



A SYSTEMS THINKING APPROACH TO ORGANISATIONAL CHANGE

From February 19th-20th, CRF members gathered for a two-day workshop led by **Beth Gunderson**, systems thinking and organisational change expert and Executive Fellow at the University of Southern California. The workshop included an overview of what systems thinking means, the habits of a system thinker, the application of systems thinking habits to practical examples, and how to overcome barriers to systems thinking. These notes summarise the discussion.



KEY TAKEAWAYS

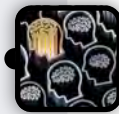
01

Systems thinking looks at how individual elements interact with and influence one another to create a complex whole. Organisations need to define what systems thinking specifically means for them and ensure everyone is aware of their chosen definition.



02

Systems thinking is an increasingly important leadership skill, requiring leaders to understand the ripple effects of their actions both internally and externally.



03

Systems thinking requires a deliberate and conscious effort as well as a process of learning and unlearning – we are often conditioned to think linearly, meaning a mindset change may be required.



04

A systems thinker sees the organisation as a whole, the interactions between parts, the way systems affect other systems and recurring patterns.



05

Visualising a system using moveable cards (such as sticky notes) helps us to better understand interconnections and experiment and iterate more fluidly.



06

Hybrid and remote working can be a barrier to systems thinking as they hinder seeing the organisational as a whole. Making an proactive effort to build relationships with colleagues (such as through informal lunches) can help overcome this.



07

Other obstacles to systems thinking include a fear of getting things wrong, day-to-day busyness obscuring what is happening in other areas of the organisation and social media algorithms which reinforce our own beliefs.



08

Habits of a system thinker include: seeking to understand the big picture, making meaningful connections, recognising that systems drive behaviour, the ability to change perspectives, resisting the urge to come to quick conclusions, considering mental models, testing assumptions and considering the consequences of actions.



09

The concept of 'get off the dance floor and onto the balcony' – the idea that removing ourselves from the middle of the situation can help us to gain a better overall perspective – is key to being a systems thinker and to progressing change.



10

The Star Model is one example of an organisational design framework and systems model that can be used to help think through interventions. It includes a focus on organisational capabilities, structure, management processes, rewards and people processes.





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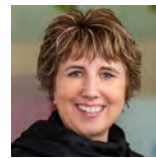
SYSTEMS THINKING OVERVIEW

"Reality is made up of circles, but we see straight lines. And herein lies the beginnings of our limitation as systems thinkers".

PETER SENGE, ACADEMIC AND FOUNDER OF SYSTEMS THINKING

Traditional analysis involves breaking a large, complex problem into smaller pieces in order to deal with them more easily. In contrast, systems thinking takes individual pieces and places them in context with other related elements, looking at how individual elements interact with and influence one another to create a complex whole. It is important to define what 'systems thinking' or 'transformation' specifically mean for your organisation, preventing them from becoming hollow buzz words.

Systems thinking is now a critical leadership skill. Leaders (and change agents) need to understand the ripple effects of their actions within their teams, organisations, communities, environments and geopolitical contexts. Doing so requires significant efforts, especially as people are often conditioned to think linearly.



BETH GUNDERSON is the Founder of Minikahda Partners and an Executive Fellow at the University of Southern California – Center for Effective Organizations. In addition, she is an instructor within the MBA programme at École Polytechnique Fédérale, Lausanne Switzerland. Previously Beth was an organisation effectiveness executive at General Mills, a \$16B global food company based in Minnesota, where she was responsible for organisation design and change management practices, consulting on large-scale design projects and building capability. Beth has a unique perspective on organisational change; over her 32 years at General Mills she held a variety of positions within: Research and Development, Supply Chain/Operations, and HR. Beth received her BS from the University of Wisconsin in Industrial Technology – Package Engineering and her MA in Human Resource Development – Organisation Development from the University of St. Thomas.

