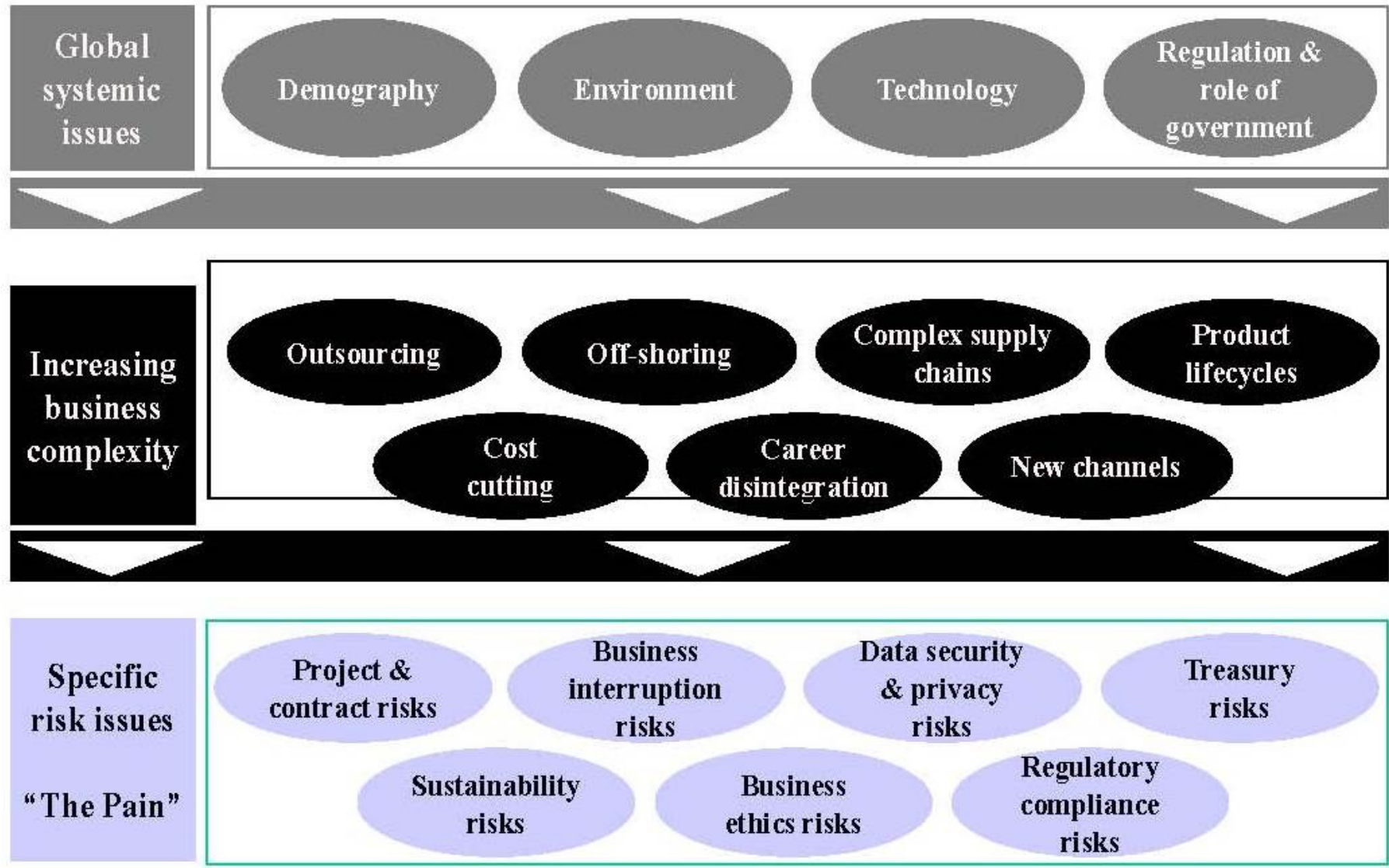# The inevitability of 'Integrated Audit'

Expectations : "More" services to Management at reduced cost

- From 'Core' assurances (financial, asset safeguard, regulatory compliances).

- To 'Value' enhancement (process improvements, corporate initiatives, due diligence….)

- Emerging Risk – complex business model

  ➢ (Product → Smart Product → Smart Connected Product → Product System → System of Systems)

- Integrated Audits – focus simultaneously on financial, operational and IT control processes.

Risk in Business

Global systemic issues	Demography	Environment	Technology	Regulation & role of government

Increasing business complexity	Outsourcing	Off-shoring	Complex supply chains	Product lifecycles
	Cost cutting	Career disintegration	New channels	

Specific risk issues "The Pain"	Project & contract risks	Business interruption risks	Data security & privacy risks	Treasury risks
	Sustainability risks	Business ethics risks	Regulatory compliance risks	

The New Technology Stack

PRODUCT CLOUD

Smart Product Applications
Software applications running on remote servers

Rules / Analytics Engine
The Rules, business logic, big data analytics, algorithms

Application Platform
Business Applications using data access, visualization & run-time tools

Product Database
Big data base system–aggregation, normalization & management of real-time & historical product data

Identity & Security
Tools that manage user authentication…product cloud layers

External information sources
Tools that manage user authentication…product cloud layers

CONNECTIVITY

Network Communication
The protocols that enable communications between the product & the cloud.

PRODUCT

Product Software
An embedded operating system, onboard software appl, enhanced user interface & product control components

Product Hardware
An embedded sensors, processors & connectivity port/antenna……mech & elect. components

Integration with Business system
Tools that integrates data……ERP, CRM & PLM

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Integrated Audit Operating Model

- Intentional audit design process that cohesively combines business process and IT audit into a single, co-ordinated effort.

- Looking at business process through an IT lens adds a deeper layer of inspection and learning to the audit, aiding continuous improvement.

- Diverse Team (Financial, operational, IT, SME) and standardised Audit Plan, Execution, Completion.

- Technical Abilities

- Project Management Skills

- Differentiating Competencies :

  ➢ **Builder** : *shared vision, people development.*

  ➢ **Persuader** : *simplify complex ideas, use experience.*

  ➢ **Strategist**: *understanding business & technology.*

  ➢ **Learner** : *asks help, new ideas.*

  ➢ **Doer** : *functional expertise, tasks breakdown.*

Experiences

- Business Complexity – Day 1: Multiple Trading Portfolios.

- Enhanced Risks – Large Capital Allocations creating Energy, Resources, Logistics, Agri portfolios.

- BPT with high degree of IT usage.

- Integrated Structure: centre led, integrated model, standardisation across with risk based audit plans supported by data analytics and compliance tools.

- Extensive usage of Co-Sourcing and Guest Auditor Models (SMEs for audit of IT, Treasury, Business Domain, Projects & Compliances)