AI Governance and Assurance

Practical Steps to Prove Your AI Works as Intended

Ali Moshayedi & Dilara Gumusbas Donida Labati

4 March 2026

Hello and welcome

- In this webinar we will cover:
  - What AI governance and AI assurance mean in practice, beyond policies and principles;
  - How governance, risk management, and technical evidence combine to support trust;
  - Why independent testing, verification, and certification are becoming increasingly important;

- Q&A at the end of the webinar – please add your questions to the chat
- You will get a copy of slides and a recording of the webinar
- Opportunity to ask for a follow up from BSI on the feedback form – available immediately after the webinar concludes

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Meet our speakers

Ali Moshayedi

AI Client Manager

Ali has a data science master's from École Polytechnique and 5+ years' experience delivering AI solutions in healthcare, transport and security. As an ISO 42001/13485/27001 auditor, he focuses on aligning AI systems with international standards.

Dilara Gumusbas Donida Labati

AI Technical Specialist

Dilara holds a PhD in Electronics and Computer Science, specializing in machine and deep learning, with expertise in computer vision, anomaly detection, cybersecurity and autonomous systems. 12+ years' experience across industry and academia.

Understanding our audience

Where are you in your AI journey?

What best describes your organization’s current AI journey?

- We are experimenting with AI
- We are scaling AI across the business
- We have defined AI strategy but early stages
- We have no AI initiatives yet

Does your organization have defined AI policies (e.g., acceptable use, responsible AI)?

- Yes, comprehensive and enforced
- Yes, but limited in scope
- In development
- Informal guidance only
- No policies in place

What is the biggest barrier to AI governance in your organisation?

- Yes, comprehensive and enforced
- Yes, but limited in scope
- In development
- Informal guidance only
- No policies in place

Who currently oversees AI governance in your organization?

- IT / Technology/ Data / AI Team
- Risk & Compliance
- Legal
- Executive leadership
- Not defined

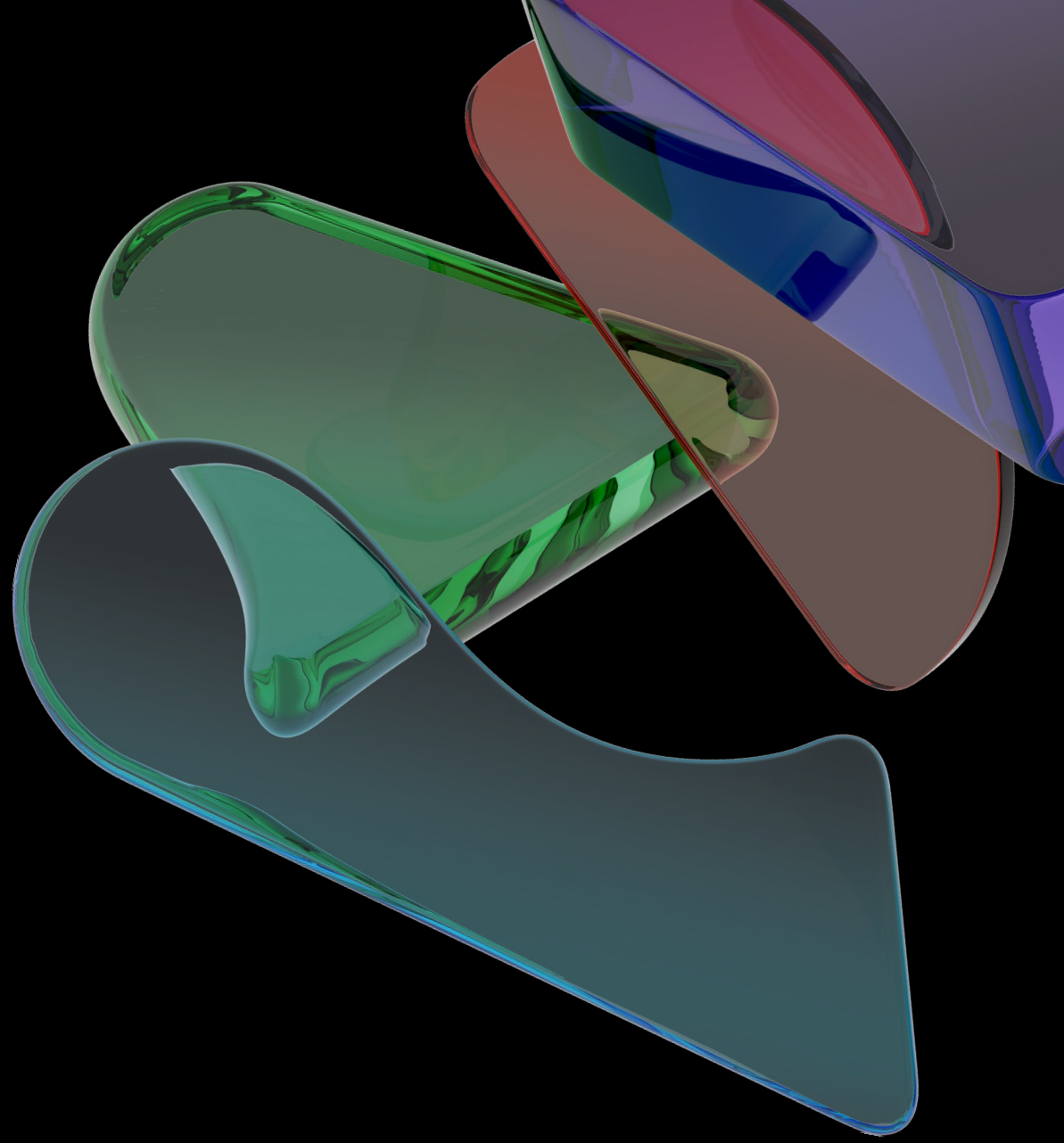
Is your organization preparing for EU AI Act compliance?