✉ EMAIL

📄 SLIDES

📇 CARDS

HOW TO MAKE TOAST (VISUALISING SYSTEMS)



Beth Gunderson led participants through the first stage of an exercise that helps people to think about systems and understand problems visually. This exercise has three parts – drawing a diagram of how to make toast on a piece of paper, drawing how to make toast on sticky notes, and then repeating this last activity as a group. This exercise highlights the following about systems thinking:

- 1. A system can be visually represented through a diagram of nodes (tangible objects) and links (connections between nodes). Drawing a system can help us to understand the nodes and relationships between them.
- 2. Visualising a system using moveable cards (e.g. sticky notes) makes better systems models as we experiment and iterate more fluidly.
- 3. Groups create the most comprehensive models as they synthesis several points of view. When people work together (under the right circumstances), they create models which function better than those created by individuals.
- 4. When working as a group, it is important to consider whether the right range of voices are present and to understand the assumptions that people may be making. At the start of a large transformation project, it can be helpful to begin by asking people to write down what assumptions they are bringing and agree what the project is trying to solve.



WATCH THE ONLINE EVENT HERE:

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COMPLICATED vs COMPLEX SYSTEMS

Systems can be complicated or complex. The two are often used interchangeably, though they are not the same. Complicated systems (e.g. a car, a watch) are somewhat predictable, whereas complex systems (e.g. the weather, traffic) can only be understood once you interact with them.

COMPLICATED	VS	COMPLEX
A right answer exists but expertise is often needed	VS	There is no one right answer or solution
Different experts might take different paths, but they will arrive at the same answer	VS	Goal is to head in a direction rather than arrive at a destination
Need to gather data and analyse	VS	Need to see the system in order to act effectively
Specialists, consultants, experts	VS	Moving parts and interdependencies
Problem-solving mindset	VS	Experimentalist, mindset of curiosity

The above definitions have the following implications for how we look at organisational design challenges:

- + Leaders often operate outside of their organisation's systems. This is a barrier to systems thinking as, in order to fully understand a complex system, you need to be immersed in it.
- + A one-off interaction or event (e.g. a training or the creation of a set of values) is not sufficient to change a system. Instead, continuous interaction with the system is required. Change agents should help leaders understand that the hard work starts *after* a change has been announced.
- + The skills required to conduct complex systems change are not the same as those required by systems implementation.
- + There is a common misconception that change management involves filling in forms and templates. Whilst these can be helpful, they are not alone sufficient when working with a complex system.
- + Systems thinking requires a nimble or agile approach – complex systems aren't predictable.
- + Providing a project name for a change management intervention can create the impression amongst employees that it is an isolated project with a definite end date, rather than a continuous change process (using words like 'practice' or 'activation' instead may be more helpful). This does not mean that there should be no budget or other project management tools – good project management underpins successful change projects – but it does help to create a different mindset.

To be a system thinker you see:

- The organisation as a whole.
- Interactions between parts, not the parts themselves.
- The way systems affect other systems.
- Recurring patterns rather than just individual events.
- Change over time.
- How feedback affects the parts.

Seeing the organisation as a systems thinker requires a conscious and deliberate effort, especially if you have only experienced one area of the organisation. Hybrid and remote working can also be a barrier to seeing the system as whole. In these circumstances, pro-actively building your internal network, such as through meeting different colleagues for coffee or lunch, will help you to better understand the system of an organisation, including its interactions and patterns. Other obstacles that can hinder the ability to see systems within an organisation include:

- ⊗ The fear of a systems view unleashing things that you don't want to deal with, or of getting things wrong.
- ⊗ Leadership egos – leaders may not want to acknowledge interconnections due to fears of conceding power.
- ⊗ A lack of perspective of what is happening across the whole organisation when being busy implementing immediate actions.
- ⊗ Social media algorithms and technology, which tend to focus on what we want to know, rather than providing a broader view.
- ⊗ The tendency for organisations to be structured into different specialisms.

Q Is design thinking the same as systems thinking?

