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Artificial Intelligence in Administrative Law: Structural Deficits, Control Gaps and Platform Dependency. A Jurisprudential and Administrative Law Analysis

Keywords: artificial intelligence, VwVfG, methodological control, platform dependency, digital sovereignty, human-in-the-loop, Kelsen, Hart, AI Regulation, CLOUD Act

Summary. This paper analyses the deployment of artificial intelligence (AI) in public administration across four structurally distinct yet normatively interconnected levels. It connects jurisprudential foundations — Kelsen's Grundnorm and Hart's Rule of Recognition — with an administrative law review of the structural mismatches between the historically sedimented Federal Administrative Procedures Act (*Verwaltungsverfahrensgesetz*, VwVfG) and the logic of probabilistic language models; the European law framework established by the AI Regulation (EU) 2024/1689 and the AI Market Surveillance and Innovation Act (*Künstliches-Intelligenz-Marktüberwachungs und Innovationsförderungsgesetz*, KI-MIG); the institutional modernisation policy of the Federal Ministry for Digital Affairs and State Modernisation (*Bundesministerium für Digitales und Staatsmodernisierung*, BMDS); and the geopolitical dimension of digital dependency on externally controlled platform architectures. The central jurisprudential question is: whose normative claim to validity sustains the administrative decision when the underlying AI system is governed by an external, state-uncontrollable platform architecture?

Sztuczna inteligencja w prawie administracyjnym: deficyty strukturalne, luki kontrolne i zależność platformowa. Analiza z perspektywy teorii prawa i prawa administracyjnego

Słowa kluczowe: sztuczna inteligencja, niemiecka ustawa o postępowaniu administracyjnym (VwVfG), kontrola metodologiczna, zależność platformowa, suwerenność cyfrowa, człowiek w pętli decyzyjnej (human-in-the-loop), Kelsen, Hart, rozporządzenie w sprawie sztucznej inteligencji, CLOUD Act

Streszczenie. Niniejszy artykuł analizuje wykorzystanie sztucznej inteligencji (AI) w administracji publicznej na czterech strukturalnie odrębnych, lecz normatywnie powiązanych płaszczyznach. Łączy on podstawy teoretycznoprawne — Grundnorm Kelsena oraz Rule of Recognition Harta — z analizą administracyjnoprawną strukturalnych niezgodności między historycznie ukształtowaną federalną ustawą o postępowaniu administracyjnym (*Verwaltungsverfahrensgesetz*, VwVfG) a logiką probabilistycznych modeli językowych; z ramami prawa europejskiego wyznaczonymi przez rozporządzenie (UE) 2024/1689 w sprawie sztucznej inteligencji oraz ustawę o nadzorze rynku sztucznej inteligencji

i wspieraniu innowacji (Künstliches-Intelligenz-Marktüberwachungs- und Innovationsförderungsgesetz, KI-MIG); z instytucjonalną polityką modernizacyjną Federalnego Ministerstwa ds. Cyfryzacji i Modernizacji Państwa (Bundesministerium für Digitales und Staatsmodernisierung, BMDS); oraz z geopolitycznym wymiarem cyfrowej zależności od zewnętrznie kontrolowanych architektur platformowych. Centralne pytanie teoretycznoprawne brzmi: czyje normatywne roszczenie obowiązywania podtrzymuje decyzję administracyjną, gdy system AI stanowiący jej podstawę podlega zewnętrznej, niekontrolowalnej przez państwo architekturze platformowej?

I. Introduction: The Fourfold Structural Problem

German administrative law faces a fundamental challenge that unfolds across at least four interconnected dimensions. First, the structural foundation of German administrative decisions — the Federal Administrative Procedures Act (*Verwaltungsverfahrensgesetz*, VwVfG) — is not designed for probabilistic AI systems: it presupposes linear decision-making processes, personal attribution of responsibility and (mostly) text-based traceability¹. Second, EU law, in the form of the AI Regulation, overlays national law with stringent requirements for whose integration into administrative procedural law there is still no normative framework, even though a draft implementing statute was submitted in Germany in February 2026 (the Government Draft KI-MIG). Third, the Federal Government has been operating autonomous administrative agents in 17 municipalities since March 2026 — through the Agentic AI Hub — without any coherent AI-specific reform agenda for German administrative law at federal and state level being discernible, and without Section 35a or Section 39 VwVfG being designed for these systems. Fourth — and this is the dimension that reaches deepest in jurisprudential terms — German public administration operates AI systems predominantly on US platform infrastructure subject to the Clarifying Lawful Overseas Use of Data Act (CLOUD Act), 18 U.S.C. § 2713: an extraterritorially operating access authorisation that structurally jeopardises the sovereign audit trail and thus the reconstructibility of the grounds for decisions. This appears to apply — as far as can be established — to the AI Opportunities Marketplace (MaKI) as well, which currently lists 265 AI systems² across German federal, state and municipal administration.

These four problem dimensions can be condensed into a single jurisprudential core question: *whose normative claim to validity sustains the administrative decision when the underlying AI system is governed by an external, state-uncontrollable platform architecture and national procedural law provides no normative guidance for the integration of such systems?* This paper addresses that question across four levels,

¹ A. Müller, Digitalisation of Paper in Public Administration, *RDi – Recht Digital* 2024, p. 557; A. Guckelberger, Germany's (Lag in) Administrative Digitalisation, *LTZ – LegalTech: Zeitschrift für die digitale Rechtsanwendung* 2023, p. 167.

² Stand 25.03.2026.

connecting the jurisprudential foundation with the administrative law analysis, the European regulatory dimension, and the geopolitical reality of digital dependency.

II. Jurisprudential Foundations: Methodological Control and the Basis of Validity

1. Normative Legal Facts: How Large Language Models Work — and Where Their Limits Lie

The legal-policy debate on AI deployment in public administration often suffers from an insufficient understanding of its object. Those who do not understand how a large language model functions technically cannot formulate the normative requirements for its deployment with precision, nor determine its inherent limits. This section establishes the technical foundations as normative legal facts³.

a) Artificial Intelligence as a System Category (Article 3(1) AI Regulation)

Article 3(1) of the AI Regulation⁴ defines an ‘AI system’ as a machine-based system designed to operate with varying degrees of autonomy, which may adapt after deployment, and which, from the inputs it receives, infers how to generate outputs — such as predictions, content, recommendations or decisions — that can influence physical or virtual environments. For the category of interest here — large language models deployed for text generation, legal research and decision preparation — the decisive characteristic is that these systems do not operate on a rule basis; they learn no explicit if-then structures⁵ but instead extract statistical patterns from enormous volumes of text and reproduce those patterns in response to new inputs. This structural feature — statistical *pattern recognition* rather than rule-based decision logic — is the starting point for the normative requirements applicable to their deployment in legally bound contexts.

b) Large Language Models: Structure and Performance Limits

A large language model (LLM) is a transformer-architecture-based neural network⁶ that encodes the statistical structure of human language in parametric

³ A. Nussbaum, *Legal Facts Research: Its Significance for Scholarship and Teaching*, Tübingen (J.C.B. Mohr) 1914; M. Rehbinder, *The Founding of the Sociology of Law by Eugen Ehrlich*, Berlin (Duncker & Humblot) 1967.

⁴ Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (AI Act); consolidated version: <https://eur-lex.europa.eu/eli/reg/2024/1689> [accessed on: 22.04.2026].

⁵ *BeckOK AI Law*/J. Kirschke-Biller/A. Füllsack, 5th ed., as of 01.11.2025, AI Act Art. 3 para. 57–60.

⁶ A. Vaswani et al., Attention Is All You Need, *NeurIPS* 2017; Y. Zhang et al., Large Language Models: A Survey, arXiv:2402.06196v2 (2024), <https://arxiv.org/abs/2402.06196> [accessed on: 22.04.2026]; A. Hebing, E. Kastlunger, Artificial Intelligence in Sales and Marketing, *ZVertriebsR* 2026.

weight matrices through training on extensive text corpora. The model consists of hundreds of billions of numerical parameters. Once training is complete, these parameters are immutable; the model learns nothing new during subsequent use — it reconstructs what it extracted from texts during training.