- Yes, actively preparing
- Aware but haven't started
- Unsure if it applies to us
- Not planning on it

ISO/IEC 42001

Ali Moshayedi

AI Client Manager



The Governance Landscape

Three Interconnected Pillars

ISO/IEC 42001

AI Management System

Organization-wide governance framework. Establishes policies, risk assessment, controls, and continual improvement for responsible AI.

prEN 18286

QMS for EU AI Act

Product-focused quality management system. The first harmonized standard for EU AI Act Article 17, providing presumption of conformity

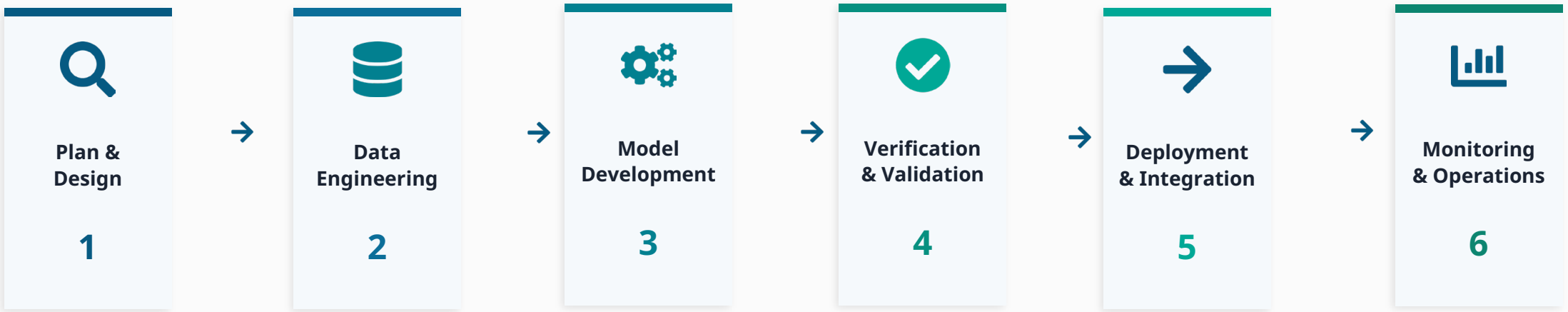
EU AI Act

Regulatory Framework

Risk-based regulation covering all AI actors. Mandates governance, risk management, data quality, transparency, and human oversight

AI System Lifecycle

Governance must span the entire lifecycle — from inception to retirement



Continuous : Risk Management · Documentation · Human Oversight · Monitoring · Incident Response · Continual Improvement

Data Lifecycle in AI Governance

1. **Collection & Acquisition**
   Source identification, consent, lawful basis, representativeness
2. **Preparation & Labelling**
   Cleaning, annotation, quality checks, bias detection
3. **Training & Validation Split**
   Statistical relevance, data leakage prevention, versioning
4. **Monitoring & Maintenance**
   Drift detection, retraining triggers, feedback loops

Regulatory Requirements

EU AI Act Art. 10
Data governance, relevance, representativeness, error examination