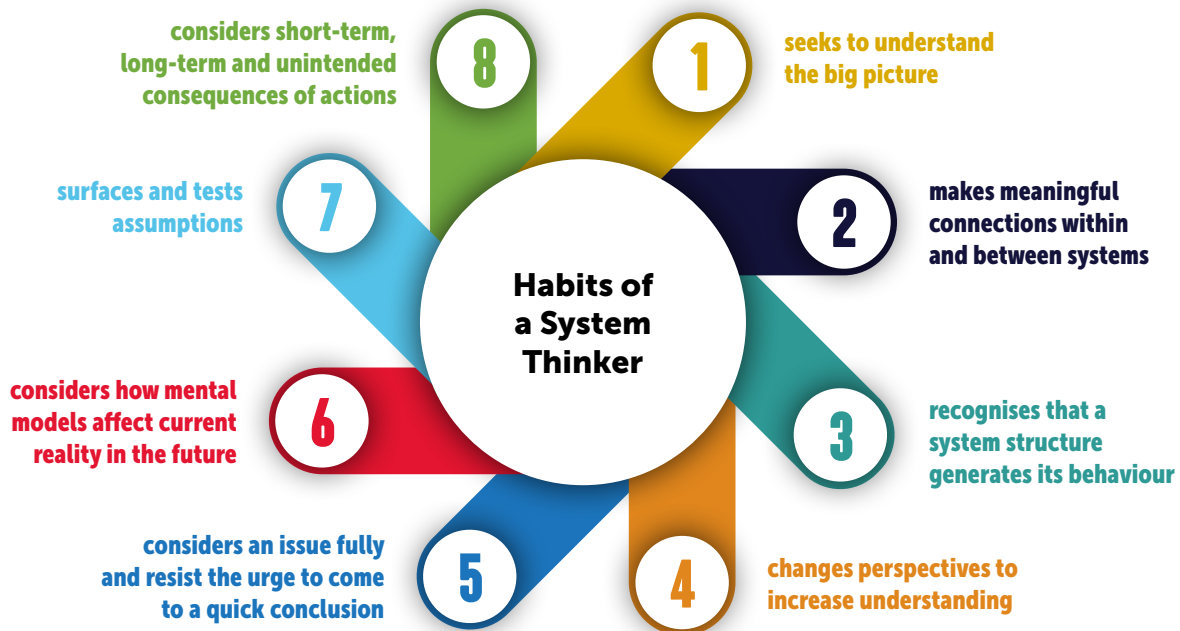
A *Design thinking has a methodology which traditionally comes from product design. Whilst there are elements of systems thinking that underpin design thinking, it can be a loaded concept (e.g. people from a product design background will think of design thinking as a linear process). This highlights the importance of being very clear in definitions and also in choosing language that resonates with your organisation – in some organisations, design thinking and systems thinking may mean the same thing!*



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HABITS OF A SYSTEM THINKER

Download System Thinker Cards



1 Seeks to Understand the Big Picture

A Systems Thinker focuses on the 'forest' as well as the details of any one 'tree'. One example of this is the concept of 'get off the dance floor and onto the balcony' – the idea that removing ourselves from the middle of the situation can help us to gain a better overall perspective. This can help us to progress adaptive change, and can be supported in the following ways:

- Be deliberate in creating times to stop and look at the bigger picture and nominate someone one step removed from immediate proceedings to hold you accountable.
- Build psychological safety into your organisational culture so that people know it is ok to bring a slightly different perspective.
- Consider how you best use meetings to help understand the bigger picture. Are you bringing the right people together at the right time? Can you spend half an hour before the meeting creating questions that will open up conversations?
- Encourage other people to also 'get onto the balcony'.
- The 'bigger picture' also applies to seeing the wider system in which your organisation operates (e.g. considering your customer or competitors).

2 Makes Meaningful Connections Within and Between Systems

A Systems Thinker sees how concepts, facts and ideas link together, which can lead to new learning, discoveries and innovations. One example of how to uncover interdependencies could be to bring a cross-functional group together to create a visual representation of a large change project. Making meaningful systems connections can be harder now that hybrid working and working across multiple teams are the norm, requiring a deliberate to create connection (e.g. through sharing vulnerable moments).

3 Recognises a System's Structure Generate Its Behaviour

"Your organisation is perfectly designed to get the results you get". DAVID HANNA

A Systems Thinker focuses on system structure, which includes acknowledging that systems drive behaviour. The Wells Fargo Fake Account Scandal – where organisational pressure to meet demanding cross-selling quotas drove bank employees to create fake accounts – is one example of this.

