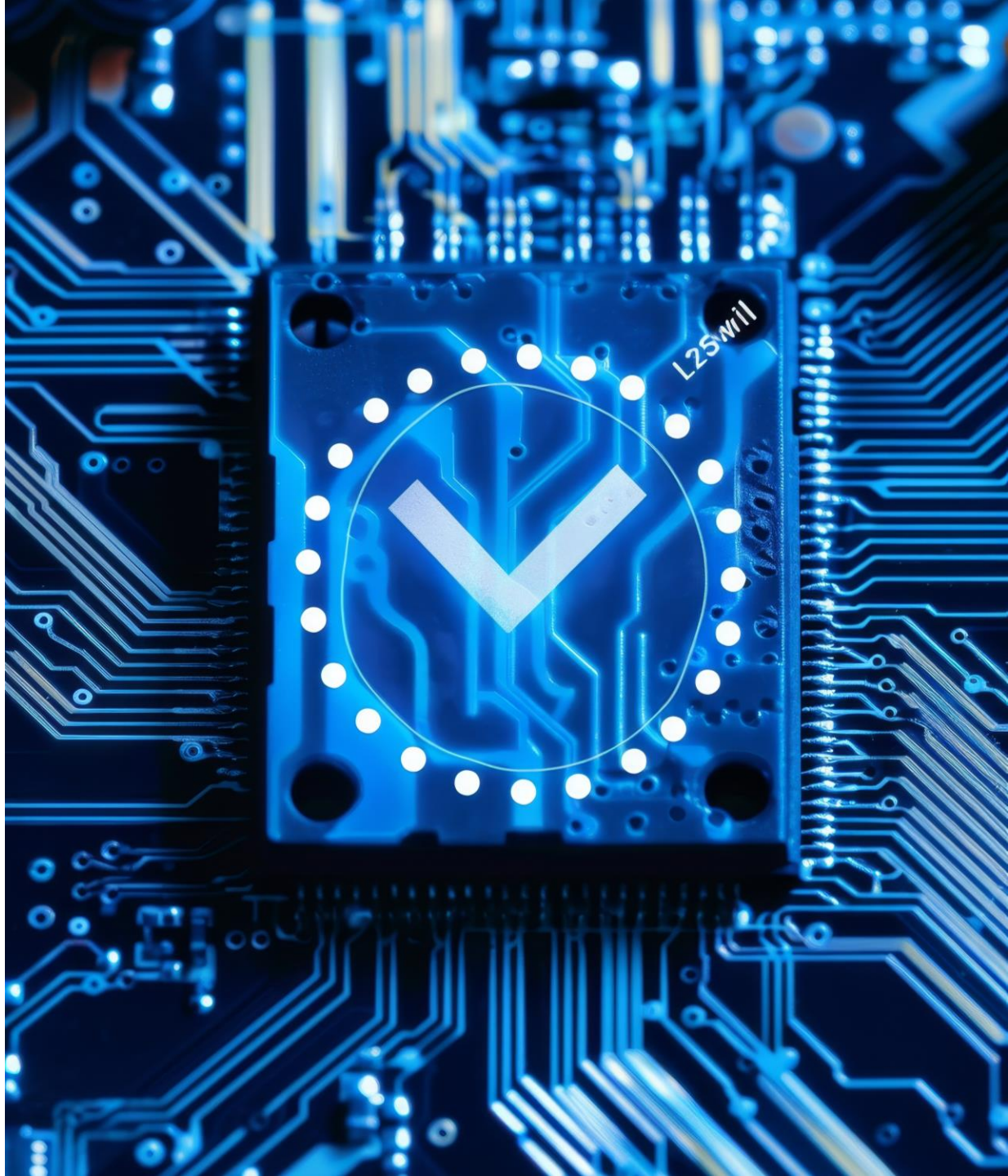
Artificial Intelligence: Framework, Risks and Responses

Dr. Ariane Chapelle

Outline

- AI Framework and Strategy
- AI for Risk Management
- **AI Risks and Responses**



Section 1

AI Framework & Strategy

Financial Industry Survey

(Risk.net – Riskonnect, May 2024)

Most respondents (83 – 94%) see AI as an **opportunity** for the sector, their firm and their role