ISO 42001 Annex A.7
Data for AI systems — provenance, quality controls

prEN 18286 Cl. 8
Data management processes, quality criteria, bias assessment

prEN 18284
Companion standard for AI data quality requirements

Lifecycle Governance Mapping

Lifecycle Stage	ISO 42001	prEN 18286	EU AI Act
Plan & Design	Cl. 4, 6; A.3, A.4	Cl. 6, 8 (Design)	Art. 9 (Risk Mgmt)
Data Engineering	A.7 (Data for AI)	Cl. 8; prEN 18284	Art. 10 (Data Gov.)
Development	A.6 (AI Lifecycle)	Cl. 8 (Dev. Controls)	Art. 15 (Accuracy)
Verification	A.6.2.4 (V&V)	Cl. 8 (V&V)	Art. 9.7 (Testing)
Deployment	A.6.2.5 (Deploy.)	Cl. 8 (Release)	Art. 16 (Provider Obligations)
Monitoring	Cl. 9; A.6.2.6	Cl. 9 (PMS)	Art. 72 (Post-Market)

Data Lifecycle Governance Mapping

Data Lifecycle Stage	ISO/IEC 42001	prEN 18286	EU AI Act
Collection & Acquisition	A.7.3, A.7.5 Data acquisition and Data provenance	Cl. 8 Data management prEN 18284 (data quality)	Art. 10(2)(a) Collection processes & data origin
Preparation & Labelling	A.7.6 Data preparation	Cl. 8 Preparation ops. prEN 18284 (quality criteria)	Art. 10(2)(c) Annotation, labelling, cleaning, enrichment
Quality & Representativeness	A.7.4 Data quality for AI systems	Cl. 8 Quality criteria Statistical properties	Art. 10(3) Relevant, representative, free of errors
Bias Detection & Mitigation	A.2.2 Responsible AI policy A.5 AI impact assessment A.7.4 Data quality for AI systems	Cl. 8 Bias assessment prEN 18283 (bias mitigation)	Art. 10(2)(f–g) Examine bias, detect, prevent, mitigate
Privacy & Personal Data	A.7.3, A.7.5 Data acquisition and Data provenance A.5 AI impact assessment	Cl. 8 Privacy controls GDPR alignment	Art. 10(2)(a) Purpose of collection; Art. 10(5) GDPR
Training, Validation & Test Splits	A.7.6 Data preparation	Cl. 8 Dev. controls Data set management	Art. 10(1) Quality criteria for train/val/test data sets
Monitoring & Drift Detection	Cl. 9 Performance eval. A.6.2.6 AI system operation	Cl. 9 Post-market surveillance (PMS)	Art. 72 Post-market monitoring plan

ISO/IEC 42001 – AI Management System

P Plan

Context (Cl.4)
Leadership (Cl.5)
Planning (Cl.6)

D Do

Support (Cl.7)
Operation (Cl.8)
AI risk treatment

C Check

Performance evaluation (Cl.9)
Internal audit

A Act

Improvement (Cl.10)
Corrective actions
Continual learning

What Makes ISO/IEC 42001 Unique

- AI-specific risk assessment and impact assessment (Clause 6.1.2 & 6.1.4)
- Annex A: 38 controls across AI policies, responsible AI, data, system lifecycle, and third parties
- Annex B: Implementation guidance for every control
- Certifiable management system (Clause 4–10 structure)
- Compatible with ISO 9001, ISO 27001, etc.

Preparing Now: Practical Steps

1

Gap Assessment

Map your existing frameworks against ISO 42001 requirements. Identify what you have and what's missing.

2

AI System Inventory

Catalogue all AI systems, classify risk levels per the EU AI Act, and document intended purposes, data sources, and deployment contexts.

3

Lifecycle Controls

Embed governance controls into engineering workflows: design reviews, data validation gates, model testing checkpoints, deployment approvals, and monitoring dashboards.

4

Integrated Management System

Implementation of ISO 42001 based on organizational needs.

ISO/IEC 42001 – What BSI Clients Are Saying

"With ISO/IEC 42001 emerging as the new gold standard for AI certification, we are delighted that our approach has met this extremely high bar."

John Munnelly, Chief Digital Officer, KPMG Australia

"Undertaking the rigorous process of getting ISO/IEC 42001 certification underscores our commitment to responsible AI innovation."

Masato Nakao, CEO, i-PRO

"ISO/IEC 42001 was about trust and credibility - being able to say to banks: it's safe to let this system review your data."

Dean Elwood, CEO, Umony

"BSI ISO/IEC 42001 AIMS certification reinforces our commitment to embedding responsible AI practices across the organization, supported by comprehensive risk management processes, robust control frameworks, and globally benchmarked standard."

