Business plan for a DIN SPEC project according to the PAS procedure on

„Application-Oriented Transparency Requirements for AI Systems“

Status:

For developing the DIN SPEC after adoption on 26.11.2024

Requests to participate in the project and/or comments on the business plan are to be s**ubmitted by 19.11.2024** to adrian.seeliger@din.de[1]

Recipients of this business plan are requested to name all patent rights known to them to be relevant to the project and to make available all supporting documents.

Berlin, 27.11.2024 (Version 3)

[1] Applications for participating in the project and comments on the business plan that are not received by the deadline do not need to be taken into consideration. Once constituted, the project workshop will decide whether or not to consider the comments received in good time.

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1 Status/version of the business plan

- For public commenting (Version 1)
- This business plan is intended to inform the public of a new DIN SPEC project. Any interested party can take part in this project and/or comment on this business plan. Please send any requests to participate or comments by e-mail to Adrian.seeliger@din.de.
- Once this business plan is published, the Chairman of DIN's Executive Board decides whether or not the project is to be carried out.
- If the project is accepted, all those who have applied for participation or have commented on the business plan by the deadline will be invited to the kick-off meeting of the project consortium.

- **For developing the DIN SPEC after adoption on <date of kick off> (Version 2)**

  Changes to the previous version 2:

  - Update Version number, Update “Status: under development”

2 Initiator and other consortium members

- **Initiator:**

Person/Organization	Short description
André Meyer-Vitali, DFKI	Deutsches Forschungszentrum für Künstliche Intelligenz GmbH (DFKI)

- **Other potential participants:**

  This DIN SPEC will be developed in a consortium (temporary body) that is open to any interested party. The participation of other experts would be helpful and is desired. It is recommended that

  - AI developers, testers and auditors
  - etc.

  take part in the development of this DIN SPEC.

- **Organizations**[Fehler! Textmarke nicht definiert.]**, that have adopted this business plan (consortium members):**

First Name	Last Name	Organization
Jan	de Meer	Smartspacelab.eu GmbH
Sergio	Genovesi	SKAD AG
Michael	Graf	Validaitor UG
Martin	Haimerl	Hochschule Furtwangen
Marc	Hauer	TÜV AI.Lab

First Name	Last Name	Organization
Katharina	Kofend	Zentrale Stelle für Informationstechnik im Sicherheitsbereich (ZITiS)
Sebastian	Krauß	Validaitor UG
Veronika	Lazar	BSI
Mihai	Maftei	Deutsches Forschungszentrum für künstliche Intelligenz GmbH (DFKI)
Rosa E.	Martín-Peña	Deutsches Forschungszentrum für künstliche Intelligenz GmbH (DFKI)
Oliver	Maspfuhl	Deutsche Bank AG
Iris	Merget	Deutsches Forschungszentrum für künstliche Intelligenz GmbH (DFKI)
André	Meyer-Vitali	Deutsches Forschungszentrum für künstliche Intelligenz GmbH (DFKI)
Otto	Obert	Main DigitalEthiker GmbH
Samantha	Prange	Deutsches Forschungszentrum für künstliche Intelligenz GmbH (DFKI)
Florian	Schinnerling	Tensor AI Solutions GmbH
Kai	Wanstrath	Informatik Consulting Systems GmbH (ICS)
Daniel	Weimer	ceel.ai
Jens	Ziehn	Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung IOSB
Armagan	*Sahin*	*DIN e.V.*
Adrian	*Seeliger*	*DIN e.V.*

3 Objectives of the project

3.1 General

Transparency is commonly regarded as an essential criterion for evaluating AI systems. Documents that outline corresponding transparency requirements for AI include, among others, the EU AI Regulation ("AI Act"), the "Ethics Guidelines for Trustworthy AI" by the Independent High-Level Expert Group on Artificial Intelligence (HLEG) of the European Commission, the "OECD Framework for the Classification of AI Systems," the Hiroshima Process International Code of Conduct for Organizations Developing Advanced AI Systems, as well as the ISO 22989 and IEEE 7000:2021 standards. However, there are significant differences in the definitions or requirements

regarding which system properties should be disclosed for transparency and how these properties should be described. There is also no uniform terminology, which considerably limits the traceability of transparency obligations or requirements and complicates their practical application.

The planned DIN SPEC aims to identify widely used and recognized dimensions of transparency, formalize them, and make them clearly referable, thereby laying the groundwork for future standardization. In this way, the planned DIN SPEC intends to provide a unified foundation for all relevant actors, including developers, regulators, operators, and users of such systems, based on which concrete objectives and processes for implementing transparency requirements can be defined for a given application and the process outcomes or goal achievement can be made objectively, reproducibly, and transparently traceable.