Therefore, to change a behaviour, you need to change the system. There are a range of structural factors to consider, such as how different parts of a system may affect one another, or how a structure may be physical (i.e. the effect of a venue and physical environment on behaviour).



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4 Changes Perspective to Increase Understanding

A Systems Thinker increases understanding by changing the way they view aspects of the system. One particularly powerful way of changing your perspective is through incorporating other people's points of view into your own. Consider building ways of seeing other perspectives into the structure of your organisation, which can become avenues for people's voices and perspectives to rise up and be heard.

5 Considers An issue Fully – Resists the Urge to Come to a Quick Conclusion

Systems Thinkers take time to see the whole organisation and consider the issue they are facing before acting. Reviewing what meetings we attend, considering whether we really need to be there and whether we would actually add value, can help to create the time to do this.

'Action bias' means that people are often drawn to the idea of doing something rather than nothing, even if it is not the most effective or logical choice. In order to encourage people to first think about an issue fully, consider what kinds of behaviours your organisation rewards (e.g. do you reward people who appear to be busy?).

6 Consider How Mental Models Affect Current Reality and the Future

A Systems Thinker is aware of how beliefs and attitudes influence the way a system behaves – how could my own mental models be barriers? How am I helping others to see the influence that mental models have on their decision-making?

The Iceberg framework is one example of a tool that can help us to think through patterns and the assumptions or beliefs underpinning these. When using models such as these, ensure you define the situation appropriately and consider how you can adapt implementation according to your audience.

7 Surfaces and Tests Assumptions

Our beliefs and experiences affect what data or information we take from a certain situation. In time this can perpetuate our mental models of how we see the world. A Systems Thinker instead actively tests theories and surfaces assumptions in order to improve performance, and considers what data they might be pulling from their past experiences when they begin to create their own narratives.

8 Considers Consequences – Short-Term, Long-Term and Unintended Actions

A Systems Thinker looks ahead and anticipates the immediate results of actions as well as longer-term effects. This includes deciding how to visualise unintended consequences and considering what trade-offs may be required between short-term and long-term effects.

APPLYING SYSTEMS THINKING HABITS TO AN HR TRANSFORMATION CASE

General Mills is one of the largest makers of natural and organic foods in the US. It has 39,000 employees (with the majority sitting outside the US), sells brands in 100 markets on six continents and had \$16.6bn in fiscal net sales in 2019. The organisation underwent a transformation process to change its HR operating model (including changing the structure of how HR services were delivered and the role of the HR business partners) to improve efficiency and effectiveness and reduce the time spent on driving growth.

As part of this transformation, the organisation opted for a 'big bang' of technological change, rather than many small incremental changes, and initiated all of the below in one day:

- Technology platform enabling processes
- Employee portal providing access to tools and information
- HR global service delivery to support and sustain processes
- Payroll vendor consolidation
- Changed pay and performance schemes

Whilst this approach entailed risks, it ultimately was successful and helped the change to occur more quickly and extensively, as well as creating the infrastructure for further change. Other aspects of the change included changing 40 global HR process (such as drastically changing the performance ratings system) and reducing HR process documentation from 130,000 to 5,000. In summary, the change was extensive and rapid, and was enabled by the below eight habits.

1 Seeks to Understand the Big Picture

- Adopted a global approach to changing their 40 key HR processes, visiting every region of the world and taking two weeks to map their current processes before discussing what should be the new global standard process.
- Acknowledged that the organisation was undergoing other types of transformation, which they grouped together under one internal communications plan and applied their consumer-focused methodologies.
- Created a Transformation Office to bring together all project leaders, creating visibility over what was happening across the organisation.
- Create a 'war room' for all projects to map out timelines and key milestones, with a focus on the employee experience.



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2 Makes Meaningful Connections Within and Between Systems

- The transformation included changing job bands and pay grades. The change team therefore made time to bring together a group of employees to discuss the potential connections and systemic implications of this (this ranged from holiday eligibility to promotions to personal office size).