Vinay Tiwari, Chief Information Security Officer, Axis Bank

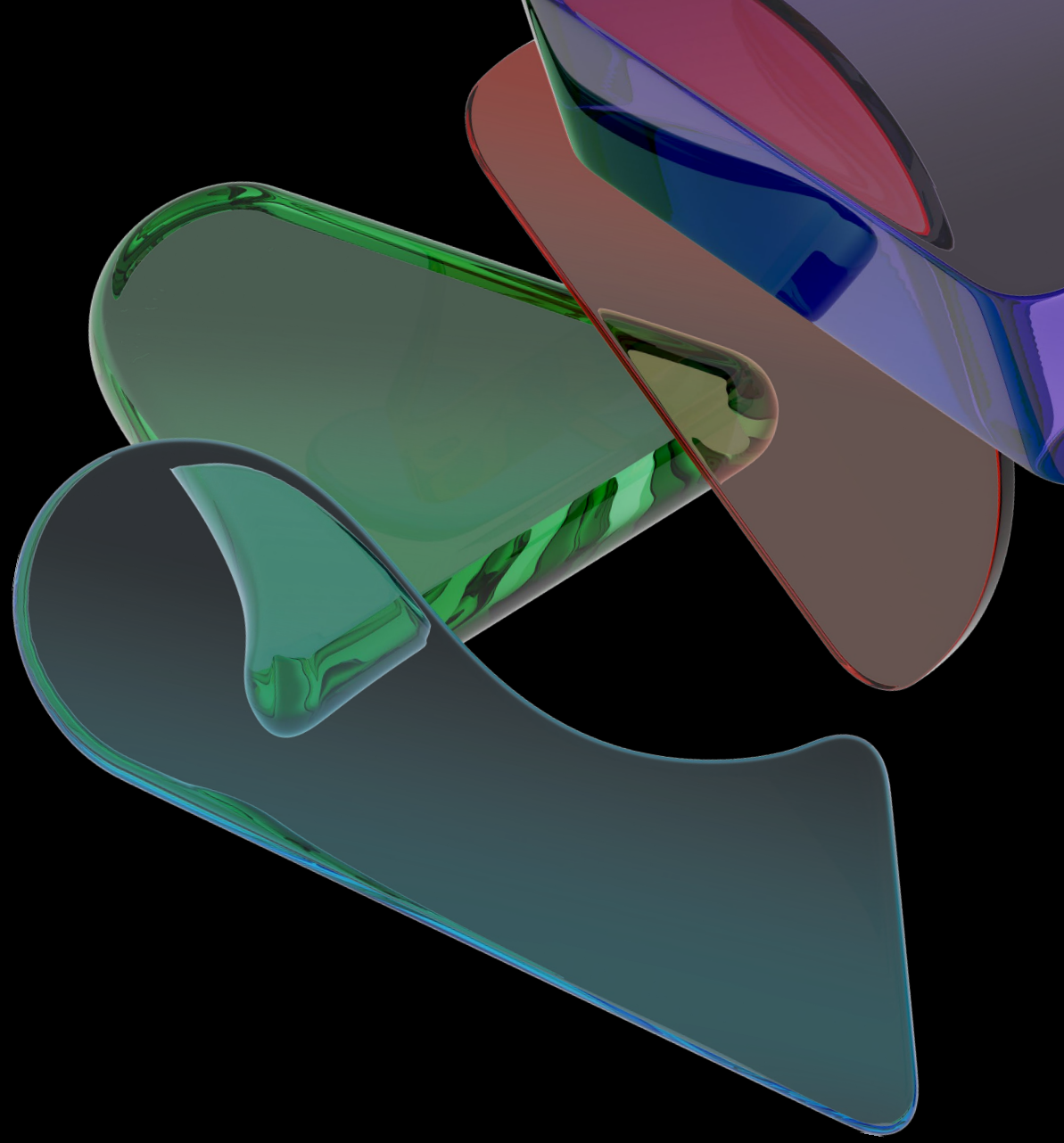
"ISO/IEC 42001 certification reflects our focus on quality and regulatory rigour. It means physicians can trust the system to provide guidance that is reliable, accurate, and transparent."

