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GOVERNANCE OF MAJOR INVESTMENT PROJECTS
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Making essential choices with scant information

Front-end decision making in major
projects

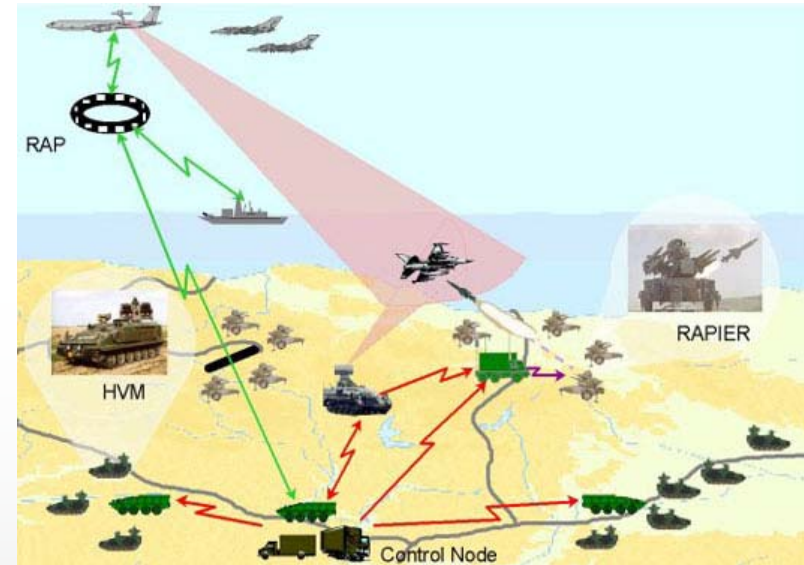
Terry Williams
Director, School of Management
September 2008, Trondheim

Movements in governance

- For decades we have been realising more and more the importance of the early stage of the project life-cycle
 - The 1969 Downey report had a major effect on UK defence projects in moving work into the front-end decision-making
- The OGC framework has the strategic “Gateway 0”
- The Norwegian system has introduced QA1
- and so on

PMI study on governance frameworks for public project development by Klakegg, Williams, Magnussen. 4 case studies, including:

- UK defence project - illustrating the need for structured governance processes in the long period up to 1st decision.
- Norway defence project in which neither the basic need of the project nor the value perspective were included in the QA.
- Two other cases with a mixture of perhaps not satisfactory mechanisms in the early stages.



Making Essential Choices with Scant Information

Front-End Decision Making
in Major Projects

Edited by Terry Williams,
Knut Samset and Kjell Sunnevåg



This talk covers work
in a book forthcoming
shortly.

Bjorn Andersen
Tim Bedford
Roger Cooke
Terry Cooke-Davies
Bent Flyvbjerg
Kaare Hagen
Geir Kirkebøen
Roger Miller & Brian Hobbs
Peter Morris
Petter Naess
Greg Parnell
Philip Pugh
Knut Samset
Benjamin Scheibehenne & Bettina von Helversen
Kjell Sunnevaag
Kees van der Heijden
Terry Williams
Mark Winter
George Wright, Fergus Bolger & Gene Rowe

Projects

- In recent decades, projects have probably become more complex, more time-constrained and there has been an increase in extremely large projects. They should be an important part of our national life
- Ask the “man in the street” about projects, and he will say projects / PM are usually unsuccessful. “White elephants”.
- But we have lots of successes – so why this reputation?

We believe that the concentration on PM has been much too narrow. We have become better at delivering efficiently and successfully a well-defined pre-specified project within a well-defined constant environment. But we need a much wider view. The initial choice of project concept (in its widest sense) is of critical importance; this decision is likely to have the largest impact on long-term success.

So what are the issues as we approach these decisions?

