Policy Paper

AI Technical Standardization: An Opportunity for Financial Markets

November 2025

Executive Summary

Artificial intelligence (AI) offers major opportunities for financial services businesses, but institutions depend heavily on the **transparency and controls of upstream AI providers.** Without **common standards,** risk management obligations cannot be met consistently, limiting safe and scalable AI adoption.

International AI standardization is therefore a **strategic priority.** It enables financial institutions to rely on shared expectations for transparency, governance, and model behavior, reducing operational risk, strengthening **interoperability**, and supporting **innovation**. As with SIX's broader AI policy framework, the aim is **responsible adoption** combined with **competitiveness and technological independence.**

Key challenges arise from the **lack of shared definitions and minimum requirements** in AI sourcing. Financial institutions - mainly acting as deployers - have **limited leverage** to obtain guarantees on explainability, logging, traceability, and incident management. **Fragmented regulations** and divergent technical interpretations increase costs, complicate contracts, and risk **vendor lock-in.**

SIX, as a financial market infrastructure provider operating across borders, supports **global** standardization to address these inefficiencies. **Standardized technical expectations** would align providers with financial-sector needs, **reduce legal uncertainty**, facilitate **comparable assurance** across jurisdictions, and improve **time to market** for AI-enabled products.

SIX Outlines the Following Priority Standardization Areas for the Financial Industry:

1. **Domain-Limit Measurement Standards** for describing AI model scope and reliability,
2. **Model-Validation Methodologies** ensuring consistent, independent assessment,
3. **Logging Standards Across the AI Life Cycle** enabling traceability and incident analysis,
4. **Certification Standards for Third-Party AI Providers** to close upstream transparency gaps, and
5. **Technical Standards Supporting Liability Presumption Across the Value Chain** clarifying responsibilities across provider, deployer, and distributor roles.

These standards would strengthen **risk management,** enable greater interoperability, and help maintain trust and stability across financial markets. They would also support **Switzerland's competitiveness** by reducing fragmentation and ensuring alignment with international developments.

1. Structural Challenges in AI Sourcing and Institutional Oversight

In the financial services sector, the risk management of AI models and systems presents a fundamental structural challenge. SIX has identified several areas in which these challenges are most pronounced:

1.1 Scarcity of Transparent Alternative AI Model Offerings

Under the EU AI Act's value-chain structure, most actors in the financial industry operate primarily as deployers rather than providers. As a result, their ability to manage and mitigate AI-related risks - whether inherent to AI systems or amplified by their technical characteristics - depends heavily on the degree of transparency offered by upstream providers.

The limited availability of transparent alternative AI model offerings restricts deployers' ability to evaluate, compare, and mitigate risks. This dependency significantly influences the extent to which downstream financial institutions can implement the controls required under regulatory and ethical standards.

1.2 Insufficient Guarantees Reflecting an Adequate Level of Provider Control

A second challenge lies in the limited guarantees offered by upstream providers regarding their own internal control frameworks. A key question for financial institutions is whether providers comply with minimum standards sufficient to allow deployers to meet their regulatory obligations. This includes, for example, logging practices that support explainability, traceability enabling root-cause analysis, and mechanisms for incident management and recovery.

The absence of such guarantees creates a clear gap between what is technically feasible for providers to ensure at an early stage of model development and what is ultimately delivered to deployers. Consequently, deployers face structural limitations in their ability to mitigate risks that stem from the provider's diligence or lack thereof.

1.3 Near Absence of Leverage in Negotiating AI-Related Contractual Clauses

The lack of a consensus on core AI definitions and concepts introduces legal uncertainty during contractual negotiations. This increases the burden on legal and compliance teams and weakens the negotiating position of financial institutions vis-à-vis large AI providers. More cohesive and widely accepted interpretations of key concepts across the industry would strengthen negotiating power and better protect the integrity and resilience of the financial sector.

1.4 Difficulty Enforcing or Terminating AI-Related Contracts Due to Divergent Technical Interpretations

Contract enforcement and termination are complicated by differing technical interpretations of contract terms. Harmonized European AI standards - linked legally to the EU AI Act through the presumption of conformity - are increasingly shaping obligations along the value chain.

