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Automated Decision-Making Systems in German Administrative Law

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Questo contributo analizza il quadro giuridico tedesco con riguardo ai sistemi decisionali automatizzati. La pubblica amministrazione in Germania utilizza sistemi decisionali automatizzati principalmente per adottare atti amministrativi parzialmente o completamente automatizzati. Di conseguenza, l'analisi si concentra sugli atti amministrativi automatizzati; tuttavia, si discute anche della prima regolamentazione completa in materia di Intelligenza Artificiale emanata da un "Bundesland" tedesco. Il contributo esamina l'argomento da tre diverse prospettive: il quadro legislativo tedesco, la giurisprudenza e il diritto non vincolante in materia di sistemi decisionali automatizzati.

This contribution analyses the German legal framework concerning automated decision-making systems. Public administration in Germany uses automated decision-making systems primarily to adopt partially or fully automated administrative acts. Accordingly, this paper focuses on automated administrative acts, however, it also discusses the first comprehensive regulation of artificial intelligence enacted by a German "Bundesland". The paper approaches the topic from three different perspectives: The German legislative framework, case-law and soft-law concerning automated decision-making systems.

1. Introduction[1]

The scope of application of advanced automated decision-making systems in the German administration is still limited although the Federal Administrative Procedure Act of 1976 (Verwaltungsverfahrensgesetz (VwVfG)) already provided specific rules for administrative acts issued «*with the help of automatic equipment*» and the legislator integrated in 2017 additional rules for fully automated adoption of administrative acts. However, German authorities are still primarily using algorithms only to support human decision-making, meaning that information is digitally prepared for humans adopting the final decision[2]. In contrast, fully or partially automated final adoption of administrative acts remains an exception. One example governed by the Federal Administrative Procedure Act concerns traffic lights as their steering of traffic qualifies according to German doctrine as the issuance of administrative acts[3]. Particularly instructive is the case of social and financial administration. These administrative areas are characterized by a large number of mass procedures, which are especially appropriate for automated decision-making[4]. In addition, in the context of administrative rulemaking, public administration deploys automated decision-making systems only to an even more limited extent[5] and the German law does not provide procedural rules in this regard.

This contribution analyses various components of the German legal framework concerning automated decision-making systems: Part 2 examines German statutory law. Part 3 discusses relevant case law and Part 4 highlights the influence of soft law on the development of automated decision-making systems. Finally, Part 5 draws some conclusions about regulatory gaps in German administrative law concerning automated decision-making systems.

2. The German legislative framework concerning automated decision-making systems in public administration

The German legislative framework for automated decision-making systems used by public administration is structured in accordance to the degree of automation of administrative acts. This paper follows this approach and analyses first provisions for administrative acts issued with the help of automatic equipment (→ 2.1.), second those for fully automated administrative acts (→ 2.2.) and thirdly the regulatory gap concerning support of human decision-making by data-driven information technologies (→ 2.3). In a fourth step, the paper examines the first comprehensive regulation of AI in Germany enacted by the state (Bundesland) of Schleswig-Holstein in 2022 (→ 2.4.). The paper then discusses whether the provisions are compatible with Art. 22 GDPR (→ 2.5.).

For a better understanding of the following analysis two general remarks about the structure of codified German administrative procedural law are necessary: Due to the federal system in Germany, the national legal framework is composed of federal and state law. More specifically, in administrative law the Federal Administrative Procedure Act regulates the administrative procedure for public administrative activities of federal authorities (Bundesbehörden), whereas sixteen State Administrative Procedure Acts (Landesverwaltungsverfahrensgesetze (LVwVfGe)) apply for the activities of state and local authorities (Länder- und Kommunalbehörden)[6]. Following the concept of so-called (vertical) "simultaneous legislation", the State Administrative Procedure Acts were adopted almost identically to the wording of the Federal Administrative Procedure Act. Therefore, the discussion in this paper on provisions of the Federal Administrative Procedure Act also applies to the corresponding provisions of the State Administrative Procedure Acts. However, some states like for instance Baden-Württemberg consider to introduce innovative rules on automated decision-making into their Administrative Procedure Acts (→ 4.)

Another important feature of the German legal order of automated administrative decision-making is the "Three-Column-Model" of Germany's codification of administrative procedural law[7]. According to this legislative concept German administrative procedural law consists not only of the VwVfG but encloses also more or less parallel procedural rules for tax authorities in a

Fiscal Code (Abgabenordnung (AO)) as well as for social security administration in Social Code Book X (Sozialgesetzbuch X (SGB X)). This horizontal "simultaneous legislation" is of particular interest in the field of digital administration as tax and social security procedures are typical examples of mass administration especially suitable for automated decision-making (→ 2.1.; 2.2.1.2.; 2.2.1.3.). Accordingly, the legislative discussion about introducing specific rules for fully automated administrative decision-making into Germany's codifications of administrative procedural law started in tax law.