Cristiana Oliveira, Quality and Compliance Manager, Tonic Easy Medical

AI Performance

Dilara Gumusbas Donida Labati

AI Technical Specialist



BSI AI Performance Overview

- **Context**

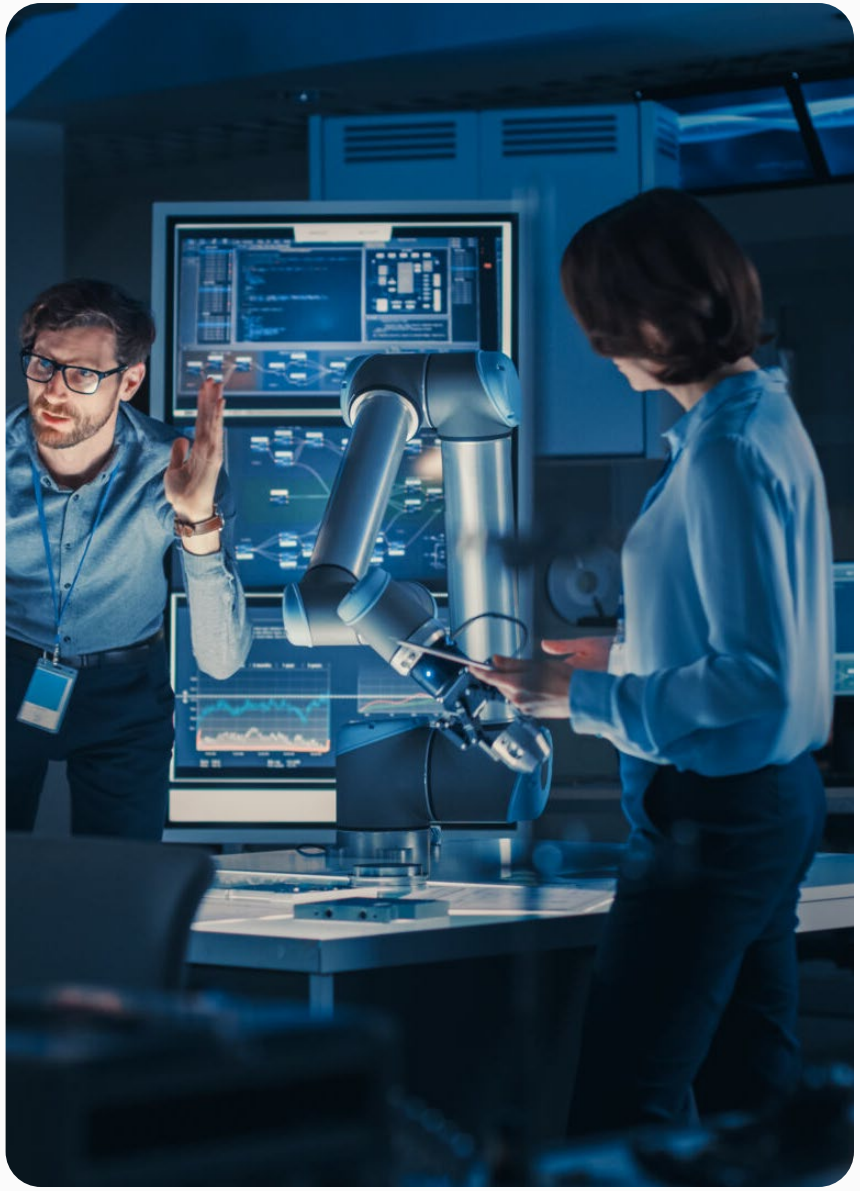
BSI is committed to ensuring AI is inclusive, transparent, ethical, safe, secure and trustworthy without stifling innovation

- **What is BSI AI Performance?**

Quantitative & qualitative external verification of AI models and datasets, by BSI AI and regulatory experts

- **Purpose**

Assure customers and stakeholders as to the trustworthiness of your AI product, service or system to accelerate sales and adoption



Benefits of BSI AI Performance

We help enterprises evaluate and verify AI models for fairness, robustness, and regulatory compliance — empowering trustworthy, confident, compliant, and responsible AI deployments

Context

AI Performance is of paramount importance in the field of high-risk AI to support algorithms which are free from biases and provide fair, transparent, and ethical outcomes.

Rigorous testing is essential to verify algorithms' accuracy and robustness in real-world scenarios, ensuring they produce trustworthy results and perform optimally.