Since the financial sector was underrepresented during early phases of standard-setting, there is a risk that certain cross-industry standards reinforce obligation imbalances. Without a coordinated response from the financial industry, these imbalances may persist or intensify, making it harder for individual institutions to negotiate contracts that reflect their operational needs. This dynamic could result in vendor lock-in and limit the industry's ability to deploy AI as a driver of sustainable growth.

2. Advancing Responsible AI Provisioning through Technical Standardization

By aligning on a minimal set of technical requirements, deployers can challenge the status quo. Establishing a minimal industry standard that brings greater transparency to market needs would enable diversification of third-party providers, facilitate the development of alternative, transparent AI solutions, and strengthen the sector's technological independence and resilience.

Such standards would support collaboration with vendors capable of meeting financial sector-specific technical and regulatory requirements. With access to certified, well-aligned providers, the industry could enhance its position as a scalable and trusted partner in international trade. Potential AI standards that could be introduced within the financial services industry include:

2.1 Financial Services Certification Standard for Third-Party Providers

SIX supports technical standards enabling the creation of certifications for assessing and challenging third-party AI vendors. Current extracontractual regulatory frameworks offer insufficient upstream transparency

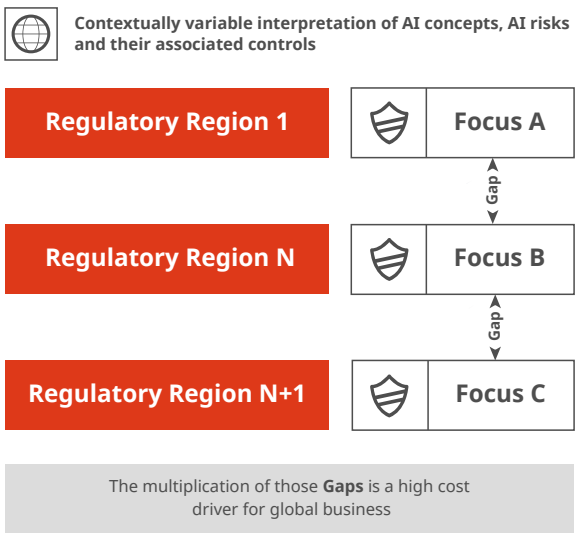
or inadequate mechanisms to enforce transparency requirements. Certification would help close this gap across both contractual and extracontractual dimensions by enabling the financial industry's essential needs to be articulated and enforced consistently.

2.2 Standards Establishing Liability Presumptions Across the Value Chain

SIX supports technical standards that clarify the distribution of risk-management responsibilities across the AI value chain - provider, deployer, and distributor (as defined in the EU AI Act). Such standards could encourage innovation and investment by establishing a set of minimum requirements for all participants. Diligence obligations should be proportionate to the actual level of control exercised by each role over an AI model or system. Where such control is limited, transparency requirements should be increased accordingly.

3. Mitigating Regulatory Divergence to Preserve Market Stability and Competitiveness

Regulatory divergences in the field of artificial intelligence introduce several challenges for the financial industry in its efforts to operate safely and efficiently at scale. These challenges affect interoperability, trust, operational resilience, and ultimately the competitiveness of Switzerland as a financial center.



3.1 Maintaining Trust in the Swiss Market Value Proposition

In its December 9, 2022, publication titled Monitoring of the "Artificial Intelligence" Guidelines for the Confederation, OFCOM underscores that "Switzerland should contribute to such developments in line with its own interests and values. In particular, it should work to ensure alignment with existing obligations and standards." Standardization therefore represents a strategic opportunity for Switzerland to unlock new economic potential while safeguarding technological independence.

With the widespread adoption of large language models (LLMs), the import of technology increasingly entails the import of cultural assumptions. Models trained predominantly on data from specific linguistic or regional contexts inherently carry cultural biases that influence how information is interpreted and prioritized. This dependency risks embedding biases that may challenge scalability and conflict with the Swiss principle of technological neutrality.

For the financial sector, this presents a particular concern: that of ensuring constant levels of safety, continuity, and quality of service across heterogeneous infrastructures. To embed AI effectively, institutions must achieve operational certainty comparable to established systems. Yet the cultural bias embedded in many AI models complicates efforts to scale their use safely and predictably.