We will cover in this talk:

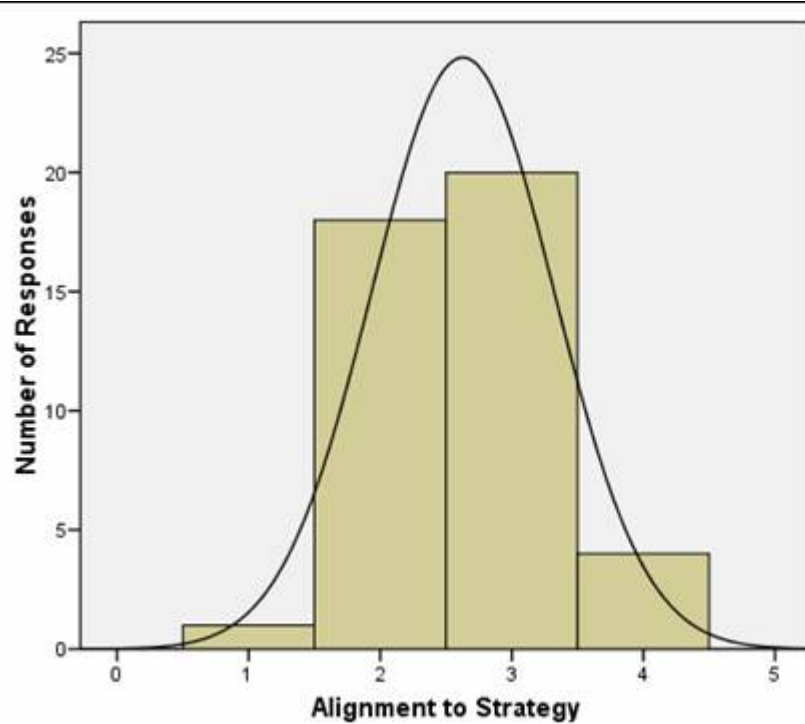
- Strategy driving the project
- Goals
- Judgements about the future
- Estimating the project
- Governance in a turbulent environment
- Scant information
- Some conclusions

Strategy driving the project

- What do we want out of a project?
- We **MUST** start with the corporate or public sector strategy.
- Distinguish between efficiency and effectiveness (value) - IMEC study
- Success criterion used in international development projects: efficiency, effectiveness, relevance, impact and sustainability (Samset).
- Hagen uses an economic comparison of what the project is likely to generate in terms of services, as compared to the costs of inputs

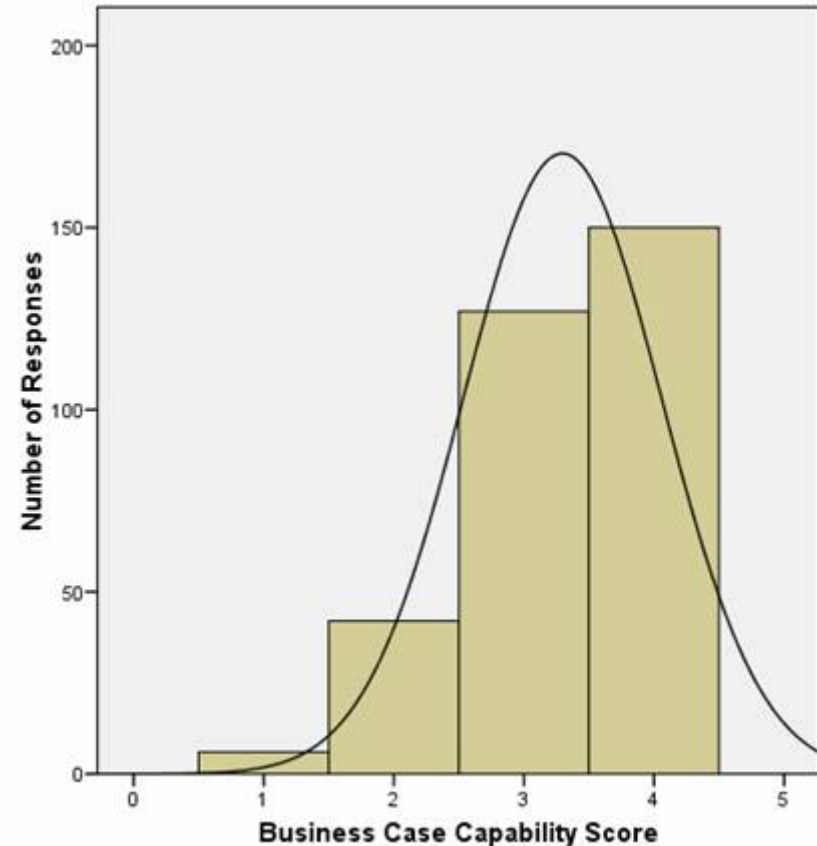
- Teague and Cooke-Davies (350 sets of data)