2.1. Regulation of administrative acts issued with the help of automatic equipment

As already mentioned (→ 1.) the VwVfG included provisions for administrative acts issued «*with the help of automatic equipment*» («*mit Hilfe automatischer Einrichtungen*») since its enactment in 1976[8]. These provisions still exist in § 28(2)(No. 4), § 37(5), § 39(2)(No. 3) VwVfG. Administrative acts issued with the help of automatic equipment are characterised by the fact that humans carry out the fact-finding in the administrative procedure, while automatic systems make the final decision, which is usually based on calculations, and issue the administrative act[9]. Typically, such semi-automated administrative acts are issued in mass proceedings in tax and social security law[10] based on specific procedural rules for fiscal or social security authorities (§ 91(2)(No. 4), § 119(3)(2), § 121(2)(No. 3) AO and § 33(5)(1), § 35(2)(Nr. 3) SGB X).

These provisions regulate exceptions from certain requirements of communication. In particular, they allow that the authority can dispense a hearing (§ 28(2)(No. 4) VwVfG, § 91(2)(No. 4) AO), certain formal requirements (§ 37(5) VwVfG, § 119(3)(2) AO, § 33(5)(1) SGB X) and the statement of reasons (§ 39(2)(No. 3) VwVfG, § 121(2)(No. 3) AO, § 35(2)(Nr. 3) SGB X) if it issues an administrative act with the help of automated equipment. However, the impact of these exemptions has been limited due to their restrictive application in accordance with constitutional principles[11]. As these rules focus on exceptions from formal communication rules in order to enable partially automated decision-making and formal issuance of administrative acts based on human fact-finding they are not addressing problems connected with final

human decision-making based on informational input or other support by information technologies. Consequently, the latter variant of semi-automated decision-making is not classified as an issuance of administrative acts with the help of automatic equipment and falls into a remarkable regulatory gap (→ 2.3.). In addition, the mentioned provisions primarily aim to remove legal barriers, instead of actively shaping digital administrative change[12]. The proactive design of the digital transformation of public administration has only been promoted in national administrative law since 2013 under the paradigm of electronic government, which focuses mainly on electronic communication including electronic files or on single digital gateways and still faces problems concerning its effective implementation in Germany's federated and dispersed administrative structures[13].

2.2. Regulation of fully automated administrative acts

In contrast to partially automated administrative acts, fully automated administrative acts are adopted in procedures in which all procedural steps including the fact-finding are controlled by automatic systems[14]. In the case of automated administrative acts, there is an increased risk of exceptional circumstances not being taken into account since automatic systems tend to be based on standardised ideas about reality for reasons of efficiency[15]. The rules on fully automated administrative acts, therefore, capture two points to ensure that exceptional circumstances are considered in the administrative procedure: Firstly, they confine the admission of fully automated decision-making in German administrative law (→ 2.2.1.). And secondly, procedural rules guarantee the careful investigation of individual cases (→ 2.2.2.)[16].

2.2.1. Legislative variations of confined admission of fully automated decision-making in German administrative law

Since 2017 fully automated administrative acts are regulated in the Federal Administrative Procedure Act[17] (→ 2.2.1.1.) as well as in the German Fiscal Code (AO) (→ 2.2.1.2.) and in Social Code Book X (SGB X) (→ 2.2.1.3.). The three provisions were originally intended to pursue the same regulatory purpose

of admitting fully automated decision-making under certain limitations guided by the rule of law and the principle of fair procedure. However, their divergent legislative genesis resulted in three different regulatory approaches[18]. German administrative law therefore does not have a uniform procedural concept of fully automated decision-making[19].

2.2.1.1. § 35a VwVfG

In comparison, § 35a VwVfG provides the most restrictive concept for the fully automated issuance of administrative acts. The provision allows such fully automated decision-making only under two conditions: First, the fully automated issuance must be authorised by a separate legal basis. Second, the administrative authority must not have any discretion.

With regard to the first condition, today numerous provisions in German law authorise the issuance of fully automated administrative acts (*e.g.* § 6g(2)(1) StVG, § 22 BattG, § 38a ElektroG, § 3a BRKG, § 51(6) BBhV, § 1(2) ElektroGBattGGebV, § 5 ChemBiozidDV)[20].

