

# Participant disposition, equivocality and readiness to benefit from scenario planning

Warwick OR 2015

George Burt – University of Stirling, Scotland
David J MacKay – Alterity Ltd, Glasgow / University of Liverpool
Kees van der Heijden – University of Strathclyde
Charlotte Verheijdt – ProRail NV



## **Agenda**

- Case study organisation and context
- Critique of scenario literature including disposition
- Data gathering and data analysis
  - Sources and types
  - First order findings
- Refining findings
  - Empirical evidence exemplars
  - Second order findings
- Development of taxonomy of readiness for scenario planning
- Questions

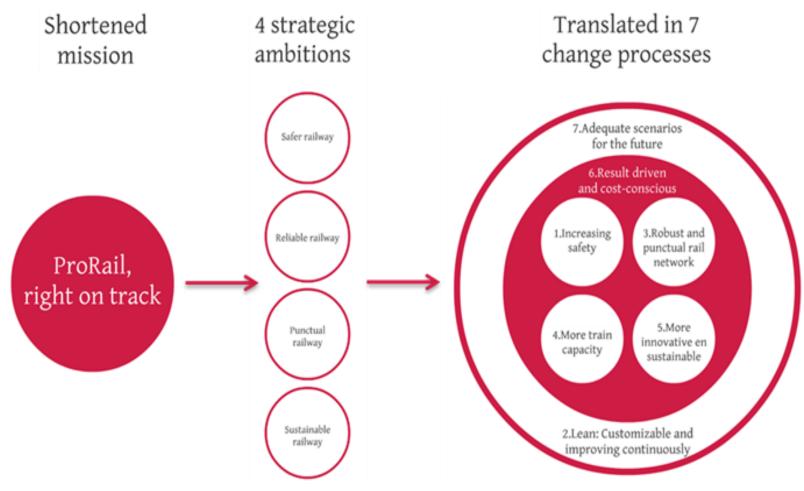


## Case study – overview

- ProRail NV Holland headquartered in Utrecht and formed in 2005
- ProRail NV are the Dutch rail network provider and manager
  - ->4000 staff
  - ->1 million passengers per day (9 different train operators)
  - > 110k tonnes of freight per day (19 freight carriers)
  - 3.300.000 trains per year
  - 21,000 kilometres of track
- Concerns about technology and its impact on trains automation, signalling etc, and on work and work patterns (societal)
- 7 change programmes with programmes 1 to 6 being cost, quality and performance focused; programme 7 about 'adequate scenarios for the future'
- Empirical evidence gathered from March 2013 to May 2014 (with ongoing conversations)
  - Interviews (23 TMT + 6 F), workshops observations and outputs; critical incidents and key informant in-depth conversations



## Case study – overview





## Critique of scenario planning

- However, the literature still predominately views a separation between organisation and an analysable environment that are reduced to distinct, discrete and static social entities that interact with each other – the substantive population or 'entiative' approach (Chia, 1999)
- Other concerns in the literature include:
  - Impact and action (Mintzberg, 1994; Hodgkinson & Wright, 2002; Docherty & McKiernan, 2008)
  - Emotional and psychological capabilities of individuals and groups engaging with scenario planning (Healey and Hodgkinson, 2008; Hodgkinson and Healey, 2008; Bradfield, 2008)
  - Hyperopia and an absence of counterbalancing operational insights (Burt, Mackay and Perchard, 2014; Mackay and Burt, 2014)
  - Lack of theoretical underpinnings (behavioural theory (Schoemaker, 1993), reflective learning theory (van der Heijden and Eden, 1998), social theory of practice (Sarpong & Maclean, 2011), structuration theory (MacKay & Tambeau, 2013), storytelling theory (Bowman, Mackay, Masrani & McKiernan, 2013) (Wilkinson, Kupers and Mangalagui, 2013).



# Critique of scenario planning

- However, the literature still predominately views a separation between organisation and an analysable environment that are reduced to distinct, discrete and static social entities that interact with each other – the substantive population or 'entiative' approach (Chia, 1999)
- Other concerns in the literature include:
  - Impact and action (Mintzberg, 1994; Hodgkinson & Wright, 2002; Docherty & McKiernan, 2008)
  - Emotional and psychological capabilities of individuals and groups engaging with scenario planning (Healey and Hodgkinson, 2008; Hodgkinson and Healey, 2008; Bradfield, 2008)
  - Hyperopia and an absence of counterbalancing operational insights (Burt, Mackay and Perchard, 2014; Mackay and Burt, 2014)
  - Lack of theoretical underpinnings (behavioural theory (Schoemaker, 1993), reflective learning theory (van der Heijden and Eden, 1998), social theory of practice (Sarpong & Maclean, 2011), structuration theory (MacKay & Tambeau, 2013), storytelling theory (Bowman, Mackay, Masrani & McKiernan, 2013) (Wilkinson, Kupers and Mangalagui, 2013).