Each project is approved on the basis of a well-founded business case, linking the benefits of the project to explicit organizational/financial goals



Projects are selected based on their fit with the total portfolio and its strategic objectives

And these are the most important variables for “agility” & “efficiency”

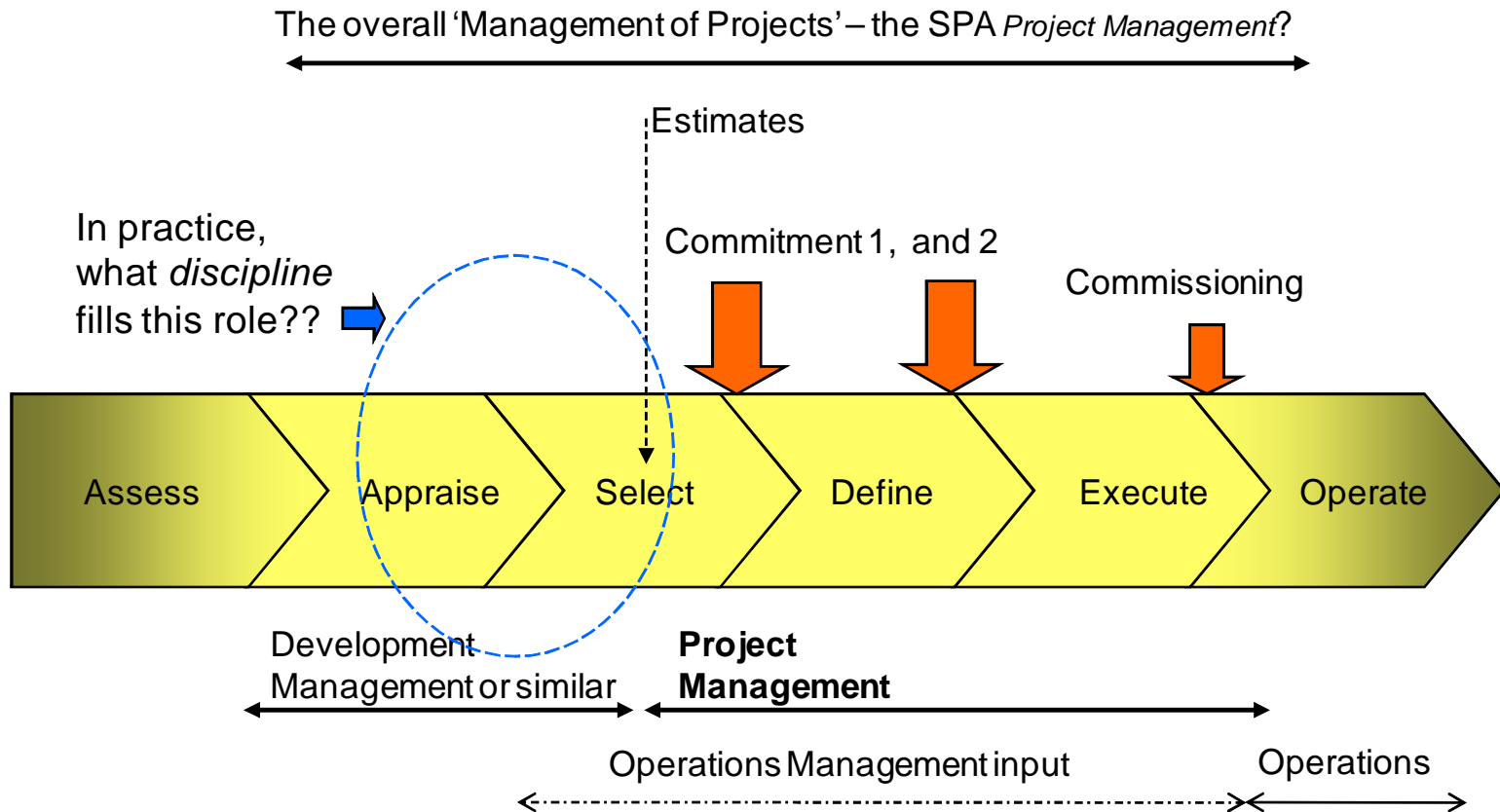


Cooke-Davies

- Projects / programmes should be fully aligned to the organization's strategy – “front-end alignment”.
- Why doesn't this happen?
 - differing Worldviews between permanent & temporary organisations
 - limitations in the way the human brain works, and how this relates to the difference between innovation and adaptation
- What to do about it:
 - stakeholder management within permanent organisation to establish and align strategy
 - well-founded business case & executing an engagement programme

Morris

- Shows concretely how corporate and business strategy implementation can be effected via project management (and how the PM discipline can contribute to strategic management).
- stresses why value, benefits, and other effectiveness measures may be more significant than the “iron triangle”
- illustrates the importance of work done ‘front-end’
- shows the importance of leadership
