TEMET

end-to-end IT security

AI Compliance Essentials: Standards and Emerging Regulations

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Speaker

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Main Topics:

- Security Strategy & Architecture
- Information Security Management Systems (ISMS)
- Cybersecurity & Security Operations

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Standards

ISO/IEC

Joint Technical Committee 1: Information Technology

Subcommittee 42: Artificial Intelligence

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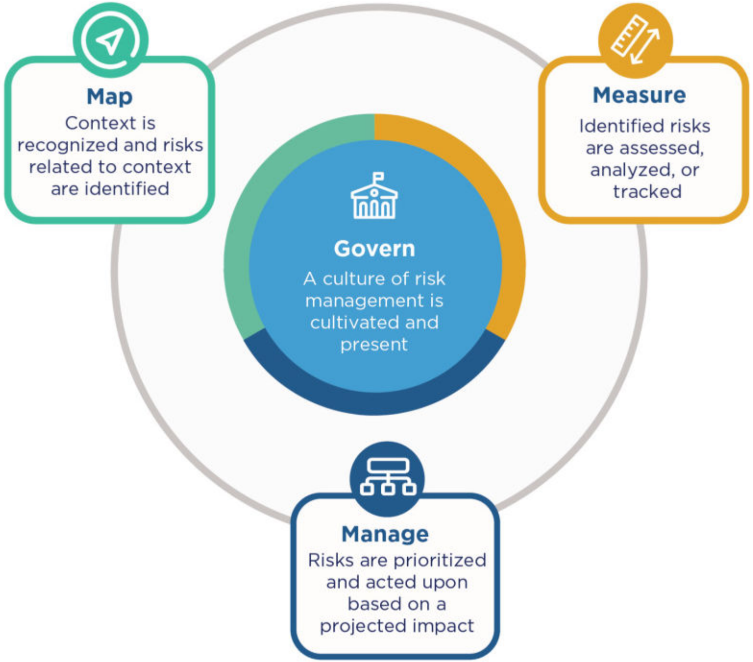
General Topics
ISO/IEC 22989:2022 Information technology — Artificial intelligence — Artificial intelligence concepts and terminology

Risk Management and Governance	
ISO/IEC 42001:2023 Information technology — Artificial intelligence — Management system	**ISO/IEC DIS 42005 (Draft)** Information technology — Artificial intelligence — AI system impact assessment
ISO/IEC 38507:2022 Information technology — Governance of IT — Governance implications of the use of artificial intelligence by organizations	**ISO/IEC 23894:2023** Information technology — Artificial intelligence — Guidance on risk management

NIST AI Risk Management Framework

Advance the safe, secure, and trustworthy development and use of AI.



Map
Context is recognized and risks related to context are identified

Measure
Identified risks are assessed, analyzed, or tracked

Govern
A culture of risk management is cultivated and present

Manage
Risks are prioritized and acted upon based on a projected impact

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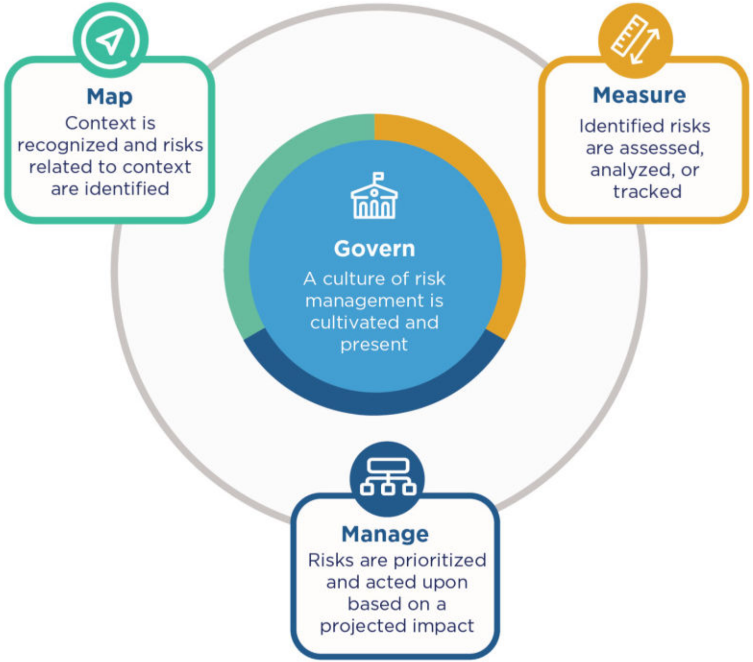
NIST AI 100-1: AI RMF 1.0
4 Functions, 19 Categories, 69 Subcategories



