

# How to Navigate Complexity in Change Management

With Stephen Carver

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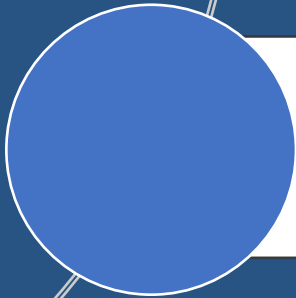


Introduction by: **Richard Fitzpatrick**



**Stephen Carver**

Lecturer at Cranfield University



**Q&A**

(Please Use the "Questions" Box on the Right of Your Screen)



**April 2020**

**Post COVID-19 Trends:  
The Future is Positive  
The Future is Projects**

With Stephen Carver

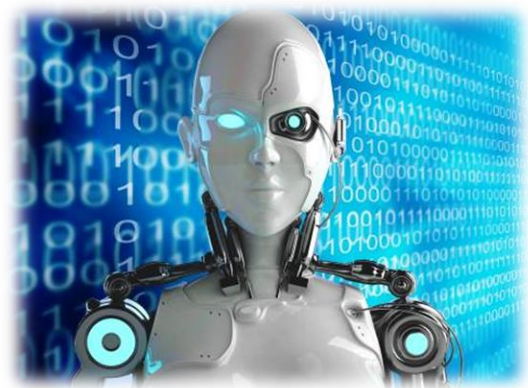
**cōra**



**Demand**



**Leadership**



**Automation**



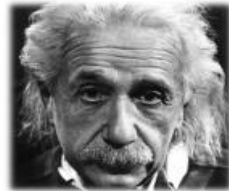
2027  
90M Project Professionals



CHARTERED BODY  
PROJECT PROFESSION



One of the top 10 UK  
fastest growing professions  
2M ft equivalent workers  
Generating £156B  
Bigger than Financial Services



The intuitive mind is a sacred  
gift  
and the rational mind a faithful  
servant.

We seem to have created a  
society that honours the  
servant  
and has forgotten the gift



APM RESEARCH FUND SERIES

Oct 18



**Project leadership: skills,  
behaviours, knowledge and values**



Association for Project Management  
October 2018

CHARTERED BODY  
PROJECT PROFESSION





### Space: A mile-wide asteroid is about to fly past Earth

1 day ago | News

An Asteroid that's a mile wide is going to fly close to Earth!

Yes - a **mile** wide!