3 Recognises that a systems structure generates behaviour

- The HR transformation had a large impact on the role of HRBPs, with a focus on them becoming more strategic. Every HRBP was therefore required to conduct a re-contracting meeting with their line leader to discuss the context for the transformation and why their role is changing.
- To enable this, the team met with all HRBPs and advised them to create a 'stop – start – continue' of what they are going to do as a business partner because of the transformation.

4 Changes perspective to increase understanding

- Staff raised concerns about the new technology system. In response, the team decided to be fully transparent and calculated – and then shared – how much time the new system would save or add for each key process. This contextualised concerns, providing a sense of what the change would be (and what it wouldn't be).

5 Considers An Issue Fully

- Decided to segment employees into four communications areas (language, employee attributes, technology access, and level of support and use). From these 4 areas they created 43 different segments and 43 different communication streams. This facilitated a more targeted approach where employees felt they were being directly communicated to and supported.

6 Considers Mental Models

- At the start of the transformation HR practitioners constantly requested further details, such as project plans for months in advance. Through considering what mental models were underpinning these actions, the transformation team inferred that the practitioners were uncertain of their new roles. They therefore took action to reassure them through creating change management guiding principles which they returned to when needed.

7 Surfaces and tests assumptions

- A global programme of Change Champions engaged a diverse group employee group to generate awareness and drive change. Topics they covered included regular employee pulse checks and gauging employee interest or challenges.

8 Considers Short-Term, Long-Term and Unintended Consequences of Actions

- The transformation team considered causal loops, through which they noticed an unintended consequence of the change champion programme; employees were going direct to Change Champions (rather than HRBPs), leading to employee confusion and the HRBPs feeling threatened. They realised that HRBPs were also going through an uncertain period of change and that they needed to be guided through this process.

Q How did you engage on a global level when your team is international and it is difficult to get everyone in the same room?

A We met the HRBPs virtually whilst sitting in the 'war room'. We also conducted in-person visits, focusing on topics that did not suit virtual conversations (such as changing someone's power or authority). Additionally brought people to the US and hosted an at home dinner – making yourself vulnerable and building relationships helps.

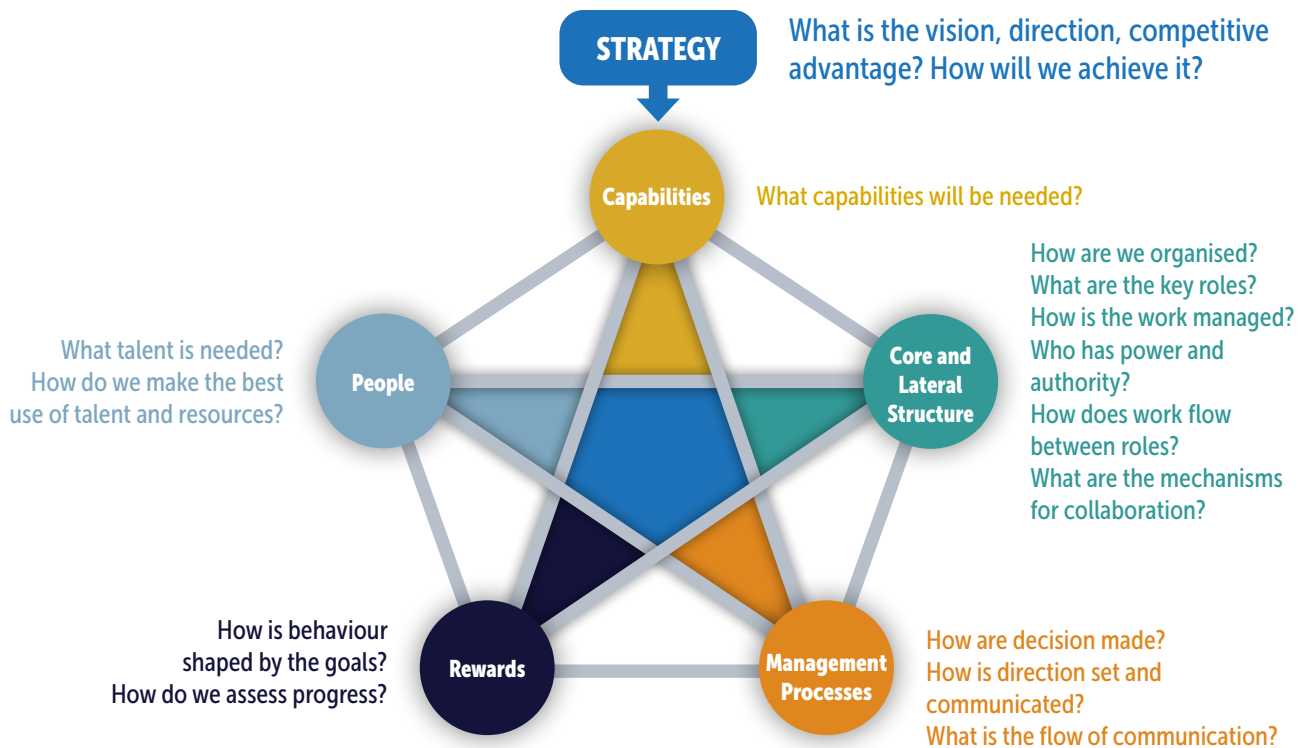
Q Is it realistic to bring people together in one room, especially when there is no travel budget?

