INTERNATIONAL CENTRE FOR COMPLEX PROJECT MANAGEMENT

International Centre for Complex Project Management

The Management of Projects in Complex Environment

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ICCPM

ICCPM

Presentation Outline

- ICCPM and why we exist
- The Complex Project Management (CPM) Initiative
- What is Complexity
- Complex versus Complicated
- What makes a project ***Complex***?
- Action Research
- Questions?

ICCPM

ICCPM is a not-for-profit organisation developing research and delivering education and support services to businesses and government to get the world's most complex projects back on track. Some projects are now so complex that a different management approach is needed to break the common cycle of delay, cost overruns and failure. It doesn't matter which field you are in, ICCPM can provide the tools, research and education to improve organisational delivery capability and opportunities for investment in research that will lead to successful delivery on complex projects and programs.

Australian Government
Department of Defence
Defence Materiel Organisation

LOCKHEED MARTIN

THALES

airservices

ASC

BAE SYSTEMS

BOEING

QUT Business School

THE UNIVERSITY OF HULL

Australian Institute of Project Management

APM GROUP

apm

IPMA international project management association

ARPI
Australian Risk Policy Institute

CSIRO

CPM Initiative – A Global Response 2008

Australian, UK and US Governments and Defence Industry have supported an initiative to improve the international community's capability to deliver very complex projects across all industry sectors

Three strands:

- Competency Standards framework for assessment and development of complex project managers
- Continuing Professional Development in Complex Project Management (EMCPM Development)
- Formation of the International Centre for Complex Project Management (independent international not-for-profit peak body for CPM)

INTERNATIONAL CENTRE FOR
COMPLEX PROJECT MANAGEMENT

ROUNDTABLE

DISCUSSION PAPER

Canberra, Australia – 27 May 2009

Washington DC, USA – 13 October 2009

INTERNATIONAL CENTRE FOR
COMPLEX PROJECT MANAGEMENT

ROUNDTABLE

FINDINGS PAPER

The Conspiracy of Optimism -
Why Mega Projects Fail

JUNE 2010

INTERNATIONAL CENTRE FOR
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International Centre for
Complex Project Management
The Conspiracy of Optimism

A Position Paper

INTERNATIONAL CENTRE FOR
COMPLEX PROJECT MANAGEMENT

2012 ROUNDTABLE

DISCUSSION PAPER

Complexity in a Time of
Global Financial Change:
Program Delivery for the New Economy

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Complex Project Management
Global Perspectives and
the Strategic Agenda to 2025

THE TASK FORCE REPORT

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COMPLEX PROJECT MANAGEMENT

HITTING A MOVING TARGET

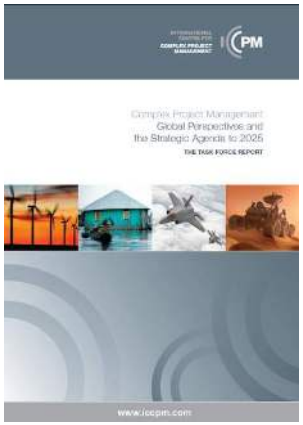
Complex Project and Programme Delivery
in an Uncertain World

"The Conspiracy of Optimism"

- ***Why mega projects fail:***
  - Unaccommodated or unaligned stakeholder view of success
  - Tension between product success and project success (product vs outcome)
  - Political and public relations pressure militating against doing the right thing
  - Lack of understanding or acknowledgement of non-technical risk
  - Use of competition as a weapon
  - Institutionalised procurement practices
  - Few project managers are equipped as project delivery leaders
  - Lack of opportunity for engagement between government and industry
  - Future capability (projects) are predicated on attaining rational estimates
  - Current tools and decision processes unsuitable for analysing uncertainty
  - Inevitability of scope creep (cost & schedule) especially if contract too early

(ICCPM Executive Roundtable Series 2009)