- Views managing projects as organisational entities.....



-views managing projects as organisational entities: not one discipline defining the project and PM another but the discipline(s) required to manage projects successfully, including what needs to be managed in developing and defining projects.

Naess

Looks at the relationship between needs analysis, goal formulation and impact assessment, and includes some methods for needs analysis. Some problems with current practices occur as themes within the book

- (qualitative): particularly a lack of a view of **systemicity** within the analysis,
- (quantitative) **biases** in the analysis when estimating costs / benefits.

- Samset points out the seriousness of “when a project fails in strategic terms, even if it successfully produces intended outputs. Strategic failure means that the choice of concept turns out to be the wrong one.”

Goals

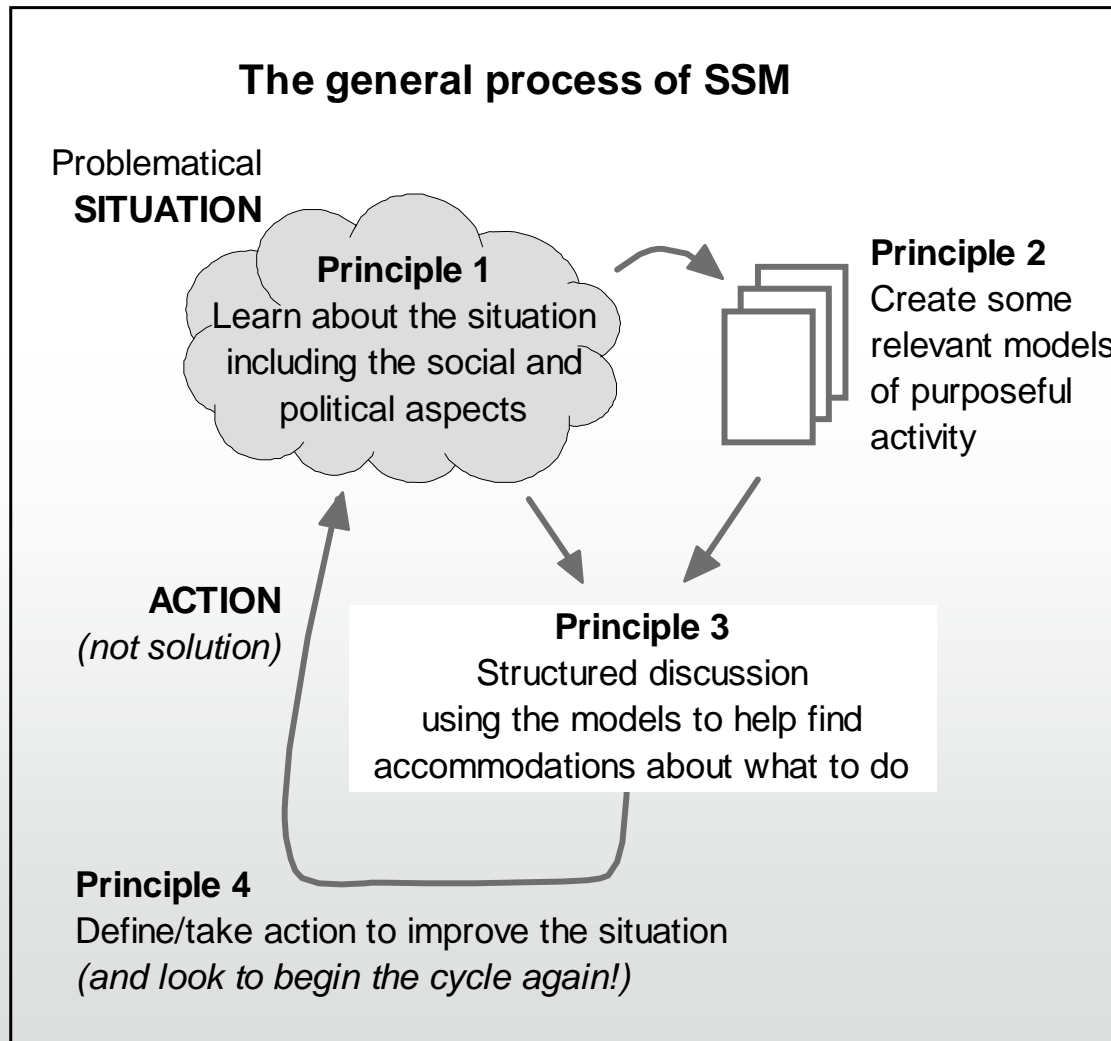
- Identifying corporate goals and objectives, and aligning projects with these, is not easy!
- Projects are typically “wicked messes”. “Projects are complex, ambiguous, confusing phenomena wherein the idea of a single, clear goal is at odds with the reality” (Linehan & Kavanagh, 2004).

