How to avoid approving a misleading or weak Distributed Ledger Technology Project

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13 June 2017

The team

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Introduction

- **$1.4 billion investment in Distributed Ledger Tech**

  - 9 month cycle in 2016

- **However, according to Standards Australia (2006)**

  - 15-28% of ICT projects are abandoned before completion

  - 30-40% of ICT projects experience some form of escalation with cost overruns averaging 43-189%

  - 30-40% of projects are implemented without any perceptible benefits

  - 80-90% of ICT investment fail to meet their performance objectives (although project management methods and tools are in widespread use)

Evolution of Bitcoin & Blockchain

- Bitcoin 1.0 launched 2009

- P2P permissionless based cryptocurrency

- Ethereum launched in 2015

- P2P blockchain with contract capabilities

A strong business case

Misleading	Strong
'Financial targets cannot be met without a redundancy programme. The programme proposed as few as 100 mainly junior staff and pays back in less than five years. Industrial relations issues are fully covered in the programme's risk mitigation strategy.'	'Option A will lead to between 100 and 150 redundancies, mainly at Grade 4, saving c.£2.5m p.a. but incurring termination costs of £10m. An impact assessment of each affected site is at Annex J; there is significant risk of industrial action at Croydon where some 20 per cent of the job losses will occur.'
Token	**Weak**
'The change programme had inevitably led to some redundancy costs, fully funded in this year's budget. Savings will start to accrue from next year. Details are in the spreadsheets at Annexes D, E and F.'	'Option A is likely to lead to some redundancies, yielding long-term paybill savings at the cost of significant investment. It has not yet been possible to quantify these impacts. Affected staff will not welcome the change and there may be some industrial relations issues.'

Gambles (2009)

Project Governance

- Enterprise Programme Management (EPM)

- PMBOK

- PRINCE2

- COBIT

- ITILv3

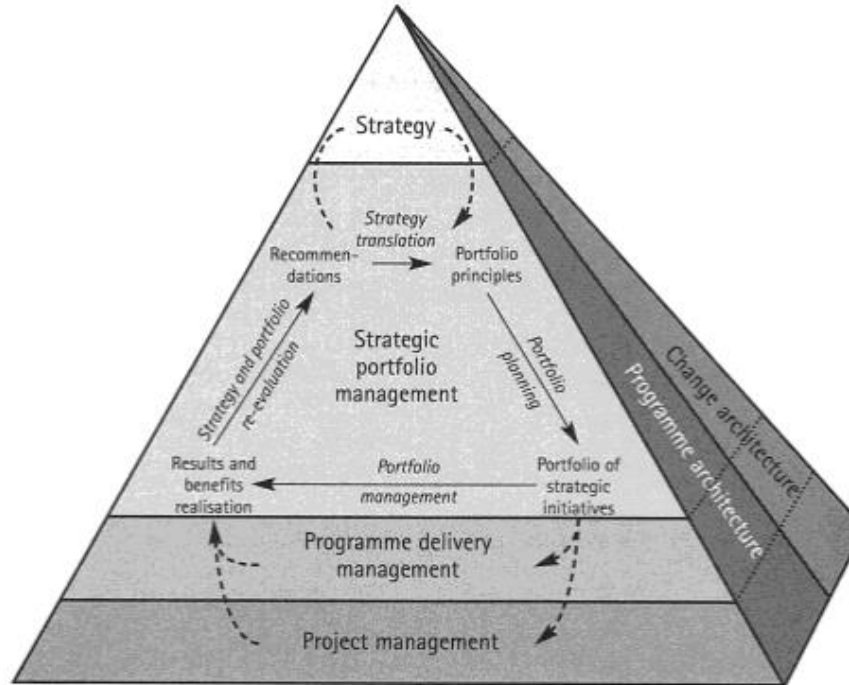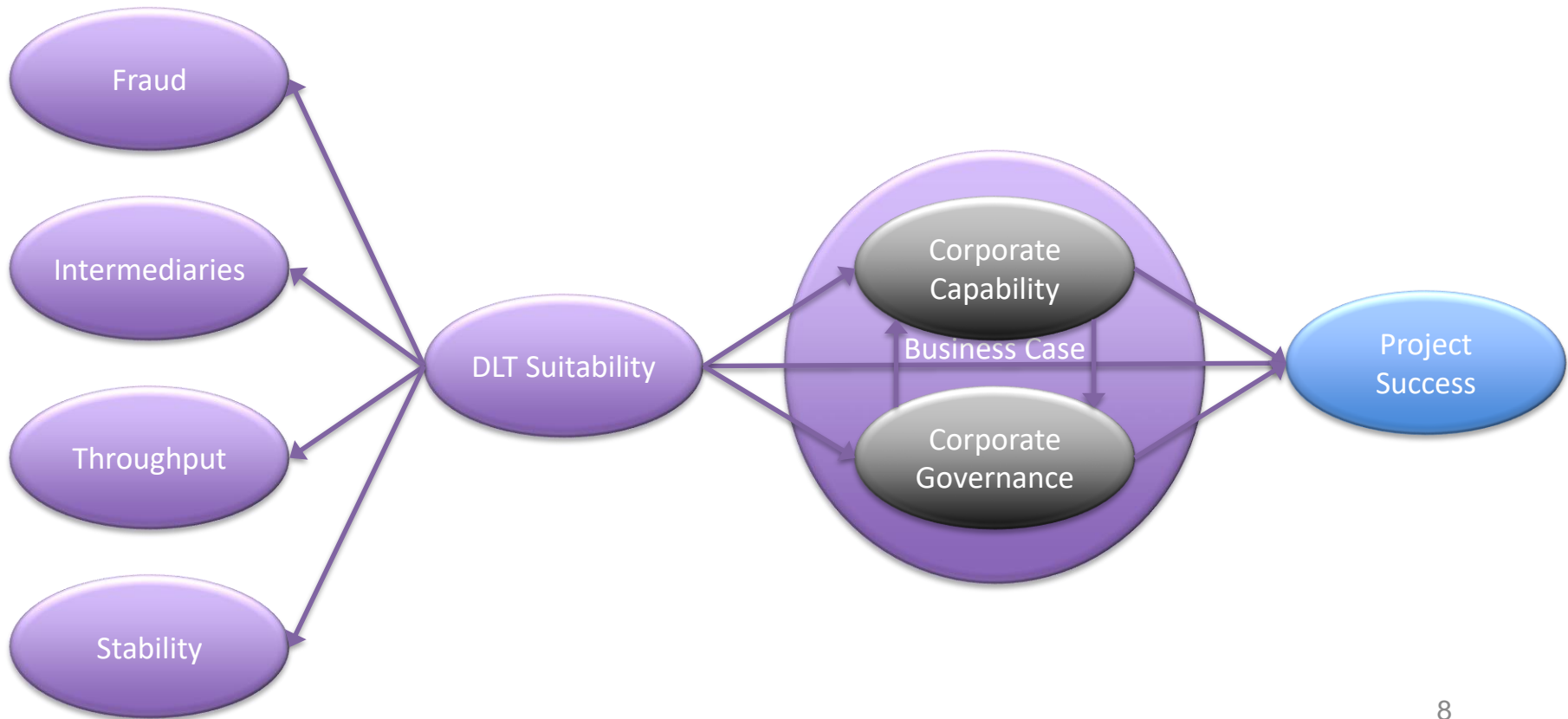# Enterprise Programme Management