Global CPM Taskforce Report



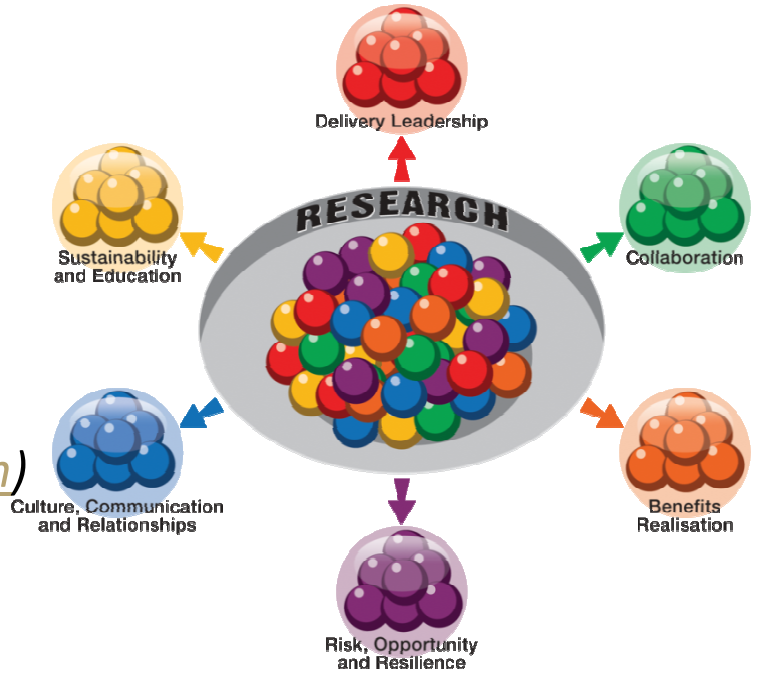
ICCPM and GAP sponsored a Global CPM Taskforce which commissioned the report titled ***Global Perspectives and the Strategic Agenda to 2025***, released in 2011

9 Policy recommendations – CPM Strategy

60 Action recommendations – Implement now

Establish global research centre and APN support services

(Full Taskforce Report available at www.iccpm.com)



Hitting a Moving Target Complexity Drivers

- Multiple often competing, stakeholder systems and interest
- Need to communicate and co-ordinate across the boundaries of culture, discipline and worldviews
- Many interactions and co-ordination methods previously used no longer work in the current environment, including governance, leadership, contracting and organisational structures.
- Volatile political environments
- Scope, cost/budget, duration instability
- Uncertainty and instability of project outcomes and objectives (is what we are supposed to deliver still needed/wanted/fit for purpose when we deliver it?)

Other Reports/Books

- PMI – Pulse of the Profession – Navigating Complexity (2011)
- PMI - Aspects of Complexity: Managing Projects in a Complex World – (2011)
- KPMG - Confronting Complexity(2011)
- Booz Allen Hamilton - Redefining Program Management for the Unique Challenges of Complex Programs - 2013
- Harvard Business Review – Prolific publisher of material
- Gower Publishing – releases a new book often

CPM Report Policy Report Card

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Theme	Policy Recommendation	Report Card
Delivery Leadership	Maintain delivery leadership capability appropriate to the degree of project complexity. Operate global CPM standards of good practice, methods and tools.	ICCPM advisors working with major projects as requested. Making a notable difference. CPM Competency Standards released in 2010 updated in 2014. CPM Competency validation and full review planned to commence late this year or early next.
Collaboration	Operate the entire supply chain as a single entity delivering against mutually agreed outcomes with equitable risk and reward sharing	Everyone has this responsibility, however to enable success we include this in our education courses.
Risk, Opportunity and Resilience	Implement Risk and Opportunity management processes which are appropriate to the degree of project complexity and adaptable to change in the external environment	Working with the Australian Risk Policy Institute on a new Risk Policy Framework. Working with RiskIQ on some action research with both the DMO and Boeing on systemic risk/opportunity
Culture, Communication and Relationships	Address human behaviour aspects across all major stakeholders who are required both to adapt to changes in both the project and future operational environments, and to share their experience, knowledge and wisdom.	Addressed in ICCPM education products.
Sustainability and Education	Establish systems to manage the interconnectedness and interdependencies that affect project success and build in long-term sustainability. Offer specialist CPM Education programs according to the degree of project complexity and required capability and ensure that knowledge, skill and wisdom, once captured, is preserved	These systems already exist in one form or another, it's a paradigm/mind shift that is required to implement this policy, we are addressing this in our courses. Systems Thinking and CPM courses delivered since 2011 ICCPM Complexity Awareness Program (Cert IV) commences delivery this month with BAE Systems then ASC ICCPM Diploma (Lvl 5) under development delivery avail 2016
Research	Establish and support a permanent, co-ordinated global specialist research agenda for CPM.	KD2 Established in ICCPM 2011 Linking with academic institutions where possible. Linking with AIPM locally to continue to build the research agenda