3.2 Scope

This document defines overarching categories (e.g., data, algorithm, process, actors) and establishes criteria (e.g., data origin, data quantity, data labeling, population consistency, disjunction of training/validation/test data) for a unified understanding of transparency concerning AI systems. This includes the following dimensions:

- Phases of the development cycle during which the categories and criteria for a unified understanding of can be implemented.
- Types and use cases of AI systems for which these categories and criteria for a unified understanding of transparency are relevant and practically applicable.
- Types and detail levels of information to be provided for transparency purposes.
- Actors to whom information must be provided for transparency reasons - including the question of which information is relevant for each.
- Actors responsible for providing the information.
- Actors about whom information must be provided for transparency reasons (e.g., qualifications, procedures and software toolsets used, all in compliance with the EU GDPR).
- Types of disclosure (e.g., through user manuals or targeted online queries).
- Combinations of the above aspects, e.g., in terms of which information should be disclosed to which actors, at which phase of the development cycle, and in what manner.

The work should consider transparency in the sense of information provision, traceability, and explainability, among other things.

The planned DIN SPEC is based on the definition of the term AI system from the EU AI Regulation ("AI Act," Art. 3.1), which is based on an OECD definition: "[An AI system is] a machine-based system that is designed to operate with varying degrees of autonomy, and that can learn and adapt post-deployment, and that generates outputs such as predictions, recommendations, or decisions influencing physical or virtual environments towards achieving specific or derived objectives."

This definition describes the scope of AI systems addressed in the planned DIN SPEC, which includes data-driven AI, knowledge-based AI, generative AI, as well as hybrid combinations of these approaches (hybrid systems). It also considers both application-specific (narrow AI) and general-purpose AI systems with a broad application scope (general purpose AI).

This document targets all actors involved in the development or use of AI systems, including but not limited to:

- Developers,

- Regulators,

- Operators,

- Users.

3.3 Related activities

The subject of the planned DIN SPEC is not at present the subject of a standard. However, there are committees, standards and/or other technical rules that deal with related subjects and thus need to be taken into account - and involved or incorporated, where necessary - in this project:

- ISO/IEC DIS 12792 - Transparency taxonomy of AI systems
- ISO/IEC 22989:2022 Information technology — Artificial intelligence — Artificial intelligence concepts and terminology
- ISO/IEC 38507:2022 Information technology — Governance of IT — Governance implications of the use of artificial intelligence by organizations
- IEEE 7001 - Standard for Transparency of Autonomous Systems
- ISO/IEC JTC1/SC 42
- ISO/IEC JTC1/SC 41/WG6
- DIN SPEC 92001-3:2023-08 Künstliche Intelligenz - Life Cycle Prozesse und Qualitätsanforderungen - Teil 3: Erklärbarkeit
- Deutsche Normungsroadmap KI (Ausgabe 2)
- VDE SPEC 90012 V1.0 VCIO based description of systems for AI trustworthiness characterisation
- ISO/IEC 8183 2023 202402 KI Datenlebenszyklus

4 Work programme

The aim of the project is to develop a DIN SPEC according to the PAS procedure (see www.din.de/go/din-spec-en). The DIN SPEC shall be consistent with the body of German standards and shall not be in conflict with any DIN Standard.

The kick-off meeting took place on 26.11.2024 online. The project duration will be about 3 – 4 months.

At this kick-off meeting, the consortium for developing the DIN SPEC will be constituted, further organizational issues will be decided on and clarified, and, where possible, work on the subject matter will be begun.

A draft for public commenting will not be published.

A total of 12 web conferences will be held, during which the content of the DIN SPEC will be presented, discussed and approved. The content of the DIN SPEC can be drawn up by individual consortium members or in working groups.

Dates of further meetings and/or web conferences are to be agreed on within the consortium in consultation with DIN.

The DIN SPEC will be drawn up in German (language of meetings, minutes, etc.). The DIN SPEC will be written in English.

NOTE The calculation covers only one language version. Please keep in mind the fact that other language versions involve additional expenses; for this reason, they shall be agreed on separately. If another language version is desired, Beuth/DIN can provide a translation. Requests for translations are to be submitted after the DIN SPEC manuscript has been approved for publication.

5 Resource planning

Each consortium member shall bear the expenses he/she incurs as a result of participation in the project.

If the DIN Executive Board approves the project, the initiator of the project will then conclude a contract with DIN.

Consortium membership and participation in the project meetings is free of charge until the end of the march 2025, as the costs incurred by DIN throughout the performance of this project will be financed by funding from the research project "Geschäftsstelle KI" funded by the Bundesministerium für Wirtschaft und Klimaschutz/BMWK (funding reference: 46DIN21F5).

6 Rules of cooperation in the DIN SPEC consortium

This project is governed by the PAS procedural rules. All interested parties and consortium members are to inform themselves of these procedures by going to www.din.de/go/din-spec-en.