Top 3 areas of **improvement** are:

- AI Risk Management **Framework**
- AI **Strategy** and Objectives
- Data **Governance**

Top 3 **challenges** are:

- **Data** Availability and Quality
- **Regulation** Uncertainty and Compliance
- Transparency and **Explainability** of Models

AIRMF: to be integrated in ERM

- **Strategy & objectives**

  Where to use AI, and for which objectives?
- **Risk Identification (risks to objectives)**

  What are the risks involved in those uses?
- **Risk Assessment (upwards and downwards)**

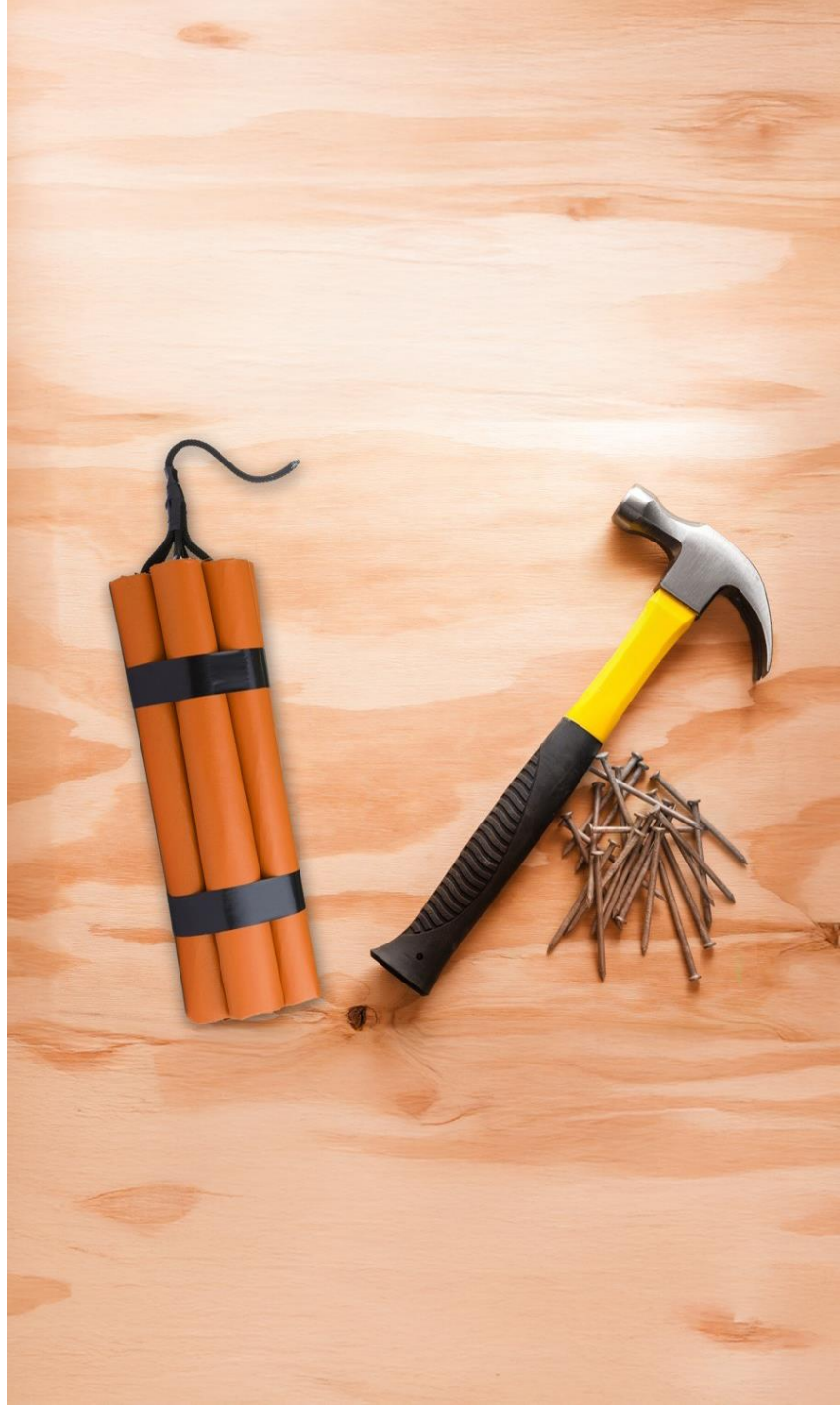
  Which risks increase and decrease as a consequence of moving to AI?
- **Risk Response (not only mitigation)**

  Do they need to be mitigated, accepted or avoided?
- **Monitoring (assess and adjust)**

  Does everything work as intended?

