

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To inform the public about AI policy, the government created a website to provide information on AI strategy implementation and new policy developments.³⁹⁴ *Plattform Lernende Systeme* also offers a map that shows, by region, AI developments across Germany.³⁹⁵

There is a Bundestag Commission comprising in equal parts of parliamentary representatives and experts called the “Study Commission on Artificial Intelligence, Social Responsibility and Economic, Social and Ecological Potential.”³⁹⁶ Their aim is to develop recommendations on AI and its potential “for example with regard to our value systems, fundamental and human rights, and the benefits for society and the economy.” Some of their meetings are broadcasted on parliamentary television or can be attended in person.

Data Ethics Commission

In 2018 a Data Ethics Commission was established to “build on scientific and technical expertise in developing ethical guidelines for the protection of the individual, the preservation of social cohesion, and the safeguarding and promotion of prosperity in the information age.”³⁹⁷ In 2020 the Commission recommended to the German parliament that sustainability, justice and solidarity, democracy, security, privacy, self-determination and human dignity should be the ethical and legal principles that guide the regulation of AI.³⁹⁸

The German consumer organization vzbv favored the creation of the Commission and strongly supported the recommendations, as did the main German industry body Bundesverband der Deutschen Industrie (BDI).³⁹⁹ The vzbv further emphasized that the aim of ADM (Automated

³⁹⁴ Die Bundesregierung, <https://www.ki-strategie-deutschland.de/home.html>

³⁹⁵ Lernende Systeme, *Artificial Intelligence in Germany*, <https://www.plattform-lernende-systeme.de/map-on-ai.html>

³⁹⁶ Deutscher Bundestag, Study Commission, *Artificial Intelligence, Social Responsibility and Economic, Social and Ecological Potential*, https://www.bundestag.de/en/committees/bodies/study/artificial_intelligence

³⁹⁷ Bundesministerium der Justiz und für Verbraucherschutz, Data Ethics Commission, https://www.bmjv.de/DE/Themen/FokusThemen/Datenethikkommission/Datenethikkommission_EN_node.html

³⁹⁸ Datenethikkommission, *Opinion of the Data Ethics Commission* (Jan. 2020), https://www.bmjv.de/SharedDocs/Downloads/DE/Themen/Fokusthemen/Gutachten_DE_K_EN_lang.pdf?__blob=publicationFile&v=3

³⁹⁹ Communication between the Editor and Isabelle Buscke, vzbv Nov. 27, 2020 (on file).

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DecisionMaking) regulation must be to ensure compliance with existing laws. Toward that goal, “it must be possible for supervisory authorities to scrutinise and verify the legality of ADM systems and their compliance with existing laws so that they can impose penalties if the law is infringed.”⁴⁰⁰ Vzbv also noted it is “important to ensure consumers’ self-determination when making decisions, to strengthen consumers’ confidence in ADM systems by creating transparency and to foster competition and innovation.”

Further, in 2018 the Cabinet Committee on Digitisation was founded with the goal of advising the Federal Government on how to best implement the National AI Strategy. The Committee is comprised of AI experts in science and business. An exchange between politics and national as well as international experts is also in the forefront of their activities.⁴⁰¹⁴⁰²

Facial Recognition

In 2018 facial recognition technology at a large crossing in Berlin, set up by the government, sparked opposition from civil society.⁴⁰³ There was further outcry in 2020, when *Der Spiegel* wrote that there are plans to set up cameras capable of identifying people at 134 train stations and 14 airports.⁴⁰⁴

Predictive Policing

According to AlgorithmWatch, the German government is using AI to assist in predictive policing both on the federal and state level. One state, North Rhine-Westphalia is using AI to assist police in identifying child pornography and preventing suicides in jails. Further, the Federal

⁴⁰⁰ Vzbv, *Artificial Intelligence: Trust is Good, Control is Better* (2019), https://www.vzbv.de/sites/default/files/2019_vzbv_factsheet_artificial_intelligence.pdf

⁴⁰¹ Die Bundesregierung, *Der Digitalrat: Experten, die uns antreiben*, <https://www.bundesregierung.de/breg-de/themen/digitalisierung/der-digitalrat-experten-die-uns-antreiben-1504866>

⁴⁰² Die Bundesregierung, *Digitalisierung wird Chefsache*, <https://www.bundesregierung.de/breg-de/aktuelles/digitalisierung-wird-chefsache-1140420>

⁴⁰³ Janosch Delcker, *Big Brother in Berlin*, Politico (Sept. 13, 2018), <https://www.politico.eu/article/berlin-big-brother-state-surveillance-facial-recognition-technology/>