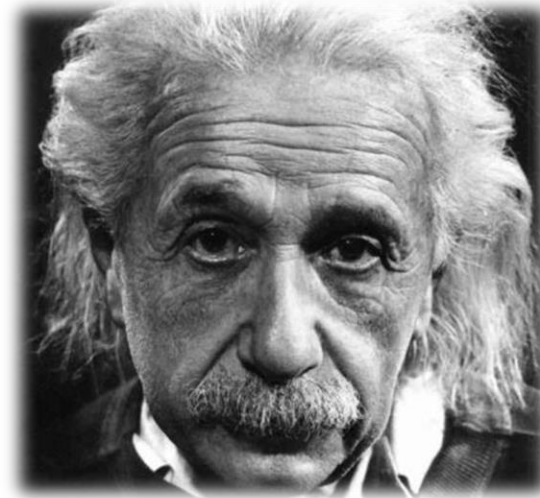
And when we say "close to



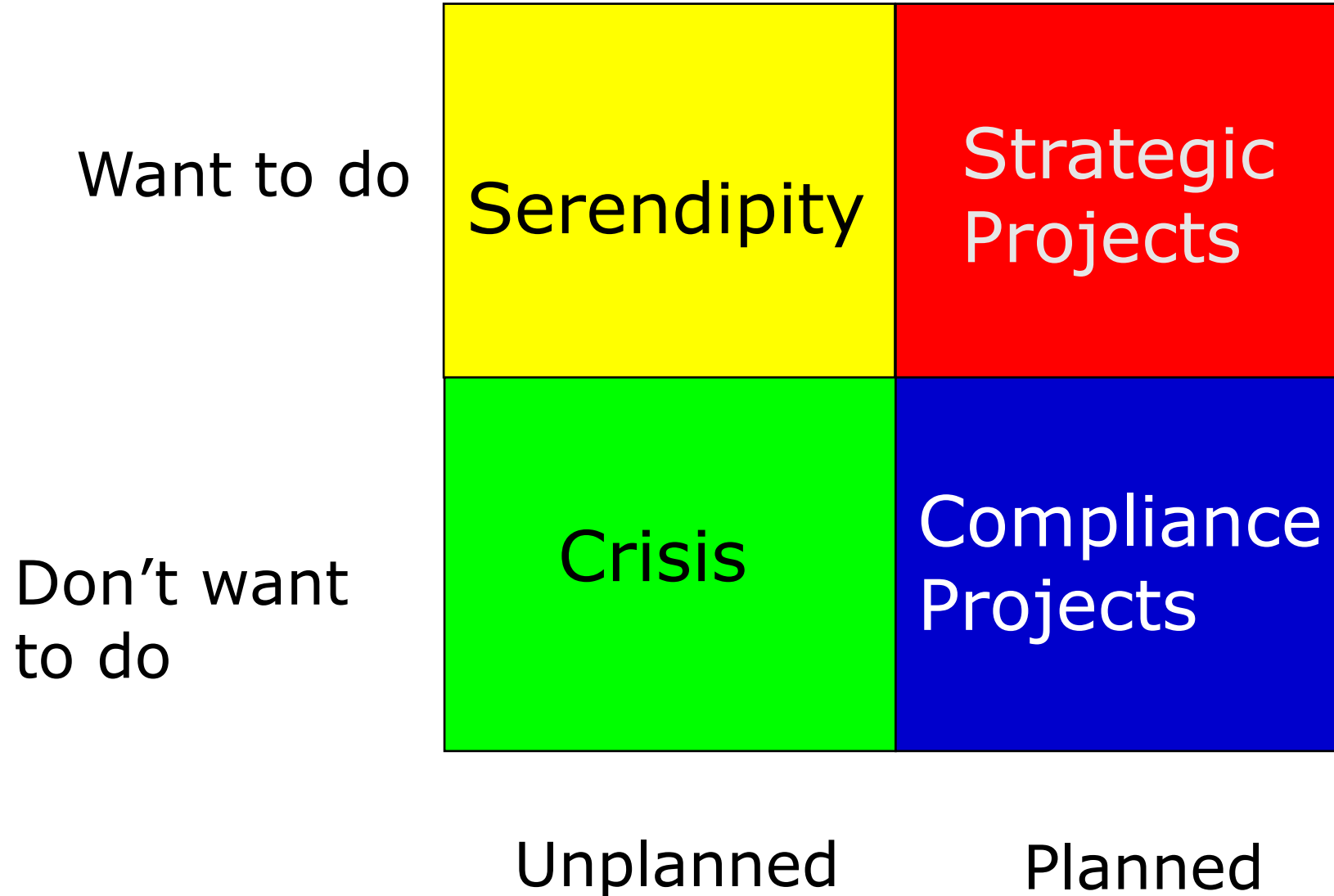




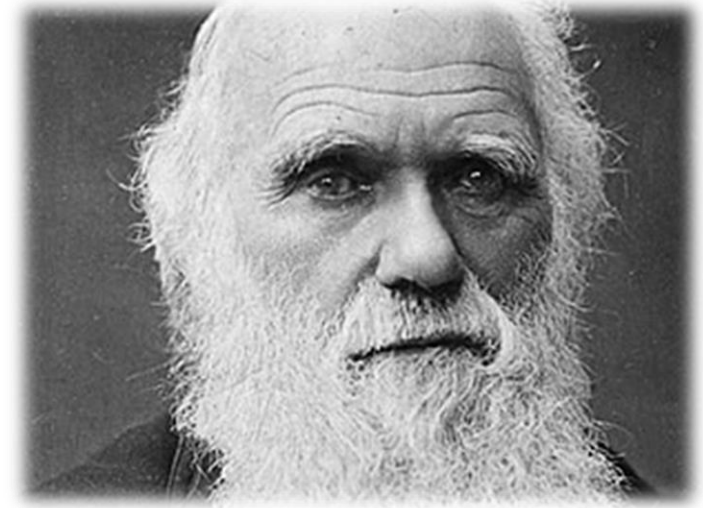
In the midst of every crisis  
lies great opportunity”



