

Making Sense of Complexity

Mikayla Exton

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Cynefin Framework

The Cynefin Framework (a Welsh word, pronounced kuh-NEV-in) is a decision-making model developed to help people understand their challenges and respond appropriately. The model identifies different levels of complexity and provides guidance on how to act in each. This helps leaders respond suitably: routine situations aren't overthought, and that complex events aren't brushed over.

To use the Cynefin Framework (shown on the next page), review which domain a current situation of challenge falls within, and tailor your response accordingly. For architectural practices, this can support better, less risky, decision-making by aligning responses with the nature of the situation. This can help teams to recognise uncertainty, respond proportionally, and integrate risk into everyday thinking.

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Cynefin Domain	Nature of the Context	Example	Approach to Change	Consider
Clear	Known knowns; best practices apply.	Producing standard documentation for a simple residential build with previously used, or standard detailing.	Apply standard procedures, follow compliance pathways.	Are we using tried-and-tested processes, or overcomplicating a simple task? Do all team members know the standard procedures and compliance pathways?
Complicated	Known unknowns; expert analysis needed.	Coordinating complex services (HVAC, structure, fire) in a hospital or lab project; requires specialist input.	Analyse, plan, consult with experts (e.g. engineers, planners).	Have we consulted the right experts to fill knowledge gaps? Are we relying on evidence and analysis rather than assumptions?
Complex	Unknown unknowns; patterns emerge over time	A design team for a large project with multiple stakeholders adapting the design based on stakeholders' shifting scope, priorities and budget.	Probe with early concept testing, sense feedback, adapt iteratively	Are we testing ideas early and learning from feedback? How are we adapting our approach as patterns and stakeholder needs emerge?

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Cynefin Domain	Nature of the Context	Example	Approach to Change	Consider
Chaotic	No clear cause-effect; urgent action required.	Responding to a construction site accident, or post-disaster site assessment where safety is compromised.	Act fast to stabilise (e.g. secure structure), then reassess and plan.	What immediate actions will stabilise the situation right now? Once stabilised, how do we transition back to planning and learning?
Disorder	Unclear which domain applies.	Early-stage project with competing visions, unclear scope, or stakeholder misalignment.	Break problem into parts (e.g. planning, budget, culture) and assign to appropriate domains.	Which parts of the problem belong to each domain? What steps can we take to clarify scope, align stakeholders, and move forward?

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BRAID - Understanding Risks in Complex Systems

As projects, teams, and the wider industry grow in complexity, risks increase. BRAID is a framework for analysing the forces, behaviours, and patterns at play within a business environment. By identifying these patterns, practices can leverage positive dynamics, uncover unintended consequences, and manage risks that arise from complexity.

B - Balancing Loop
R - Reinforcing Loop
A - Addiction Loop
I - UnIntended Consequences
D - Delays

B – Balancing Loop

A balancing loop is a feedback cycle that stabilises a system and pulls it back towards a desired target.

Example:

A project becomes more complex, pushing the cost estimate above budget. This triggers a balancing response: scope is reduced and details simplified to bring costs back in line.

Why it matters: Balancing loops help to manage risk by keeping a system from spinning out of control.

Within your practice, consider:

- Do we act quickly enough to stabilise issues, or do we wait until problems escalate?
- Are our “balancing actions” solving the root cause or just treating symptoms?

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R – Reinforcing Loop

A reinforcing loop is a cycle that amplifies change rather than balancing it. It can be a vicious cycle as it's self reinforcing - the more it happens, the more it continues to happen.

Example:

A practice with delayed cash flow cannot hire enough staff. The existing team absorbs the extra workload, but as a result are more likely to make mistakes, not complete work, and miss deadlines. Rework, increased RFIs, and client dissatisfaction add further workload, leading to burnout and turnover, which worsen the original problem.

Why it matters: Managing risk isn't just about one-off events - it's about understanding the patterns that escalate risk gradually. Recognising reinforcing loops early allows you to intervene before they compound.

Within your practice, consider:

- Are there patterns where small problems keep amplifying (ie. workload, cash flow, client scope creep)?
- What early warning signs indicate a reinforcing loop is forming?

A – Addiction Loop

An addiction loop occurs when a short-term fix alleviates a problem but creates a long-term dependency that is itself a problem.

Example:

A practice seeks recognition through awards. Winning provides a dopamine hit and fuels the pursuit of more high-profile work. Over time, satisfaction wanes, driving riskier decisions to maintain prestige, potentially at the cost of sustainable practice.

Why it matters: Addiction loops distort priorities, making decisions driven by short-term gratification rather than long-term stability.

Within your practice, consider:

- What short-term fixes do we rely on repeatedly (ie. overtime, discounts, landmark projects)?
- Are these fixes masking deeper issues that need to be addressed?

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I – Unintended Consequences

Unintended consequences are side effects of actions that weren't anticipated.

Example: Flexible work policies initially boost morale but potentially gradually weaken team collaboration, creating new challenges.

Why it matters: Risk management requires anticipating secondary effects, monitoring outcomes, and being ready to adapt when unintended consequences surface.

Within your practice, consider:

- Have we considered the secondary effects of recent decisions?
- How do we monitor decisions long-term to review and adjust when side effects emerge?

D – Delay

In complex systems, there are often significant delays between actions and outcomes. These lags make it hard to connect cause and effect, increasing the chance of misjudged decisions.

Example: A lower-than-average level of BIM competency in a team may seem minor early in a project. However, errors accumulate over time and increase the risk of significant documentation and coordination issues that are difficult to traceback to their source.

Why it matters: Delays can mask risks, creating a false sense of security. Early detection and monitoring are essential.

Within your practice, consider:

- Are we mistaking a lack of immediate issues for genuine success?



The information in this report is drawn from the *Integrating Risk into Strategic Decision Making* course, attended by Mikayla Exton at the Judge Business School, University of Cambridge. Mikayla participated in this programme through the NZACS Scholarship (2024), which supports employees and principals of member firms to develop their expertise in commercial and risk management. Mikayla was also supported by her workplace - Shaw & Shaw Architects - where she works as a registered architect.

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NZACS is keen to encourage ongoing conversations about risk in the architectural industry. If you have questions about any of the topics covered, or would like to discuss the report or the scholarship further, please reach out to Mikayla or NZACS - we welcome the opportunity to continue the dialogue.

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Mikayla Exton | 021 201 2332 | mikaylaexton@gmail.com

NZACS | www.nzacs.co.nz