The EPM framework

Figure 3.1 Strategic portfolio management and the enterprise programme management framework

Williams, D., & Parr, D. (2004). Enterprise project management: delivering value. In Palgrave (Ed.), (pp. 18-30). Basingstoke, UK: Macmillan

The Proposed Model

F - Fraud

- **Likelihood of Fraud**

  - Current risk mitigation techniques
    - Checking Security Logs after events
    - Random Audits
    - Time-consuming and expensive

  - Potential risk mitigation techniques with DLT
    - 100% Tamper Evident
    - Real-time

I - Intermediaries

- Current costs of Intermediaries
  - Friction costs (Coase 1937)
  - Transaction delays
  - Needed as the Intermediary is "trusted"
- Potential Cost reductions
  - Removal/Reduction of Intermediaries
  - Transactions shortened through automation

Bureau Veritas – A certifier
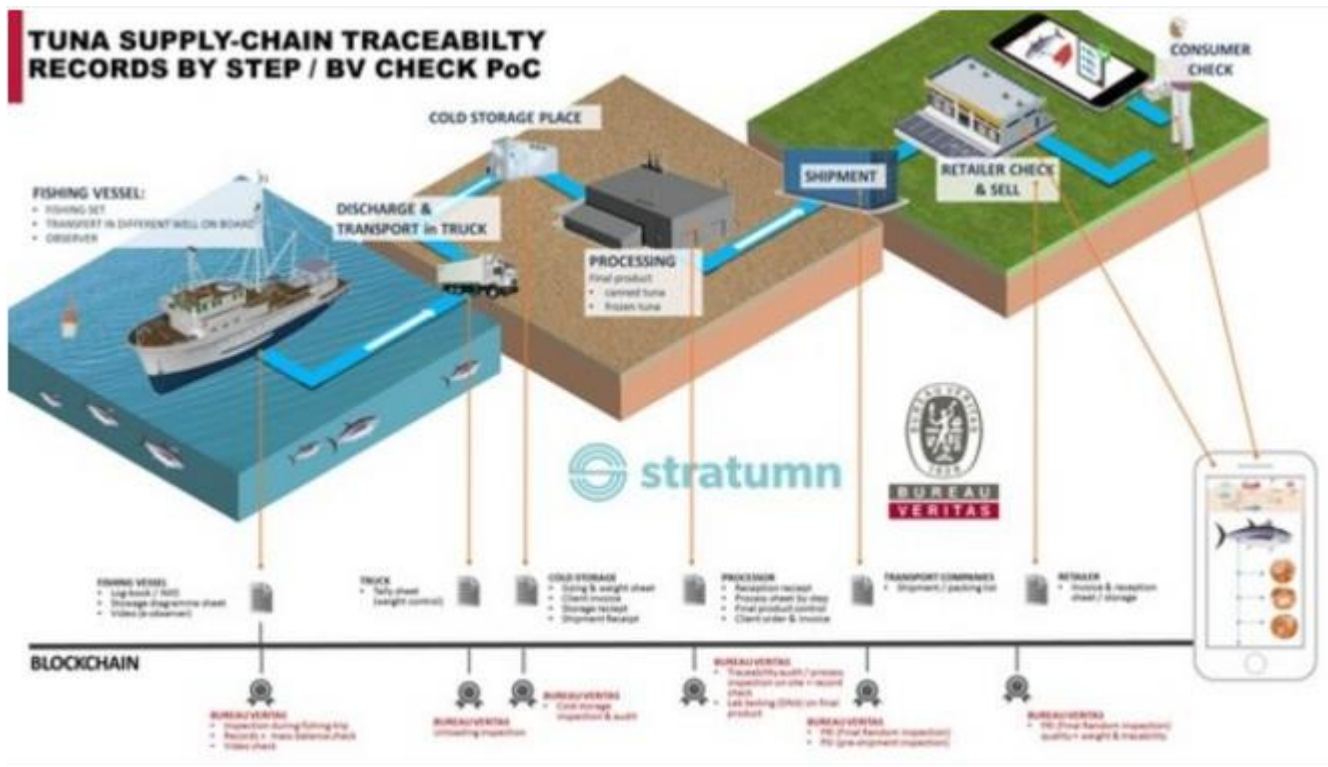
T - Throughput

- **Current Process Throughput**

  - Know the volume going through the process

  - Visa and Mastercard 80,000 transactions per second (tps)

- **DLT Process Throughput**

  - Current constraint is throughput performance

  - Bitcoin blocks are hard-capped at 1 MB. A new block every 10 minutes (on average), this implies a theoretical limit of about seven transactions per second.

  - Ethereum's blockchain throughput is reporting between 8-25 with mixed reports up to 100 tps when the Serenity version releases.

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S – Stability of data and process

- Current Process and human intervention

  - Weakness is people

  - Strength is people

  - Idiosyncratic nature vs Classical Contracting

- Future Process

  - Requiring Classical Contracts to be codified

  - Pure Ledger based – e.g., Identity Management

  - Stable data

Conclusion

*"The economic driver pressing organisations into major change initiatives have never been greater. Fierce competition, **changing business models**, **new technology**, deregulation, **cost pressures** and **globalization** are creating the need for organisations to undertake more and more initiatives of unprecedented complexity and with unprecedented speed. However, despite the increasing levels of investment being made by organisations in project and programmes, as startling number of initiatives fail to deliver the expected value, never get implemented, or cost substantially more and take substantially longer than planned"*

Williams, D., & Parr, D. (2004). Enterprise project management: delivering value. In Palgrave (Ed.), (pp. 18-30). Basingstoke, UK: Macmillan

References

- Coase, RH 1937, 'The Nature of the Firm', *Economica*, vol. 4, no. 16, pp. 386-405.

- Gambles, I 2009, 'Making the business case: proposals that succeed for projects that work', in Gower Publishing Limited, Farnham, UK, ch 1, pp. pp. 1-20.

- Thomas, G & Fernandez, W 2008, 'Success in IT projects: A matter of definition?', *International Journal of Project Management*, no. 26, pp. 733-42, viewed 15-05-2012,

- Van den Berghe, L, Levrau, A, Chambers, N, Lenssen, J-J, Bukhvalov, A & Bukhvalova, B 2011, 'The principal role of the board of directors: the duty to say "no"', *Corporate Governance: The international journal of business in society*, vol. 11, no. 5, pp. 629-40.

- Whittaker, B 1999, 'What went wrong? Unsuccessful information technology projects', *Information Management & Computer Security*, vol. 7, no. 1, pp. 23-30.

- Whitworth, J 2017, 'Blockchain can transform traceability - Bureau Veritas', *FoodQuality news.com*.

- Williams, D & Parr, T 2004, *Enterprise programme management : delivering value / David Williams and Tim Parr*, Houndmills, Basingstoke, Hampshire, Houndmills, Basingstoke, Hampshire.

- Williamson, OE 1979, 'Transaction-cost economics: the governance of contractual relations', *The journal of law & economics*, vol. 22, no. 2, pp. 233-61, viewed 26/12/2016.

- Young, R 2006, *Case studies : how boards and senior management have governed ICT projects to succeed (or fail)*, Standards Australia, <http://hdl.handle.net/1959.14/11229>.