What Complexity Isn't

- It is not something that is hard, or that we don't know how to do!
- It's not an excuse when things go wrong all of the time!

It is a science!

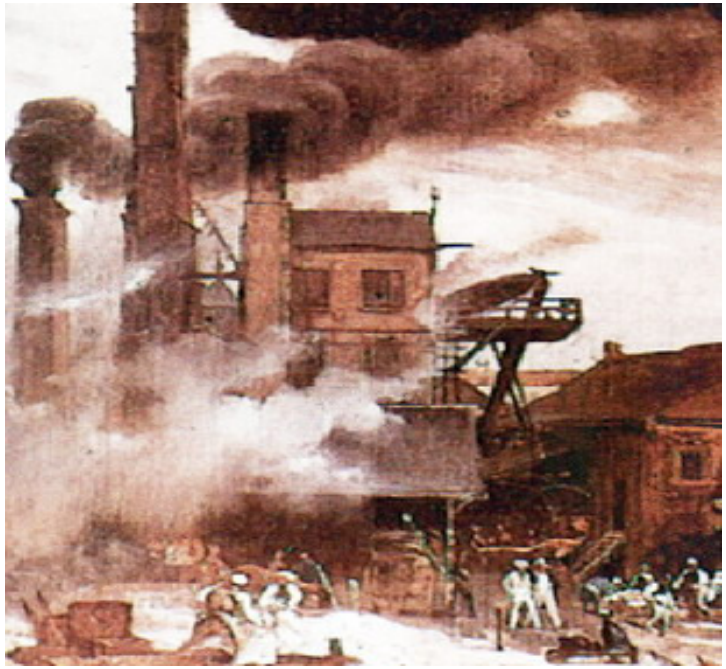
Complex Systems exhibit some or all of the characteristics

Growing Issues of Complexity

- More connections and connectivity (24 hour news cycle)
- More volatility
- More uncertainty
- More knowledge
- Less time to absorb

Big changes are needed

- Industrial roots of management 100 years old
- Control, efficiency, assets
  and physical material focus