Establishing the perfectly correct goal is a “futile dream” (Engwall 2002).

		Dynamic complexity	
		Low	High
Behavioural complexity	Low	Tame problems	Messes
	High	Wicked problems	Wicked Messes

Roth and Senge, 1996

One technique – SSM (Checkland) (Winters)



- Behavioural complexity
- Social geography and group decision-making: power, interest, credibility, etc
- Miller and Hobbs: IMEC: Complexity of decision-making in Large Projects with multiple partners

Judgements about the future (i)

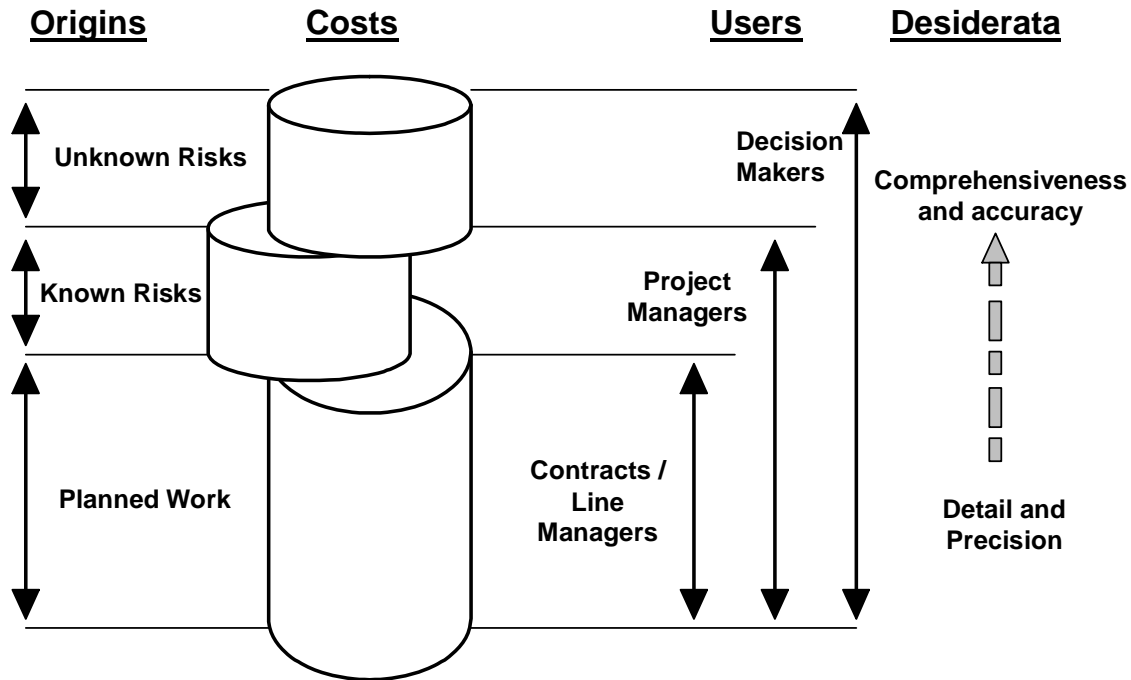
- Managers are human beings, with “bounded rationality”
- The assumptions of rational decision-making frameworks are often not valid
- Rather than evaluating projects one-off point at the start, with full cost/benefit information, many sponsors look at projects from “evolutionary perspectives”