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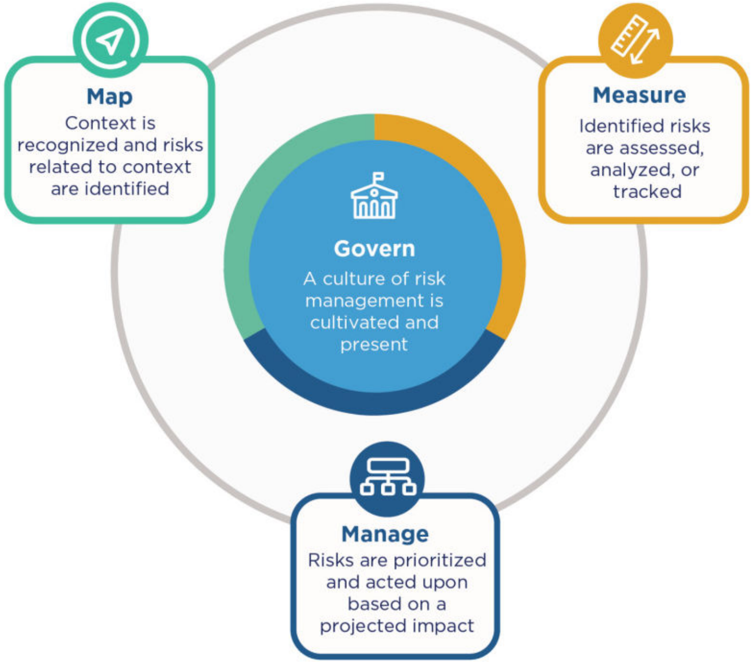
Generative Artificial Intelligence Profile



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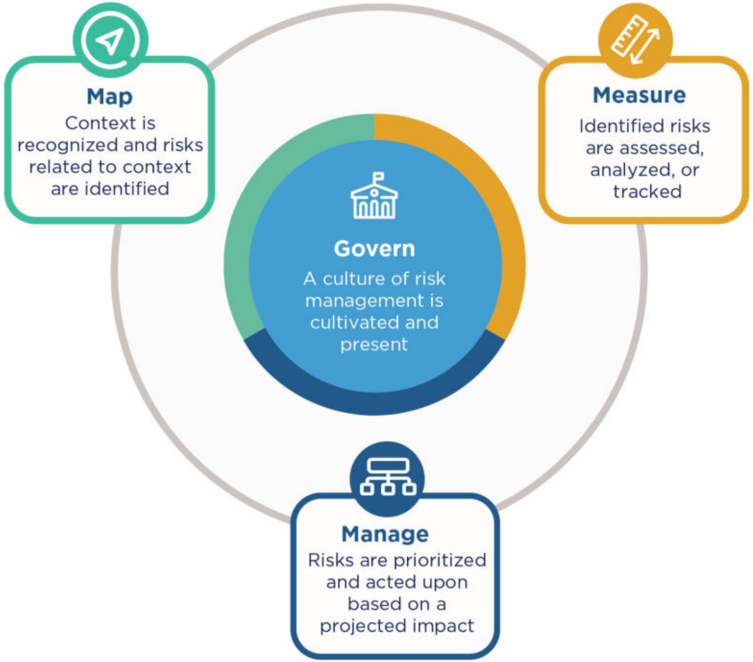
NIST AI RMF Playbook
Implementation guidance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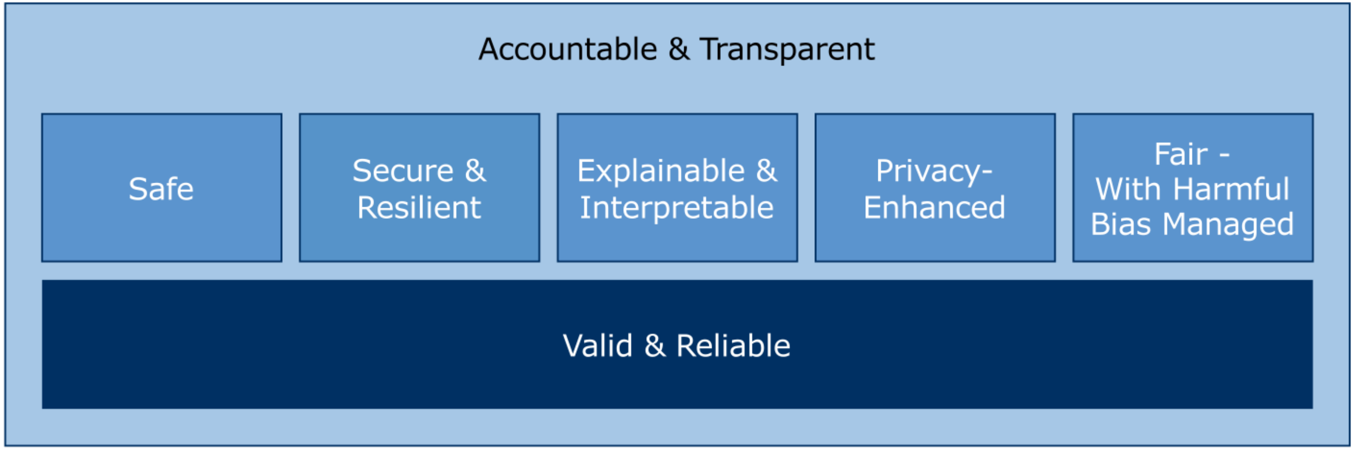
Trustworthy AI