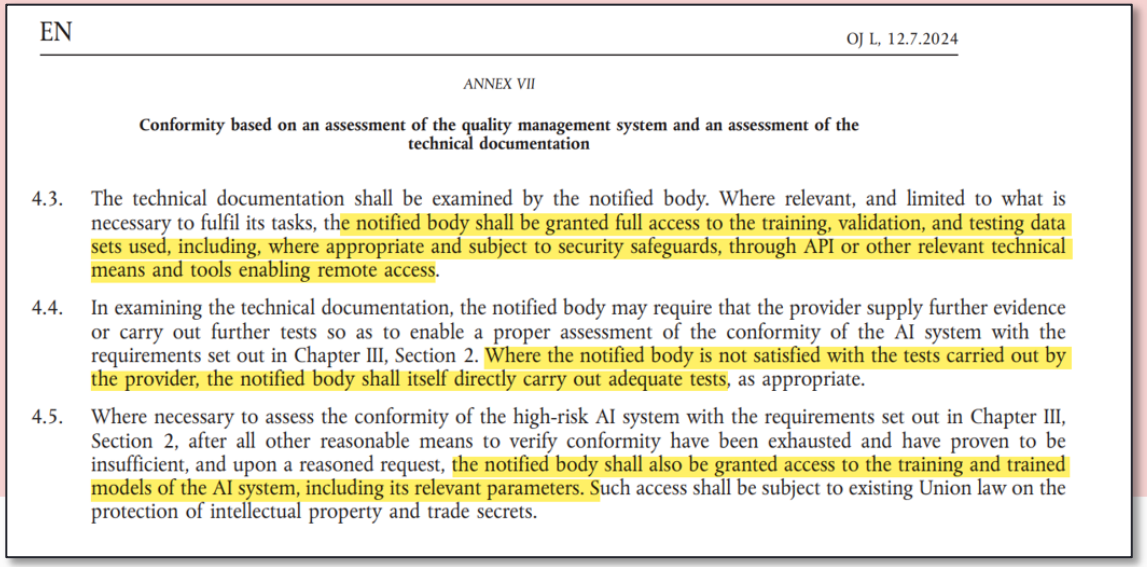
Benefits

- BSI **AI Mark of Trust** and **Confirmation Letter** helps vendors of algorithms build external credibility and assure customers, regulators, and stakeholders as to the **trustworthiness of their products**
- Build confidence and trust attesting to bias, robustness and classification performance
- Verify AI quality and establish credibility in your AI product, service or system
- Mitigate risks in AI development and deployment through a standardized approach
- Independent, impartial, specialized AI expertise, and broad, cross-platform functionality for organisations seeking unbiased, robust AI assurance without ecosystem lock-in.

Relationship between BSI AI Performance and other forms of AI assessment

BSI AI Performance can help prepare for a conformity assessment under the EU AI Act

- After the transition period for the EU AI Act, any provider or deployer of high-risk AI systems in the EU market will be required to undergo a third-party conformity assessment
- This assessment may involve verifying that datasets and algorithms conform to harmonised state of the art standards
- BSI AI Performance can be complementary to other forms of assessment, such as certification against ISO 42001 (AI management systems)



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ANNEX VII

Conformity based on an assessment of the quality management system and an assessment of the technical documentation

4.3. The technical documentation shall be examined by the notified body. Where relevant, and limited to what is necessary to fulfil its tasks, the notified body shall be granted full access to the training, validation, and testing data sets used, including, where appropriate and subject to security safeguards, through API or other relevant technical means and tools enabling remote access.

4.4. In examining the technical documentation, the notified body may require that the provider supply further evidence or carry out further tests so as to enable a proper assessment of the conformity of the AI system with the requirements set out in Chapter III, Section 2. Where the notified body is not satisfied with the tests carried out by the provider, the notified body shall itself directly carry out adequate tests, as appropriate.

4.5. Where necessary to assess the conformity of the high-risk AI system with the requirements set out in Chapter III, Section 2, after all other reasonable means to verify conformity have been exhausted and have proven to be insufficient, and upon a reasoned request, the notified body shall also be granted access to the training and trained models of the AI system, including its relevant parameters. Such access shall be subject to existing Union law on the protection of intellectual property and trade secrets.

How does it work?

Inputs

Model

Dataset

Metrics

Testing

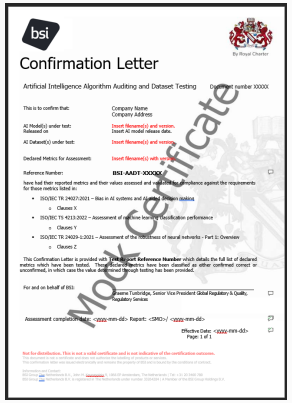
Reports

Verification

Several supported metrics are derived from ISO/IEC standards :
ISO/IEC 4213:2022
ISO/IEC 24027:2021
ISO/IEC 24029-1:2021
ISO/IEC 3532-2:2024
ISO/IEC 19795-1, -10
ISO/IEC 29119-13
ISO/IEC 9868:2025
ISO/IEC 8800

Deliverable

bsi AI Performance VERIFIED



- AI Performance
- Metrics

Compatibility

BSI currently supports AI workflows including classification, object detection and semantic segmentation, biometric identification and verification.