A You need to make deliberate choices about what is a priority – conducting virtual change projects may be successful, but change will likely not happen as quickly. However, deciding how to make change projects work virtually can be an opportunity to look at what is working well and what isn't, and reconfigure as necessary.



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THE STAR MODEL



EXAMPLE FRAMEWORK TO SEE THE SYSTEM – THE STAR MODEL

The Star Model is one example of an organisational design framework and a systems model; all the different areas of the framework are connected. Key moments where a framework like this can be used include organisation redesign, organisation health check, consulting with leaders, determining misalignments and responding to a call to 'fix something'.

Strategy
Organisational Effectiveness or Organisational Design practitioners should be very well connected with, and sit within, strategy teams. Considering organisational strategy (i.e. 'what do we want to do as an organisation') is a prerequisite for determining organisational capability.

Core and Lateral Structure
Structure can be core or lateral. Core structure refers to the skeleton of the organisation (i.e. the lines and boxes of an organisational chart), and is the type of

structure that people are generally aware of. Lateral structure is the connective 'tissue' that runs across the organisation. Looking at lateral structure is a key component of a successful change project, though it is often overlooked.

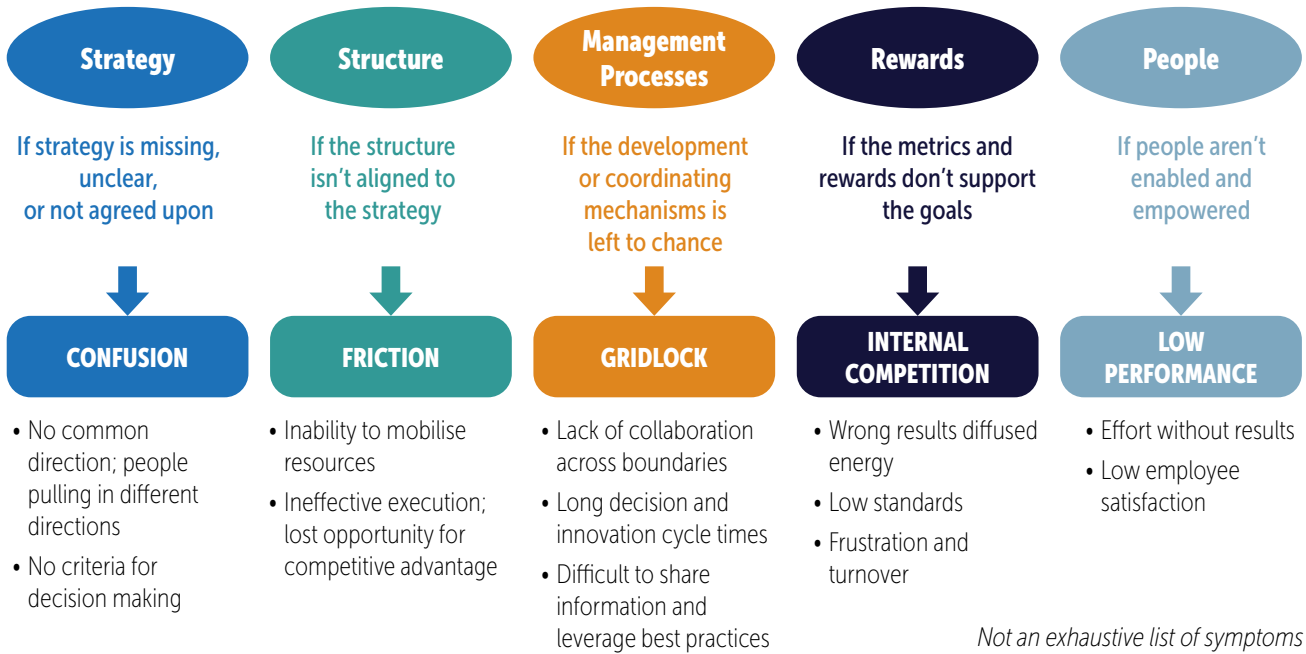
Lateral connections can be high cost and complex, or low cost and more simple. Organisational designers should determine the lowest level of lateral complexity required to ensure the organisation operates effectively. The instinct of leaders is often to implement the hardest or most complex lateral structures (such as changing line organisation), though the least disruptive and least expensive actions (such as voluntary and informal social gatherings) may be sufficient.