What the model has thereby learned is not propositional (true) knowledge. It has learned the statistical relations between linguistic units, not the normative validity order and the inherent methodology interwoven in the various linguistic strata of the LLM. Legal texts, with their respective historical, cultural, methodological and systematic reference points at different levels of abstraction, constitute a specialised language. This specialised language can only be decoded through the legal methodology of the relevant legal system. From this basic structure two performance limits follow: the model ‘hallucinates’ — it occasionally produces formally coherent but professionally inaccurate statements. It also sometimes lacks access to the present; developments after the training cut-off are unknown, unless the gap between training completion and the present can be closed by means of the LLM itself conducting an internet search, which is increasingly the case.

c) Tokens and Vectorisation: How Language Models Process Text

An LLM does not process text as a sequence of words but as a sequence of *tokens* — the smallest units into which text is broken down by a prior tokenisation process⁷. The tokens are transformed into high-dimensional numerical vectors — so-called *embeddings*⁸. Semantically similar terms — such as *Ermessen* (administrative discretion) and *Beurteilungsspielraum* (margin of assessment), or *Verwaltungsakt* (administrative act) under Section 35 VwVfG and *acte administrative* in French administrative law — are positioned spatially close together in this high-dimensional space because they have appeared in similar linguistic contexts. This statistical proximity in the vector space does not, however, say anything about the respective doctrinal or historical content.

The attention mechanism of the transformer architecture determines which tokens are weighted most strongly when generating a new token. Multi-head attention⁹ enables multiple relations to be captured simultaneously: normative rank, teleological purpose, and systematic context can be activated in parallel — without the model establishing an explicit hierarchy between them. The model can thus reproduce the outward form of legal argumentation without having grasped its inner basis of validity.

⁷ L. Lemnitzer, K.-M. Würzner, The Word in Language Technology, [in:] *Handbook of Word and Vocabulary*, vol. 3, eds. U. Haaß-Zumkehr, W. Kallmeyer, G. Zifonun, Berlin–Boston (de Gruyter) 2015, p. 297.

⁸ T.W. Dornis, *Generative AI Training and the TDM Fallacy*, GRUR 2024, p. 1681.

⁹ P. Jin et al., *MoH: Multi-Head Attention as Mixture-of-Head Attention*, arXiv:2410.11842 (2024), <https://arxiv.org/abs/2410.11842> [accessed on: 22.04.2026].

d) Probabilism, Training Data Bias and Their Legal Consequences

The outputs of an LLM are the result of probabilistic processes¹⁰. The model calculates a probability distribution for every possible continuation and selects the next token from that distribution. The output is statistically the most plausible continuation based on numerical sequences, not the legally compelling result. Plausibility is a property of the statistical distribution in the training corpus; professional correctness is a property of the relationship between a statement and the normative validity order. Both properties are categorially distinct.

This probabilistic basic structure has a consequence that is particularly significant for legal applications¹¹: if English-language legal texts from common law jurisdictions dominate a training corpus numerically — which is empirically plausible for the major commercial models — then the LLM tends to activate common law concepts and methodology as statistically dominant patterns, even when the question posed concerns a civil law jurisdiction. Not because the model would confuse the systems, but because the quantitative dominance of one discursive style in the training corpus increases its statistical probability in the output. This phenomenon — *training data bias* — produces systematic, non-random distortions towards dominant legal discourses¹².

e) Methodology with Constraints: The Decisive Systemic Difference

An LLM that is fed legal texts still operates as a statistical language model on the basis of document structures through pattern recognition. It reproduces the methodology interwoven in those documents without clearly grasping it or drawing its implications. It cannot generate independent methodological insights because methodology is not a property of documents but an — usually unwritten — property of the legal order from which those documents derive.

The decisive systemic difference lies in the question of whether the system architecture imposes external *methodological constraints* on the model. Constraints are control parameters that instruct the model which interpretive framework applies at which normative level¹³, how norm conflicts are to be resolved, which conflict rules — *lex superior*, *lex specialis*, *lex posterior* — are to be activated in

¹⁰ F. Brauner, M. Murawski, M. Bick, *The development of a competence framework for artificial intelligence professionals using probabilistic topic modelling*, „Journal of Enterprise Information Management“ 2025, S. 197.

¹¹ Are Large Language Models like ChatGPT offering legal service (Rechtsdienstleistungen) according to § 2 Abs. 1 Rechtsdienstleistungsgesetz (RDG), see F. Baumer, *Large Language Models auf dem Prüfstand des RDG*, „RD“ 2026, S. 8.

¹² D. Lacmanovic, M. Skare, *Artificial intelligence bias auditing*, „Review of Accounting and Finance“ 2025, Bd. 24, Nr. 3, S. 375; M. van Bekkum, *Using sensitive data to de-bias AI systems*, „Computer Law & Security Review“ 2025, Bd. 56.

¹³ Z. Yang et al., *Plug in the safety chip: Enforcing constraints for LLM-driven robot agents*, [in:] *Proceedings of the 2024 IEEE International Conference on Robotics and Automation (ICRA)*, 2024.

which sequence, and where methodological uncertainties are to be identified as such. Without external methodological constraints, an LLM operates as a document-centred retrieval and generation system. With external constraints, it can be deployed as an instrument of methodologically controlled reconstruction of legal argumentation. This difference is categorial in nature: it determines whether the output can constitute a legally sound basis for a decision.

2. On the Normative Capacity of AI Systems in Law

The question of whether and to what extent AI can be deployed in legal — and thus administrative — argumentation¹⁴ must be distinguished from the question of whether AI outputs can constitute legally binding grounds for decisions¹⁵. An LLM can conduct grammatical and systematic interpretation, form analogies and apply teleological reductions, because the evaluative logics on which these rest are implicitly present across the entire doctrinal discourse of a specific legal order. Legal methodology is formalisable in a precise sense. The Savigny canon — grammatical, systematic, historical and teleological interpretation¹⁶ — consists of abstract rule structures that are describable independently of their concrete exercise and reconstructable by a sufficiently trained model¹⁷.

The central thesis is thus: an LLM can generate methodologically correct, logically consistent and systemically tenable legal argumentation options under German law. This capacity is not trivial — and it has direct consequences for administrative practice: where AI prepares structured discretion, subsumes facts and formulates decision proposals, it can deliver legally sound inputs. However, in Germany the legal foundations for this are lacking. A comprehensive administrative reform placing AI at the center of federal and state government is currently not in sight¹⁸. Rather, it is ideas of acceleration that have recently been driving the agenda, including for administrative (procedural) law¹⁹. The Federal Government's guide-

¹⁴ The German Government (BMDS) intends to implement legal administrative AI by the end of 2029, see AI Marketplace (MaKI): <https://www.kimarktplatz.bund.de> [accessed on: 22.04.2026]; I. Bantekas, E. Bratsiakou, *Automated Decision-Making Systems and Black Box Challenges Under European Union Administrative Law*, „Fordham International Law Journal“ 2026, Bd. 49, Nr. 1, S. 1.

¹⁵ Y. Chandra, S. Feng, *Algorithms for a new season? Mapping a decade of research on AI-driven digital transformation of public administration*, „Public Management Review“ 2026, S. 620.

¹⁶ F.C. von Savigny, *System of the Modern Roman Law*, vol. 1, Berlin (Veit) 1840, § 33, pp. 213 f.

¹⁷ C. Möllers, The Significance of Language Models Such as ChatGPT Using the Example of Savigny's Canon of Interpretation, [in:] *Legal Methodology and Digitalisation*, Potsdam (Universitätsverlag Potsdam), eds. Susanne Hähnchen, 2024, pp. 55–93C.

¹⁸ Cf. Resolution of the Conference of Minister-Presidents with the Federal Chancellor of 4 December 2025 https://bmds.bund.de/fileadmin/BMDS/Dokumente/2025-12-04-mpk-staatsmodernisierung-data_CDR.pdf [accessed on: 22.04.2026].

¹⁹ Seventh Act Amending the Code of Administrative Court Procedure (7. VwGOÄndG) of 2 February 2026, https://www.bmjv.de/SharedDocs/Gesetzgebungsverfahren/DE/2026_VwGOAendG.html [Zugriff: 22.04.2026].

lines for AI deployment in the federal administration (2025)²⁰ do not go beyond elementary prompting advice and provide no further analytical value.