Regarding the second condition, the wording of § 35a VwVfG mentions two concepts of discretionary powers: «*Ermessen*» and «*Beurteilungsspielraum*». According to traditional German doctrine and in contrast to most European legal orders these concepts are rather distinct both with regard to their theoretical background and to their doctrinal – especially constitutional – and practical acceptance[21]. Both concepts provide margins of appreciation for the administration and reduce the standards of judicial review. "*Ermessen*" concerns the choice between various administrative actions or legal consequences in a legally defined situation and is widely accepted although only within limits under the rule of law like especially the principle of proportionality. In contrast, "*Beurteilungsspielraum*" refers to margins of appreciation with regard to the legal conditions defining situations in which administrative powers apply[22]. In addition, a "*Beurteilungsspielraum*" is only in rather few cases accepted as the German courts and doctrine follow the idea of usually full judicial reviewability of the interpretation of legal conditions even with regard to rather vague or open terms such as public danger. Consequently, the exclusion of fully automated decision-making in both types of discretionary powers is correctly criticised as

both being too restrictive as well as covering not all cases of complex administrative decision-making[23]. On one hand side, the exclusion does only cover the rather few cases in which courts accept a "*Beurteilungsspielraum*" but does not apply to the widespread decisions based on the interpretation of other vaguely defined legal conditions. On the other hand, the exclusion of fully automated decision-making in all cases of "*Ermessen*" precludes the implementation of such procedures even in cases in which a discretionary power does not have the potential for intense infringements of subjective rights and the discretion might be adequately exercised by programming the algorithm[24]. Generally, § 35a VwVfG is not confined to any specific digital technology[25]. Electronic data processing systems which can include elaborate hardware and software systems as well as simple arithmetic and spreadsheet programmes can issue fully automated administrative acts[26]. However, the mere use of computers for word processing does not suffice for fully automated administrative acts[27]. Fully automated administrative acts are closely related to the concept of AI, but first they go far beyond AI and enclose also rather traditional algorithmic decision-making systems. Second, § 35a VwVfG does not cover all administrative uses of AI – for instance if an AI system does only support final human decision-making[28]. Consequently, the application of § 35a VwVfG is not linked to the highly controversial definition of AI[29].

2.2.1.2. § 155(4) AO

In tax law § 155(4) AO allows the fiscal authorities to make, correct, revoke, cancel or amend tax assessments on the basis of information available to them and of information provided by the taxpayer exclusively by means of automation. In contrast to § 35a VwVfG, § 155(4) AO allows fully automated procedures directly and avoids the need of a separate legislative authorisation. In addition, the provision entails no explicit exclusion of fully automated decision-making in case of discretion. However, § 155(4) AO confines fully automated decision-making by requiring that there is no reason for the individual case to be handled by public officials. Although this legislative wording itself does not mention discretionary powers, the explanatory memorandum refers to the option provided by § 150(7) AO for tax payers to indicate in specific data fields

that a human handling of the case is required *inter alia* because the tax payer requested a discretionary tax assessment[30]. Some commentators draw from this reference the conclusion that a fully automated tax assessment is prohibited in all cases of discretion irrespective of such information by tax payers[31]. Others argue for the general applicability of fully automated decision-making even in case of discretion as long as no concrete reason for a human handling exists[32].

Another specific and particularly important feature in this regard is the fully automated risk management system provided by § 88(5) AO. The legislator highlights that flagging by this risk management system – which might use AI technologies – gives cause for a human handling of the respective case[33].

2.2.1.3. § 31a sentence 1 SGB X

For social security law procedures § 31a sentence 1 SGB X follows the model of § 155(4) AO and allows itself the issuance of an administrative act by automatic devices as long as there is no reason for the individual case to be processed by public officials. Like § 155(4) AO, § 31a sentence 1 SGB X does not provide an explicit exception from fully automated decision-making in case of discretion. However, the explanatory memorandum is rather clear in this regard and states that a human handling is mandatory, if the authority has discretion[34]. In addition, cases and procedures in social security law are usually not as uniform as in tax law[35]. Therefore, the issuing of an administrative act by automated devices may also be excluded when the authority does not have discretion, but when the application of the legal provision is complex or the fact-finding is difficult[36].

2.2.2. Procedural guarantees for careful investigation of individual cases

In addition to the varying limitations on the admissibility of fully automated administrative acts as such, the German legislator introduced in 2017 procedural guarantees for careful investigation of individual cases. Again, the concrete solutions vary among the three pillars of administrative procedural law. However, the three codifications serve the common aim to ensure that exceptional circumstances are considered in the administrative procedure even if

the authority uses automatic devices to issue administrative acts. In order to implement this objective, § 24(1) sentence 3 VwVfG and § 31a sentence 2 SGB X state that the authority must take into account factual information of the party concerned that is significant for the individual case and that would not be determined in the automatic procedure. Consequently, the fully automated procedure must be continued as a traditional procedure with human fact-finding in such cases[37]. Of course, § 24(1) sentence 3 VwVfG and § 31a sentence 2 SGB X only serve as a clarification as the traditional duty of careful investigation also applies to fully automated administrative acts[38]. Nevertheless, the clarification is important as an explicit safeguard against schematisation that can result from fully automated administrative procedures[39]. As risks of schematisation arise not only with regard to fully automated administrative acts, but also with regard to partially automated administrative acts, the wording of these provisions – in contrast to the provisions regulating the admissibility of fully automated administrative acts – also covers partially automated procedures[40].