Drivers of change

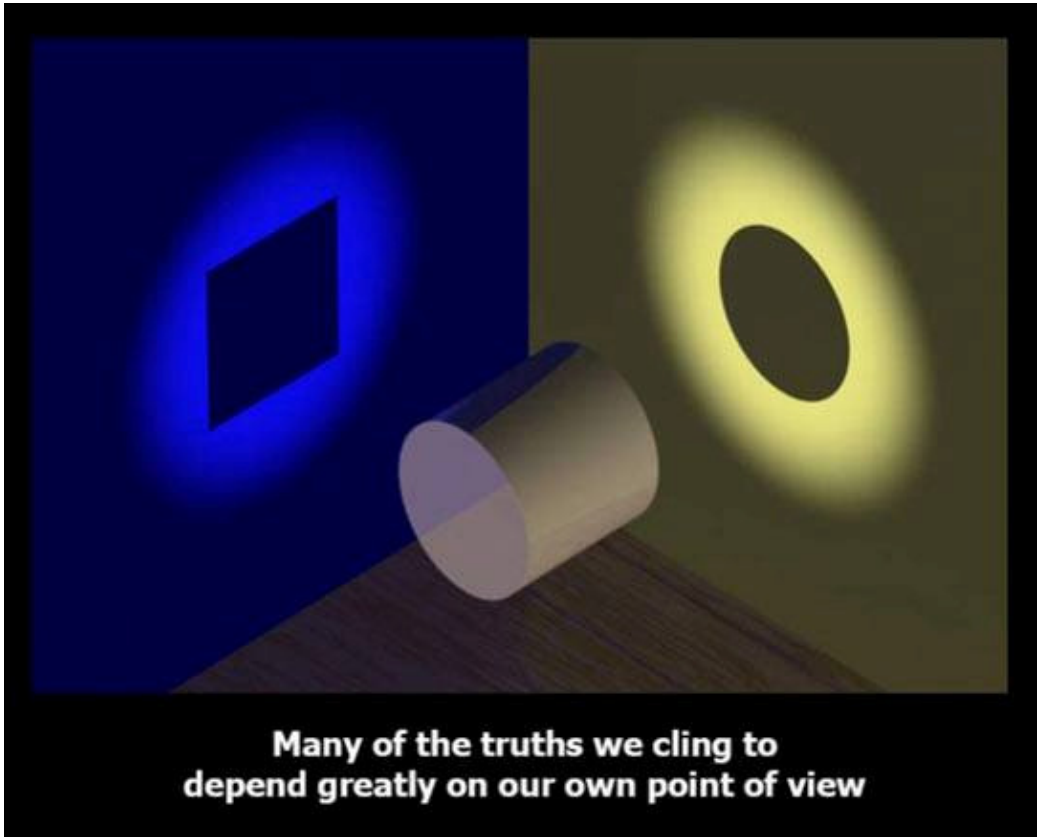
- Accelerating economic and social change
- Ever faster innovation
- Global networks of partners
- Increasing media channels

Capitalising on complexity

- 2010 IBM Global CEO Study
  - Rapid escalation of complexity as the biggest issue confronting them and their organisations. It is an issue that they were not able to manage. Recognition that it requires a different approach
  - More to know, more to do, more to watch, manage, more people involved

Complexity and Perception

Complexity in context is a matter of perception. Whether or not you see a situation as complex has to do with how you perceive it and your own world view.