3. The Normative Limit: Kelsen's Grundnorm and Hart's Rule of Recognition

Against the epistemological capacity of AI systems stands a normative limit that cannot be overcome by technical improvements, because it is not of a technical but of a jurisprudential nature. Hans Kelsen's *Pure Theory of Law*²¹ develops the Grundnorm as a purely hypothetical presupposition — initially as a transcendental-logical prerequisite, later as a fiction — that must be assumed in order to ascribe coherence and validity to a legal order. H. L. A. Hart²² develops the Rule of Recognition — traceable back to Kelsen — as the ultimate recognition rule: that rule which, as a matter of social practice, determines what standards are to be acknowledged as law of the community in question²³. Both concepts share a fundamental characteristic: the basis of validity is not itself an object of legal application — it is its immediate presupposition.

An LLM can interpret norms, fill gaps, check coherence requirements and link arguments consistently. What remains categorially closed to it is of a different order: it cannot assume the Grundnorm, because this is a normative act presupposing the acknowledgement of an obligation. It cannot assent to the Rule of Recognition, because this is a form of constitutive legal-social practice in which only agents with capacity to act can participate. And it cannot assume responsibility for the binding force of a decision, since responsibility presupposes a normative status of the subject that an AI system does not possess — neither originally nor by attribution. An AI system can produce results equivalent to a human legal application, even identical in wording and argumentation. In normative terms, however, the result differs fundamentally despite external similarity: the difference lies not in the quality of the argument but in the inherent anchoring of the responsibility structure on which the argument rests — here, a human being; there, the probabilism of mathematical vectors.

²⁰ Federal Ministry of the Interior and Community, *Guidelines for the Use of Artificial Intelligence in the Federal Administration*, March 2025, pp. 27 f.

²¹ H. Kelsen, *Pure Theory of Law*, 1st ed., Leipzig–Vienna (Deuticke) 1934; study edition, ed. M. Jestaedt, Tübingen (Mohr Siebeck) 2008, https://library.oapen.org/bitstream/id/40f462a5-662c-442f-a3fc-10fa272bb78e/external_content.pdf [accessed on: 22.04.2026].

²² H.L.A.: Herbert Lionel Adolphus.

²³ H.L.A. Hart, *The Concept of Law*, 2nd ed., Oxford (Clarendon Press) 1994, ch. VI ("The Foundations of a Legal System" pp. 100 f.

4. Human in the Loop as a Jurisprudential Necessity

The requirement of a Human in the Loop (HitL)²⁴ is not a regulatory precondition and certainly not a safety net against ‘hallucinations’, but a jurisprudentially necessary structural condition of every normatively reliable AI-supported administrative decision. This finding is independent of Article 22 GDPR, which regulates the prohibition on fully automated decisions from a data protection perspective, and independent of Article 14 of the AI Regulation, which prescribes effective human oversight as a mandatory system requirement for high-risk AI systems²⁵. Both provisions operationally regulate — on a regulatory level — a theoretically deeper-grounded requirement: normative binding force is structurally tied to human assumption of responsibility; or, put differently, the human assumption of professionally grounded responsibility is a *condition sine qua non* for the normative binding force of an administrative decision.

What is decisive, however, is that HitL is only effective where methodological competence and actual decision-making power coincide. A case officer who signs a KI-generated draft decision without substantive review formally satisfies Section 39(1) sentence 2 VwVfG but not materially: the statement of reasons does not contain the grounds that moved the human being, but the mathematical pattern of high probability activated by the LLM. The deceptive HitL facade — formally human final decision, materially algorithmic pre-determination — remains the central implementation risk of AI-assisted administrative action.

5. Methodological Control in the Europeanised Multi-Level System

The demands on methodological command intensify in the context of Europeanised administrative law²⁶. National law of Member States is subordinate to Union law²⁷ and must accordingly be interpreted and applied in the light of the wording and objectives of Union law²⁸. Administrative law in EU Member States is no longer a purely national legal domain. From the obligation to implement directives under Article 288(3) TFEU and the principle of sincere cooperation (Article 4(3)

²⁴ BeckOK AI Law/B. Buchner, 5th ed., as of 01.02.2026, AI Act Art. 14 para ; S. Natarajan et al., *Human-in-the-loop or AI-in-the-loop? Automate or Collaborate?*, [in:] *Proceedings of the AAAI Conference on Artificial Intelligence*, 2025, Bd. 39, Nr. 27, S. 28594, <https://doi.org/10.1609/aaai.v39i27.35083> [accessed on: 22.04.2026].

²⁵ BeckOK Data Protection Law/K. von Lewinski, 55th ed., as of 01.02.2026, GDPR Art. 22 para. 1.1.

²⁶ Stelkens/Bonk/Sachs/U. Stelkens, *Administrative Procedure Act (VwVfG)*, 10th ed., Munich (C.H. Beck) 2022, European Administrative Law para. 36; I. Bantekas, E. Bratsiakou, *ibidem*.

²⁷ CJEU, Judgment of 15 July 1964, Case 6/64, *Costa v ENEL*, ECLI:EU:C:1964:66.

²⁸ Köhler/Feddersen/H. Köhler, *Act Against Unfair Competition (UWG)*, 44th ed., Munich (C.H. Beck) 2026, Introduction para. 3.13.

TEU) follows the duty to interpret provisions of national law within the scope of a directive in conformity with that directive — in the light of its wording and purpose²⁹. In energy and climate law, the international level additionally enters the picture, bringing its own methodology, inter alia under the Vienna Convention on the Law of Treaties (VCLT)³⁰ and a distinct doctrine of sources of law³¹.

For AI systems in administration, this yields a system-architectural requirement: structurally, the LLM must be able to differentiate between diverse normative levels — at minimum between the constitutionally structured national law (for Germany: federal, state, local, mediate state administration) and the primary, secondary and tertiary law of the EU³². A model that cannot identify which normative framework applies at which level within a multi-level system cannot serve as a fit instrument for decision preparation but harbours the latent risk of level confusion. Section 39(1) sentence 2 VwVfG requires the statement of the essential legal grounds — in a multi-level system this includes the identification of the applicable level and its respective methodological framework.

The system-parameters argument is of particular doctrinal sharpness in this context: where an authority deploys an AI system on the basis of specific prompt structures, weighting rules and decision parameters that shape the selection of legally relevant facts and the structure of decision-making, these parameters are functionally a constitutive element of the decision and thus simultaneously a component of the grounds for decision. The principles of accuracy, clarity and completeness of the file (Section 24 VwVfG) presuppose this transparency³³. What the administration cannot state as reasons it may not allow to pre-determine or even pre-shape algorithmically. System parameters that cannot be translated into a legally traceable argument are procedurally impermissible.

Only knowledge of the operative reasoning of an administrative act enables the person concerned to assess properly whether an appeal is advisable and has reasonable prospects of success³⁴. If the person cannot identify the grounds, they cannot contest the decision. The obligation to give reasons is to that extent a concretisation of the constitutionally paramount guarantee of effective legal protection under

²⁹ CJEU, Judgment of 4 July 2006, Case C-212/04, *Adeneler*, ECR 2006, I-6057, para. 108; BGH, *NJW* 2009, p. 427.

³⁰ Vienna Convention on the Law of Treaties (VCLT) of 23 May 1969.

³¹ Art. 38 ICJ Statute; M. Herdegen, *Public International Law*, 23rd ed., Munich (C.H. Beck) 2024, § 14 para.

³² R. Streinz/P. Huber, *Treaty on European Union* (EUV), 3rd ed., Munich (C.H. Beck) 2018, Art. 12 para. 31.

³³ W. Huck, [in:] *Administrative Procedure Act* (VwVfG), eds. W. Huck, M. Müller, 4th ed., Baden-Baden (Nomos) 2025, § 24 paras. 54, 54b.

³⁴ BVerfGE 6, 32; BVerwG, *NVwZ* 1993, p. 677.

Article 19(4) Basic Law (*Grundgesetz*, GG), which assigns to the courts comprehensive review of the executive within the framework of the separation of powers³⁵.

III. Structural Deficits of the Federal Administrative Procedures Act

1. Structural Mismatch Problems of the VwVfG

The VwVfG was conceived as a statute for the uniform regulation of decision-making processes — the sum of provisions under which federal and state administrative authorities exercise their activities under public law³⁶. It is the product of historical sedimentation of norms reaching back into the German and French administrative legal tradition³⁷. Unlike, for example, the Baltic legal orders, which early and resolutely embraced digital administrative structures³⁸, the German legislature has consistently accommodated technological developments in a trailing fashion — most recently incorporating lessons from the pandemic era³⁹ — generating a path dependency that has structural, not merely technical, causes.