# Types of Change

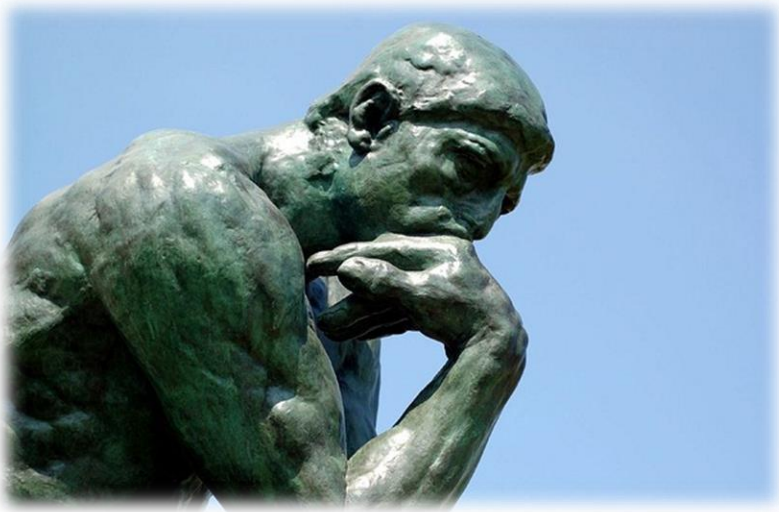


# Survival of the Fittest?



It is **not** the strongest of the species that survives, nor the most intelligent...

but the one most responsive and **adaptable** to change



What we will cover  
in this webinar:

Change Analogy  
Complex vs. Complicated  
Types of Complexity  
45 mins  
Questions

So, Stephen, tell us about how to lead our complex change projects and programmes...



# PRINCE2



## RUP Rational Unified Process



X

P





# 68%



Change Project Failure Rate



# 68%



6761  
6262646 21  
598989 13  
474849 13  
93983 17  
5785 01  
779 14

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Chesley B. "Sully" Sullenberger III





New York Departure

CAPT Sullenberger

F/O Skiles

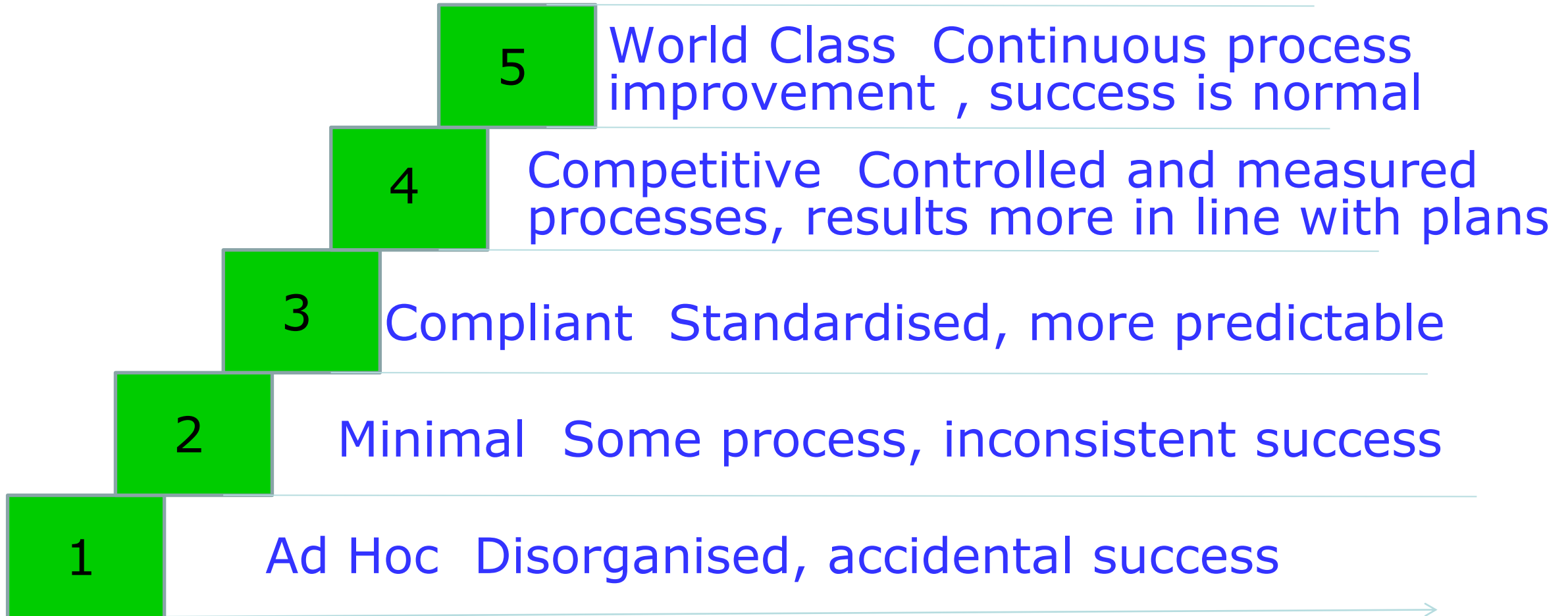




Calm in Crisis  
Professional Culture  
Checklists/Process but...  
Good Communicator/Leader  
Clear Objectives/Big Picture  
Managed Change/Complexity  
Agile  
Accountable