In tax law § 150(7) AO provides for tax payers the option to request in specific data fields of their tax return a detailed examination of certain factual or legal questions (→ 2.2.1.2.). According to § 155(4) sentence 3 AO such a request gives rise to processing of the case by human public official[41]. In contrast to § 24 VwVfG and § 31a SGB X the tax provisions according to their wording apply only to fully automated procedures.

2.3. The regulatory gap concerning human decision-making supported by data-driven information technologies

As mentioned already, the existing rules in the Federal Administrative Procedure Act apply only if the automatic equipment takes the final decision (→ 2.1., 2.2.). In contrast, they do not apply if the final decision is made by a human official even if her or his decision is based on significant input from data-driven and automated information technologies, irrespective of the sometimes blurred boundaries between the two categories[42]. This leaves a remarkable regulatory gap and delegates the decision to deploy such supportive IT-systems to the organisational and procedural discretion of the respective authority limited only by general principles of administrative law[43].

2.4. First comprehensive regulation of artificial intelligence at state level

In Germany, no federal law regulating AI has been passed so far. However, at state level, the IT-Deployment-Act (IT-Einsatz-Gesetz (ITEG-SH)), which has been in place since 2022, regulates the use of AI by public administration in Schleswig-Holstein. The ITEG-SH is the first (relatively) comprehensive regulation of AI in Germany. However, the law refers only indirectly in specific provisions to the disputed term «*artificial intelligence*»[44]. Instead, its scope of application is determined by the term «*data-driven information technologies*»[45] which includes automated processes that independently compare or interpret existing, measured, perceived or combined data from one or more data sources to solve complex tasks and objectives (§ 1(3) ITEG-SH). In addition, § 3(1) no. 1 ITEG-SH defines the term as services and procedures which are deployed for the efficient solution of a specific task or a complex question on the basis of a data set with the help of special systems, such as artificial neural networks and machine learning methods, and evolves without active intervention parameters of decision-making. It is obvious, that this – open – definition extends to AI and is characterised by a comparable ambiguity. In contrast to the provisions in the codifications of administrative procedural law (→ 2.2), the ITEG-SH applies to fully as well as to partially automated procedures (see explicitly § 6(4) ITEG-SH). According to § 2(1) ITEG-SH, public authorities in Schleswig-Holstein may use AI and other data-driven information technologies if they observe the principles enshrined in the ITEG-SH, if no exception in the ITEG-SH applies and if no other law prohibits the use of AI. The principles enshrined in the ITEG-SH, which authorities must observe, are based on proposals developed by the High-Level Expert Group on Artificial Intelligence set up by the European Commission[46]. These include, for example, respect for the right to informational self-determination as well as for the principles of primacy of human action, human oversight and accountability, transparency, technical robustness and security, non-discrimination or fairness (§ 1(2) ITEG-SH). § 2(2) ITEG-SH lists areas in which the use of AI and other data-driven information technologies is prohibited including, for example, the exercise of direct coercion against the life and physical integrity of natural persons in administrative

enforcement or the issuing of an administrative act in which there is a discretionary power of action.

The ITEG-SH links certain safeguards ensuring the controllability of AI and other data-driven information technologies to levels of automation. § 3(2) ITEG-SH differentiates between mere assistance systems (level 1), delegation with limited human oversight and intervention (level 2) and «*autonomous decisions*», i.e. fully automated decision-making even in unanticipated situations (level 3). Based on the automation level, the authority shall assess the risks and select appropriate technical and organisational measures (§ 5 and § 9 ITEG-SH). The ITEG-SH thus takes a risk-based approach similar to the European Union's AI-Act[47]. In principle, the risk-based approach is adequate, as it preserves the principle of proportionality and is coherent with data protection law[48]. However, in contrast to the European Union's AI-Act the ITEG-SH defines the risk of using AI solely in terms of the level of automation. Instead, it would be more appropriate to also take into account the context in which the AI is used[49]. After all, authorities already use fully automated applications that do not pose major risks to the principles of § 1(2) ITEG-SH (for example chatbots or traffic lights or other more advanced automated traffic management systems). Other applications, such as those for predictive policing, are at this stage not fully automated but do pose major risks for the principles, especially for discrimination[50].

The ITEG-SH also provides procedural rules for administrative acts which are issued by AI. According to § 6 ITEG-SH, authorities must inform addressees of administrative acts or other decisions if the decision has been partially or completely processed by AI or other data-driven information technologies. On this basis, any person who is subject of an administrative decision issued in a procedure at automation levels 2 (delegation) or 3 (autonomous decision) can request that the decision be reviewed and reprocessed by a human being (§ 12 ITEG-SH).