The consortium will be constituted during the course of the kick-off meeting. The kick-off meeting will not take place until the business plan has been published and approved by DIN's Management Board. The consortium shall comprise at least three members from different organizations[2]. It is not necessary that these members come from different areas and represent different stakeholders. By approving this business plan, the interested parties declare their willingness to participate in the consortium and will be formally named as consortium members, with the associated rights and duties. Participants at the kick-off meeting who do not approve the business plan are not given the status of a consortium member and are thus excluded from further decisions made during the kick-off meeting and from any other decisions regarding the project.

If an organization (e.g. an association) sends someone who is not an employee to the consortium, this person shall be authorized by the organization, who shall provide proof of this to DIN.

Each consortium member is entitled to vote and has one vote. If an organization sends several experts to the consortium, that organization has only one vote, regardless of how many consortium participants it sends. Transferring voting rights to other consortium members is not permitted. During voting procedures, decisions are passed by simple majority; abstentions never count.

As a rule, the consortium is closed once it is constituted. The current consortium members shall decide whether any additional members will be accepted or not.

During the kick-off meeting, the consortium members shall elect a consortium leader, who is responsible for content management and any decision-making and voting procedures. The leader is supported by the responsible DIN Project Manager, whereby DIN will always remain neutral regarding the content of the DIN SPEC. Furthermore, the DIN Project Manager shall ensure that DIN's rules of procedure, rules of presentation, and the principles governing the publication of DIN SPEC have been

[2] Organizations are legal entities and natural persons, insofar as they participate in business transactions on a commercial or freelance basis. If several legal entities are part of a group or a corporate structure within the meaning of Section 15 of the German Stock Corporation Act (§ 15 Aktiengesetz) or Section 271 (2) of the German Commercial Code (§ 271 Absatz 2 Handelsgesetzbuch), they are deemed to be one organization.

observed. Should a consortium leader no longer be able to carry out his/her duties, the DIN Project Manager shall initiate the election of a new leader.

The DIN Project Manager is responsible for organizing and leading the kick-off meeting, in consultation with the initiator. Further project meetings and/or web conferences shall be organized by the DIN Project Manager in consultation with the consortium leader.

If consortium members cannot be present when the DIN SPEC or its draft is approved, an alternative means of including them in the voting procedure shall be used (e.g. in writing, electronically).

All consortium members who voted for the publication of the DIN SPEC or its draft will be named as authors in the Foreword, including the organizations which they represent. All consortium members who voted against the publication of the DIN SPEC or its draft, or who have abstained, will not be named in the Foreword.

Any expansion of the consortium at a later date is decided on by the members making up the consortium at that time. It is particularly important to consider these aspects:

a) expansion would be conducive to shortening the duration of the project or to avoiding or averting an impending delay in the planned duration of the project;

b) the expansion would not result in the project taking longer to complete;

c) the new consortium member would not address any new or complementary issues beyond the scope defined and approved in the business plan;

d) the new consortium member would bring complementary expertise into the consortium in order to incorporate the latest scientific findings and state-of-the-art knowledge;

e) the new consortium member would actively participate in the drafting of the manuscript by submitting concrete, not abstract, proposals and contributions;

f) the new consortium member would ensure wider application of the DIN SPEC.

To allow the legal reproduction and distribution of results for the purposes of project work, the consortium members grant DIN rights of use on the basis of the copyright that will accrue to them for the results of their work on the DIN SPEC. The transfer of these utilization rights does not prevent the consortium members from using and further developing the knowledge, experience and findings they bring to the project.

Consortium members are requested to inform DIN of all patent rights known to them to be relevant to this DIN SPEC project.

Subsequent changes to the scope (Section 3.2) or to the resource planning (Section 5) require, in addition to a two-thirds majority of all votes cast, the approval of DIN.

7 Contacts

- **Consortium leader:**
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- **Project manager:**
  Adrian Seeliger & Armagan Sahin
  DIN German Institute for Standardization
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- **Initiator:**
  André Meyer-Vitali
  See above

Annex: Project schedule (preliminary)

DIN SPEC Project	2024								2025					
	Sep		Oct		Nov		Dez		Jan	Feb	Mar	Apr	May	Jun
Initiation														
1. Request and review														
2. Business plan drawn up														
3. Publication of business plan														
Development phase														
4. Kick-off meeting/consortium constituted														
5. DIN SPEC drawn up														
6. DIN SPEC approved by consortium														
Publication														
7. Review and release by DIN														
8. Publication of DIN SPEC														
Milestones						**K**	**W**	**W**	**W**	**W**	**W/A**			

K Kick-off
M Project meeting
W Web conference
A Adoption of DIN SPEC