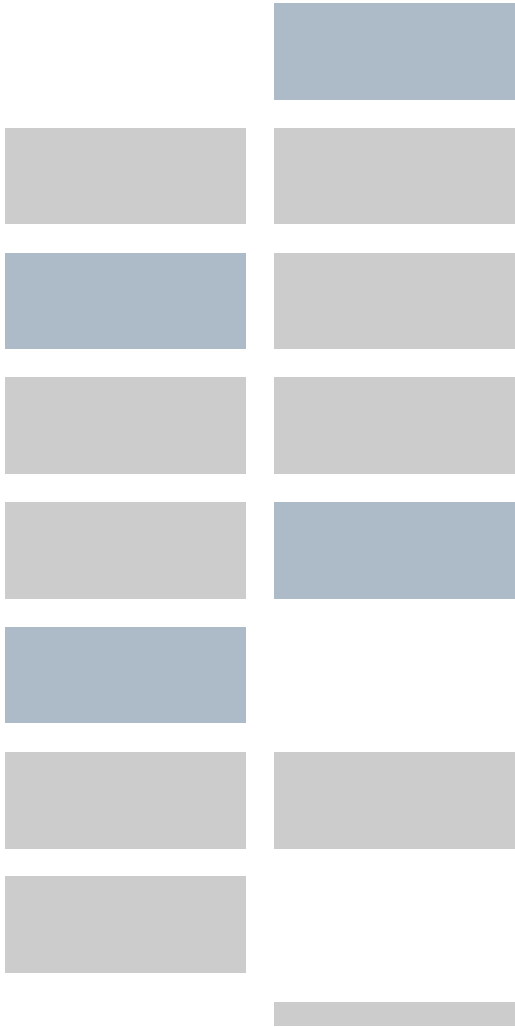


concept

DECISION MAKERS, DOERS AND ADVISORS
– JOINING FORCES TO ENHANCE UTILITY OF INVESTMENTS

Concept Symposium 2010
Oscarsborg, Norway
16 – 17 September 2010

Symposium web-site: <http://www.conceptsymposium.no/>
Concept Research Programme: <http://www.concept.ntnu.no/english/>



Complexity in Major Programmes – Tools, Techniques and Governance

Simon Henley CEng FRAeS FAPM

Deputy Chair, International Centre for Complex Project Management

Project Management 101

- Scope the task – set boundaries
- Create Work Breakdown structure – identify sub-tasks
- Identify Interdependencies/define interfaces
- Resource plan
- Risk manage to identify deviations and recover to plan
- Manage execution of sub-tasks and interfaces
- Minimise/rigidly control change
- Deliver project

Only Yes?

Linear Programme Management Works for Linear Programmes

Non-Linear Programmes - JSF

External Comms Interfaces change >80% every 2 years

9 Partner Nations, each undergoing regular Government changes and budget cycles

Need to satisfy nations' industrial aspirations without compromising cost objectives

US Export regulations restrict transfer of sensitive technologies

At least 10 weapon programmes, each run independently, to be integrated and tested

Computing Hardware will undergo 3 generation changes during development



Non Linear Projects – London 2012



How much can the UK Government afford to spend?

What priority to we give to legacy uses of infrastructure?

Where is the bar set for a "successful" games

What level of terrorist threat do we have to defend against?

What is the impact of UK economics on labour market?