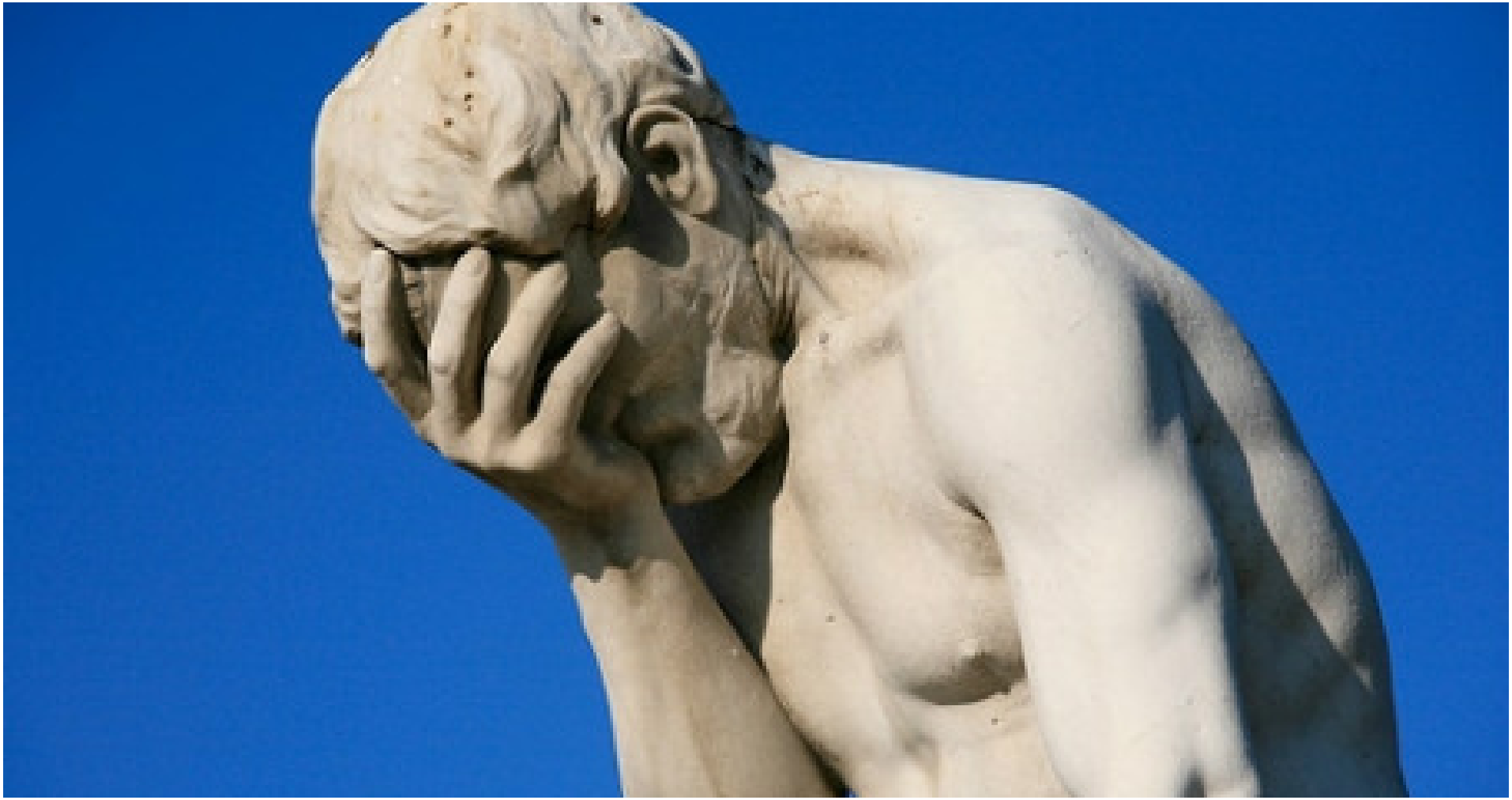
Complexity and Perception

What we inevitably do in complex situations is focus on some areas to the exclusion of others.

We consciously or unconsciously categorise things and events in order to make some sense of the mess

We sometimes simplify things to help us make sense, but in the process we generally oversimplify things and try to take a more simplistic approach

So Why do Projects Fail?

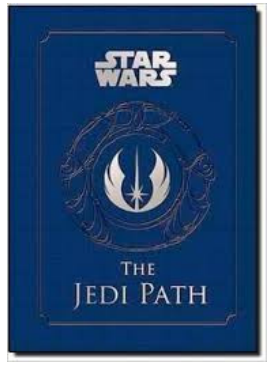


- "If project management is that simple, then why do projects still encounter problems?
  - Often, the more complex the project, the more project managers are likely to strictly adhere to the known linear reductionist approaches that they are both comfortable and experienced with."

- The answer is that Project Management is not at all Simple!
- It is more an Art than a Science!

