

So, what is a system? A system is a set of things—people, cells, molecules, or whatever—interconnected in such a way that they produce their own pattern of behaviour over time (Donella Meadows)

Systems Thinking is a discipline for seeing wholes and patterns of change rather than static snapshots (Peter Senge)

A system must have an aim. Without an aim, there is no system (W Edwards Deming)
– so what is my aim?

Complexity and Continuity?

We increasingly experience the world as:

- **V** Volatile
- **U** Uncertain
- **C** Complex
- **A** Ambiguous



And yet...

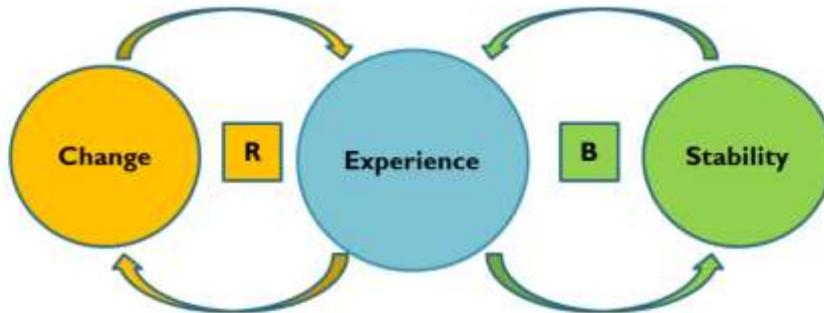
We also experience the systems around us as having predictable purpose, structure and stability



Let's face it, the universe is messy. It self-organizes and evolves. It creates diversity, not uniformity. That's what makes the world interesting, and that's what makes it work (Donella Meadows)

Systems self-organise over time – patterns of changing stability emerge out of complexity – 'stable dynamic structures'

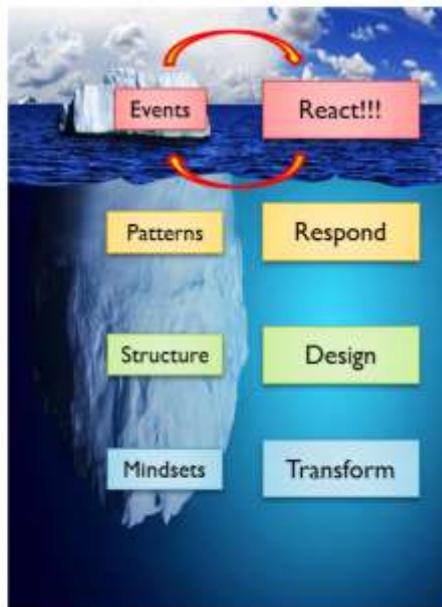
Both Change and Stability?



Rigor alone is paralytic death; imagination alone is insanity (Gregory Bateson) – *Tight and Loose Thinking together*

The behaviour of a system cannot be known just by knowing the elements of which the system is made (Donella Meadows)

Inviting Systems Thinking?



Iceberg Model

- ❖ Noticing 'what is'
- ❖ Exploring Unintended Consequences
- ❖ Uncovering Patterns & Trends
- ❖ Revealing Structure & Connections
- ❖ Illuminating Mindsets

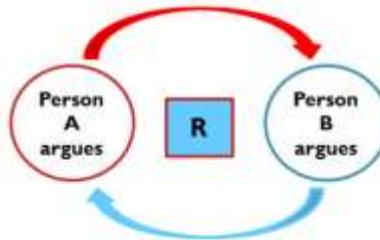
The key is not any of the individual elements; what is important is having all the elements together as a system (Taiichi Ohno)

Whatever we do to the web, we do to ourselves. All things are bound together. All things connect (Chief Seattle)

Circles and Loops

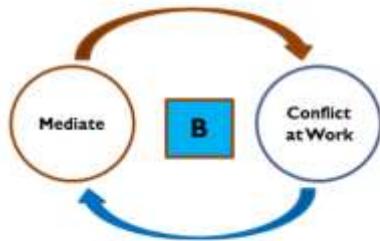
- **Reinforcing**

More leads to more/less leads to less...



- **Balancing**

More leads to less/less leads to more (over time)...



Focus on the interactions of the parts rather than their behaviour taken separately (Russell Ackoff)

Every system is perfectly designed to get the results it gets (W Edwards Deming)

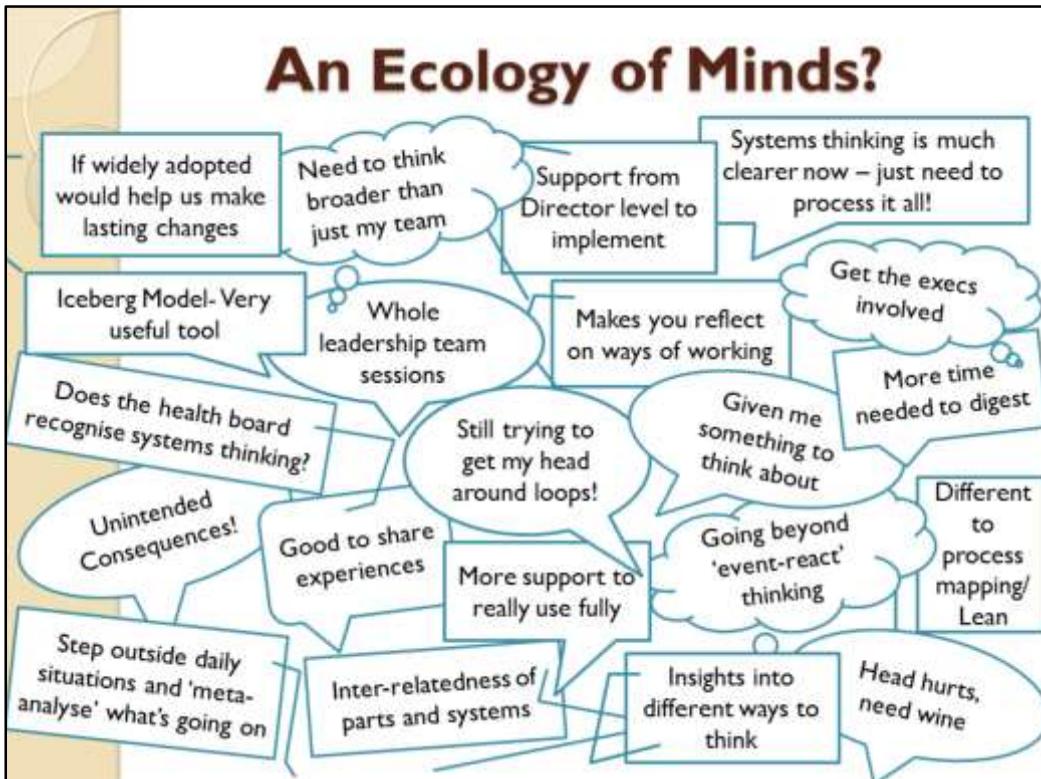
When we seek for connection, we restore the world to wholeness (Margaret Wheatley)

Organisational Déjà Vu?



A bad system will beat a good person every time (W Edwards Deming)

People don't resist change; they resist being changed (Peter Senge)



We cannot impose our will on a system. We can listen to what the system tells us and discover how its properties and our values can work together to bring forth something much better than could ever be produced by our will alone (Donella Meadows)

Never give children a chance of imagining that anything exists in isolation. Make it plain from the very beginning that all living is relationship (Aldous Huxley)

Wisdom is the intelligence of the system as a whole (Gregory Bateson)