(Miller and Hobbs).

Judgements about the future (ii): cognitive biases

- Kirkebøens - “planning fallacy” biases (Sydney Opera House)
- Flyvbjerg - extensive evidence of project benefit overestimation & cost underestimation. Biases:
 - technical
 - psychological (e.g. “optimism bias”) (cf Kahneman and Tversky)
 - political-economic explanations (i.e deliberate).
- (Also, large projects can be very long, judgements far into the future; for the public sector, this raises issues about the discount rate and the required social rate of return (Hagen))

To each their own estimate



(Pugh)

Judgements about the future (iii)

- Systemicity and inter-connectedness involved in the various aspects (Parnell)
- Scenario Generation techniques (van der Heijden) explicitly addresses this.

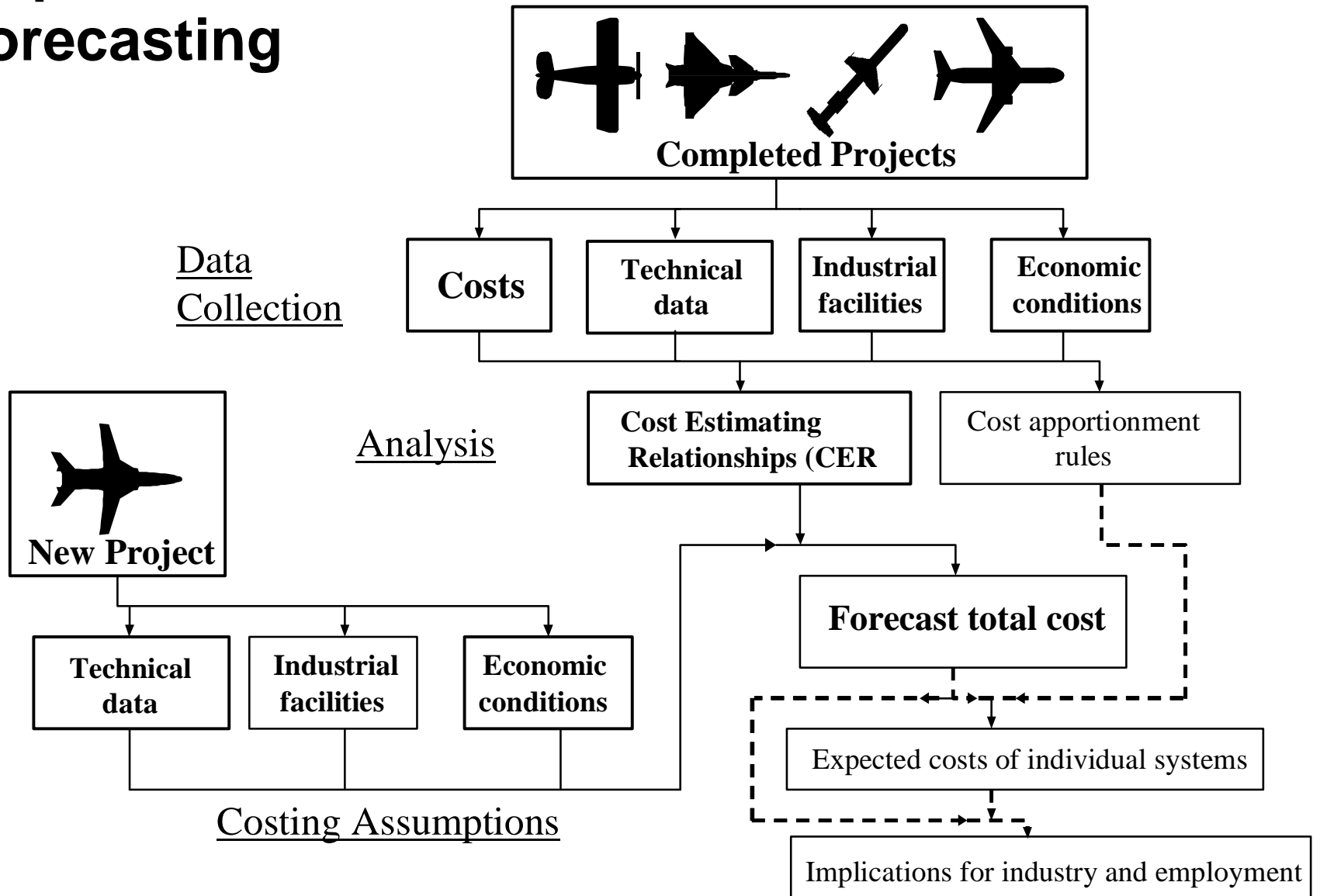
Estimating the project

- Flyvbjerg
- But there is much evidence of skill in using decision heuristics (Scheibehenne & von Helversen)
- Estimating (epistemic) uncertainty particularly difficult in projects. Wright, Bedford and others try to help here.
- Problems of “Groupthink” etc

Estimating the project (contd)

- Key problem with estimating projects
- Kirkebøens: use an “outside view”
- Flyvbjerg: Reference Class Forecasting
- Parametric forecasting.....

'Top - down' forecasting



Forecasting of costs via parametric analysis: Pugh

Governance in a turbulent environment

- Most projects operate in complex and turbulent environments
- Projects must be aligned with organisational strategy – and stay aligned
- Governance frameworks have to recognise the realities of project life and avoid restrictive “straitjacket” governance
 - Flexibility needs to be built into the project strategy; there is danger in seeking predictability (Samset). “Prediction [can] become a prescription”. Premature lock-in to an inappropriate concept.