The only explicit provision on automation is Section 35a VwVfG. This permits the fully automated issuance of an administrative act where authorised by statute and where neither discretion nor a margin of assessment exists. The provision was conceived for deterministic if-then algorithms⁴⁰. It does not distinguish between deterministic automation and AI-supported decision preparation, although these present categorially different risk profiles. Section 35a VwVfG was thus technologically outdated even upon its introduction and cannot answer the genuinely relevant question of how probabilistic AI can be legally reliably integrated into administrative decisions.

³⁵ BeckOK *Administrative Procedure Law*/P. Tiedemann, 70th ed., as of 01.01.2026, VwVfG § 39 para. 5.

³⁶ Federal Government Bill, Draft Administrative Procedure Act (VwVfG), BT-Drs. 7/910 of 18 July 1973, p. 28.

³⁷ F. Schoch/J.-P. Schneider/M. Knauff, *Administrative Procedure Act* (VwVfG), 7th supplementary instalment 2025, Munich (C.H. Beck), § 35 paras. 1–4.

³⁸ Deutsche Welle, *Estonia is Europe's Champion of Digitalisation*, 20 July 2025, <https://www.dw.com/de/estland-digitalisierung-deutschland-analog-voll-digital-eurostack/a-73335359> [accessed on: 22.04.2026].

³⁹ Fifth Act Amending Provisions of Administrative Procedure Law (5. VwVfÄndG) of 4 December 2023, BGBl. I No. 344; S. Prell, N. Altmiks, *NVwZ* 2024, p. 105.

⁴⁰ C. Besio et al., *Responsible Machines Without Accountability?*, *Soziale Systeme* 2022, pp. 129–159.

2. Six Normative Gaps in Detail

a) Absence of a Conceptual Category

The VwVfG recognises the administrative act (Section 35 VwVfG)⁴¹, the automated administrative procedure (Section 35a VwVfG)⁴² and electronic communication (Section 3a VwVfG)⁴³. It does not, however, know any category of algorithmically supported decision preparation through probabilistic systems. Learning systems, probabilistic forecasts and dynamic decision models find no statutory counterpart in the VwVfG.

b) Absence of a Normative Anchoring of HitL

HitL is at best derivable indirectly from the constitutional rule-of-law principle and Article 19(4) Basic Law, but is not normatively anchored in the VwVfG. There is no statutory duty of personal final decision-making, no clarification of the attribution of responsibility and no demarcation between delegable and non-delegable procedural steps. The Federal Constitutional Court has made clear that final decision-making powers that are not reviewable by courts require a statutory basis⁴⁴. An AI system that factually becomes the final decision-making authority establishes a decision-making level that is not legitimated within the normative hierarchy and is thus in conflict with the judicial authority. The violation of the separation of powers immanent in the rule-of-law principle⁴⁵ and the violation of Article 19(4) Basic Law are thus apparent.

c) The Obligation to Give Reasons Is Structurally Unfit for AI

The obligation to give reasons under Section 39(1) sentence 2 VwVfG requires communication of the grounds that moved the authority to its decision. The verb *moved* (*bewogen*) denotes a personal act of cognition — not the reproduction of a system output⁴⁶. System parameters of an AI that underlie an administrative decision must be incorporated into the statement of reasons in a normatively

⁴¹ M. Müller, [in:] *Administrative Procedure Act* (VwVfG), eds. W. Huck, M. Müller, 4th ed., Baden-Baden (Nomos) 2025, § 35 para. 1.

⁴² M. Müller, [in:] *Administrative Procedure Act* (VwVfG), eds. W. Huck, M. Müller, 4th ed., Baden-Baden (Nomos) 2025, § 35a para. 1.

⁴³ M. Müller, [in:] *Administrative Procedure Act* (VwVfG), eds. W. Huck, M. Müller, 4th ed., Baden-Baden (Nomos) 2025, § 3a para. 1.

⁴⁴ BVerfG, *NVwZ* 2011, p. 1062: “If the legislature wishes to restrict the judicial review of subjective rights it recognises, it must bear in mind that the final and binding interpretation of norms, as well as the review of their concrete application in individual cases, is in principle a matter for the courts. The legislature may not abandon the effectiveness of the judicial protection guaranteed by Art. 19(4) of the Basic Law by conferring on authorities final and binding decision-making powers over entire areas of law. The exemption of the application of law from judicial review always requires a sufficiently weighty substantive reason oriented towards the principle of effective legal protection”.

⁴⁵ *BeckOK Basic Law/Rux*, 64th ed., as of 15.11.2025, Basic Law Art. 20 para. 174.

⁴⁶ M. Müller, [in:] *VwVfG*, Hrsg. W. Huck, M. Müller, 4. Aufl., Baden-Baden (Nomos) 2025, § 39 Rn. 4.

mediated form: not technically, but as a legal classification of algorithmic contributions, together with an account of how the AI's recommendation influenced the decision. Mere self-disclosure by the AI is insufficient: a prompt such as 'explain the criteria by which you decide' produces at best a descriptive system representation, not a normative justification.

d) Absence of Documentation Duties for AI-Relevant Parameters

Record-keeping and documentation are oriented towards human decision-making processes and text-based (electronic) materials. Which AI-relevant information — training data, model versions, system parameters, decision parameters, prompts, *etc.* — must be documented and how judicial review is structurally prepared is not regulated by statute. This threatens a de facto reduction in the intensity of judicial scrutiny, in conflict with Article 19(4) Basic Law⁴⁷.

e) Need to Reform Section 35a VwVfG: Structured Discretion

The blanket prohibition on automating discretionary decisions in Section 35a VwVfG is incompatible with the risk-based approach of the AI Regulation: whereas the AI Regulation differentiates by the risk potential of deployment, Section 35a VwVfG prohibits automation for discretion as a blanket rule — irrespective of the risk in any individual case. A sound reform would need to distinguish between structured discretion (standardised discretion in mass administrative proceedings with high case volumes) and genuine balancing discretion. For the former, AI-supported decision preparation could be permitted under strict conditions; the latter remains a personal core domain.

f) No Legislative Reform Process in Sight

A reform of the VwVfG is neither resolved nor announced. The Federal Government has been piloting autonomous administrative agents in 17 municipalities since March 2026 — in naturalisation proceedings under Sections 10 et seq. of the Nationality Act (*Staatsangehörigkeitsgesetz*, StAG), in housing entitlement proceedings, and in social administration⁴⁸. The BMDS emphasises that its goal is to deploy AI in a lawful, efficient and scalable manner. For this purpose, it has established the AI Opportunities Marketplace (MaKI) as a transparency register and produced guidance on AI competence-building under the AI Regulation. These instruments are welcome; but they do not substitute for normative containment through procedural law. Scaling means: the same probabilistic models would be deployed in thousands of municipalities for equivalent administrative decisions — without normative standards in the VwVfG, without documentation duties, without secured reasoning structures. It appears as though administrative practice is about to outpace the legal framework.

⁴⁷ BVerfG, *ibidem*.

⁴⁸ BMDS, *Press Release: Agentic AI Hub – Piloting in Municipalities Commences*, 09 March 2026.

3. The Language-Competence/Methodology Paradox

a) The Apparent Strength: Enormous Language and Legal Material

Large language models are trained on text corpora of extraordinary scope, which contain a considerable proportion of legal texts: court judgments, statutes, commentaries, legal opinions and scholarly articles in numerous languages. This generates the widespread impression that an LLM possesses comprehensive legal knowledge. This assessment is not merely incomplete — its core component is structurally false. It rests on a confusion between *language competence* and *legal system competence*.

b) The Structural Paradox: Language Competence Is Not Legal System Competence

The language of a text — its lexical material, its syntactic structures, its argumentative patterns — is not a reliable indicator of the state embedding of the legal order from which that text derives. Language and legal order are categorically distinct attribution variables.