Properties of Trustworthy AI



Accountable & Transparent

Safe

Secure & Resilient

Explainable & Interpretable

Privacy-Enhanced

Fair - With Harmful Bias Managed

Valid & Reliable

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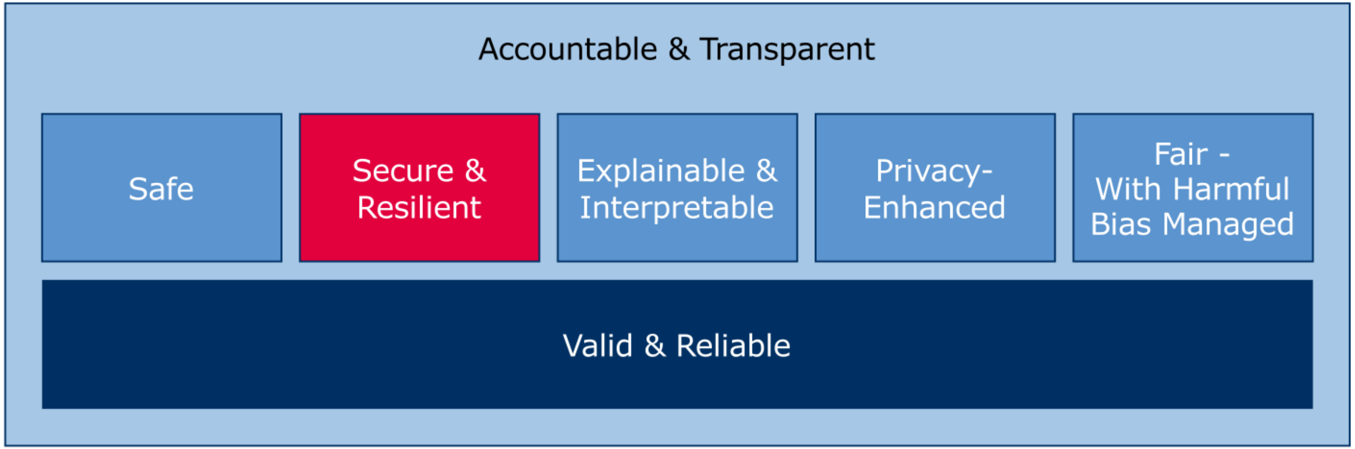

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Regulations

Focus of the regulators

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Systems that make decisions on behalf of humans.