AI is a tool

- Neither good or bad intrinsically
- Its benefits or harm depends on its use
- Refusing to use it for fear of its misuse carries costs, too



Opportunities - Automation & Productivity Boosts

- Back-office tasks
- Chatbots / Customer interface
- Claims handling
- Trading / Product selection
- Data sorting/text analysis
- Documentation and Procedures
- Bibliographical research / Translations / Summaries / Editing

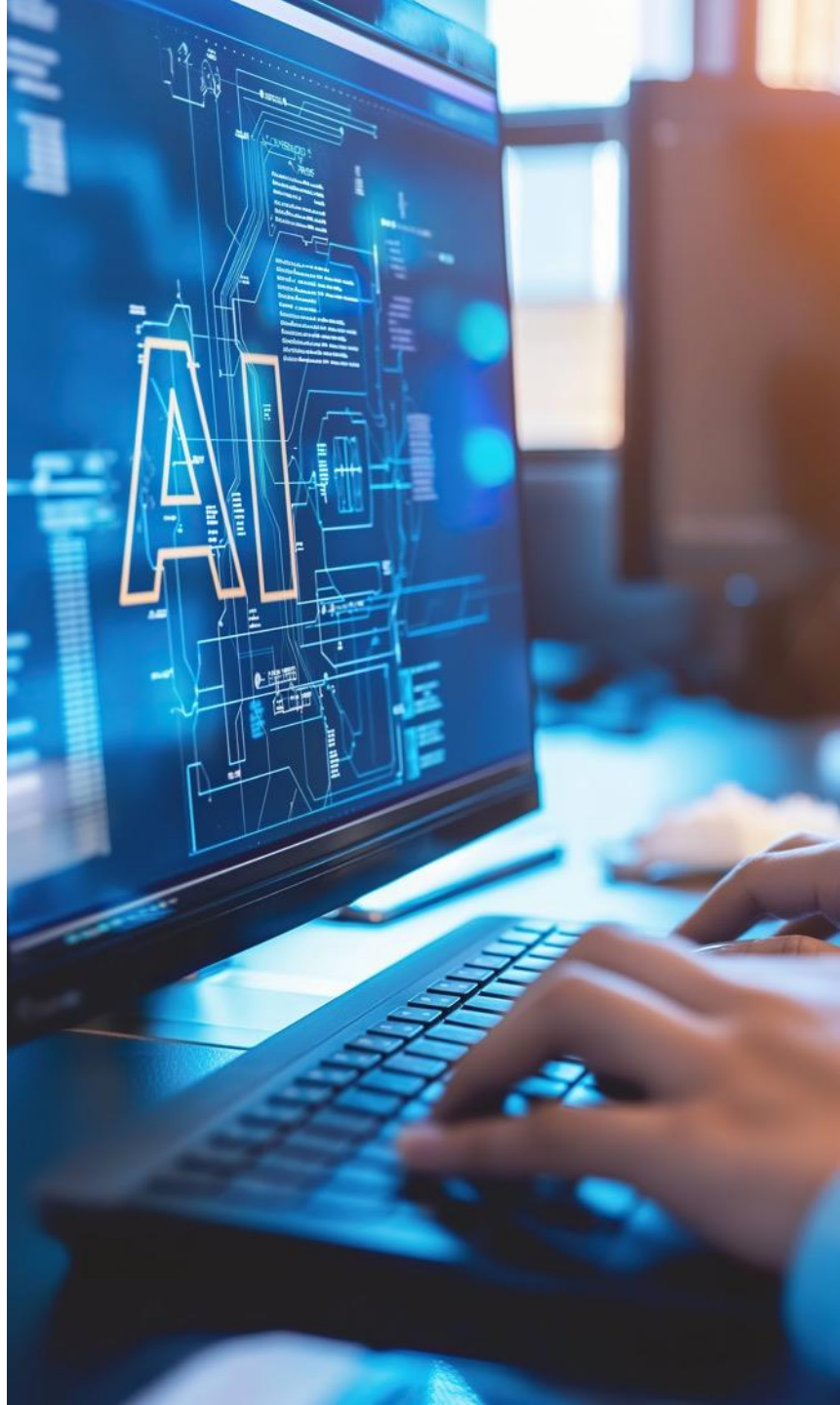
THE RANGE OF PRACTICE VARIES WIDELY ACROSS FIRMS.