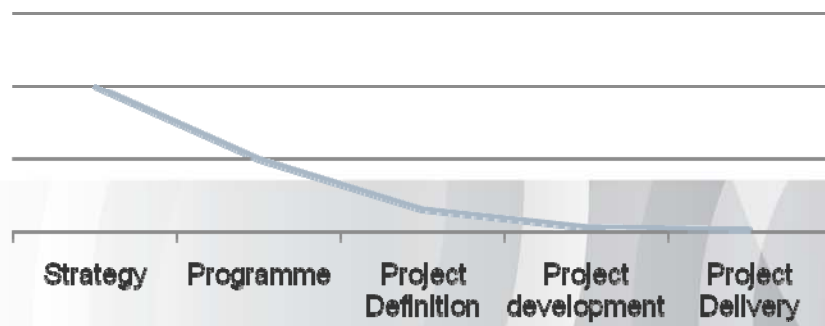
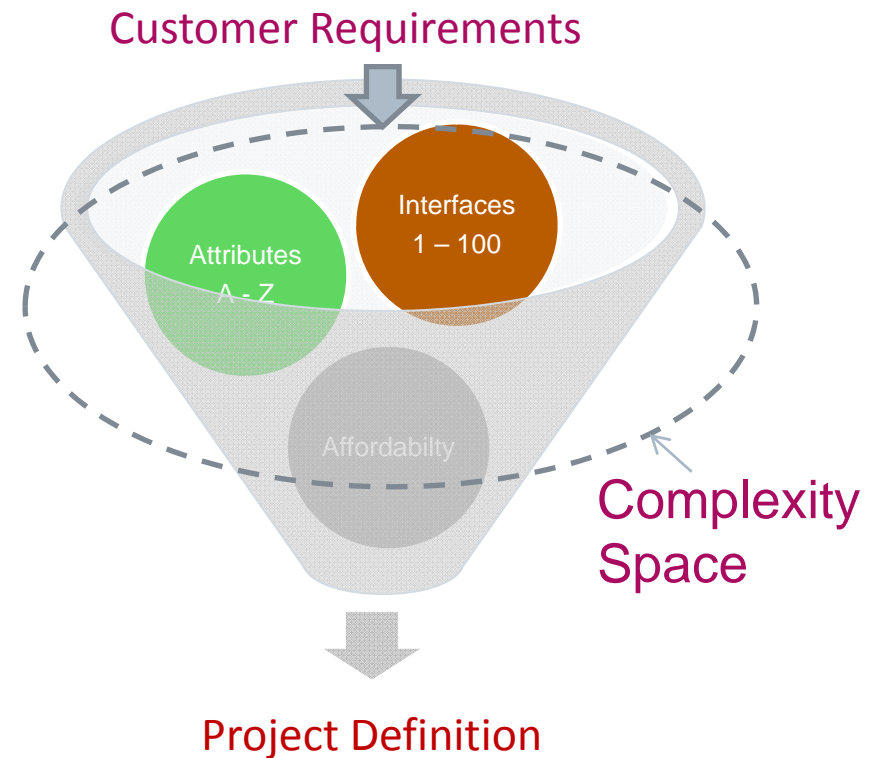
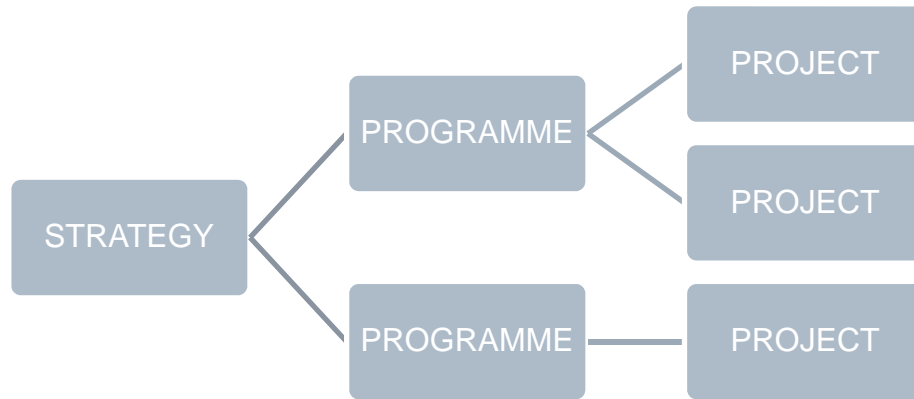
Non – Linear projects – Climate Change



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Aren't all projects complex?



— Uncertainty level

Complexity Essentials

- **Organisational**

- Governance
- Process
- Decision-making

- **People**

- Skills
- Culture
- Aptitude
- Leadership

Organisation

Governance

- Ability to sponsor, support and govern complex projects requires Board level awareness of complexity
- Governance bodies need to be comfortable with uncertainty, and non-linear cause/effect relationship
- Decision timelines need to stay within change cycle of project – delay for detail often adds complexity . Avoid paralysis by analysis
- Ensure decisions are taken in context of importance of outcome to enterprise

Understand and monitor risks to enterprise

- Escalate actions where they extend beyond the power of the project (much more likely in complex projects)
- Ability to identify when help is required outside the project – including termination