- Screening resumes
- Determining eligibility for credit
- Making parole decisions
- Predictive policing
- Predictive maintenance

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Technology to identify objects or humans.

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- Gait analysis
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Manipulative or Deceptive Use

Systems to manipulate or deceive humans or systems.

- Deep fakes
- Voice cloning
- Fake social media accounts
- Systems that impersonate humans

EU AI Act

Chapter II: Prohibited AI Practices

- Exploiting, discriminating, manipulating, or deceiving people
- Non-targeted use of biometric recognition technology
- Exceptions for law enforcement

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Chapter III: High-Risk AI System

- A list of high-risk applications is provided
  - Biometrics, safety, gatekeepers, law enforcement, justice, and democracy
- Third-party conformity assessment must be performed
- A risk management system must be in place
- Article 15: Accuracy, Robustness and Cybersecurity

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- Focus on:
  - Human dignity and individual autonomy
  - Equality and non-discrimination
  - Respect for privacy and personal data protection
  - Transparency and oversight
  - Accountability and responsibility
  - Reliability
  - Safe innovation

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- Federal Council wants to harness the potential of AI while minimizing the risks to society
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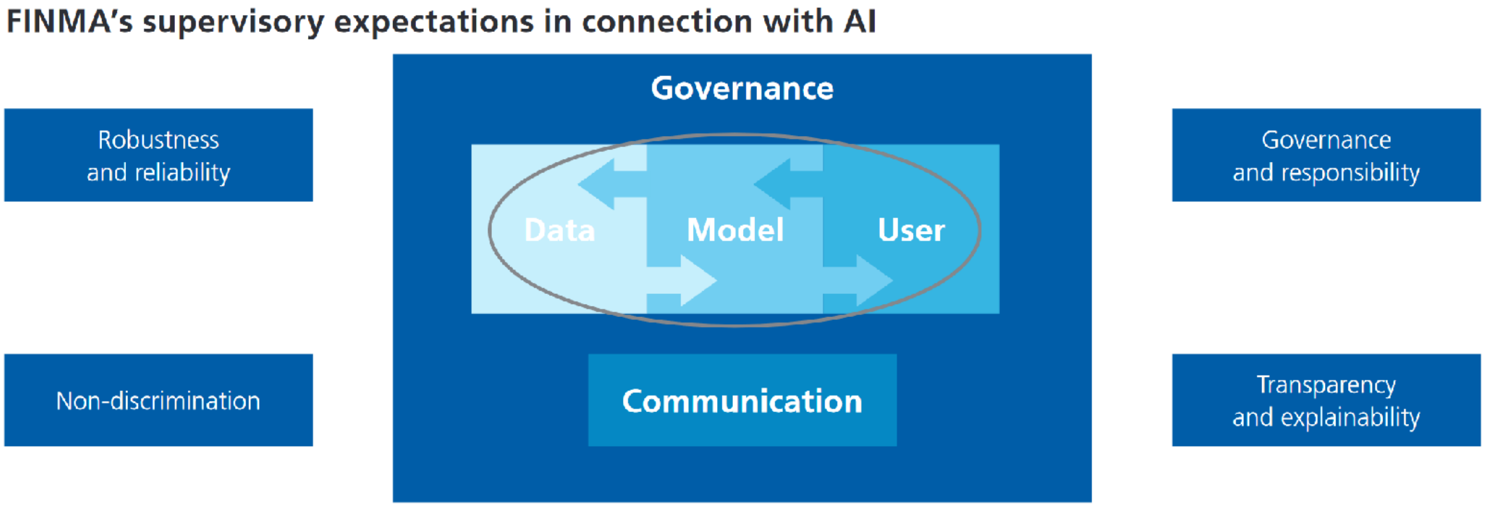
  - Leave regulation to sector-specific regulators

FINMA



FINMA's supervisory expectations in connection with AI

Robustness and reliability

Non-discrimination

Governance

Data

Model

User

Communication

Governance and responsibility

Transparency and explainability

Conclusion

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