⁴⁰⁴ Phillipp Grüll, *Germany’s plans for automatic facial recognition meet fierce criticism*, Euractiv (Jan. 10, 2020), <https://www.euractiv.com/section/data-protection/news/german-ministers-plan-to-expand-automatic-facial-recognition-meets-fierce-criticism/>

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government is using AI techniques to identify evolving international crises in their foreign policy, check identities of immigrants and administer social services.⁴⁰⁵

AI Oversight

The German Institute for Human Rights was founded in 2001 by the German Bundestag (Parliament). The Institute for Human Rights is an independent national institution, financed by the Bundestag and is considered a civil society body. The Institute works to ensure the observation and promotion of human rights by the German government in Germany and abroad.⁴⁰⁶ The Institute's responsibilities include documentation, consulting politicians and society, human rights education in Germany, providing a specialized scientific library on human rights, cooperation with other human rights institutions and promoting dialogue on human rights issues in Germany.⁴⁰⁷ The German Institute has not yet explicitly addressed AI but might do so in the future as have human rights commissions in other countries.⁴⁰⁸

In Germany, the data protection authority landscape is quite large. The private sector is mainly supervised by the states with exception of the telecommunications and postal sector which is supervised on a federal level. Every state has a respective data protection authority dedicated to matters involving the private sector.⁴⁰⁹

In Bavaria, there is one authority responsible for the private sector and one for the public sector: the Data Protection Authority of Bavaria for Private Sector (BayLDA) and the Bavarian Data Protection Commissioner, which is responsible for enforcing data rights against public authorities and

⁴⁰⁵ AlgorithmWatch, *Automating Society 2020* (Oct. 2020), <https://automatingsociety.algorithmwatch.org/report2020/belgium/>

⁴⁰⁶ German Institute for Human Rights, *Das Institut*, <https://www.institut-fuer-menschenrechte.de/das-institut>.

⁴⁰⁷ German Institute for Human Rights, *FAQ*, <https://www.institut-fuer-menschenrechte.de/das-institut/faq>

⁴⁰⁸ See, for example, the activities of the Human Rights Commission of Australia.

⁴⁰⁹ Landesbeauftragte für Datenschutz und Informationsfreiheit Nordrhein-Westfalen, *Datenschutzaufsichtsbehörden für den nicht-öffentlichen Bereich*, https://www.ldi.nrw.de/mainmenu_Service/submenu_Links/Inhalt2/Aufsichtsbehoerden/Aufsichtsbehoerden.php.

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government agencies.⁴¹⁰ In other states, one authority is responsible for all data protection supervision and enforcement in the state. One example of this is Hessen where the Hessian Commissioner for Data Protection and Freedom of Information is responsible for the public authorities, government agencies as well as the private sector.⁴¹¹

At the federal level, the Federal Commissioner for Data Protection and Freedom of Information (BfDI) is responsible for the supervision of all public bodies that belong to the federal government and the telecommunication and postal services companies.⁴¹²

Algorithmic Transparency

Germany is subject to the General Data Protection Regulation which established rights to “meaningful information about the logic involved” as well as about “the significance and the envisaged consequences.”⁴¹³ According to AlgorithmWatch,⁴¹⁴ the data protection agencies of the federal government and eight German federal states stated that greater transparency in the implementation of algorithms in the administration was indispensable for the protection of fundamental rights.⁴¹⁵ The agencies demanded that if automated systems are used in the public sector, it is crucial that processes are intelligible, and can be audited and controlled. In addition, public administration officials have to be able to provide an explanation of the logic of the systems used and the consequences of their use. Self-learning systems must also be accompanied by technical tools to analyse and explain their methods. An audit trail should be created, and the software code should

⁴¹⁰ Datenschutz Bayern, *Bavarian Data Protection Commissioner*, <https://www.datenschutz-bayern.de>; BayLDA - *Offizielle Webseite*, <https://www.lda.bayern.de/de/index.html>

⁴¹¹ Datenschutz Hessen, *Zuständigkeit des Hessischen Beauftragten für Datenschutz und Informationsfreiheit*, <https://datenschutz.hessen.de/ueber-uns/zustaendigkeit-des-hessischen-datenschutzbeauftragten>.