 - Projects are often Weickian sense-making activities, with ambiguity, uncertainty, complexity and political realities.
- But this is not to say that governance framework should be unstructured (Morris: staging and gate-keepers)

Scant Information

- A restricted (carefully selected) sample of relevant facts & judgemental information may be an advantage in the effort to establish a broad overall perspective, and identify & test alternative strategies (Samset).
- Omitting details and less relevant information helps avoid “analysis paralysis”
- “Half-life of information” (Samset)
- Parametric analysis enables the forecast to “concentrate upon total costs and avoid being drawn into excessive detail. To descend prematurely into detail is to base forecasts upon what is not yet known and can only be conjectured” (Pugh)

So:


- Lack of detailed information can actually be a benefit rather than a hindrance, in providing focus and flexibility to the decision-maker.
- “Less can be more” (Scheibehenne & von Helversen)
- Also, in circumstances of uncertainty and unforeseen consequences, decision-makers give spurious credence to a decision made on the basis of detailed information (Scheibehenne & von Helversen).

Some key themes running through the book

The need

- for alignment between organisational strategy & project concept
- to deal with complexity, particularly systemicity (inter-relatedness) within project decisions, and to consider ambiguity
- to take account of recurring issues in estimating benefits & costs, particularly psychological and political biases
- to consider the social geography and politics within decision-making groups and organisational consortia
- to maintain governance and strategic alignment when a launched project moves into an environment where circumstances are constantly changing.

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