Chesley B. "Sully" Sullenberger  
III

# Project & Programme (PPM) Maturity Levels







Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

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International Journal of Project Management 33 (2015) 103–115

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**Project  
Management**  
[www.elsevier.com/locate/ijproman](http://www.elsevier.com/locate/ijproman)



**“It worked for manufacturing...!”  
Operations strategy in project-based operations**

Harvey Maylor <sup>a,\*</sup>, Neil Turner <sup>b</sup>, Ruth Murray-Webster <sup>b,c</sup>

<sup>a</sup> Saïd Business School, University of Oxford, Park End Street, Oxford OX1 1HP, UK

<sup>b</sup> School of Management, Cranfield University, Bedford MK43 0AL, UK

<sup>c</sup> Lucidus Consulting Ltd, Greens End House, 33D, Greens End Road, Meltham, Holesfirth, West Yorkshire HD9 5NW, UK

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Available online 18 April 2014

**April 2014**



# PPM – Strategic Advantage



Strategic Contribution

## Limit of a process based approach



Leadership, Personal Accountability & Complexity



# Complicated vs. Complex



Complex adaptive systems are different from systems that are merely complicated. If a system can be described in terms of its individual constituents (even if there are a huge number of constituents), it is merely complicated.

If the interactions among the constituents of the system, and the interaction between the system and its environment, are of such a nature that the system as a whole cannot be fully understood simply by analysing its components, it is complex.

So a jumbo jet is complicated, but mayonnaise is complex,





# What we are trying to avoid:





# One Day of Traffic in Europe

A map of Europe and the surrounding regions, including parts of North Africa and the Middle East. The map is overlaid with a network of red dashed lines representing traffic flow. The lines are most dense in Western Europe, particularly in the British Isles, France, and Germany, and also show significant flow across the Mediterranean and into the Middle East. The background is a light blue color representing the sea.

**Chaos  
Complex or  
Complicated?**



# What is Complexity?



- 'Complicated'

e.g. a Swiss watch. **Linear** & predictable

- 'Complex': from the Latin 'complexus' (braided together). **Nonlinear** & unpredictable.



- Like quality – it is hard to quantify
- is something that is experienced.