⁴¹² Der Bundesbeauftragte für den Datenschutz und die Informationsfreiheit, *Aufgaben und Befugnisse*, https://www.bfdi.bund.de/DE/BfDI/Artikel_BFDI/AufgabenBFDI.html

⁴¹³ [GDPR Art. 22, Art. 13.2.f]

⁴¹⁴ Algorithm Watch, *Automating Society: Germany* (Jan. 29, 2019), <https://algorithmwatch.org/en/automating-society-germany/>

⁴¹⁵ Freedom of Information Commissioners in Germany, “Transparenz der Verwaltung beim Einsatz von Algorithmen für gelebten Grundrechtsschutz unabdingbar“ (Oct. 16, 2018), https://www.datenschutzzentrum.de/uploads/informationsfreiheit/2018_Positionspapier-Transparenz-von-Algorithmen.pdf

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be made available to the administration and, if possible, to the public. According to the position paper, there need to be mechanisms for citizens to demand redress or reversal of decisions, and the processes must not be discriminating. In cases where there is a high risk for citizens, there needs to be a risk assessment done before deployment. Very sensitive systems should require authorisation by a public agency that has yet to be created.

In 2019 the Ministry of Education and Research started a funding priority for AI R&D projects on explainability and transparency. The Ministry stated that improving explainability and transparency are two of the Federal government's central research goals.⁴¹⁶ Funding is “aimed at collaborative projects between science and industry in an interdisciplinary composition.”⁴¹⁷

OECD/G20 Principles and Global Partnership on AI

Germany is a member of the OECD and endorsed the OECD and the G20 AI Principles. In 2020, Germany joined 14 other countries to announce the Global Partnership on Artificial Intelligence to “support the responsible and human-centric development and use of AI in a manner consistent with human rights, fundamental freedoms, and our shared democratic values.”⁴¹⁸

Human Rights

According to Freedom House, Germany is one of the top countries in the world for the protection of political rights and civil liberties.⁴¹⁹ Freedom House reports that, “Germany is a representative democracy with a vibrant political culture and civil society. Political rights and civil liberties are largely assured both in law and practice.”

⁴¹⁶ Bundesministerium für Bildung und Forschung, KI-Erklärbarkeit und Transparenz, <https://www.softwaresysteme.pt-dlr.de/de/ki-erkl-rbarkeit-und-transparenz.php>

⁴¹⁷ OECD G20 Digital Economy Task Force, *Examples of AI National Policies* [PAGE #] (2020), <https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf>

⁴¹⁸ Federal Ministry for Economic Affairs and Energy & Federal Ministry for Social Affairs and Work, *Joint Press Release: Germany is a founding Member of the Global Partnership on Artificial Intelligence* (June 15, 2020), <https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2020/20200615-germany-is-a-founding-member-of-the-global-partnership-on-artificial-intelligence.html>

⁴¹⁹ Freedom House, *Freedom in the World 2020 – Germany* (2020), <https://freedomhouse.org/country/germany/freedom-world/2020>

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Lethal Autonomous Weapons

The German government's coalition agreement states that it "rejects autonomous weapon systems devoid of human control" and calls for a global ban.⁴²⁰ Further in cooperation with the French government, the German government, published a joint statement on Lethal Autonomous Weapons at the "Meeting of the Group of Governmental Experts on Lethal Autonomous Weapons Systems." They write: "At the heart of our proposal is the recommendation for a political declaration, which should affirm that State parties share the conviction that humans should continue to be able to make ultimate decisions with regard to the use of lethal force and should continue to exert sufficient control over lethal weapons systems they use."⁴²¹

Evaluation

Germany has undertaken a broad AI program, that pushes ethical considerations into the national discourse. Germany has recommended regulation of AI technologies. Germany has led efforts within the European Union to establish comprehensive regulation for AI. Further, Germany has promoted ethical use of AI across all sectors. While there has been no express support for the Universal Guidelines for AI or the Social Contract for the Age of AI, Germany's policies reflect elements found in these documents

⁴²⁰ Konrad Adenauer Stiftung Europe, *A New Awakening for Europe. A New Dynamic for Germany. A New Solidarity for Our Country: Coalition Agreement between CDU, CSU, and SPD* (2018), https://www.kas.de/c/document_library/get_file?uuid=bd41f012-1a71-9129-8170-8189a1d06757&groupId=284153)

⁴²¹ Permanent Representation of the Federal Republic of Germany to the Conference on Disarmament in Geneva & Représentation Permanente de la France auprès de la Conférence du Désarmement, Meeting of the Group of Governmental Experts on Lethal Autonomous Weapons Systems, *Statement by France and Germany* (Apr. 2018), <http://perma.cc/2FQB-W8FX>); US Library of Congress, *Regulation of Artificial Intelligence in Selected Jurisdictions* (Jan. 2019), <https://www.loc.gov/law/help/artificial-intelligence/regulation-artificial-intelligence.pdf>