

2026 Industry Showcase

Decisions Under Uncertainty: Engineering Management's Next Strategic Frontier

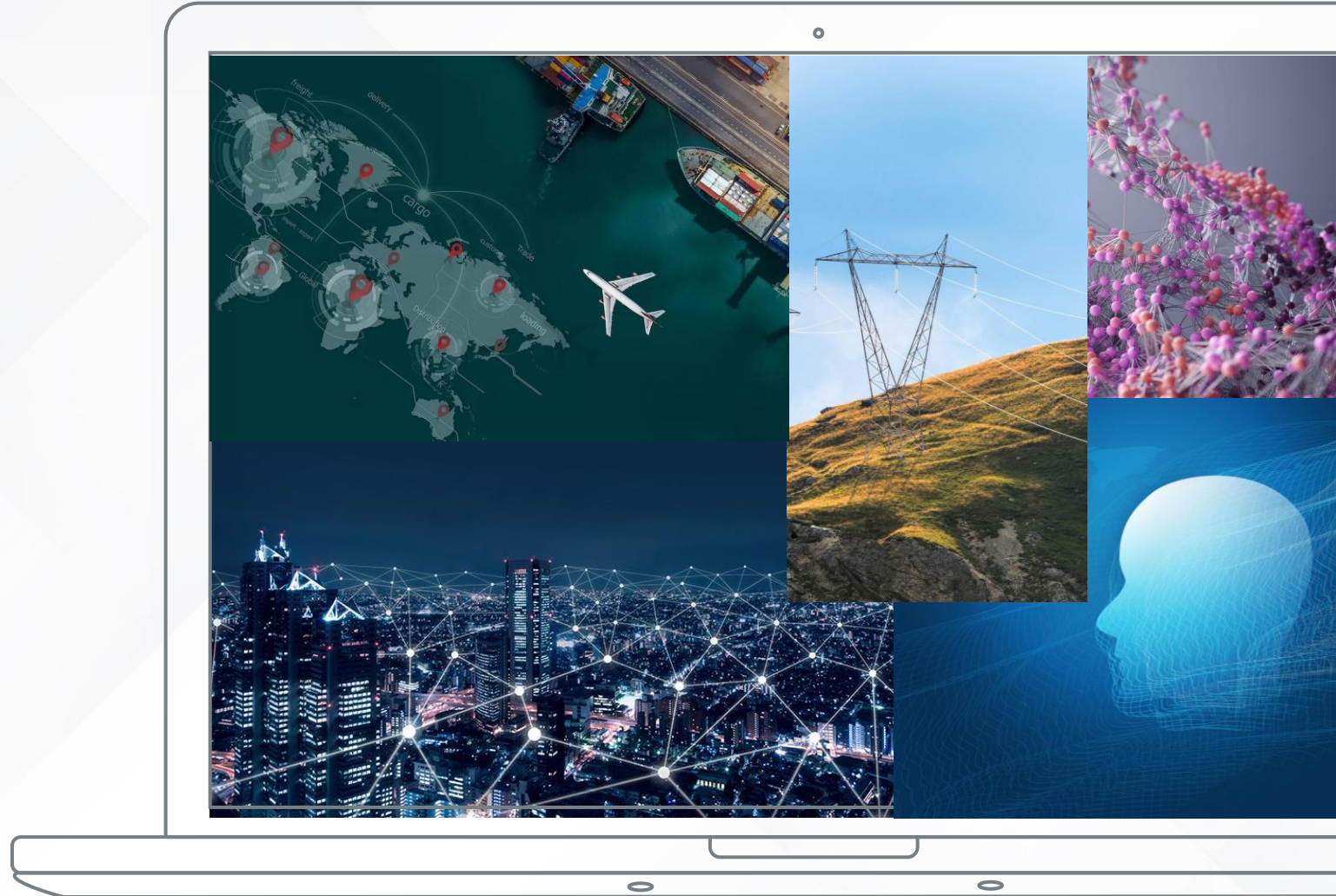
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The world has changed...