# What is Complexity?

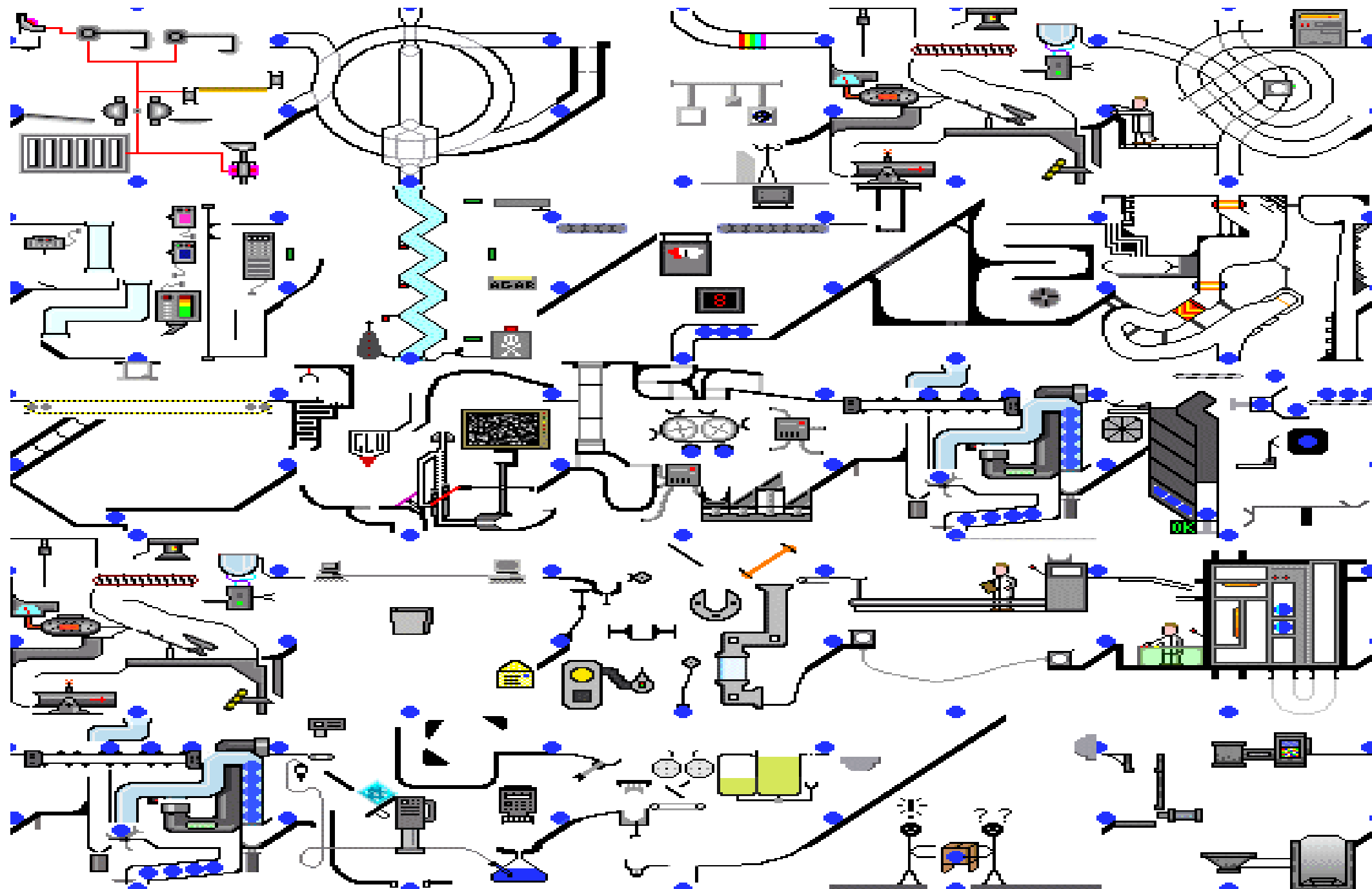


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# Complicated vs. Complex



Decision-makers commonly mistake complex systems for simply complicated ones and look for solutions without realizing that 'learning to dance' with a complex system is definitely different from 'solving' the problems arising from it.

Roberto Poli University of Trento  
UNESCO Chair in Anticipatory Systems



## How Hard Can It Be?

### Actively Managing Complexity in Technology Projects

*The complexity assessment tool offers a framework for articulating, assessing, and managing sources of complexity in technology projects.*

Harvey R. Maylor, Neil W. Turner, and Ruth Murray-Webster

2014



# Complexities

## Structural Complexity



- Structural Complexity: BITS

- Number, size, financial scale, interdependencies, variety, pace, technology, breadth of scope, number of specialities, multiple locations/time-zones. IQ