Supported AI Models

Verified AI emphasizes **platform independence** and regulatory compliance for companies seeking **unbiased**, **robust AI assurance without ecosystem lock-in**

Docker (.tar) – A Docker Model is a Docker image that runs a REST API service providing a model prediction for a given input.

Python Zip (.zip) – A Python Zip model is a .zip file containing a requirements.txt file, a pred.py file, and other model artifact files.

Pre-computed Predictions (.csv) – "Pre-computed Predictions" allows for assessment of .csv files of predictions generated by a model, instead of a full executable model file.

Other Formats

Raw AI model support available on request:

Keras

PyTorch

scikit learn

LightGBM

dmlc XGBoost

Supplying your Models and Datasets

Your models and datasets will be uploaded, stored and deleted securely

- BSI offer **a secure upload service** via our portal or SFTP
- Your dataset and model are **temporarily stored** during the assessment **on secure servers**, based **in the EU**
- Following the assessment your dataset and model will **be securely deleted**, **with** a **deletion certificate**

BSI AI Performance

End to End Process

Scope & Initial Feasibility

Identify the AI algorithms, models and datasets which require independent verification and data feasibility review

Application & Quote

Obtain a quote for your AI Performance project

Contract & Scheduling

Contract, planning and scheduling of activities

On-boarding & Data Submission

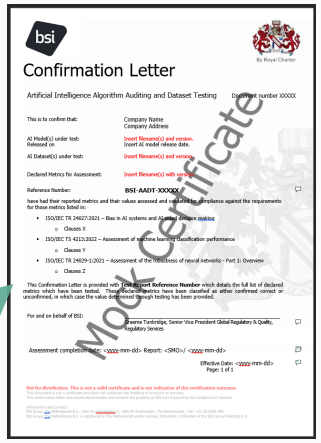
Send BSI your AI datasets, models and reported metric values for verification

Verified AI

BSI performs tests and verifies the quantification & reporting of the AI systems

Outcome

BSI issues Confirmation Letter and AI Performance Report



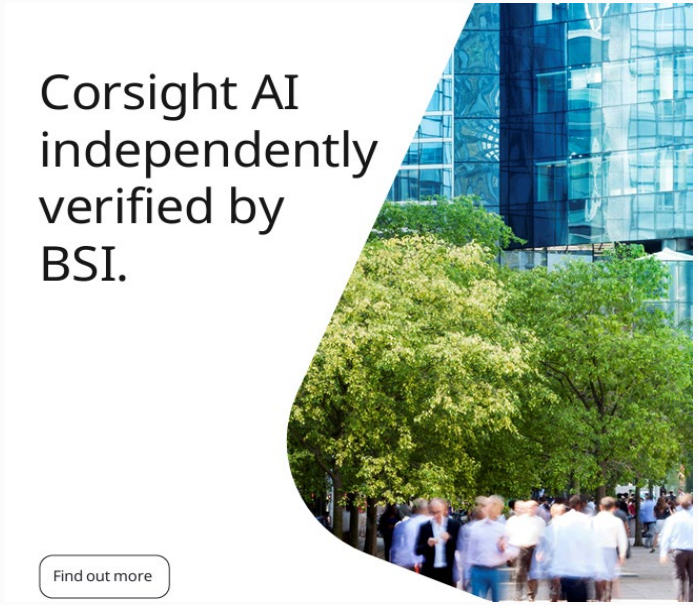
Note: BSI can also support periodic monitoring of AI models and datasets post-deployment

Use Cases

AI Performance

iVolution earn AI Performance Mark of Trust

Becoming one of the first organizations globally, and the first in the Middle East



A Japan-based pioneering med-tech startup that is designing an AI system to segment and classify retinal pathologies to enable faster treatment and diagnosis of eye conditions.

"For society to recognize that medical AI is being inspected and used in a safe and ethical manner, third-party audits are essential. We are pleased that BSI has established this audit system, the first of its kind globally, and that DeepEyeVision was selected as its inaugural verification target. I expect BSI's pioneering efforts will contribute to the spread of reliable AI, not only in healthcare but also in fields such as finance and law enforcement, driving societal progress."

Dr Hidenori Takahashi, CEO of DeepEyeVision

"At Corsight AI, we believe that trust in artificial intelligence must be earned through transparency, accountability, and rigorous external scrutiny.