Process

- Strong Process for traditional project management techniques is a key enabler
- Repeatable process allows comparison with previous results
- BUT
- In non-linear projects there is not a defined cause/effect relationship
- Knowledge of multiple processes – best fit approach
- Research needed on metrics for non-linear projects

Skills

- Absolute mastery of PM tools and techniques
- Systems thinking
- Understanding the nasty reality of budgets
- Tools and techniques for requirements/ project definition
- Architecture knowledge
- People skills
- Aptitude - Ability to live in the “complex” world, but articulate next steps in the “linear world”

Culture

- Ability to embrace change, not fight it...BUT control it
- Avoid victim mentality – be in command
- Risk embracing, not risk averse, without losing sight of overall risk exposure

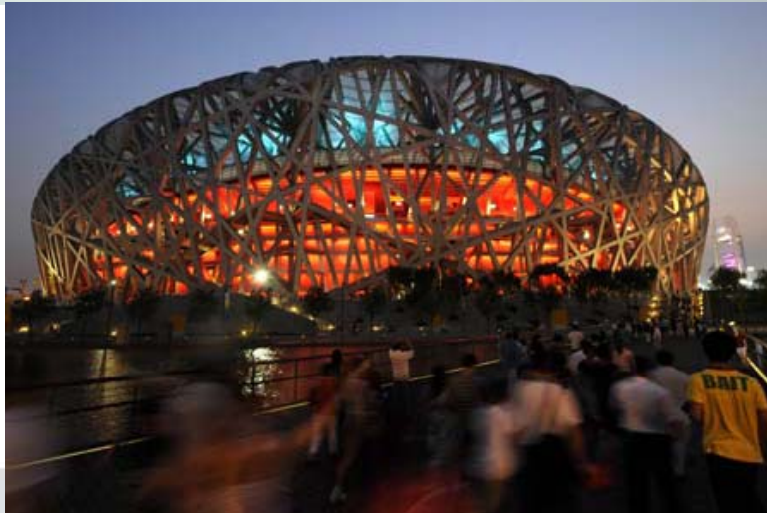
Role of ICCPM

Synthesis of existing knowledge. - Much underpinning complexity theory already exists – it needs to be brought together in the context of managing complex projects

Direction and funding of Research. - There are many gaps in today's knowledge – research needs to be funded and directed to fill those gaps with applied research which is of use to the Project Management community

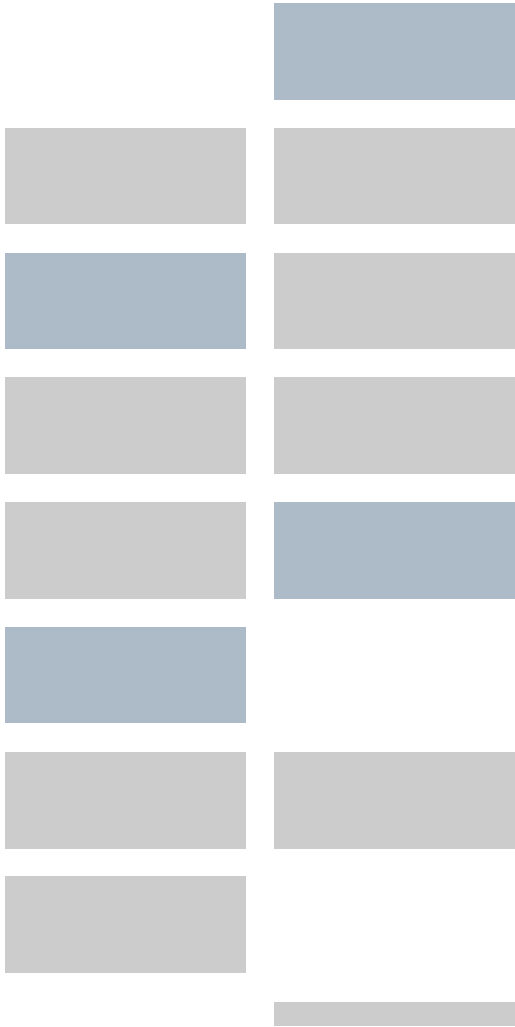
Education and Awareness. – Sponsoring of Education programmes (Masters degrees, Systems Thinking and Complex Project Management modules), Bringing on new worldwide delivery bodies, participation in conferences

It Can Be Done



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