2.5. Compliance with the requirements of Art. 22 GDPR?

In recent time a debate arose whether the German legislative framework regulating the use of fully and partially automated administrative acts complies

with the requirements of Art. 22(2)(b) GDPR[51]. Art. 22 GDPR generally prohibits a decision based solely on automated processing[52]. According to Art. 22(2)(b) GDPR, exception from this general prohibition is possible, but must be *«authorised by Union or Member State law»*, providing *«suitable measures to safeguard the data subject's rights and freedoms and legitimate interests»*. As Recital 71(1)(4) GDPR states, measures have to include *«specific information to the data subject and the right to obtain human intervention, to express his or her point of view, to obtain an explanation of the decision reached after such assessment and to challenge the decision»*. However, as the recitals are not directly binding, the elements mentioned there do not necessarily have to be implemented. Rather, the adequacy of the safeguards as a whole remains decisive[53]. In addition, § 35a VwVfG, § 155(4) AO and § 31a(1) SGB X must not be assessed isolated, but their context must be taken into account – *inter alia*, the procedural guarantees for the individual case (→ 2.2.2.)[54]. However, since the German legal framework (VwVfG, AO and SGB X) does not require that the authority issuing automated administrative acts must inform the data subject about this circumstance, nor that the data subject has an explicit right to obtain comprehensive human intervention beyond individual fact-finding, it is rather questionable whether it provides suitable measures within the meaning of Art. 22(2)(b) GDPR[55].

In contrast, the ITEG-SH regulates the protection of personal data when using AI in a more detailed manner. In particular, the ITEG-SH contains the obligation that the authority has to inform the data subject when using AI (§ 6(3, 4) ITEG-SH) and the right to obtain human intervention (§ 12 ITEG-SH). Therefore, it provides suitable measures to safeguard the data subject's rights and freedoms and legitimate interests and complies with Art. 22 DS-GVO[56].

3. Case law concerning automated decision-making systems in public administration

German courts have not yet played an active role in the development of automated decision-making systems in public administration. Instead, case law on automated decision-making systems in public administration has mainly dealt with the legality of fully automated administrative acts. In particular, before the introduction of § 35a VwVfG, § 155(4) AO and § 31a(1) SGB X, many courts

dealt with the issue whether fully automated administrative acts are permissible without a specific legal basis. This depends on the question of whether a human decision is required for the "normal" administrative act, regulated by § 35 VwVfG[57]. Many courts assumed that this is not required if the automatic decision is at least attributable to an authority[58]. Accordingly, § 155(4) AO and § 31a(1) SGB X would merely be clarifications and the issuance of a fully automated administrative act would have been admissible even before the provisions came into force. In any case, this question no longer arises after § 35a VwVfG, § 155(4) AO and § 31a(1) SGB X have been enacted[59]. Since 2017, these provisions regulate under which conditions fully automated administrative acts are admissible and clarify that the provisions on "normal" administrative acts apply also to fully automated administrative acts (→ 2.2.1.).

Another line of case law with regard to automated decision-making concerns the transparency of input data. The concrete cases concern access to raw measurement data of speeding cameras and are governed not by general administrative law but by the Act on Regulatory Offences, which is conceptualized as part of criminal law. However, the constitutional principle of fair procedure guiding the judgements is also applicable in general administrative law and the case law is therefore of broader interest[60]. In a broadly discussed judgement the Constitutional Court of the State of Saarland referred to a judgement of the Federal Constitutional Court regarding requirements for electronic voting in general elections[61]. It held that speeding cameras must store raw measurement data in order to provide the potential offender the opportunity to access these data[62]. While it is accepted case law that potential offenders must be granted access to existing raw data – within certain limits – even if these data have not been taken to the file[63], the judgement of the Constitutional Court of the State of Saarland has been overwhelmingly rejected by other courts although a final clarification by the Federal Constitutional Court is pending[64]. These courts highlight the differences between the highly sensitive election process governed by very specific constitutional principles and the mass procedures in speeding cases. For the latter the principle of fair procedure does not require access to raw data but merely mechanisms to investigate whether the standardized digital equipment in question complies with the respective legal requirements. Commentators correctly support this reasoning and accept for

standardized algorithmic systems such more systemic control mechanisms. However, they highlight the need to adapt control mechanisms in case of new technological challenges or new insights about risks connected with automated decision-making[65].

4. Soft law concerning automated decision-making systems in public administration

In 2022, the German government issued a digital strategy to provide an overarching framework for digital policy up to 2025[66]. This digital strategy is intended to move Germany from the 13th place into the Top 10 of «*The Digital Economy and Society Index (DESI)*»[67]. The strategy lists various fields of action, one of which is called «[l]*earning, digital state*»[68]. For a «[l]*earning, digital state*»[69], the digital strategy particularly calls for public administration to digitally offer administrative services to citizens[70]. Furthermore, it asks for the use of AI to better evaluate data and use it as a basis for decision-making by humans[71]. However, it does not contain any measures to make administrative services more efficient through the use of automated decision-making systems.