# Complexities

Emergent  
Complexity

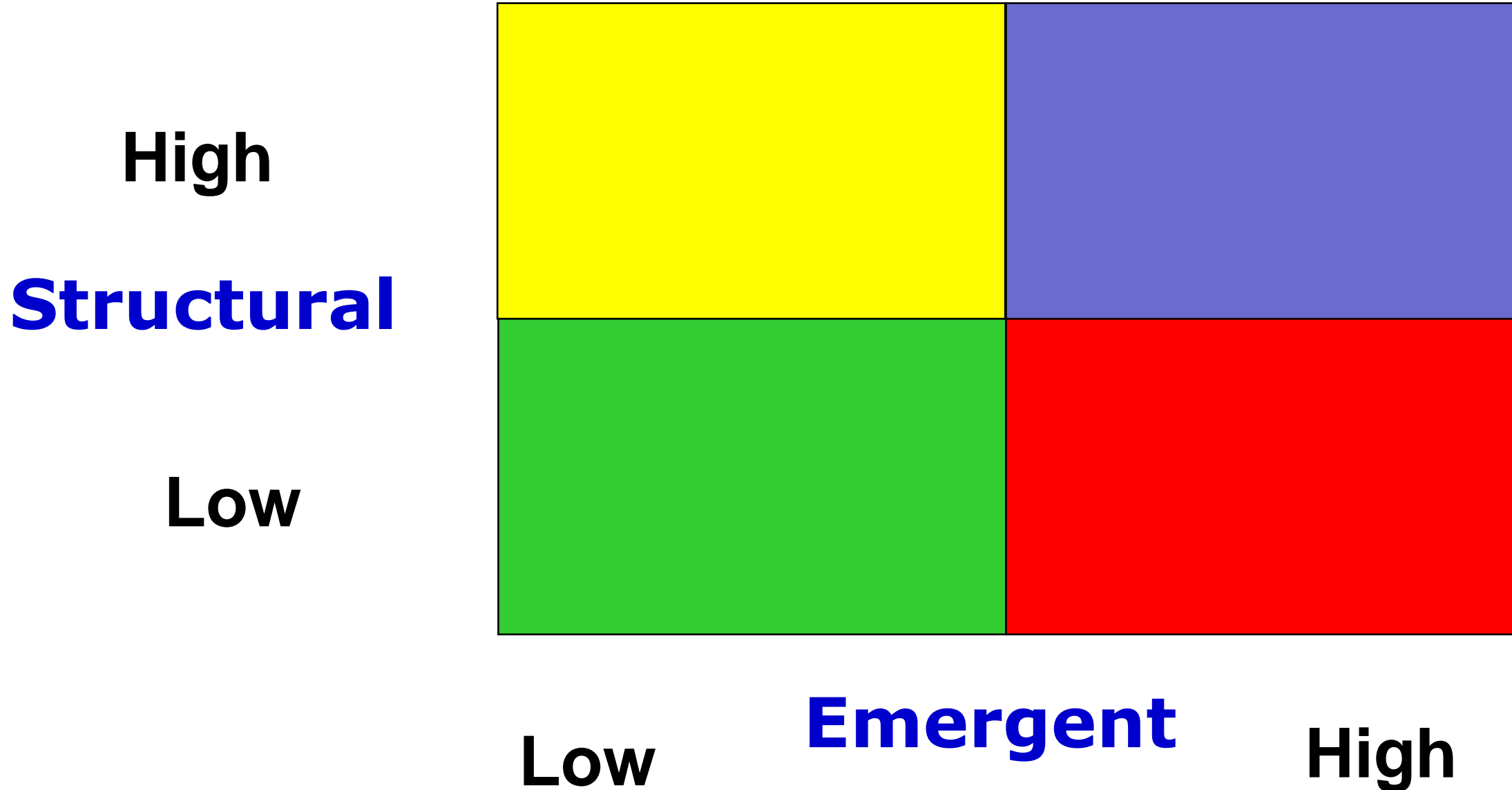


- Emergent Complexity: CHANGE

- Technological and commercial maturity & change, novelty, clarity of vision / goals, clear success criteria / benefits, previous experience, availability of information, unidentified stakeholders, “missing” plan, unforeseen, unknowables.



# Two Dimensions of Complexity





# Two Dimensions of Complexity

**High**  
**Structural**

**Low**

**Programme**



**Project**



**“Agile”**



**Low**

**Emergent**

**High**

2001  
Utah Snowbird Mountains  
17 Developers

**Agile Manifesto**

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions	Over	processes and tools
Working software	Over	comprehensive documentation
Customer collaboration	Over	contract negotiation
Responding to change	Over	following a plan

That is, while there is value in the items on the right, we value the items on the left more.