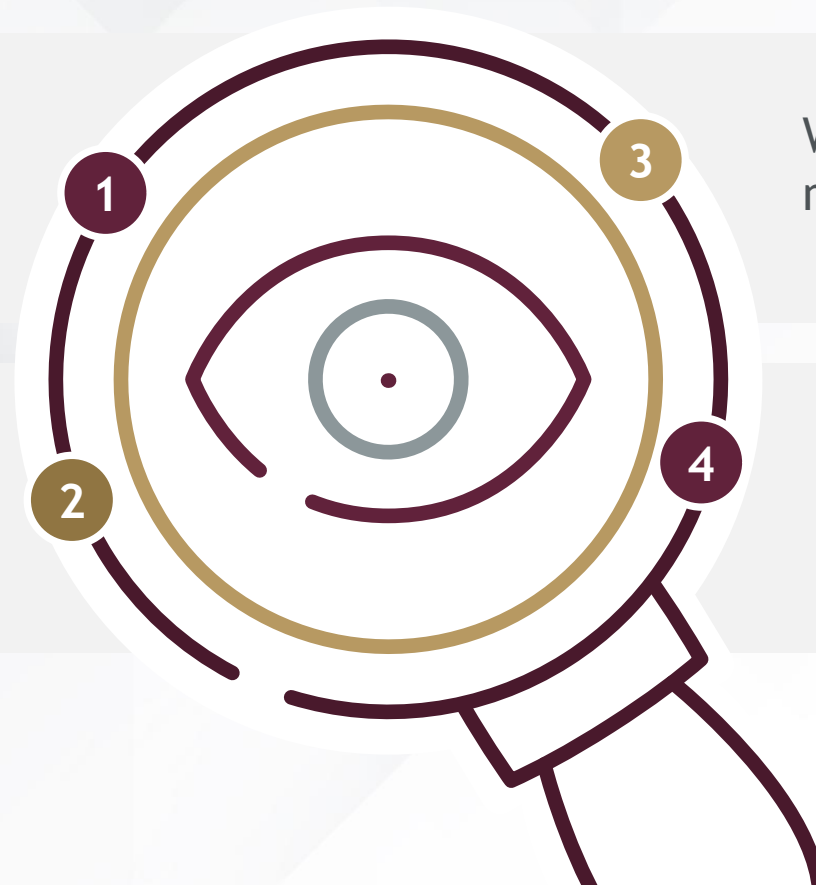
- Increasing system complexity
 - AI integration
 - Energy transition
 - Infrastructure interdependencies
- Compounding uncertainties
 - Geopolitical
 - Climate
 - Supply Chains
- We are managing 21st century risks with 20th-century tools



Where Industry is Struggling

Fragmented risk ownership
(silos: engineering, finance,
operations)

Static risk registers vs
dynamic reality

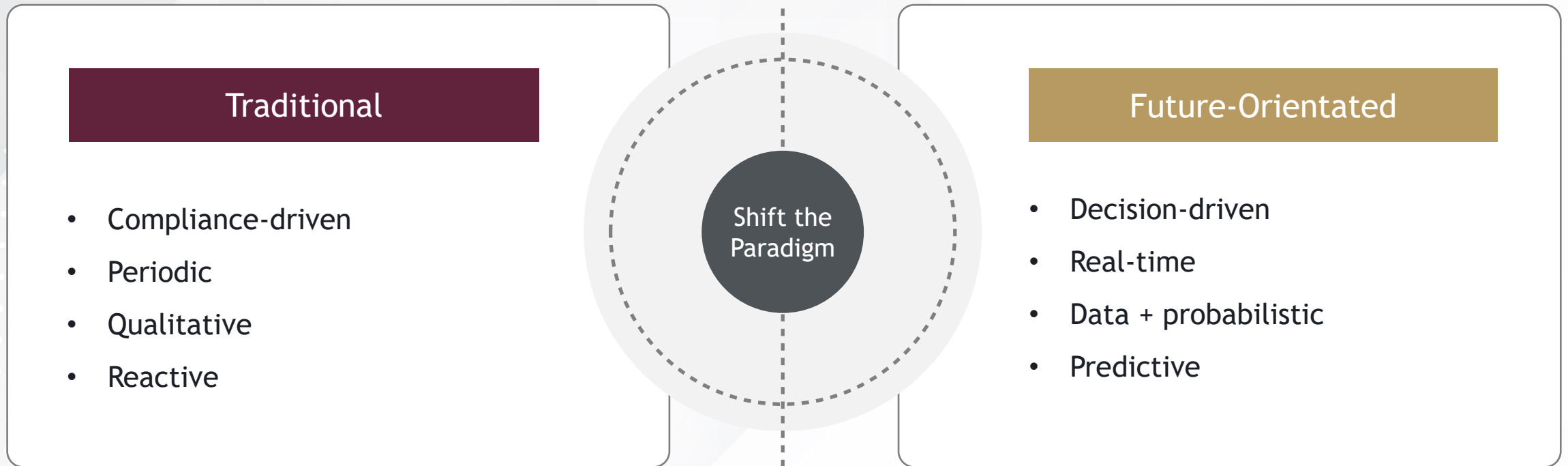


Weak integration into decision-
making

Limited quantitative/AI
enabled risk capability

Most organisations don't lack risk frameworks—they lack risk capability embedded in engineering decisions.

From Risk Management → Risk Intelligence



Risk Intelligence = Engineering + Data + Decision Science

Why Engineering Management



The Natural Home for Risk Capability



Already teaches project management, systems thinking, decision making under uncertainty



Bridges engineering, operations and strategy



Integrates technical systems + business decisions

Engineering Management is the only discipline structurally positioned to operationalise risk across the full value chain.

The Opportunity

Platform to co-create risk informed decision capability

Applied Research



Executive &
Industry Education



Industry
Collaboration
Platform



Move from theory to practice, and from isolated tools to integrated capability

What we're proposing

- Co-develop this capability with Industry
- Build something distinctive at Stellenbosch

Opportunities for partners

- Founding industry partners
- Sponsored research chair in Risk Management
- Pilot programmes/case studies
- Executive education collaboration

The organisations that will lead tomorrow are not those that avoid risk—but those that engineer their ability to navigate it

Thank you!