English is the official language of the United Nations⁴⁹ and of more than 58 states⁵⁰. In those states fundamentally different legal orders apply, differing in system affiliation (common law, civil law, hybrid systems), historical genesis, doctrinal tradition, doctrine of precedent and interpretive canon. A judgment of the Supreme Court of the United States follows different methods from a judgment of the Supreme Court of Kenya, the Singapore Court of Appeal or the High Court of Malta — although all four are written in English. An LLM lacks any structural signal that could make these legal-systemic differences identifiable — because they do not manifest themselves in language as such, but in the state-anchored normative order, its institutional history and its doctrinal tradition formation.

The same structure applies to Spanish, which is the official language of more than twenty states. Spanish, Argentine, Chilean, Cuban and Mexican law — all on the same language, all with a Romance basic structure, but with fundamentally different constitutional histories, different roles of case law and divergent doctrinal leading decisions. The Chilean Civil Code by Andrés Bello (1855) has a different genesis, methodological tradition and subsequent interpretive practice from the Spanish Código Civil of 1889 — although both are written in the same language. The confusion between linguistic proximity and legal-systemic identity is struc-

⁴⁹ United Nations, *Official languages*, <https://www.un.org/en/our-work/official-languages> [accessed on: 22.04.2026].

⁵⁰ Wikipedia, *List of countries and territories where English is an official language*, https://en.wikipedia.org/wiki/List_of_countries_and_territories_where_English_is_an_official_language [accessed on: 22.04.2026].

turally particularly hazardous in the Spanish-speaking legal space, because the similarity of terminology conceals the depth of doctrinal divergence.

c) Doctrinal and Historical Sedimentation as Non-Linguistic Information

Every national legal order is the product of a historical sedimentation process in which influences of diverse provenance have been condensed into a doctrinally independent system. Polish administrative law is a hybrid of pre-socialist administrative legal traditions, socialist state law doctrine and the European integration process that began after 1989. The interpretation of Article 107 § 3 of the *Kodeks postępowania administracyjnego* (KPA — Polish Code of Administrative Procedure) cannot be handled methodologically correctly without knowledge of these strata. The language model has absorbed the linguistic material of this tradition — not the tradition itself, because tradition is an institutional and historical fact standing outside the medium of word and language. In the Europeanised administrative law context this applies with particular force to the interplay of climate law, sanctions law and national administrative law: the Paris Agreement, the European Climate Law and the Federal Climate Protection Act (*Bundes-Klimaschutzgesetz*, KSG)⁵¹ follow their own validity logics and interpretive rules — international treaty law under Articles 31 et seq. VCLT, Union law under ECJ methodology with *effet utile*, national law under the Savigny canon overlain by the duty of conforming interpretation. An LLM trained on these texts has absorbed their linguistic patterns — not the normative hierarchy that governs among them.

d) The Consequence: Methodological Context Must Be Established Externally

LLMs possess enormous quantities of linguistic material from legal discourses, but this material has lost its legal-systemic context in the training process. The model has learned the language of law — not the methodology of the respective legal order.

The methodological context must be *established externally*. The system architecture must tell the model to which legal order a fact pattern belongs, which interpretive rules apply at that level, which normative hierarchy is relevant and which doctrinal leading decisions are to be treated as the framework. Without this external contextualisation — which cannot reside in the linguistic material of the training corpus, because it is a normative and institutional fact, not a linguistic one — the model is not capable of performing methodologically correct legal work.

For the deployment of AI in public administration the following applies: the administration cannot assume that a model trained on legal texts commands the methodology of German, Polish or Union administrative law. It must actively supply that methodology through the architecture of the system's control. The

⁵¹ Federal Climate Protection Act (KSG) of 12 December 2019, BGBl. I p. 2513.

sequence is: first the methodological context, then the use of the model — not vice versa. This grounds the requirement of level separation that is operationally translated into administrative law terms in the following section.

4. Methodological Command in the Europeanised Multi-Level System

The demands on methodological command intensify considerably when one takes into account that administrative law in EU Member States is no longer a purely national domain. Numerous areas are overlaid by Union law: climate law (UN Agenda 2030,⁵² Paris Agreement⁵³, European Climate Law⁵⁴, Emissions Trading Directive⁵⁵, Federal Climate Protection Act⁵⁶), sanctions law and procurement law. These levels each follow their own validity logics and interpretive rules.

Union law has an interpretive methodology that is categorially different from the German one. The *effet utile* developed by the ECJ⁵⁷ and the duty of conforming interpretation overlay the Savigny canon, supplemented by Article 51(1) of the EU Charter of Fundamental Rights⁵⁸. At the international level Article 31 et seq. VCLT applies⁵⁹. Each normative level carries its own methodological framework.

A methodologically uncontrolled system systematically confuses levels: it interprets international treaty law by ECJ methodology, treats IPCC reports⁶⁰ as legal norms or transfers the duty of conforming interpretation to primary law provisions. These confusions are formally difficult to detect in their outcome — and thereby particularly dangerous. The system architecture must structurally differentiate between normative levels, activate the applicable framework and indicate this level separation in the output.

⁵² UN General Assembly, Resolution A/RES/70/1 – Transforming Our World: The 2030 Agenda for Sustainable Development, adopted on 25 September 2015; W. Huck, *Sustainable Development Goals: Article-by-Article Commentary*, Baden-Baden (Nomos) 2022.

⁵³ UNFCCC/CP/2015/L.9/Rev.1, Paris Agreement, 12 December 2015, <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf> [accessed on: 22.04.2026].

⁵⁴ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality (European Climate Law).

⁵⁵ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading (Emissions Trading Directive).

⁵⁶ Federal Climate Protection Act (KSG) of 12 December 2019, BGBl. I p. 2513.

⁵⁷ M. Potacs, *Effet Utile as a Principle of Interpretation*, *EuR – Europarecht* 2009, p. 465.

⁵⁸ C. Calliess/M. Ruffert/T. Kingreen, *EU Charter of Fundamental Rights*, 6th ed., Munich (C.H. Beck) 2022, Art. 51 paras. 4–6.

⁵⁹ T. Berner, *Authentic Interpretation in Public International Law*, *ZaöRV – Zeitschrift für ausländisches öffentliches Recht und Völkerrecht* 2016, p. 845.

⁶⁰ Intergovernmental Panel on Climate Change (IPCC), About, <https://www.ipcc.ch/about/> [accessed on: 22.04.2026].

5. Procedural Differentiation: Where AI Is Applicable — and Where It Is Not

In bound mass proceedings with high norm density — charges, fees, straight-forward benefit grants — AI-supported decision preparation is comparatively unproblematic. Structurally problematic, however, is AI deployment wherever discretionary decisions with fundamental rights relevance are required, where atypical constellations demand context-sensitive subsumption, or where the statement of reasons requires an evaluative overall assessment.⁶¹ Section 40 VwVfG binds the exercise of discretion to the purpose of the empowering provision — in Europeanised administrative law regularly a purpose overlain by Union law, which a methodologically uncontrolled system cannot correctly grasp. The distinction is doctrinal in nature, not technical.

IV. European Law Overlay: The AI Regulation and the KI-MIG

1. The AI Regulation as Directly Applicable Union Law

Since 1 August 2024 the AI Regulation has applied as directly applicable Union law (cf. Article 288 TFEU). General applicability enters on 2 August 2026; the governance rules and obligations for general-purpose AI (GPAI) models have applied since 2 August 2025. For public administration, Article 6(2) in conjunction with Annex III of the AI Regulation is particularly relevant: law enforcement, migration, asylum, border control, justice and democracy, the grant of essential public services, and biometrics are classified as high-risk AI systems subject to the most stringent requirements. For high-risk AI systems Article 14 of the AI Regulation prescribes human oversight as a mandatory system requirement — the Union-law operationalisation of the jurisprudentially grounded HitL requirement, albeit without its concretisation in national procedural law.

On 19 November 2025 the European Commission proposed — as part of the Digital Omnibus — a shift in the deadlines for high-risk AI systems under Annex III of the AI Regulation by up to eighteen months to 2 December 2027⁶². The legislative procedure had not been completed as of March 2026; the currently applicable deadlines remain binding until an agreement is reached.

⁶¹ N. Carstens, J. Thiele, Use of Artificial Intelligence in the Context of Public Participation in Plan Approval Procedures, *LKV – Landes- und Kommunalverwaltung* 2025, p. 385, first part, and LKV 2026, 13, second part.

⁶² Proposal for a Regulation amending Regulations (EU) 2024/1689 and (EU) 2018/1139 (Digital Omnibus for AI), COM(2025) 836 final, <https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A52025PC0836> [accessed on: 22.04.2026].