# 12 AGILE PRINCIPLES



**01** Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

**02** Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

**03** Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

**04** Business people and developers must work together daily throughout the project.

**05** Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

**06** Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

**07** Working software is the primary measure of progress.

**08** The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

**09** Continuous attention to technical excellence and good design enhances agility.

**10** Simplicity – the art of maximizing the amount of work not done – is essential.

**11** The best architectures, requirements, and designs emerge from self-organizing teams.

**12** At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.



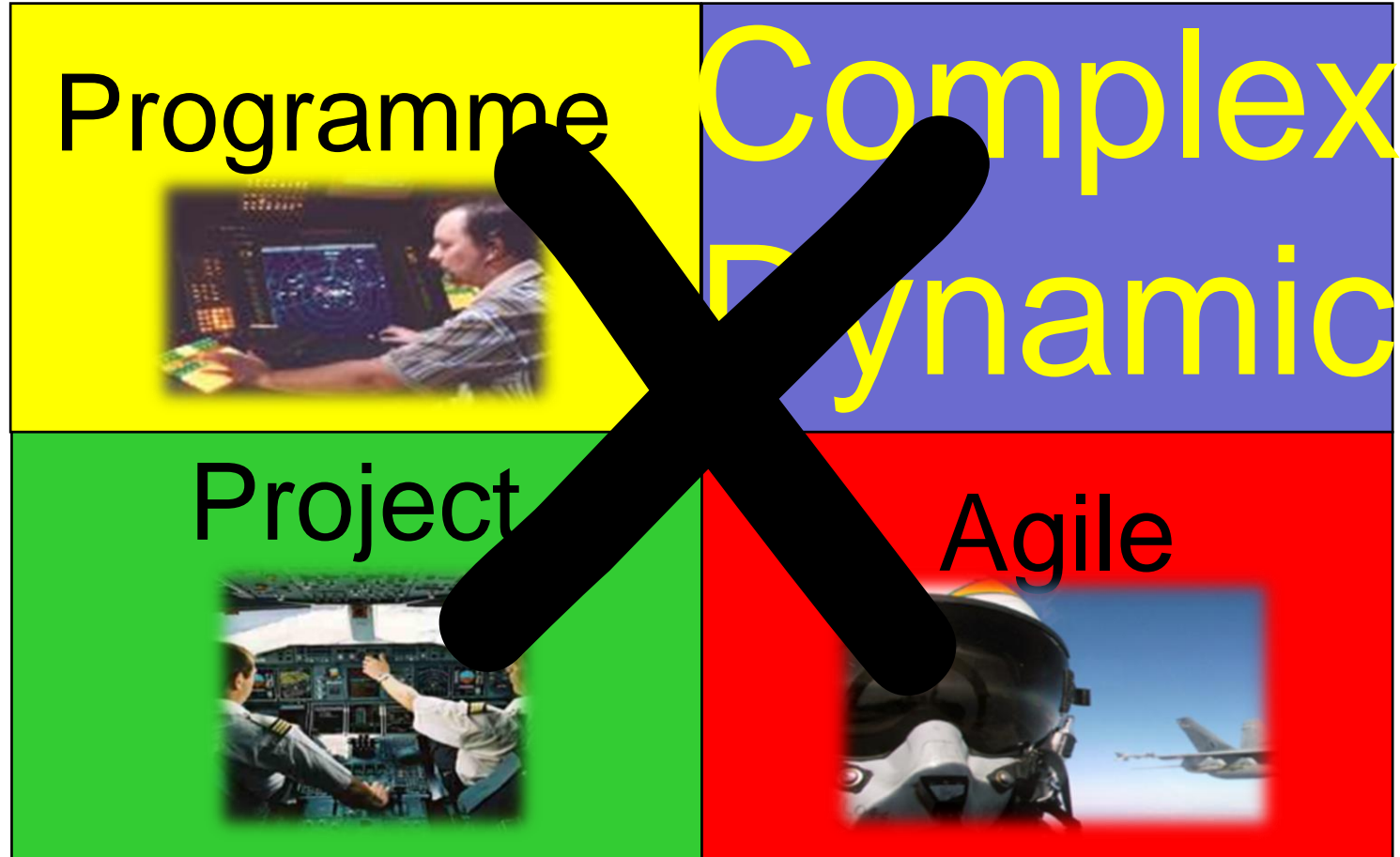




# Two Dimensions of Complexity

**High**  
**Structural**

**Low**



**Low**

**Emergent**

**High**

# Complexities

## Socio-political Complexity



- **Socio Political Complexity: People**

Communication, Intuition, Confidence, Politics, Stakeholder Engagement, Culture, Empowerment, Leadership, Personality, Physiology, Social Systems, Culture EQ





**Structural  
Complexity**

**Emergent  
Complexity**

**Socio-political  
Complexity**





29 April 2020

## British Airways to cut up to 12,000 jobs as air travel collapses

12 hours ago | Business

British Airways is set to cut up to 12,000 jobs from its 42,000-strong workforce due to a collapse in business because of the coronavirus pandemic.