Complicated vs Complex Projects

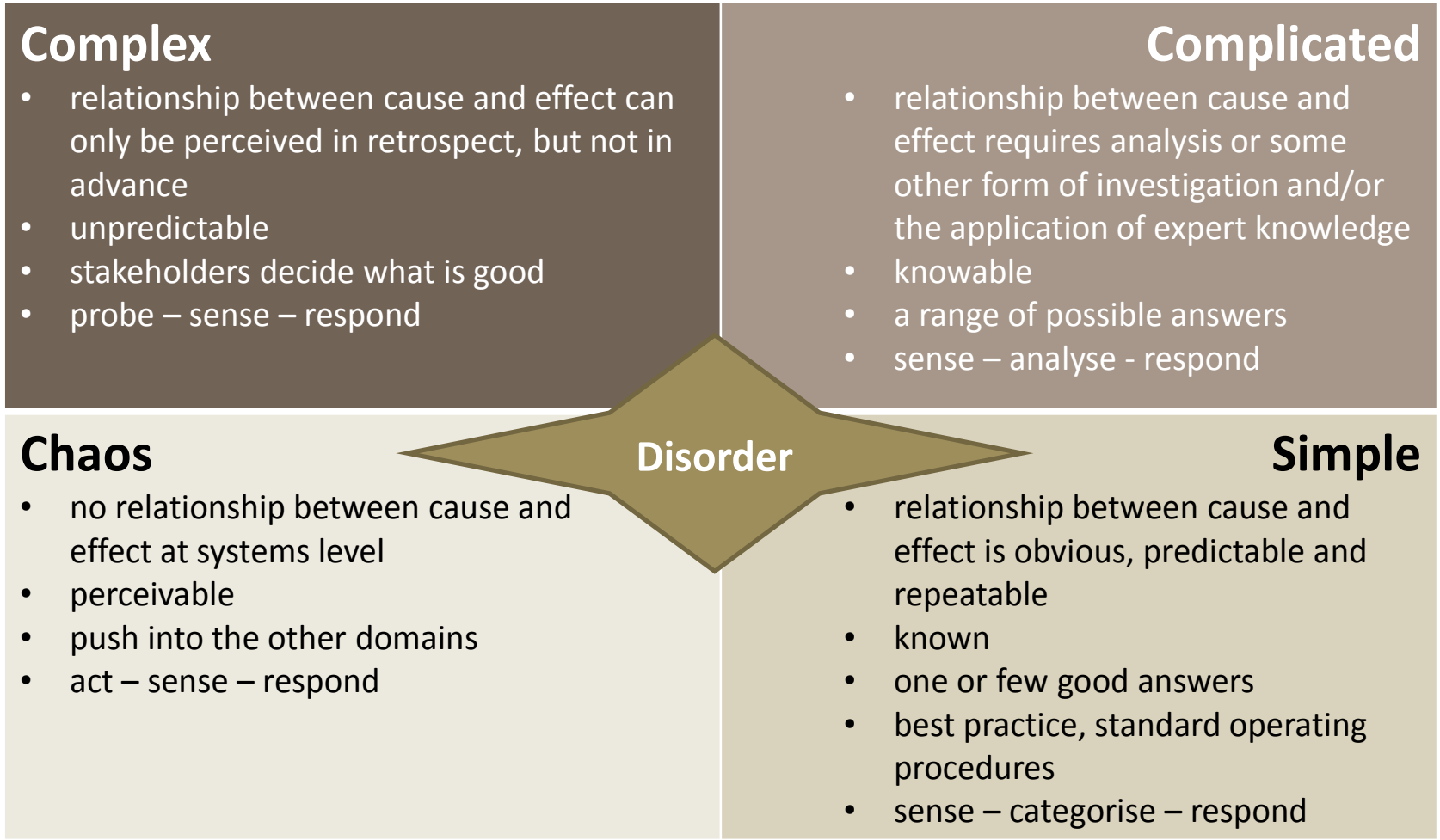
Complicated – when you know what you have to do.



It might be hard but you can see a clear path to completion. It can be planned

Complex – when you don't know how you are going to get there. There is no path

The Cynefin Framework



Complex Projects

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Uncertainty

Ambiguity

Effect not solution

Dynamic interfaces

Political and external influences

Technology life cycle exceeded

Integration

The Project Management Context

- Every Project will exhibit complexity at some stage, some more often than others.

- Every PM must be able to identify complexity when they are faced by it and be able to determine what an appropriate response to the complex issue will be.

Across the Project Lifecycle

- One size does not fit all
- Often we are forced to adopt the project management model that has been selected as part of the organisational policy and/or contract.
- Methods useful in helping manage Complex Projects should only be used on the element that exhibits the complex behaviour not always to the project as a whole.
- Application to smaller sub-projects, specific tasks, challenging problems or even just particular situations where complexity may provide an alternate lens with which to view the situation.