2. The KI-MIG: Institutional Architecture of Market Supervision

The AI Market Surveillance and Innovation Act (*Künstliches-Intelligenz-Marktüberwachungs- und Innovationsförderungsgesetz*, KI-MIG), adopted by the Federal Government and submitted to the parliamentary procedure, is designed to establish the national institutional infrastructure for implementing the AI Regulation⁶³. The Government Draft was adopted by the Cabinet on 11 February 2026⁶⁴. The authority architecture follows the principle of institutional path-fidelity: existing sector-specific supervisory structures are loaded with competences under the AI Regulation rather than disrupted.

Under Section 2(1) KI-MIG, the Federal Network Agency (*Bundesnetzagentur*, BNetzA) is designated as the central market surveillance authority. For high-risk AI systems in particularly sensitive areas, an independent AI Market Surveillance Chamber is established under Section 2(5) in conjunction with Section 4 KI-MIG, which under Section 4(3) KI-MIG acts independently of instructions and reports annually to the Bundestag. In the financial sector, the Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*, BaFin) becomes the competent market surveillance authority under Section 2(3) KI-MIG; the Federal Institute for Occupational Safety and Health (*Bundesanstalt für Arbeitsschutz und Arbeitsmedizin*, BAuA) assumes the function of the national focal point for notification to the European Commission under Section 7 KI-MIG. The Federal Office for Information Security (*Bundesamt für Sicherheit in der Informationstechnik*, BSI) communicates information on non-conformity with cybersecurity requirements under Section 10 KI-MIG. The Coordination and Competence Centre (Section 5 KI-MIG) is to secure coherent application of law across sectoral boundaries — without powers of instruction vis-à-vis the sectoral authorities. The fragmentation of competences across diverse subordinate authorities and their respective ministerial portfolios makes a degree of nuance in future application not unlikely — likely to produce divergences or coincidental convergences particularly in structurally analogous cases. The Federal Chancellery could then be the higher-ranking hierarchical level that smooths out different application practices through ‘instructions’.

⁶³ Draft Act implementing Regulation (EU) 2024/1689 (Act on AI Market Supervision and Innovation Promotion – KI-MIG), Government Bill, <https://bmds.bund.de/themen/kuenstliche-intelligenz/ki-regulierung> [accessed on: 22.04.2026].

⁶⁴ T. Roth-Isigkeit, AI Supervision on the Home Straight, *KIR – Künstliche Intelligenz und Recht* 2025, p. 356.

3. The Regulatory Incongruence

The KI-MIG is an implementing statute for the AI Regulation — not a statute to modernise administrative procedural law. This gap is legally systematic in its significance. From 2 August 2026, the stringent requirements of the AI Regulation apply to virtually all high-risk deployment areas of public administration. The VwVfG remains unchanged. Public authorities as operators of AI systems within the meaning of Article 3(4) of the AI Regulation will be obliged under Union law to implement HitL measures — without national procedural law regulating their configuration. The norm collision between the Union-law operator duty and a VwVfG that remains legally unconcerned is real from August 2026 onwards and no longer merely hypothetical.

V. Digital Sovereignty as a Condition of Lawfulness

1. The ICC Precedent and Its Normative Structure

In February 2025, the US Government imposed sanctions on the International Criminal Court (ICC) in response to an arrest warrant against the Israeli Prime Minister. In immediate consequence, the Microsoft account of the Prosecutor Karim Khan was suspended; Microsoft informed the ICC that the service relationship would have to be terminated on account of the US sanctions. Whatever the disputed details of responsibility — Microsoft disputed having made an independent suspension decision — the rule-of-law finding stands: the connection between the normative mandate of an international institution and its operational infrastructure was interruptible by a private-law provider that itself is subject to a foreign statutory access regime⁶⁵.

This precedent is so far singular but reveals a structurally deficient state of affairs. In Germany, approximately 70% of public data are estimated to reside in US cloud environments. The Federal Government's Microsoft expenditure was 198 million euros in 2023 and 481.4 million euros in 2025⁶⁶, a rising trend⁶⁷ — notwithstand-

⁶⁵ K. Ambos, The Sanctioning of Law, *VerfBlog* 18 December 2025, <https://verfassungsblog.de/sanctions-us-icc-united-states/> [accessed on: 22.04.2026]; J. Galbraith, U.S. Sanctions on the ICC, *VerfBlog* 07 June 2025; Opinio Juris, Potential Implications of US Sanctions on the ICC's Use of AI and Digital Evidence, 25 February 2025, <https://opiniojuris.org/2025/02/25/artificial-sanctions-potential-implications-of-us-sanctions-on-the-iccs-use-of-ai-and-digital-evidence/> [accessed on: 22.04.2026].

⁶⁶ R. Lenhard, My Written Parliamentary Question Reveals: €481.4 Million for Microsoft Licences, <https://rebecca-lenhard.de/news/meine-schriftliche-legt-offen-481-4-mio-euro-fur-microsoft-lizenzen/> [accessed on: 22.04.2026].

⁶⁷ Reply of the Federal Government to a Minor Interpellation, BT-Drs. 20/12864 of 6 September 2024.

ing the existence of the state-supported Centre for Digital Sovereignty of Public Administration (*Zentrum für Digitale Souveränität der Öffentlichen Verwaltung*, ZenDiS)⁶⁸ and openDesk⁶⁹ as alternatives.

2. The CLOUD Act as a Normative Problem of Lawfulness

The Clarifying Lawful Overseas Use of Data Act (CLOUD Act) of the United States of 23 March 2018 obliges US providers of electronic communication services under 18 U.S.C. § 2713 to disclose data in their possession, custody or control on governmental demand — irrespective of where the data are physically stored⁷⁰. Microsoft confirmed before a French court in June 2025 that it could not guarantee digital sovereignty should US authorities demand access to data stored in Europe under the CLOUD Act⁷¹.

The connection to the jurisprudential foundation in Section II is immediate: Kelsen's Grundnorm and Hart's Rule of Recognition identify the normative basis of validity of a legal order as that which is structurally non-delegable. If, however, the infrastructure on which AI-supported decision preparation takes place is subject to a foreign extraterritorial statutory access regime that can be activated at any time without judicial oversight by the affected state, then the operative foundation of the decision — the availability of the system, the integrity of the data, the reconstructibility of the audit trail — is not normatively secured. The decision may be formally lawful and its foundation nonetheless structurally unsovereign, remaining tainted by a shadow.

3. Consequences for Article 19(4) Basic Law

Effective legal protection under Article 19(4) sentence 1 Basic Law presupposes that the grounds for decision are reconstructible and fully accessible to state scrutiny. Gaps in the factual basis, in the decision system, represent a 'black box' in the normative chain of the obligation to give reasons resting on the facts and the application of law. An audit trail that resides on a platform accessible extraterritorially to US authorities under 18 U.S.C. § 2713 at any time is not a sovereign audit trail in the rule-of-law sense. Digital sovereignty remains a condition of lawfulness for

⁶⁸ ZenDiS – Centre for Digital Sovereignty of Public Administration, <https://www.zendis.de/> [accessed on: 22.04.2026].

⁶⁹ openDesk – flexible office and collaboration suite for public administration, provided by ZenDiS on behalf of the Federal Ministry of the Interior and Community.

⁷⁰ J. Daskal, Congress Enacts the CLOUD Act, *American Journal of International Law* 2018, vol. 112, no. 3, p. 487, <https://doi.org/10.1017/ajil.2018.61> [accessed on: 22.04.2026].

⁷¹ Dr. Datenschutz, Microsoft Cannot Prevent US Access to EU Cloud, 24 July 2025, <https://www.dr-datenschutz.de/microsoft-kann-us-zugriff-auf-eu-cloud-nicht-verhindern/> [accessed on: 22.04.2026].

AI-supported administrative decisions — one that follows from the foundational principles of the rule of law.