Our partnership with BSI — a globally respected certification body — has led us to become the first biometric company to undergo its Algorithm Auditing & Dataset Testing service (AA&DT)."

Tony Porter OBE QPM, Chief Privacy Officer, Corsight AI

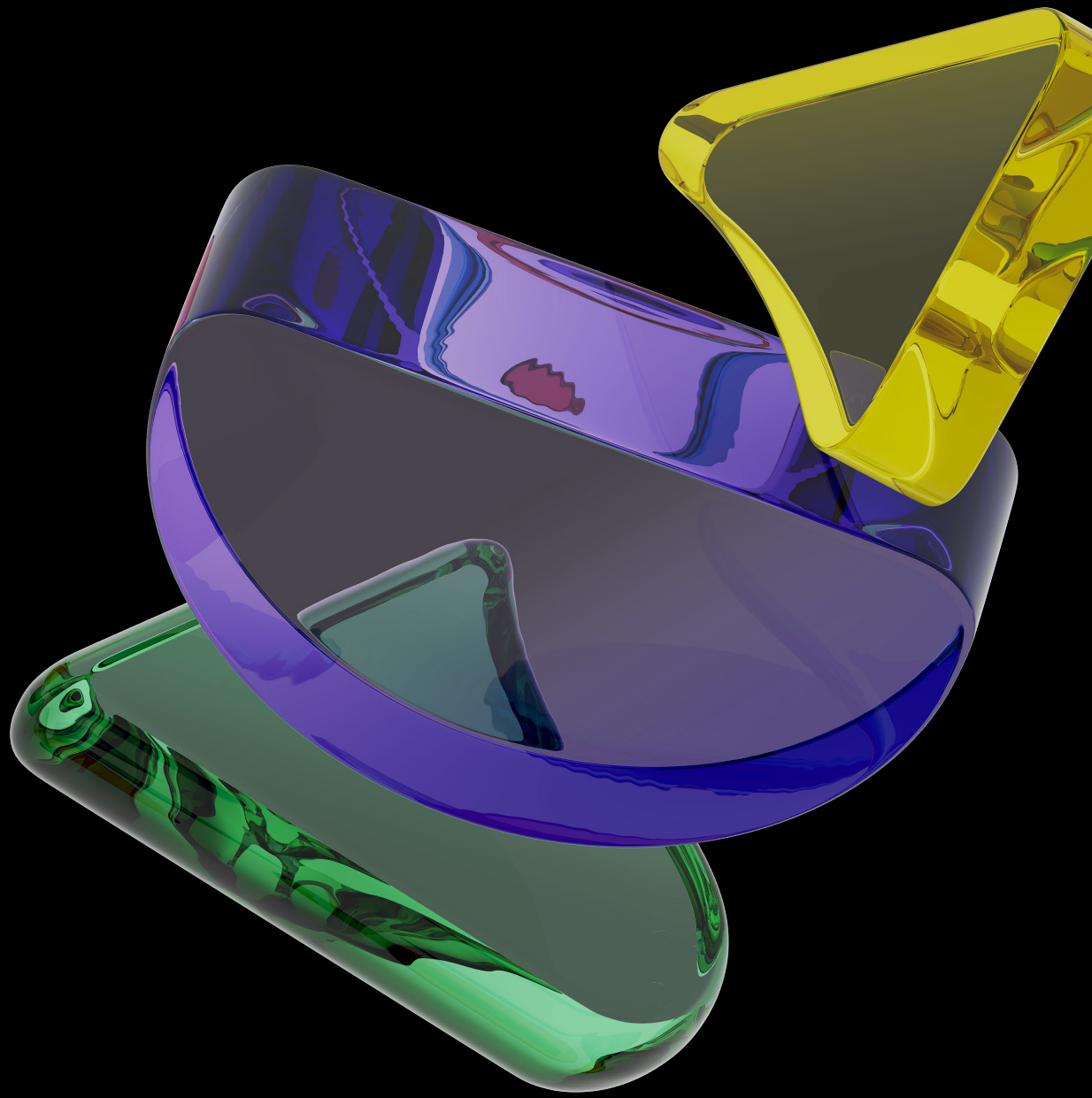
Summary

BSI AI Performance is the **independent and impartial verification** of AI performance

- Involves sharing a copy of your datasets and models with BSI so that we can **verify performance – including bias and robustness – using standards-based metrics**
- External **credibility** for **AI performance claims** and dataset suitability, providing assurance for customers and other stakeholders
- Proactively establish trust and credibility in your AI enabled product, service or system in **preparation for future conformity assessments**

Your partner in progress

Thank you



Any questions for our speakers?

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