

# Innovation

Transpower, national high voltage electricity grid operator, New Zealand

**Stakeholders:** Pricing Manager and regulatory authorities

## Goals

- ◆ Domain analysis of the business processes and systems for managing the assets of the grid, and for implementing changes to the pricing methodology used in the the New Zealand electricity market. Record the results in a comprehensive business process model, identify opportunities for improvement, and agree corresponding implementation measures with the stakeholders.
- ◆ Reduce the time required to implement regular pricing methodology changes.

## Results

S23M Managing Partner Jorn Bettin analysed the electricity pricing methodology, facilitated workshops with Transpower Pricing Analysts to streamline the methodology, and specified the requirements for an automated Pricing Methodology Modelling & Execution engine. Following the analysis, Jorn was the Lead Architect of the project that developed, tested, and deployed the new solution.

- ◆ Delivery on target and within budget.
- ◆ The time required to implement pricing methodology changes was reduced from 2.5 months to two weeks.
- ◆ Yearly pricing methodology changes and related quality assurance can now be performed by Pricing Analysts who manipulate a graphical model of the grid, detailed models of grid assets, as well as modularised mathematical models that specify price calculations – without requiring any assistance from software engineers, and without any knowledge of programming languages.



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Collaboration for Life

# Innovation

Harness tacit knowledge across the organisation

**Cross-disciplinary collaboration:** Analysis of the internal value chain, identification of brittle processes, streamlining of internal processes, elimination of friction from relationships with suppliers and customers.

Avoid product failure & permanent loss of critical knowledge

**Knowledge reconstruction & retention:** Identification of critical areas of tacit knowledge, formalisation of tacit knowledge in collaboration with domain experts, deployment of methodologies and tools for the dissemination of domain knowledge within the organisation.

Harness knowledge that lies beyond human cognitive abilities

**Big data mining:** Review of relevant strategic information assets within the organisational boundary and outside the organisational boundary. Definition of specific business goals based on tool-assisted analysis of big data. Establishment and coaching of a cross-disciplinary data science team.

Benefit from reuse

**Semantic data integration:** Development of domain-specific glossaries, identification of commonalities and variabilities across domains, and systematic reuse of concepts.