Methodological command without sovereign infrastructure falls short of the rule-of-law requirement for sovereign availability of the grounds for decisions as part of the exercise of public authority. Methodological command without sovereign infrastructure is constitutionally insufficient; sovereign infrastructure without methodological command is likewise insufficient. Both together are necessary — though not sufficient — conditions for the constitutional quality of AI-supported administrative decisions. This distinguishes the system sovereignty question categorically from the regulatory debate: it does not suffice to enact the right AI regulatory rules; it must also be ensured that the infrastructure on which those rules are implemented is normatively sovereign. Neutralisations or access restrictions of varying temporal and substantive scope generate gaps in a closed reasoning chain subject to judicial review. The administrative decision thereby becomes a truncated account of the facts and thus inadequate for the underlying discretionary or bound administrative decision.

4. The Germany Stack as an Incomplete Answer

The Germany Stack (*Deutschland-Stack*, D-Stack) of the BMDS is conceived as a national technology platform providing interoperable, reusable basic services. On 13 March 2026, the Federal Government and the Länder agreed on its joint implementation. The priority use of open-source offerings and European providers is stated as a goal; the use of ZenDiS and openDesk as alternatives to US infrastructure is institutionally envisaged. The D-Stack is thus the infrastructural response to the sovereignty problem — albeit one that is not binding. As long as the D-Stack is not mandatory and the administration continues to operate predominantly on US infrastructure, the lawfulness problem of the CLOUD Act persists.

VI. Eleven Theses

- **Thesis 1:** Epistemics and normativity must be categorially separated. An LLM can generate methodologically correct, logically consistent legal argumentation options. What remains structurally closed to it is the normative claim to validity: the capacity to assume the Grundnorm, to assent to the Rule of Recognition and to assume responsibility for the binding force of the decision;
- **Thesis 2:** Human-in-the-Loop (HitL) establishes the necessary connection between AI's epistemic performance and the normative claim to validity. It is both regulatorily mandated (Article 14 AI Regulation) and jurisprudentially necessary. Its effectiveness is given when the deciding official possesses

legal-methodological competence and the system additionally operates on sovereign infrastructure. The deceptive HitL facade — formally human final decision with materially algorithmic pre-determination — is the central implementation risk;

- **Thesis 3:** Language competence is not legal system competence. LLMs possess enormous quantities of linguistic material from legal discourses, but this material has lost its legal-systemic context in the training process. English is an official language in more than 58 states with different legal orders and their inherent methodologies; statistical proximity in the vector space between legal texts from different legal orders does not necessarily correlate with the doctrinal-methodological content of the respective legal concept. The methodological context must be established externally — as a normative system architecture with constraints functioning as guardrails;
- **Thesis 4:** The system parameters of an AI are simultaneously part of the grounds for decision and must be disclosed and justifiable in a normatively traceable manner. The administration cannot have its statement of reasons explained to it by the machine;
- **Thesis 5:** Administrative law is structurally Europeanised — and sometimes internationally influenced — and AI systems must map the specificities of the multi-level system. National administrative decisions are embedded in a multi-level system encompassing primary, secondary and tertiary Union law. Those who deploy AI in administration without mapping this level structure in system architecture deploy a methodologically unfit instrument. AI merely perpetuates the frozen methodology of its training data. The methodology architecture is an external steering performance by means of constraints not immanent to an LLM system;
- **Thesis 6:** Methodological control is a precondition of lawfulness. The obligation to give reasons under Section 39(1) sentence 2 VwVfG, the binding of discretion under Section 40 VwVfG and the guarantee of effective legal protection under Article 19(4) sentence 1 Basic Law require methodologically reconstructible decisions. AI without traceable methodological control is not a modernisation of administrative law — it promotes its hollowing out;
- **Thesis 7:** The system-parameters argument sets a categorial limit. What the administration cannot state as reasons normatively it may not allow to pre-determine algorithmically. System parameters that cannot be translated into a legally traceable argument are procedurally impermissible — irrespective of whether they produce technically correct results;
- **Thesis 8:** Digital sovereignty is a condition of lawfulness, not merely technology policy. An administrative authority that operates its AI system on US

- infrastructure possesses no sovereign audit trail. Without a sovereign audit trail, effective legal protection under Article 19(4) sentence 1 Basic Law is structurally jeopardized;
- **Thesis 9:** The legislature is called upon: VwVfG reform as a matter of urgency. The reform must at minimum first establish a conceptual category for AI-supported decision preparation; second, anchor HitL as a statutory standard; third, extend Section 39 VwVfG to include disclosure duties for system parameters; fourth, introduce documentation duties for judicial reviewability; and fifth, replace Section 35a VwVfG with a differentiation between structured discretion and genuine balancing discretion;
 - **Thesis 10:** The scientific task is set: jurisprudence, administrative law and system architecture must work together. What normative status do AI-generated arguments acquire in the administrative decision? Who bears responsibility when methodologically flawed AI outputs enter into legally binding administrative acts? What statutory foundations does an auditable, methodologically controlled AI architecture on sovereign infrastructure require?;
 - **Thesis 11 (supplementary):** The regulatory incongruence between the AI Regulation (applicable from August 2026), the KI-MIG and the unreformed VwVfG is no longer hypothetical from August 2026. Public authorities as operators of high-risk AI systems are subject to Article 14 of the AI Regulation without national procedural law providing guidance on how to configure the required human oversight in the administrative procedure. This gap is a legislative deficiency to be remedied urgently.

VII. Summary

The current situation of German administrative law in its engagement with artificial intelligence is characterised by four structural problem areas. First, at the technological level, there is a marked disparity between the dynamism of actual AI deployment (including in the area of agentic AI systems) and the speed of legislative adjustment; in particular, a reform of the VwVfG that would be necessary for this purpose is currently not discernible. Second, at the normative level, a tension arises from the fact that the AI Regulation obliges public authorities from August 2026 to implement Human-in-the-Loop measures under Article 14, while the VwVfG leaves the specific applicability of AI in administrative procedure unregulated, producing a norm collision between the Union-law operator duty and national procedural law. Third, the Europeanised structure of administrative law itself generates heightened requirements on methodological control that an LLM can only meet through a system architecture with external methodological con-

straints — a structural demand that neither the KI-MIG nor the current VwVfG addresses. Fourth and finally, at the geopolitical level, there persists a sustained tension between the normative validity claim of German administrative law, the claim to judicial review under Article 19(4) Basic Law, and the factual embedding of the underlying AI infrastructure in foreign legal spheres — in particular through the applicability of the extraterritorially operative US CLOUD Act — raising fundamental questions of lawfulness that existing regulation does not resolve.

References

Literature

- Ambos K., The Sanctioning of Law, *VerfBlog* 18 December 2025.
- Bantekas I., Bratsiakou E., Automated Decision-Making Systems and Black Box Challenges Under European Union Administrative Law, *Fordham International Law Journal* 2026, vol. 49, no. 1, pp. 1 ff.
- Baumer F., Large Language Models Under the Scrutiny of the RDG, *RD i – Recht Digital* 2026, pp. 8 ff.
- Berner T., Authentic Interpretation in Public International Law, *ZaöRV – Zeitschrift für ausländisches öffentliches Recht und Völkerrecht* 2016, pp. 845 ff.
- Besio C. et al., Responsible Machines Without Accountability?, *Soziale Systeme* 2022, pp. 129–159.
- Brauner F., Murawski M., Bick M., The Development of a Competence Framework for Artificial Intelligence Professionals Using Probabilistic Topic Modelling, *Journal of Enterprise Information Management* 2025, pp. 197 ff.
- Calliess C., Ruffert M., Kingreen T., *EU Charter of Fundamental Rights*, 6th ed., Munich (C.H. Beck) 2022.
- Carstens N., Thiele J., Use of Artificial Intelligence in the Context of Public Participation in Plan Approval Procedures, *LKV – Landes- und Kommunalverwaltung* 2025, pp. 385 ff, first part, and *LKV* 2026, pp. 13, second part.
- Chandra Y., Feng S., Algorithms for a New Season? Mapping a Decade of Research on AI-Driven Digital Transformation of Public Administration, *Public Management Review* 2026, pp. 620 ff.
- Daskal J., Congress Enacts the CLOUD Act, *American Journal of International Law* 2018, vol. 112, no. 3, pp. 487 ff.
- Dornis T.W., Generative AI Training and the TDM Fallacy, *GRUR – Gewerblicher Rechtsschutz und Urheberrecht* 2024, pp. 1681 ff.
- Galbraith J., U.S. Sanctions on the ICC, *VerfBlog* 7 June 2025.
- Guckelberger A., Germany's (Lag in) Administrative Digitalisation, *LTZ – LegalTech: Zeitschrift für die digitale Rechtsanwendung* 2023, pp. 167 ff.
- Hart H.L.A., *The Concept of Law*, 2nd ed., Oxford (Clarendon Press) 1994.
- Hebing A., Kastlunger E., Artificial Intelligence in Sales and Marketing, *ZVertriebsR – Zeitschrift für Vertriebsrecht* 2026, pp. 957 ff.
- Herdegen M., *Public International Law*, 23rd ed., Munich (C.H. Beck) 2024.
- Huck W., *Sustainable Development Goals: Article-by-Article Commentary*, Baden-Baden (Nomos) 2022.
- Huck W., Müller M. (eds.), *Administrative Procedure Act (VwVfG) – Commentary*, 4th ed., Baden-Baden (Nomos) 2025.
- Jin P. et al., MoH: Multi-Head Attention as Mixture-of-Head Attention, arXiv:2410.11842 (2024).
- Kelsen H., *Pure Theory of Law*, 1st ed., Leipzig–Vienna (Deuticke) 1934; study edition, ed. M. Jestaedt, Tübingen (Mohr Siebeck) 2008.
- Kirschke-Biller J., Füßsack A., [in:] *BeckOK AI Law*, 5th ed., Munich (C.H. Beck), as of 01.11.2025.