3.2 Operational Risk Due to Lack of Consensus on Reasonable User Expectations

Worldwide interoperability of IT systems is essential to ensuring the safety and quality of AI deployments. However, fragmented regulations across jurisdictions make this objective difficult to achieve. The lack of commonly accepted international standards leads to increased operational costs, delayed market entry, and inconsistent performance across regions.

Diverging interpretations of what constitutes an acceptable user experience or ethical AI usage add further uncertainty to system design and deployment. Absent a consensus on baseline requirements, institutions face heightened operational risks, including uneven performance and greater susceptibility to systemic failures.

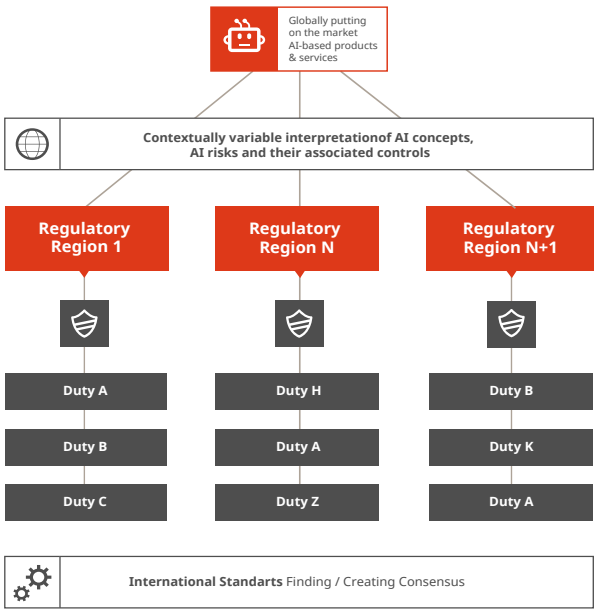
3.3 Sourcing-Related Challenges

The challenges linked to AI sourcing and regulatory fragmentation relate to high go-to-market costs at global scale, increased operational risk stemming from the absence of a consensus on reasonable user expectations, and elevated legal risk resulting from divergent interpretations of technical terms. Together, these factors limit the financial industry's ability to deploy AI technologies safely, consistently, and at scale.

4. Establishing Technical Foundations for Consistent and Trusted AI Deployment

To promote global interoperability and enhance the attractiveness of the European market, many European AI standards are negotiated within ISO mirror committees. Switzerland participates in these processes through its national standards body, the SNV (Schweizerische Normenvereinigung[1]).

The release of a harmonized Standardization Request Draft by the European Union on December 5, 2022, significantly accelerated AI standardization efforts in Europe. The central role of technical standards in implementing the EU AI Act is explicitly reflected in Article 40 of the final Act (published on July 12, 2024), which establishes that adherence to harmonized European AI standards constitutes a presumption of compliance.



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Relevant standards that could meaningfully support the financial services industry include:

4.1 Domain Limits Measurement Standard for AI Models and Systems

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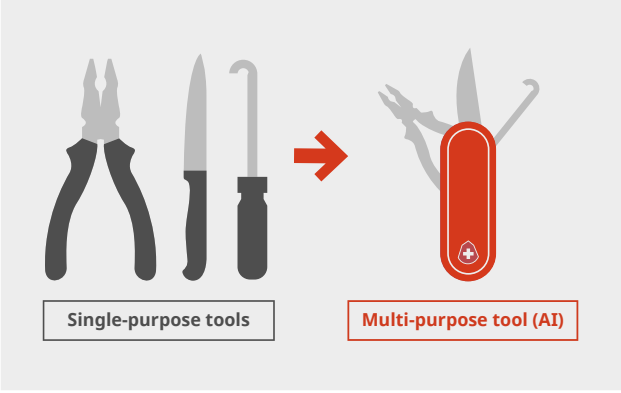
SIX supports an industry-wide measurement methodology to assess and describe - both quantitatively and qualitatively - the operational scope of AI models and systems. This is particularly relevant for general-purpose AI models, including LLMs, where the absence of such standards obscures liability across the value chain.