BUSINESS MODELS WILL BE VASTLY IMPACTED

DON'T BE A (TOO) LATE ADOPTER.

Some risks related to AI Strategy

- Adoption timing/reluctance from ignorance
  - Competition bypass due to higher costs
  - Obsolescence due to outdated services & products offers
- Over-estimation & under-estimation of AI capabilities
- HR implications
  - Replacement vs Augmentation
  - Firing & re-hiring
  - Skills gap
  - Social tensions



LARGE & NAIVE

Book suggestions based on past buys

RESTRICTED & DEEP

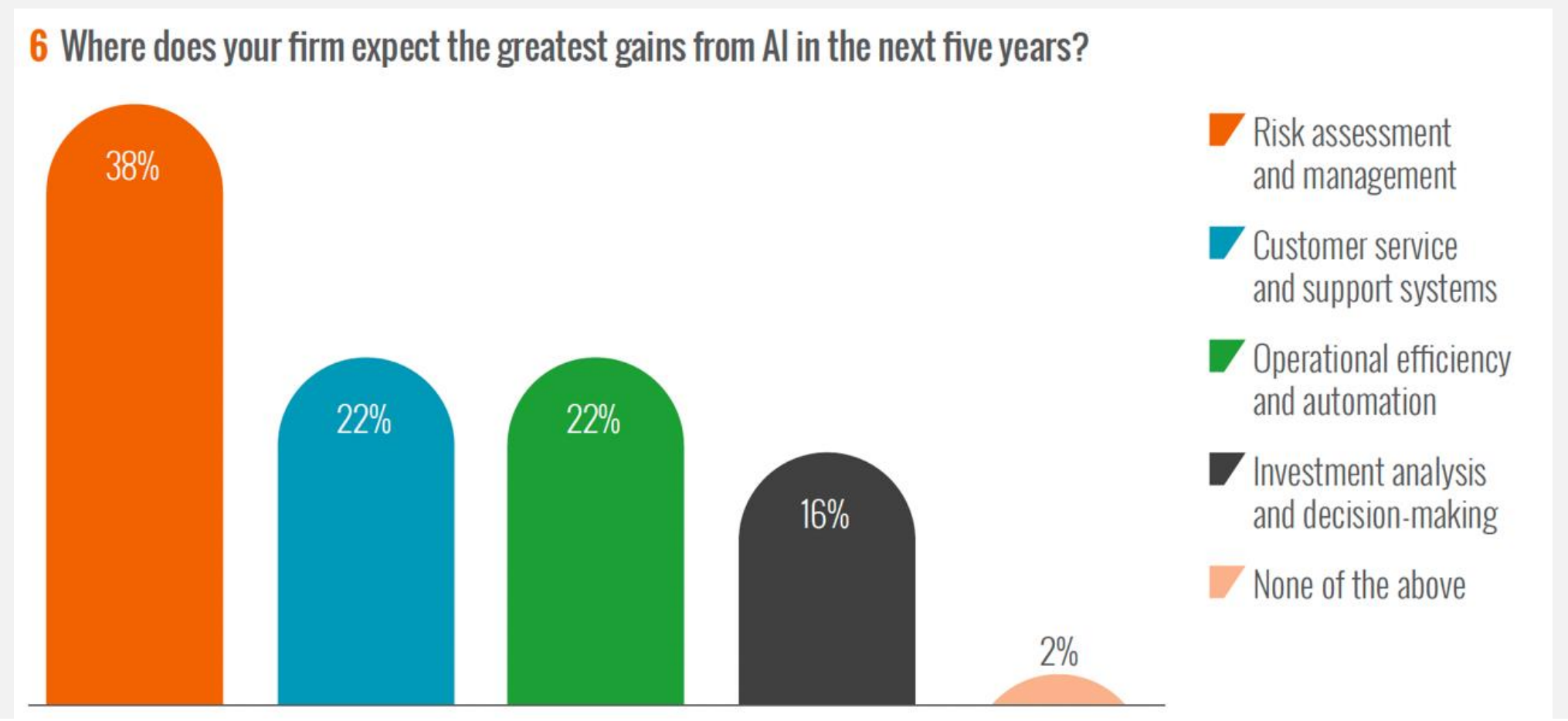
Humor, imagination, sarcasm

Human Intelligence to elevate rather than imitate

Section 2

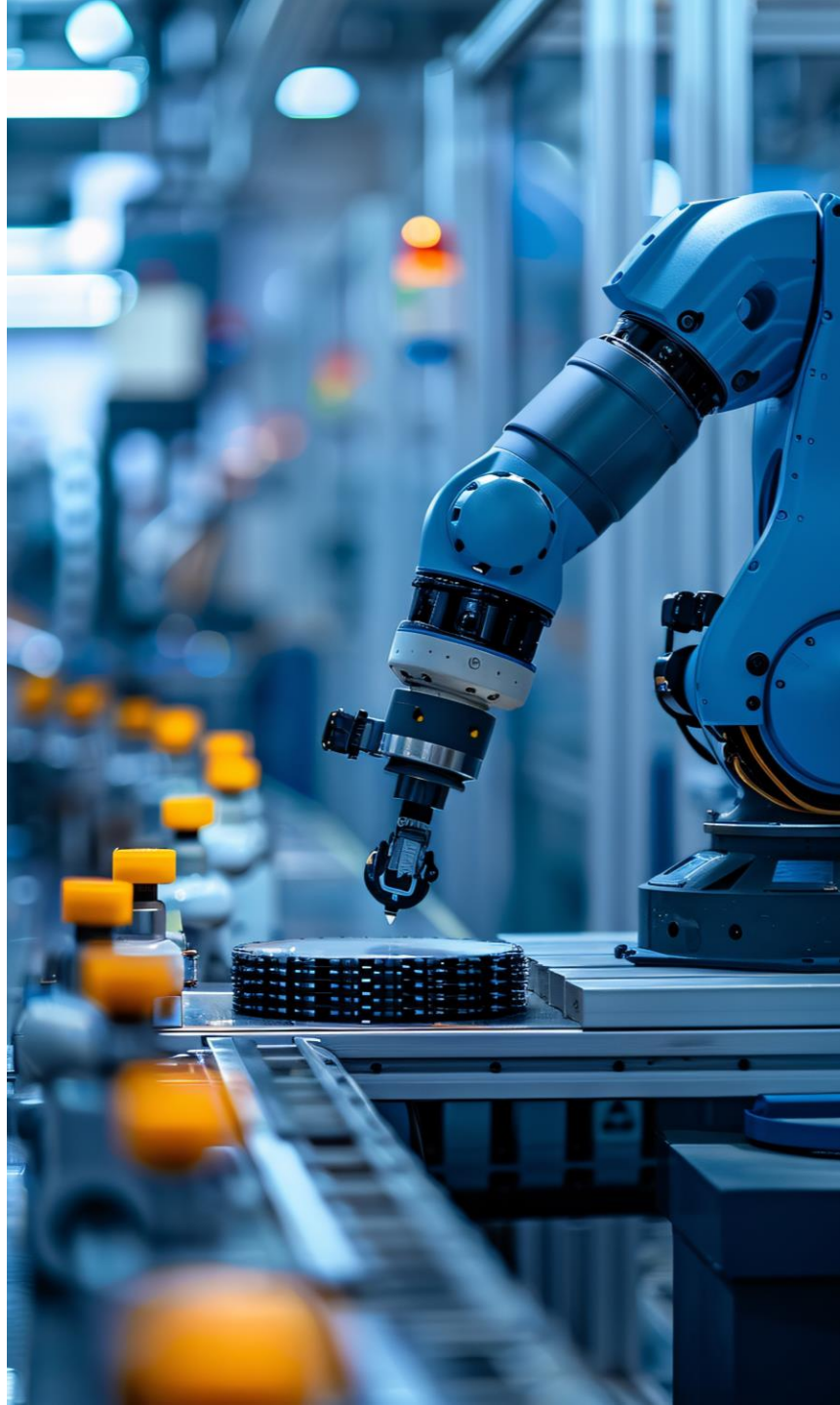
AI for Risk Management

Large untapped potential



Ten current & potential AI applications in ERM

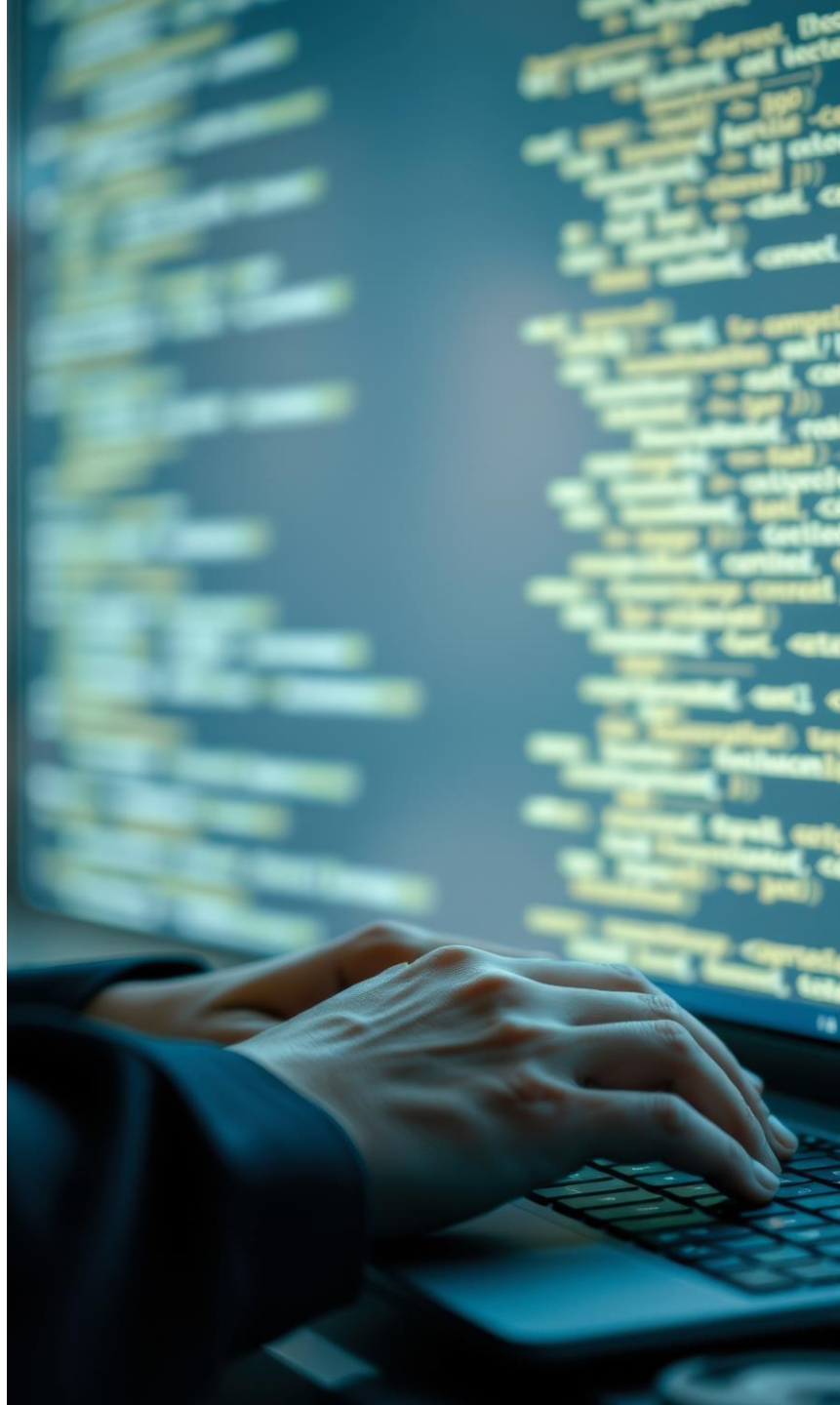
1. Outliers detection
2. Cyber security (e.g. adversarial models)
3. Cleaning and organizing data (e.g. incident reporting)
4. RegTech: recommending compliance and controls
5. Understanding behavioural drivers
6. Improving scenario analysis
7. Unsupervised learning for limited data availability
8. Identifying risk interdependencies
9. Validating KRIs and identifying risk drivers
10. Horizon screening for emerging risks



What’s in the foreseeable future?