# **Disposition framework**

- Neuroticism
- Extraversion
- Openness
- Agreeableness and
- Conscientiousness

Judge et al, 1999



# Data gathering & data analysis

Title/designation	Number interviewed
Chief Executive	1
Executive Directors	4
Functional Directors	5
Operational Directors	4
Other Senior Managers	8
Workers Council	1

Table 1: Composition of senior management team



## Data gathering & data analysis

Data Source	Methods Used	Purpose
Executive and senior management team	One-to-one interviews	Establish and map individual and collective key concerns and areas of uncertainty.
Internal facilitators	One-to-one interviews	Explore and impact of their role.
Workshop 1 – Interview feedback	Observation and critical incidents gathered in field-notes	Validate interviews.  Identify surprises, tensions, dilemmas arising from interviews and priorities for scenario workshop considered as situated learning.
Workshop 2 - Scenario building Workshop 3 - Scenario implications		Identify surprises, tensions, dilemmas, insights, contradictions and responses Multi-level narratives captured Identify insights from workshop 2 including opportunities and risks
Regular meetings	Reflective diary of emergent issues	Track unfolding process and explore emergent research themes
Internal documents	Content analysis	Track unfolding process and explore emergent research themes



# **Case study – first order findings**

#### The first order themes were:

(i) focus and priority of senior management, (ii) tensions in priorities, (iii) attitude to time, (iv) attitude to multiple plausible futures, (v) challenge to comfort zones, (vi) impact to surprises, tensions and contradictions, (vii) response to dilemmas, and (viii) knowledge gaps.

#### Tentative readiness framework:

- Balance of thinking: internal focus external focus
- Timescale of thinking: short-term/immediate attention future attention
- Orientation in thinking: urgent and task driven visionary and strategic
- Orientation of top management team: fragmented views coherent views
- Orientation to ambiguity and change: certainty equivocality



# Empirical evidence exemplars – Balance of thinking

 "A big system leap is difficult due to compatibility and because of the investments that are already there".

Then later in the interview:

 "Technically I do not see much trouble. In the timing of projects, I see a risk of a lack of investment".

Senior manager A



# Empirical evidence exemplars – Balance of thinking

 "The running of trains must become more self-supporting so that the money can go to the leap of the system that point on the horizon".

Later in the interview the senior manager commented that:

• "It is good that we are making a long term railway agenda, but afterwards we pay a lot of attention to management babble about roles, steering committees and who decides what".

Senior manager B



# Empirical evidence exemplars – Balance of thinking

 "How the product railway is being positioned determines your attitude. When you feel you are used to balancing the budget, you are going to behave differently. Are we going to lead ourselves or is this something where we let ourselves be guided"?

Senior manager C



# **Empirical evidence exemplars – Attitude towards timescales**

 "If we adopt a top-down approach a project will grow in scale, we will be under pressure and inevitably it will grind to a halt"
 Senior manager D

 "Top-down 'blueprint' approaches are about governance rather than intelligent design. They indicate that we are a servant of government, which indicates a failure of ProRail"

Director 4



# Case study – second order findings

- Balance of thinking: single views multiple views (internal & external)
- Attitude towards timescales: fixed timescales flexible timescales
- Orientation in behaviour: single mode multi-modal (thinking, doing, exploring, exploiting etc. including readiness to embrace ambiguity and uncertainty)



## **Discussion**

- Scenarios, readiness and coping with the unfolding world
  - Internal external focus: operational and efficiency focus or openness and exploration? Therefore there is a need to cultivate the practices of listening, waiting and passivity in contrast to directing and doing (Simpson and French, 2006)
  - Coping with breakdown in current thinking as scenarios reveal inadequacies in thinking
  - Scenarios as a narrative platform
  - Heightened awareness of the unfolding world and are able to contain anxiety



## **Discussion**

- Disposition
  - Openness was evident, with individuals comfortable with ambiguity, holding contradictions, as well as able to open up to novel possibilities for the future.
  - Sensitivity to the needs of others was evident as was individual modesty to open up ideas for others to consider without fear of embarrassment.
  - Conscientiousness was characterised by a willingness to remain flexible and cope with many possibilities, whilst recognising the limitations and temptations of the prior dominant mode of thinking and acting.