Various federal states have also developed digital strategies. Baden-Württemberg, for example, has adopted a new digital strategy in 2022. In contrast to the federal strategy, the strategy also encourages the use of AI in public administration in order to make automated decision-making processes more efficient[72]. Baden-Württemberg's government plans to add an experimentation clause to Baden-Württemberg's State Administrative Procedure Act. According to this clause fully automated administrative acts will be admissible in certain cases in which there is no discretion[73]. Accordingly, the State Administrative Procedure Act will dispense with the requirement for a legal basis, which is currently required in § 35a LVwVfG Baden-Württemberg and the corresponding federal and states' codifications. Baden-Württemberg's government thereby wants to explore further options for issuing fully automated administrative acts[74].

5. Conclusions

This paper shows that German administrative law regulates only the partially or fully automated issuance of administrative acts (→ 2.1.; 2.2.) but leaves a

remarkable regulatory gap concerning the automated support of human decision-making (→ 2.3.). The national legal framework has so far been rather restrictive in regulating the admissibility of fully automated administrative acts. However, such a restriction is not required under constitutional law. On the contrary, under the German constitution, public authorities could also issue fully automated administrative acts if they had discretion[75]. As Baden-Württemberg's digital strategy shows, governments will examine the admissibility of fully automated administrative acts in further areas in the future (→ 4.).

Germany leaves the regulation of AI largely to the European Union and the EU's AI Act. No federal law regulating AI comprehensively has been passed so far. However, in Schleswig-Holstein the ITEG-SH regulates the use of AI in public administration since 2022. It remains to be seen, whether and how the European Union's AI Act threatens to collide with the ITEG-SH in the future[76].

Future legislation on automated decision-making by public authorities should address especially the following two issues. First, as developed earlier the current legislative framework is too rigid and inflexible (→ 2.2.1.1., 2.3.). More adequate would be a framework providing for a transparent assessment of potential benefits and risks of the deployment of concrete automated decision-making systems for specified administrative tasks and objectives. The assessment should generally be carried out before the system is finally deployed and repeated in case of new information as well as after predefined periods[77]. A second important issue not yet addressed by the legislator are principles about the admissibility of correlational arguments as reasons for administrative decisions. Literature indicates that traditional doctrine accepts predominantly causal arguments[78]. Although, this analysis is not beyond doubt, taking into account the acceptance of concepts like practical knowledge often lacking consolidated causal evidence[79], it sheds light on an important often ignored aspect of administrative decision making. Connected with this aspect is the debate about the acceptance of unavoidable errors of algorithmic decision-making in complex situations[80].

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11. For a – critical – overview of the respective doctrinal discussion M. Eifert, *Electronic Government*, Nomos, Baden-Baden, 2006, 122–141; see also J.-P. Schneider, *§ 28 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 74.

12. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts,* C.H. Beck, München, 2022, paras. 12–13;

A.-B. Kaiser, *Die Kommunikation der Verwaltung*, Nomos, Baden-Baden, 2009, 132–133.

13. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, paras. 13, 6–7.

14. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 86; U. Stelkens, *§ 35a VwVfG*, in P. Stelkens, H. J. Bonk, M. Sachs (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2023, paras. 21–22, noting the need to exclude fully automated decision-making without relevant fact-finding like traffic lights or adaptive traffic regulation systems from the scope of application of the new provision in order to avoid transitional problems until the needed specific legislative bases for these systems are enacted; A. Guckelberger, *Öffentliche Verwaltung im Zeitalter der Digitalisierung*, Nomos, Baden-Baden, 2019, para. 80, emphasizes, however, that the specific legislative bases are already enacted.

15. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, paras. 33, 108; J.-P. Schneider, *§ 28 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 133; T. Siegel, *Automatisierung des Verwaltungsverfahrens – zugleich eine Anmerkung zu §§ 35a, 24 I 3, 41 IIa VwVfG –*, in *DVBl*, 2017, 24, 27; A. Berger, *Der automatisierte Verwaltungsakt*, in *NVwZ*, 2018, 1260, 1262–1263.

16. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 90.

17. According to the concept of vertical "simultaneous legislation" (→ 2.) similar provisions were included into the State Administrative Procedure Acts.

18. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 90.