Complexities and interdependencies – using data:

- Better view on risks interdependencies and portfolio approach
  - Managing risks in clusters
  - Prioritizing mitigation of “lead risks”
- Assessment of control layers & effectiveness testing of control systems
- Dynamic risk assessment, fed with automated updates from new, relevant information (requires combined intelligence)

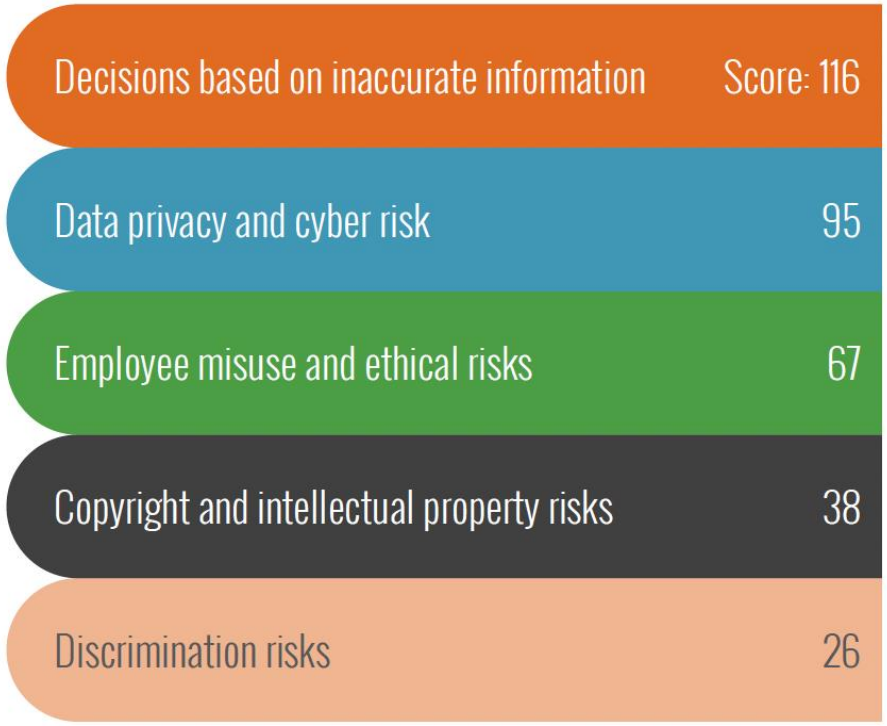


Section 3

AI Risks & Responses

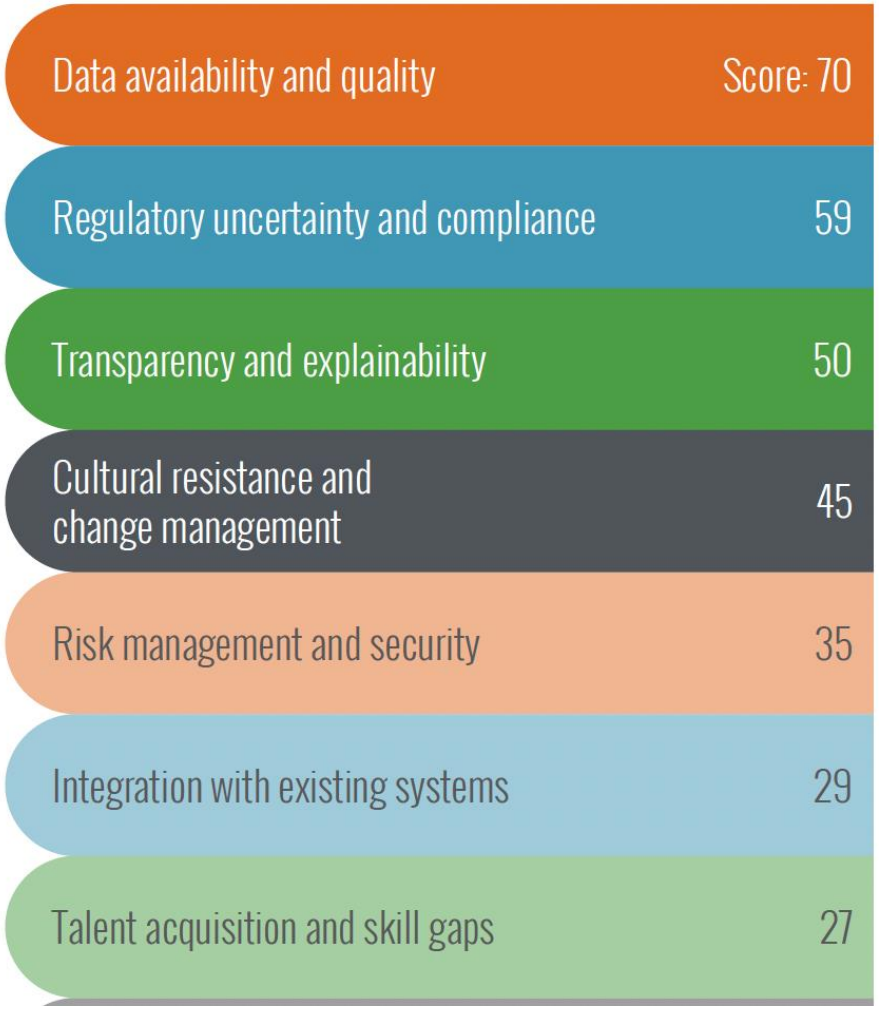
AI risks - Survey Findings

7 Which risks is your firm most concerned about in relation to AI adoption?



Votes were cast using a scale of 1-3, where 1 denotes the lowest rating, and 3 the highest.

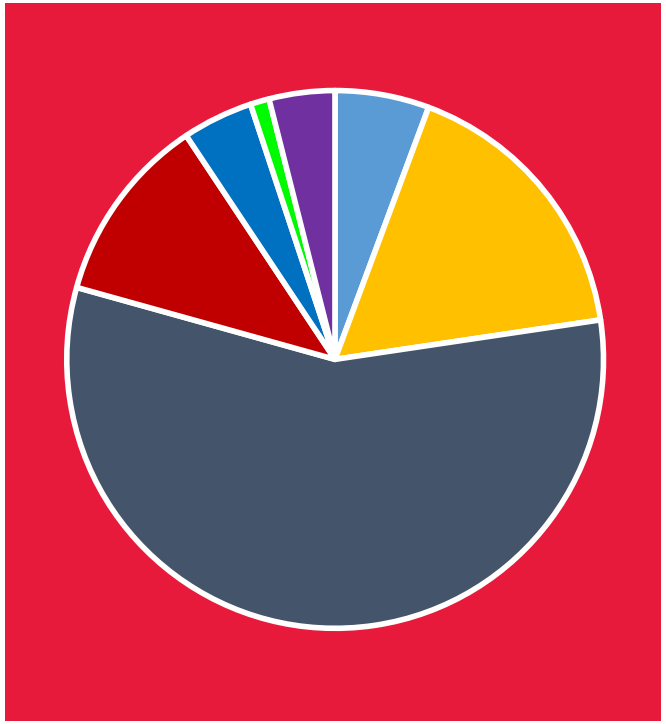
8 What have been the key challenges for your firm in adopting AI?



Well-known AI Risks, and elements of response

- Data input (Training set)
  - Quantity -> wider input
  - Quality -> sense checks and continuous cleaning (human and automated)
  - Balance / Bias -> scrutiny and representativity
- Data output (Results)
  - Hallucination -> sense checks and cross-checks (human and automated)
  - Model performance -> regular monitoring + assumptions reviews (model governance)
- Explainability and interpretation -> trade-off explainability / precision
- SME dependencies -> clear and proactive HR policy
- Systems dependencies -> infrastructure maintenance and resilience planning

DATA TRAINING SET: look for age, context relevance and balanced categories



Summary

- Don’t leave it too late: have a proactive AI strategy
- Integrate risk identification and assessment into each AI initiative
- Think of AI to improve risk management

Contact

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