Polarity management (e.g. team vs individual, centralised vs decentralised) is another key part of structure. Whilst it is common to swing from extreme to the other, it can be helpful to view them as a dilemma to manage, rather than an 'either/or' problem to solve.



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SYMPTOMS OF AN UNALIGNED ORGANISATION DESIGN



CASE STUDY

APPLYING THE STAR FRAMEWORK TO A FINANCE FUNCTION DESIGN

General Mills re-designed their Finance function with the aim to enable business growth, increase organisational agility and develop global talent. This restructure began by looking at the 'bigger picture' to see how the structure and culture operated in practice, finding that the different Business Units were working very autonomously and that the culture was very values-based and US-centric. They additionally looked at the external business environment, which was creating pressure to grow and globalise. This intervention included the following design features to improve the overall system:

Core and lateral structure

Implemented a high degree of change with an emphasis on centralisation. This included an increased focus on leveraging Global Business Services, removing shadow processes and a large investment in technology. They also implemented lateral links within the organisation (e.g. cross-functional teams) to support this.

Management processes

Implemented team charters to improve strategic focus, role clarity and communication. This included well-defined function and role descriptions and Decisions Grids developed and pressure tested.

Rewards

Created a new performance measurement system (at company, business and individual level), changed how they delivered pay and redefined job bands and pay grades.

People

Adjusted their people practices to support the other design changes, such as requiring broader types of experience for the most senior roles, simplifying processes and accelerating development for those with the highest potential.

An evaluation 18-months post restructure found that early work had set the function up well to globalise and success was breeding openness to more change. However, there were challenges such as an 'identity crisis' amongst the centralised-business facing analysts, highlighting the importance of maintaining a systems perspective to see the ripple effect of actions.



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SYSTEMS WARNING SIGNALS

The below warning signals are common blind spots, unintended consequences or policy resistance issues that can thwart organisational change.



crf UPCOMING EVENTS

- EVENT WITH RESEARCH**
Reskilling for Sustainable Growth
- 21st March, 9.00 GMT | In-Person, London**
- 7th February, 14.00 GMT | Online**

Register →

OTHER RESOURCES

- CRF. 2023. **Team Effectiveness**. Research Report. <https://www.crforum.co.uk/research-and-resources/research-team-effectiveness>
- The Donella Meadows Project. 2024. *Website of Academy for Systems Change*. <https://donellameadows.org>
- The Systems Thinker. 2018. *Website of Systems Thinking Resources*. <https://thesystemsthinker.com>
- Waters Center for Systems Thinking. 2024. *Website of Systems Thinking Resources*. <https://waterscenterst.org>
- Wujec, T. 2023. **Draw How to Make Toast: An Introduction to Systems Thinking and Wicked Problem Solving**. <https://www.drawtoast.com> | <https://www.tomwujec.com/draw-toast>