19. A. Berger, *Der automatisierte Verwaltungsakt*, in *NVwZ*, 2018, 1260, 1261.

20. G. Hornung, *§ 35a VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, paras. 82–88.

21. For an extensive account of these two concepts see M.-E. Geis, *§ 40 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, paras. 18–36, 49; 125–170; see also P. Craig, *EU Administrative Law*, Oxford University Press, Oxford, 2018, 440; N. Marsch, V. Tünsmeyer, *The Principle of Proportionality in German Administrative Law*, in S. Ranchordás, B. de Waard (edited by), *The judge and the proportionate use of discretion*, Routledge, Abingdon, New York, 2015, 13, 19–20.

22. Compare P. Craig, *EU Administrative Law*, Oxford University Press, Oxford, 2018, 440 using the term «*jurisdictional discretion*».

23. A. Guckelberger, *E-Government: Ein Paradigmenwechsel in Verwaltung und Verwaltungsrecht?*, in *VVDStRL*, 2019, 235, 265–266; A. Guckelberger, *Öffentliche*

Verwaltung im Zeitalter der Digitalisierung, Nomos, Baden-Baden, 2019, para. 81; A. Pilniok, *Administratives Entscheiden mit Künstlicher Intelligenz: Anwendungsfelder, Rechtsfragen und Regelungsbedarfe*, in *JZ*, 2022, 1021, 1030.

24. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, paras. 101–102 giving the example of issuing parking licences for residents of a defined neighbourhood.

25. G. Hornung, *§ 35a VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 65; A. Pautsch, *§ 35a VwVfG*, in A. Pautsch, L. Hoffmann (edited by), *VwVfG*, Erich Schmidt Verlag, Berlin, 2021, para. 3.

26. G. Hornung, *§ 35a VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 65.

27. J.-P. Schneider, *§ 28 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 74; D. Kallerhoff, T. Mayen, *§ 28 VwVfG*, in P. Stelkens, H. J. Bonk, M. Sachs (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2023, para. 62; U. Stelkens, *§ 35a VwVfG*, in P. Stelkens, H. J. Bonk, M. Sachs (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2023, para. 17.

28. G. Hornung, *§ 35a VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 27; A. Pilniok, *Administratives Entscheiden mit Künstlicher Intelligenz: Anwendungsfelder, Rechtsfragen und Regelungsbedarfe*, in *JZ*, 2022, 1021, 1029–1030.

29. For the debate about the concept of AI see M. Herberger, *„Künstliche Intelligenz" und Recht – Ein Orientierungsversuch –*, in *NJW*, 2018, 2825, 2826; L. Guggenberger, *Einsatz künstlicher Intelligenz in der Verwaltung*, in *NVwZ*, 2019, 844, 845; A. Guckelberger, *Öffentliche Verwaltung im Zeitalter der Digitalisierung*, Nomos, Baden-Baden, 2019, para. 107; S. Legg, M. Hutter, *Universal Intelligence: A Definition of Machine Intelligence*, in *Minds and Machines*, 2007, 391.

30. Bundestags-Drucksache 18/7457, 83.

31. N. Braun Binder, *Vollständig automatisierter Erlass eines Verwaltungsaktes und Bekanntgabe über Behördenportale*, in *DÖV*, 2016, 891, 893; G. Hornung, *§ 35a VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, paras. 99–100.

32. See for this debate R. Rüsken, *§ 155 AO*, in F. Klein, *Abgabenordnung*, C.H. Beck, München, 2022, para. 87.

33. Bundestags-Drucksache 18/7457, 82.

34. Bundestags-Drucksache 18/8434, 121; G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 90.

35. G. Hornung, *§ 35a VwVfG*, in F. Schoch, J.-P. Schneider (edited by),

Verwaltungsverfahrensgesetz, C.H. Beck, München, 2022, para. 103.

36. B. Mutschler, *§ 31a SGB X*, in A. Körner, M. Krasney, B. Mutschler, C. Rolf, *BeckOGK SGB*, C.H. Beck, München, 2022, para. 10; G. Hornung, *§ 35a VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 103.

37. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 90.

38. J.-P. Schneider, *§ 24 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 133; see also generally N. Braun Binder, *Vollständig automatisierter Erlass eines Verwaltungsaktes und Bekanntgabe über Behördenportale*, in *DÖV*, 2016, 891, 892.

39. J.-P. Schneider, *§ 24 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 133; A. Guckelberger, *Automatisierte Verwaltungsentscheidungen: Stand und Perspektiven*, in *DÖV*, 2021, 566, 573.

40. Arguing this only for § 24 VwVfG J.-P. Schneider, *§ 24 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, para. 133; D. Kallerhoff, F. Fellenberg, *§ 24 VwVfG*, in P. Stelkens, H. J. Bonk, M. Sachs (edited by) , *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2023, § 24 para. 57b.

41. Bundestags-Drucksache 18/7457, 83.

42. A. Pilniok, *Administratives Entscheiden mit Künstlicher Intelligenz: Anwendungsfelder, Rechtsfragen und Regelungsbedarfe*, in *JZ*, 2022, 1021, 1030.

