



**Strategis Partners**

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## **Infrastructure and Transportation Practice**

Our methods are a powerful weapon in your quest  
to get more value out of infrastructure assets

## Managing strategic risks has never been more important for infrastructure owners and operators

Ask yourself: is the pace of change in your industry accelerating, and is your organisation well-prepared for the big challenges ahead? Customers demand more volume, quality and capacity at lower prices. Regulators demand that production generates far less emissions. Investors want steady profit growth but are also insisting on long-term sustainability. Communities want stability in jobs, but the global competitive landscape is more volatile and treacherous. All companies struggle to reconcile these tensions. And now the recognition of climate change may be affecting your competitive position in ways you might not realize.

Let us help you:

### Prepare for a Volatile World

How companies respond to the big uncertain issues of our time—global economic shifts, volatile energy and commodity prices, new technologies, climate change and emissions reduction—can benefit from scenario and real option thinking. Successful resource companies will be those that use scenario-based approaches to strategic planning, and have a portfolio of real options—projects focused on avoiding the downside risks, along with those which embrace growth opportunities.

### Improve capital returns

In today's competitive environment, success will flow from efficient operation and utilisation of infrastructure assets. How can you make your enterprise and your operations more efficient, yet your capacity more flexible?

### Build real options for growth

There are some fundamental forces shaping the infrastructure and transportation industries. Demand is growing in some segments but contracting in others. How can your company create new options for tomorrow's growth in new markets and regions?

Real option analysis takes into account both flexibility and forward market prices when valuing assets. It also integrates the processes of formulating strategy and valuing assets.

### Respond to customer trends

For customers and users of infrastructure, sustainability is more important than ever. What do changing customer preferences mean for your company? How should you respond to increased focus on security and environmental sustainability?

### Our Team

Strategis Partners is a team of advisers working with clients in Asia and Australia to solve their toughest and most urgent problems—delivering higher returns through better investment decisions, faster business growth, and superior customer value propositions.

### Our Clients

Our clients operate airports, ports and roads infrastructure; energy and water utilities; mass transit, rail freight, air transportation, power generation and telecommunications companies.



## Case Study

### MTR Corporation Hong Kong

Seizing the big opportunities in a world that needs more high quality, efficient urban transport systems

MTR Corporation Limited, a US\$20 Billion mass transit rail operator and rail development company, owns and operates the Mass Transit Railway in Hong Kong, serving 4 million passengers per day.

Strategis Partners was selected to develop the Strategic Management Plan for MTR's Railway Vision 2020 ten year Program to refurbish one thousand train carriages and the stations on its urban railway network in Hong Kong.

Strategic Management focuses on the important "front-end" processes that determine long-term capital program success.

The consultancy engagement covered: Vision and strategy for the programme

Governance framework and processes

Stakeholder engagement

Contracting strategy and governance of supplier relations

Design of the Program Management Office.

A key goal is to build the capabilities of MTR for the very big opportunities that lie ahead in a world that needs more high quality, efficient urban public transport systems.

The Strategic Management Plan points the way for MTR to increase value-added through the asset renewal program, lower procurement costs, and reduce risks. There are a number of additional benefits for MTR through this approach: on-time to market with refurbished trains and stations, more innovative rail solutions, improved flexibility to manage change, and capture of new technical and market opportunities.



## Case Study

### Lifting performance of rail and port operations

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Management needed a fact-based analysis for solving complex logistics

The Hunter Valley Coal Chain is a 100 million tonnes a year operation with over twenty coal load points across the region supplying the sea-borne export coal trade to Asia. It is a complex, closely coupled set of processes where system bottlenecks and unplanned changes have wide-reaching repercussions.

In 2000, the Managing Director of Strategis Partners was asked to lead a team of operations analysts to provide an independent and objective assessment of the constraints in the Hunter Valley Coal Chain (from mine to ship loading); and to identify short term and long term solutions to maximise throughput in the Chain.

Maximising throughput in a multi-mine Coal Chain faced a range of challenges. And lifting the return on investment of all operators in the Coal Chain requires an integrated and collaborative approach. Fact-based analysis of the logistics operations uncovered an interrelated set of problems: There was mismatch of actual and scheduled pattern of train arrivals into the port. Queue times of trains waiting to unload at the port dump stations were excessive. Dump rates were variable and significantly below dump station capacity.

Rail track speed restrictions were a significant source of delay. And to increase throughput tonnage, cargo assembly times needed to be reduced.

The recommended solution was an integrated Coal Chain teaming approach involving better end-to-end coordination: improved information and communications up and down the supply chain, system-wide planning and scheduling, and integrated rail track and port infrastructure maintenance.

Full implementation of the Action Plan delivered major benefits for all stakeholders.

From 2000 to 2010 coal output increased from 68 to 100 million tonnes per year.

For Coal customers this means increased confidence in the Hunter Valley as a reliable source of quality coal.

For coal exporters this means reduced demurrage and increase returns on assets.

For rail freight companies, this means higher volumes and higher returns; and for the port operator, satisfied customers.



