



White paper explains practical implementation of AI quality

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TÜV SÜD expands quality management services for AI applications

Munich. Testing, Inspection, and Certification (TIC) company TÜV SÜD is expanding its range of quality management (QM) and quality assurance (QA) services for artificial intelligence (AI) applications. In addition to training, TÜV SÜD provides assessment services, supporting organisations to successfully develop and adopt AI applications. The recently published [white paper](#) illustrates a practical approach to achieving AI Quality and explains the novel TÜV SÜD AI Quality Readiness Assessment, which Mindsigns Health™ completed as the world's first company.

Regulation and standards in the field of AI are currently maturing rapidly, posing a challenge for many companies seeking business continuity, market access and stakeholder satisfaction for AI applications. Keeping an eye on the regulatory approaches under development and identifying relevant provisions to prepare accordingly requires significant effort. TÜV SÜD offers a range of AI specific services supporting organisations along their journey to adopt AI and meet relevant requirements. Dr Martin Saerbeck, CTO Digital Service of TÜV SÜD in Singapore, explains, “We noticed that many established companies are developing and using AI products, but run into difficulties when it comes to ensuring quality. Uncertainty arises with regards to compliance to regulation, how to demonstrate responsible use of AI, and how to establish trust and dependability for scaling AI applications. In our quest to provide organisations with efficient support, we have developed an AI Quality Framework based on relevant standards and regulation that enables organizations with a practical and efficient approach to ensure quality.”

Assessments in practice: Mindsigns Health™

One of the biggest challenges to manage AI Quality is to identify the relevant risks and establishing necessary AI Quality controls. To this end, the AI Quality Assessment profiles the specific risks of an AI system and gauges the organization's competence to address these risks. The resulting assessment report provides valuable insights to an organization to improve its AI Quality approach.

Mindsigns Health™ is a company focused on brain health, specifically EEG interpretation and analysis as well as mental health monitoring and analysis. Mindsigns Health™ completed the TÜV SÜD AI Quality Assessment as the first company. "We are proud to be at the forefront of the AI Quality revolution and are fully committed," said CEO Michel Birnbaum from Mindsigns Health™. "Engaging proactively with AI Quality and addressing its challenges head-on is a strategic move for us. We see it as a major factor for our business success." TÜV SÜD provided Mindsigns Health™ with valuable assessment report so that the organisation is able to identify and establish adequate AI Quality processes that are crucial to its risk management. Please find detail in the accompanying white paper here: <https://www.tuvsud.com/en/resource-centre/white-papers/ai-quality>.

TÜV SÜD has been active in the field of AI for years and has already developed a range of services to support organisations in their journey to adopt AI, including training and assessments:

AI Quality Certification Program targets employees of all organisations, established and upcoming, in all industries that aim to efficiently develop or use AI applications. The training courses provide awareness and deep insights into AI quality management requirements based on applicable regulations and standards across sectors and jurisdictions. Besides identifying typical sources of risk in AI technologies, it also familiarises participants with best practices to mitigate these risks. The training comprehensively addresses the cornerstones of AI quality, including risk profiling, AI life cycle processes, AI data management and organizational governance requirements. Participants learn to identify and assess all relevant quality characteristics in the categories of safety, security, legal, ethics, performance, and sustainability. Hence, participants are enabled to decide to what degree characteristics such as robustness, explainability, or transparency are relevant to their AI use cases, what standards and regulation apply, and what needs to be done to manage quality accordingly. Attainment of skills are certified to empower participants to take over AI quality responsibility in their organisations. Currently, 4 different courses are available. More information will be found here: <https://www.tuvsud.com/en/themes/artificial-intelligence/training>.

AI Quality Readiness Assessment: The assessment probes organisations to establish a risk profile for a specific AI use case and gauges the organisational maturity to manage applicable AI quality requirements. As part of the assessment, TÜV SÜD experts review the organisation's AI quality management approach, including its AI governance, AI technology competence, and AI model and data process management throughout the AI system's life cycle. The assessment assigns bandings according to the extent to which relevant regulation and standard requirements have been observed and where there is room for improvement. The assessment results are consolidated in a report, which

the organization may share with stakeholders to document achievements or to prioritize improvements for its overall AI quality management approach.

TÜV SÜD's AI services enable organisations to gain essential skills and review their AI quality approach to avoid errors, improve risk management, and ensure quality for their AI applications to meet relevant regulatory requirements. TÜV SÜD services provide the necessary trust in a rapidly developing AI ecosystem. More information about the topic and services can be found at:

<https://www.tuvsud.com/artificial-intelligence> or on request by emailing: ai@tuvsud.com.

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