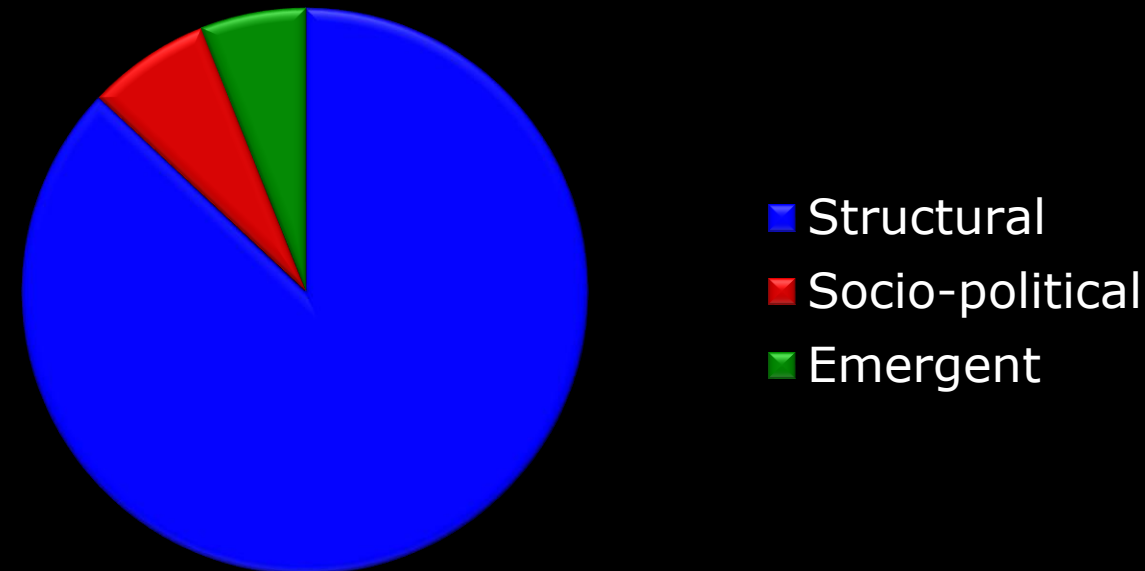
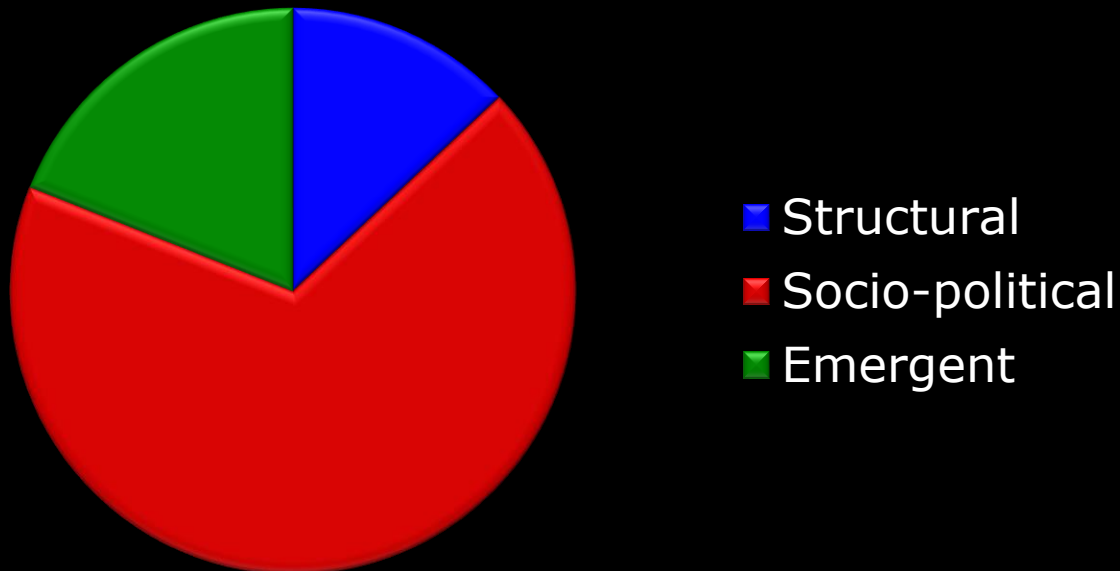


# The 3 Complexities

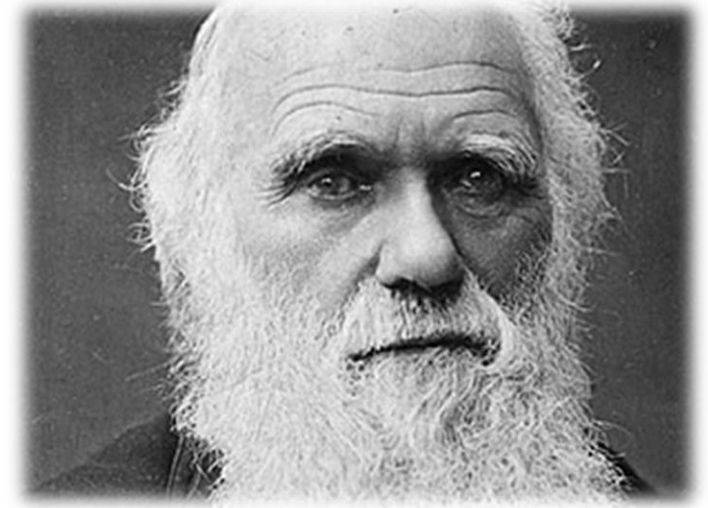
**We asked a group of 246 Qualified Project Leaders:**

“In your work, which of the 3 complexities is the most difficult to manage?”

“In your own formal training and development, which of the 3 complexities has received the most attention?”



# Survival of the Fittest?



It is **not** the strongest of the species that survives, nor the most intelligent...

but the one most responsive and **adaptable** to change



We will emerge from this period stronger, wiser and more connected as a global society.



68%

Success is the ability to go  
from one failure to another...  
with absolutely no loss of  
enthusiasm!



It's landing that counts!

**Find Out More**

**Download the Guidebook:**

[corasystems.com/change-management](https://corasystems.com/change-management)

**See How Cora PPM Can Help:**

Watch an overview at [corasystems.com/takeatour](https://corasystems.com/takeatour)

OR

Request a personalized demonstration at

[corasystems.com/requestademo](https://corasystems.com/requestademo)