Coal loader - Port Waratah, Newcastle, NSW. Source: posted to Flickr as Moon & Machine. Author: Nomad Tales, 6 June 2009.

## Case Study

### Pandemic Scenario Planning for building resilience in Infrastructure Operations

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Infrastructure and transportation operators can benefit from planning tools that deal with the uncertainty of a Pandemic. Scenarios are such tools

Strategis Partners was selected by a major Asian transportation operator to design pandemic scenarios, and use these to build organisational resilience and skills to respond effectively.

Scenarios can be used to explore alternative pictures of a future pandemic in the form of a 'storyline'. They weave together the evolution of the pandemic; the economic, social and political impacts; and the use of technological solutions in the emergency. Scenarios do not predict what the next pandemic will look like precisely, but they provide the groundwork for response planning.

The natural inclination of managers is to work from what is known. Scenarios force managers to look at what is not well-known, and what cannot be controlled. Importantly, they help planners think about the dynamic picture. They aim to stretch thinking and question assumptions. In this way they help managers develop more robust strategies.



### Scenarios for Australia's Stationary Energy Sector to 2030

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Setting overall strategic direction involves long-term scenario planning under uncertainty for the Australian Energy Market Operator

Australia's stationary energy sector is currently facing the challenge of planning long-term investments in an environment of change and uncertainty. A transition towards a low carbon intensive economy implies that the future landscape for the stationary energy sector may be quite different from the past.

Strategis Partners teamed with energy economic experts MMA (now part of SKM Strategic Consulting) to develop five plausible scenarios on the future of Australia's electricity sector to 2030 for the Australian Energy Market Operator. Scenarios were based on three major drivers of change:

Long term energy and peak demand growth, driven by economic growth and population growth

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Centralised supply-side response to global and domestic carbon policies and

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Decentralised supply-side and demand-side responses to carbon policies.

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## Helping companies chart their best course

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### Selected client engagements

- Scenario planning for international energy markets, new products, infrastructure and transportation investments
- Real option valuation of energy and technology investments
- Long term capital program for supply chain network
- Design of contracting strategies for electricity supply
- Review of outsourcing programs for energy utilities
- Business divestment review of manufacturing assets
- Development of a diversification strategy for the food services business of a major international airline
- Capex planning for \$1 Billion distribution network
- Risk assessment of major capital projects in mining
- Strategic review of asset management and maintenance policies for urban public transport operations
- Investment planning in quarry and concrete networks
- Evaluation of strategies for urban solid waste management
- Life cycle planning of \$3 billion of urban infrastructure
- Strategic planning of a new \$100 million logistics network
- Capacity de-bottlenecking of a regional Coal Chain
- Planning of long-term strategic airlift capability
- Design of enterprise performance measurement systems
- Value Chain strategy for agricultural, consumer and industrial products.

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### Who are our clients?

Owners and operators of infrastructure and transportation systems

Major infrastructure users—airlines, shipping, road rail freight companies

Airport and port operators

Mass transit operators

Toll roads

Government infrastructure and energy agencies, and industry regulators

Electricity, water and gas utilities and transmission companies

Power producers with coal and natural gas generation assets; and renewable energy producers with hydro and wind turbines

Suppliers of contract engineering and maintenance services.

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### Benefits for Your Organisation

Lifting returns on capital assets

Developing its ability to respond to the industry changes that lie ahead

Delivering on both value and sustainability objectives

Improving its resource planning and decision making processes

Enhancing its ability to execute strategy with greater effectiveness

Understanding what your team needs to do to align strategy and organisation with a changing policy and operating environment

Contracting strategies that deliver more value added.





## Let us help you on the challenges ahead

Our Firm is a strategy consultancy which operates in Australia, Hong Kong and South East Asia. We are recognized for our insight on complex strategic and organisational initiatives.

### Long-range Scenario Planning

How infrastructure and transportation companies respond to the big uncertain issues of our time—volatile commodity prices, shifts in global demand, new technologies and climate change—can benefit from scenario thinking.

In this next era, investments will succeed or fail depending on how well they are designed to cope with uncertainty.

Our scenario planning methods enables companies to design a portfolio of strategic initiatives to succeed in a volatile world.

### Strategic Planning of Major Asset Programs

Strategic Program Management is an effective catalyst for meaningful change.

Our strategic planning methods are particularly valuable in long term, complex Programs involving many stakeholder groups.

### Decision and Risk Analysis of Capital Investments

Planning investment for long-term improvements in energy, water, transportation and urban services, can benefit through the use of large-scale system optimisation.

Real Option Valuation is our method to help you deal with risk and uncertainty in capital investment decisions.

### Organization, Governance and Contracting Strategy

Designing more effective organisational, governance and contracting models present new sources of value creation in major asset programs.

Let us show you how high performing companies design better contracting strategies and achieve the benefits of collaboration.

### Driving Performance and Value with Capital Assets

With our Management Science and Operations Research methods, your Return on Assets will improve—along with your ability to adapt to an ever-changing marketplace.



## Contact us

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