Without a unified methodology to assess model reliability in specific use-case contexts, the sector's ability to protect end customers and ensure safe product deployment is severely constrained. Clear standards would also enable transparent root-cause analysis and increase trust in financial institutions that embed AI into their products and services.



1. Schweizerische Normen-Vereinigung - SNV
2. Draft standardization request in support of safe & trustworthy AI - European Commission - DocsRoom - European Commission

To illustrate this, the Swiss Army Knife analogy is instructive: each individual tool represents a model with a clearly defined problem space while the entire knife represents a general-purpose model whose combinations create new and sometimes unforeseen behaviors, making comprehensive testing more challenging.

4.2 Domain Limits Measurement Standard for AI Models and Systems

SIX supports an industry-wide model validation methodology to ensure consistent quality of AI model assessments across market participants and jurisdictions. Such a standard would harmonize minimum requirements for independent evaluations, promote interoperability and trust at scale, and enable benchmarking of AI models once methodological alignment is achieved. In the absence of such alignment, principles like explainability, robustness, or "ethical AI" remain difficult to operationalize, similar to the challenges experienced in ESG frameworks without clear measurement methodologies.

The notion that certain AI models are inherently "black boxes" is not acceptable. Financial institutions should strive to deploy AI-enabled products and services with a higher degree of explainability, enabling granular assessment of domain limits, even for general-purpose models. Probabilistic behavior must be bounded by the intended use, thereby increasing certainty and safety for both institutions and end users.

4.3 Logging Standards Across the AI Life Cycle

Many AI-related incidents originate from underlying training data and model development approaches. SIX therefore advocated for the establishment of logging standards across the entire AI life cycle. Minimum requirements for log creation should be fulfilled as early as possible in the model architecture. Importantly, these requirements concern tracking of relevant information and do not imply direct access to or ownership of provider logs. Such standards would enhance transparency, enable effective incident analysis, and strengthen the safety and efficiency of AI-embedded services.

4.4 Standards Supporting Liability Presumption Across the Value Chain

SIX supports the development of standards mapping user profiles - including varying degrees of technical proficiency - to relevant documentation and instructions. This mapping would facilitate clear and secure interactions across the ecosystem and enable a more effective assessment of user liability. Such standards would support go-to-market strategies by ensuring transparent consumer interactions, appropriate user protection, and responsible AI implementation across the financial services industry.

5. Priority Areas for AI Standardization in Financial Services

SIX supports AI standardization within the financial industry because it offers a strategic opportunity to unlock several key benefits for market participants. Industry-wide standards can:

- enhance third-party provider offerings by aligning them more closely with financial-sector requirements,
- improve go-to-market efficiency,
- enable scalable distribution of AI-embedded products and services, and
- reduce legal risks, thereby fostering a culture of innovation and sustainable growth.

From SIX's perspective, the following standardization domains are of particular value to the financial industry:

- Domain Limits Measurement Standards for AI Models and Systems,
- Model Validation Standard Methodology,
- Logging Standards Across the AI Life Cycle,
- Financial Services Certification Standards for Third-Party Providers, and
- Standards Establishing Liability Presumptions Across the Value Chain.

SIX is actively contributing to the identification and prioritization of these industry-relevant topics at the domestic level. Through its participation in the Swiss Association for Swift and Financial Standards (SASFS) Transversal Commission for Artificial Intelligence (TK AI), SIX collaborates with key market stakeholders to ensure that end customers, intermediaries, and the core banking sector benefit from proportional, fair, and effective standards.

To learn more, please refer to the latest SASFS article: Adaptive Approach to the Development of Standards and Best Practices for the Use of AI within the CH & LI Financial Centre

This policy paper is part of a broader Strategic AI Framework by SIX and is complemented by two additional policy papers:

- One paper focuses on the EU AI Act, analyzing its implications and exploring options for technical adaptation and domestic legal integration within EU member states.
- The second focuses on AI Regulation in Switzerland as a third country with its approach of integrating AI governance principles into existing laws, while also outlining proposals for a well-calibrated adaptation going forward.

These three papers together are intended to form a coherent basis for dialogue with policymakers, regulators, and industry stakeholders.

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