- Köhler H., Feddersen J., Köhler M., *Act Against Unfair Competition* (UWG), 44th ed., Munich (C.H. Beck) 2026.
- Lacmanovic D., Skare M., Artificial Intelligence Bias Auditing, *Review of Accounting and Finance* 2025, vol. 24, no. 3, pp. 375 ff.
- Lemnitzer L., Würzner K.-M., The Word in Language Technology, [in:] *Handbook of Word and Vocabulary*, vol. 3, eds. U. Haaß-Zumkehr, W. Kallmeyer, G. Zifonun, Berlin–Boston (de Gruyter) 2015, pp. 297 ff.
- Möllers C., The Significance of Language Models Such as ChatGPT Using the Example of Savigny's Canon of Interpretation, [in:] *Legal Methodology and Digitalisation*, Potsdam (Universitätsverlag Potsdam) 2024, pp. 55–93.
- Müller A., Digitalisation of Paper in Public Administration, *RD i – Recht Digital* 2024, pp. 557 ff.
- Natarajan S. et al., Human-in-the-loop or AI-in-the-loop? Automate or Collaborate?, [in:] *Proceedings of the AAAI Conference on Artificial Intelligence*, 2025, vol. 39, no. 27, pp. 28594 ff.
- Nussbaum A., *Legal Facts Research: Its Significance for Scholarship and Teaching*, Tübingen (J.C.B. Mohr) 1914.
- Potacs M., Effet Utile as a Principle of Interpretation, *EuR – Europarecht* 2009, pp. 465 ff.
- Prell S., Altmiks N., The Fifth Act Amending Provisions of Administrative Procedure Law, *NVwZ – Neue Zeitschrift für Verwaltungsrecht* 2024, pp. 105 ff.
- Rehbinder M., *The Founding of the Sociology of Law by Eugen Ehrlich*, Berlin (Duncker & Humblot) 1967.
- Roth-Isigkeit T., AI Supervision on the Home Straight, *KIR – Künstliche Intelligenz und Recht* 2025, pp. 356 ff.
- Rux J., [in:] *BeckOK Basic Law*, 64th ed., Munich (C.H. Beck), as of 15.11.2025.
- Savigny F.C. von, *System of the Modern Roman Law*, vol. 1, Berlin (Veit) 1840.
- Schoch F., Schneider J.-P., Knauff M., *Administrative Procedure Act* (VwVfG), Munich (C.H. Beck), 7th supplementary instalment 2025.
- Stelkens P., Bonk H.J., Sachs M., Stelkens U., *Administrative Procedure Act* (VwVfG), 10th ed., Munich (C.H. Beck) 2022.
- Streinz R., Huber P.M., *Treaty on European Union / Treaty on the Functioning of the European Union* (EUV/AEUV), 3rd ed., Munich (C.H. Beck) 2018.
- Tiedemann P., [in:] *BeckOK Administrative Procedure Law*, 70th ed., Munich (C.H. Beck), as of 01.01.2026.
- van Bekkum M., Using Sensitive Data to De-bias AI Systems, *Computer Law & Security Review* 2025, vol. 56.
- Vaswani A. et al., Attention Is All You Need, [in:] *Proceedings of the 31st Conference on Neural Information Processing Systems* (NeurIPS), 2017.
- von Lewinski K., [in:] *BeckOK Data Protection Law*, 55th ed., Munich (C.H. Beck), as of 01.02.2026.
- Yang Z. et al., Plug in the Safety Chip: Enforcing Constraints for LLM-Driven Robot Agents, [in:] *Proceedings of the 2024 IEEE International Conference on Robotics and Automation* (ICRA), 2024.
- Zhang Y. et al., Large Language Models: A Survey, arXiv:2402.06196v2 (2024).

Internet Sources

- Federal Ministry of the Interior and Community (BMI), *Guidelines for the Use of Artificial Intelligence in the Federal Administration*, March 2025. https://www.bmi.bund.de/SharedDocs/downloads/DE/publikationen/themen/moderne-verwaltung/ki/BMI25020-leitlinien-ki-bundesverwaltung.pdf?__blob=publicationFile&cv=4 [22.04.2026]
- Federal Ministry for Digital Affairs and State Modernisation (BMDS), Press Release: Agentic AI Hub – Piloting in Municipalities Commences, 9 March 2026. <https://bmds.bund.de/themen/kuenstliche-intelligenz/ki-in-der-verwaltung/agentic-ai-hub> [accessed on: 22.04.2026]

- Federal Ministry for Digital Affairs and State Modernisation (BMDS), AI Regulation: Government Bill KI-MiG, <https://bmds.bund.de/themen/kuenstliche-intelligenz/ki-regulierung> [accessed on: 22.04.2026].
- Deutsche Welle, Estonia is Europe's Champion of Digitalisation, 20 July 2025, <https://www.dw.com/de/estland-digitalisierung-deutschland-analog-voll-digital-eurostack/a-73335359> [accessed on: 22.04.2026].
- Dr. Datenschutz, Microsoft Cannot Prevent US Access to EU Cloud, 24 July 2025, <https://www.dr-datenschutz.de/microsoft-kann-us-zugriff-auf-eu-cloud-nicht-verhindern/> [accessed on: 22.04.2026].
- European Commission, Proposal for a Regulation amending Regulations (EU) 2024/1689 and (EU) 2018/1139 (Digital Omnibus for AI), COM(2025) 836 final, <https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A52025PC0836> [accessed on: 22.04.2026].
- Intergovernmental Panel on Climate Change (IPCC), About, <https://www.ipcc.ch/about/> [accessed on: 22.04.2026].
- AI Marketplace (MaKI), <https://www.kimarktplatz.bund.de> [accessed on: 22.04.2026].
- Lenhard R., My Written Parliamentary Question Reveals: €481.4 Million for Microsoft Licences, <https://rebecca-lenhard.de/news/meine-schriftliche-legt-offen-481-4-mio-euro-fur-microsoft-lizenzen/> [accessed on: 22.04.2026].
- Conference of Minister-Presidents with the Federal Chancellor, Resolution of 4 December 2025, https://bmds.bund.de/fileadmin/BMDS/Dokumente/2025-12-04-mpk-staatsmodernisierung-data_CDR.pdf [accessed on: 22.04.2026].
- Opinio Juris, Potential Implications of US Sanctions on the ICC's Use of AI and Digital Evidence, 25 February 2025, <https://opiniojuris.org/2025/02/25/artificial-sanctions-potential-implications-of-us-sanctions-on-the-iccs-use-of-ai-and-digital-evidence/> [accessed on: 22.04.2026].
- United Nations, Official Languages, <https://www.un.org/en/our-work/official-languages> [accessed on: 22.04.2026].
- Wikipedia, List of Countries and Territories Where English is an Official Language, https://en.wikipedia.org/wiki/List_of_countries_and_territories_where_English_is_an_official_language [accessed on: 22.04.2026].
- ZenDiS – Centre for Digital Sovereignty of Public Administration, <https://www.zendis.de/> [accessed on: 22.04.2026].