## **Questions**

## **Bibliography**



- Amara R Lipinsky, A.J. (1983). Business planning for an uncertain future: Scenarios and strategies. Pergammon Press, New York.
- Bowman G, MacKay R B, Masrani S and McKiernan P, (2013) Storytelling and the scenario process: Understanding success and failure Technological Forecasting & Social Change 80 (4) 735-748
- Bradfield R M (2008). Cognitive barriers in the scenario development process. Advances in Developing Human Resources, 10 (2), 198-215.
- Burt, G. Mackay, D. and Perchard, A. (2013). Managerial hyperopia: A potential unintended consequence of foresight in a top management team? Technological Forecasting & Social Change (article in press).
- Chia R, (1999) A 'Rhizomic' Model of Organizational Change and Transformation: Perspective from a Metaphysics of Change, British Journal of Management, 10 (3) 209-227.
- Cornelius P, van de Putte A and Romani M (2005) Three Decades of Scenario Planning in Shell. California Management Review 48 (1): 92-109.
- Docherty I W and McKiernan P, (2008) Scenario planning for the Edinburgh city region, Environment and Planning C 26 (5) 982-997
- French, R. (2001). Negative Capability: Managing the confusing uncertainties of change, Journal of Organizational Change Management 14 (5) 480-492.
- French R, Simpson P and Harvey C, 2009 Negative capability: A contribution to the understanding of creative leadership, in Sievers B, Brunning H, de Gooijer, J, Gould L J, and Mersky R E Psychoanalytic studies of organisations, p 197-216
- de Geus, A. P. 1988. Planning as learning, Harvard Business Review, 66 (2) 70-74.
- Grant, R M (2003) Strategic planning in a turbulent environment: Evidence from the oil majors. Strategic Management Journal 24(6): 491-517.
- Healey M P and Hodgkinson G P, 2008 Troubling futures: Scenarios and scenario planning for organizational decision making, in Hodgkinson G P and Starbuck W H, The Oxford Handbook of Organizational Decision Making, p 565-585 Oxford University Press, Oxford
- van der Heijden, K. Eden, C. (1998) The theory and praxis of reflective learning in strategy making, in Eden, C. Spender, J-C. (eds)
   Managerial and Organizational Cognition: Theory, Methods and Research, Sage Publications Ltd, London, p 58-75
- van der Heijden, K.1996/2005 Scenarios, The Art of Strategic Conversation, Chichester, John Wiley & Sons Ltd.
- van der Heijden, K. Bradfield, R. Burt, G. Cairns, G. Wright, G. 2002. The sixth sense: Accelerating organisational learning with scenarios.
   John Wiley & Sons: Chichester.
- Hodgkinson G P and Healey M P, (2008) Toward a (Pragmatic) Science of Strategic Intervention: Design Propositions for Scenario Planning, Organization Studies 29 (3) 435-457
- Hodgkinson G P and Wright, G (2002) Cognitive inertia in a top management team: Learning from failure, Organization Studies 23(6) 949-977





- Kahn, H. 1960. Thinking about the unthinkable, Weidenfeld and Nicolson: London.
- Kahn, H. Wiener, A. 1967. The Year 2000: A framework for speculation on the next 33 Years. New York: MacMillan.
- Klein, H. E. and R. E. Linneman, (1981). The use of scenarios in corporate planning eight case histories, Long Range Planning, 14 (5), 69-77.
- Leemhuis, J. (1985). Using scenarios to develop strategies. Long Range Planning, 18 (2), 30-37.
- Linneman, R. E. Klein, H. E. The use of Multiple Scenarios by USA Industrial Companies, Long Range Planning (1979) 12 (1) 83-90.
- Lilley, D. (2013). Theories of Certain Uncertainty: Climate Change and Negative Capability, symploke, 21 (1-2), 97-108
- MacKay B and Tambeau, P (2013) A structuration approach to scenario praxis, Technological Forecasting & Social Change 80 (4) 673-686.
- Mackay, D and Burt, G. (2014). Strategic learning, foresight and hyperopia, Management Learning (article in press).
- Mintzberg, H. 1994. The Rise and Fall of Strategic Planning. London: Prentice Hall.
- Moyer, K. 1996. Scenario Planning at British Airways a case study. Long Range Planning, 29 (2) 172-181.
- Paton, S Chia, R Burt G (2014). Relevance or 'relevate'? How university business schools can add value through reflexively learning from strategic partnerships with business, Management Learning, 45 (3), 267-288.
- Ringland, G. 2003. Using scenarios to focus R&D, Strategy & Leadership, 31 (1), 45-55.
- Sarpong, D Maclean, M (2011). Scenario thinking: A practice-based approach for the identification of opportunities for innovation. Futures, 43 (10) 1154-1163
- Schoemaker, P.J. H. van der Heijden, K. 1992. Integrating scenarios into strategic planning at Royal Dutch/Shell, *Planning Review*, 20 (3), 41-46.
- Simpson, P. French, R. Harvey C. E (2002). Leadership and Negative Capability. Human Relations, 55 (10), 1209-1226.
- Stein, H. (1994). The dream of culture, Psyche Press, New York.
- Wack, P. 1985. Scenarios: uncharted waters ahead, Harvard Business Review, Sept-Oct, 73-89.
- Wack, P. 1985. Scenarios: shooting the rapids, *Harvard Business Review*, Nov-Dec, 139-150.
- Wilkinson A, Kupers R and Mangalagui,D (2013) How plausibility-based scenario practices are grappling with complexity to appreciate and address 21st century challenges Technological Forecasting & Social Change 80 (4) 699-710
- Wilson, I. H. 1973. Futures forecasting for strategic planning at General Electric, Long Range Planning, 6 (2) 39-42.