43. Compare A. Pilniok, *Administratives Entscheiden mit Künstlicher Intelligenz: Anwendungsfelder, Rechtsfragen und Regelungsbedarfe*, in *JZ*, 2022, 1021, 1030; G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, paras. 87, 93-94, 102.

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45. See ITEG-SH.

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49. F. Müller, A. Keiner, F. Schädlich, L. Völzmann, R. Peter, S. Schrör, Z. Efroni, S. Schimmler, P. v. Hagen, *Stellungnahme zum Entwurf des Digitalisierungsgesetzes der Landesregierung Schleswig-Holstein, Drucksache 19/3267*, Berlin, 2021, 19; see also G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited

by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 102.

50. A. Selbst, *Disparate Impact in Big Data Policing*, in *Georgia Law Review*, 2017, 109, 119–123; A. Guckelberger, *Öffentliche Verwaltung im Zeitalter der Digitalisierung*, Nomos, Baden-Baden, 2019, para. 98.

51. Concerning similar discussions concerning Swedish law J. Reichel, *Regulating automation of Swedish administration*, in *CERIDAP*, 1, 2023.

52. On the application of Art. 22 GDPR to partially automated administrative acts in the meaning of the German VwVfG see G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 91.

53. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 91.

54. M. Martini, D. Nink, *Wenn Maschinen entscheiden ... – vollautomatisierte Verwaltungsverfahren und der Persönlichkeitsschutz*, in *NVwZ-Extra*, 10/2017, 1, 8; G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts,* C.H. Beck, München, 2022, para. 91.

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61. Bundesverfassungsgericht, judgement 28 October 2008, BVerfGE 123, 39, 71–77.

62. SaarlVerfGH, judgement 5 July 2019, Lv 7/17; concurring OLG Saarbrücken, decision 2 November 2021, SsBs 100/2021 (68/21 OWi) with note by H. Niehaus, in *DAR*, 2022,

43–44.

63. Bundesverfassungsgericht (Chamber), decision 12 November 2020, 2 BvR 1616/18.

64. See for example VerfGH Rh.-Pf., decision 22 July 202, VGH B 30/21; OLG Hamm, decision 25 November 2019, 3 RBs 307/19; OLG Düsseldorf, decision 10 March 2020, 2 RBs 30/20; OLG Düsseldorf, decision 31 October 2022, IV-2 RBs 155/22.

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66. Bundesregierung, *Digitalstrategie*, 2022.

67. European Commission, *Digital Economy and Society Index (DESI)*, 2022.

68. Bundesregierung, *Digitalstrategie*, 2022, 3.

69. Bundesregierung, *Digitalstrategie*, 2022, 9–10.

70. Bundesregierung, *Digitalstrategie*, 2022, 9.

71. Bundesregierung, *Digitalstrategie*, 2022, 9–10.

72. Landesregierung Baden-Württemberg, *digitalLÄND*, 2022, 74.

73. Landesregierung Baden-Württemberg, *digitalLÄND*, 2022, 74.

74. Landesregierung Baden-Württemberg, *digitalLÄND*, 2022, 74.

75. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 34; M. Eifert, *Electronic Government*, Nomos, Baden-Baden, 2006, 127–129.

76. F. Müller, A. Keiner, F. Schädlich, L. Völzmann, R. Peter, S. Schrör, Z. Efroni, S. Schimmler, P. *v.* Hagen, *Stellungnahme zum Entwurf des Digitalisierungsgesetzes der Landesregierung Schleswig-Holstein, Drucksache 19/3267*, Berlin, 2021, 16.

77. For a draft framework see European Law Institute, *Model Rules on Impact Assessment of Algorithmic Decision-Making Systems Used by Public Administration*, Wien, 2022; see also G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, paras. 46–48, 104, 112; J. Dollinger, *Folgenabschätzungen für algorithmische Systeme in der Verwaltung, Dissertation*, Freiburg im Breisgau, 2023 (forthcoming).

78. G. Britz, M. Eifert, *§ 26 Digitale Verwaltung*, in A. Voßkuhle, M. Eifert, C. Möllers (edited by), *Grundlagen des Verwaltungsrechts*, C.H. Beck, München, 2022, para. 118.

79. See J.-P. Schneider, *§ 24 VwVfG*, in F. Schoch, J.-P. Schneider (edited by), *Verwaltungsverfahrensgesetz*, C.H. Beck, München, 2022, paras. 27–28.

80. See with regard to the specific problem of automated content moderation by digital platforms J.-P. Schneider, *Plattformregulierung als Baustein der europäischen KI-Governance*, in M. Ruffert (edited by), *Die Regulierung digitaler Plattformen*, Nomos, Baden-Baden, 2023 (forthcoming).