Managing a Complex Project

- You will know a Complex Project when you are in one.
- Truly Complex Projects are defined as those projects that you may know WHAT you need to achieve, but you have little idea on HOW you can achieve it.
- You will be surrounded by uncertainty, ambiguity, unpredictability (you thought based on your experience that x would happen and something else always does!)
- Constant change (emergence) in almost everything (except budget!) is your constant companion.
- You will normally have significantly more stakeholders than normal, they will all have multiple views and opinions, may come from different countries or jurisdictions.
- Everyone one will have an interest in what you are doing and why, and you will receive a lot of help, all of the time.

What can you do about it?

- Complexity Assessment – work out what you are facing, is it complex or complicated?
- Upskill, surviving in complex environments is a skill
- Get help, no one can manage a complex project without help, NO ONE.
- Build a champion team with all of the skills that you will need. If you can't select the right people, you can skill the ones you have.
- Don't over plan, you'll only have to re-plan
- Be prepared to let go of process and push the internal organisational barriers to make them work for you
- Build your personal network to call on when everything else fails (and it will)
- Get really comfortable with uncertainty, harness the creative opportunities it brings
- Try new things, increase your tolerance for risk. (don't mistake this point for risky behaviour)
- Recognise when more information does not add value to the decision making process.

ICCPM Moving Forward

ICCPM will continue its National and International Leadership through:

- Actively working with the Australian Government and Industry to improve CPM program delivery and productivity
- Continuing to grow the portfolio of international education, tools and support services to support managing in complex environments
- Guiding internationally connected research programs to improve CPM knowledge and performance
- Continuing to build the existing regional ICCPM capacity
- Continuing to build strong relationships with PM organisations globally (IPMA, AIPM, ARPI, APM, APMG, GPM etc)
- Growing ICCPM recognised Fellows to work with organisations delivering complex projects

ICCPM Education

Proposed Certificate IV

Diploma (level 5)

ICCPM Services

- Strategic Reviews (Lead by an ICCPM Fellow)
- CPM Mentoring
- Strategic Planning
- Strategy Visualisation
- Complex Project advice and intervention
- Systems Thinking and CPM Workshops

Current Research

- Australian Research Council Linkage Application with QUT focussing on Governance in complex projects. 3 year duration, July notification of success or otherwise.

- **Action Research** in both Boeing and the DMO facilitated by ICCPM and conducted by Dr Richard Barber to identify better ways for managing risk in large capital projects to the advantage of all parties.

- Action Research in the UK with BAE Systems UK, the UK National Health Service, DHL Europe, and Deloitte with potential participation from the UK Rail Industry and Rolls Royce on Bridging the Knowing – Doing Gap, Leadership, Education in the PM Environment and Metrics and Measurement of Success.

COMPLEXITY
CAPTURE, SHARE and TAKE ACTION on KNOWLEDGE
PURSUE INNOVATIVE SOLUTIONS
EMBRACE COMPLEXITY
ICPM
DEMONSTRATE INTEGRITY
LEAD FROM WHERE WE ARE
VALUE EACH OTHER
CREATIVITY
LEARNING
PRODUCTIVITY
LEADERSHIP
EMERGENCE
CULTURE
INNOVATION
TRANSFORMATION
EMERGENCY SERVICES
TRANSPORT
ENVIRONMENTAL CHANGE
IPMA
PMINZ
VOLUME 1
VOLUME 2
VOLUME 3
VOLUME 4
VOLUME 5
VOLUME 6
VOLUME 7
VOLUME 8
EXIT
FAILED PROJECTS

Questions?

Get involved, share your thoughts, issues, experience and wisdom join the ICCPM Network, there are multiple ways to contribute.

Iccpm.com/membership (free for partner employees)

Subscribe and contribute to the **Connect Magazine**
Iccpm.com/newsletter

Join the LinkedIn – ICCPM Complex Project Management **Discussion Group** (open forum)

Register for the **ICCPM 6th Annual Conference** 27-29 October here in Canberra