

Information Management Using Systems Thinking

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Managing Consultant, Guided Systems Solutions



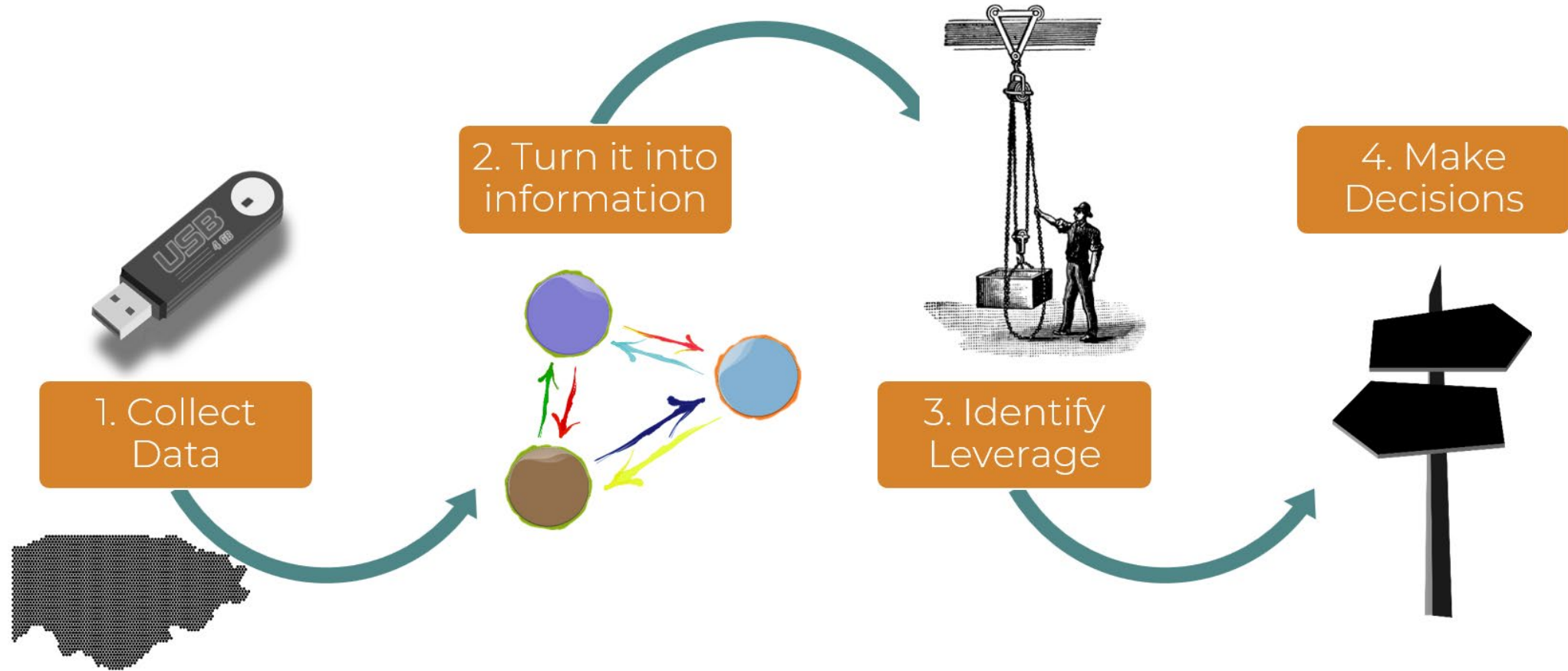
Martin Parr - Background



Consultant in Systems Thinking
working in complex
environments to deliver
meaningful outcomes.



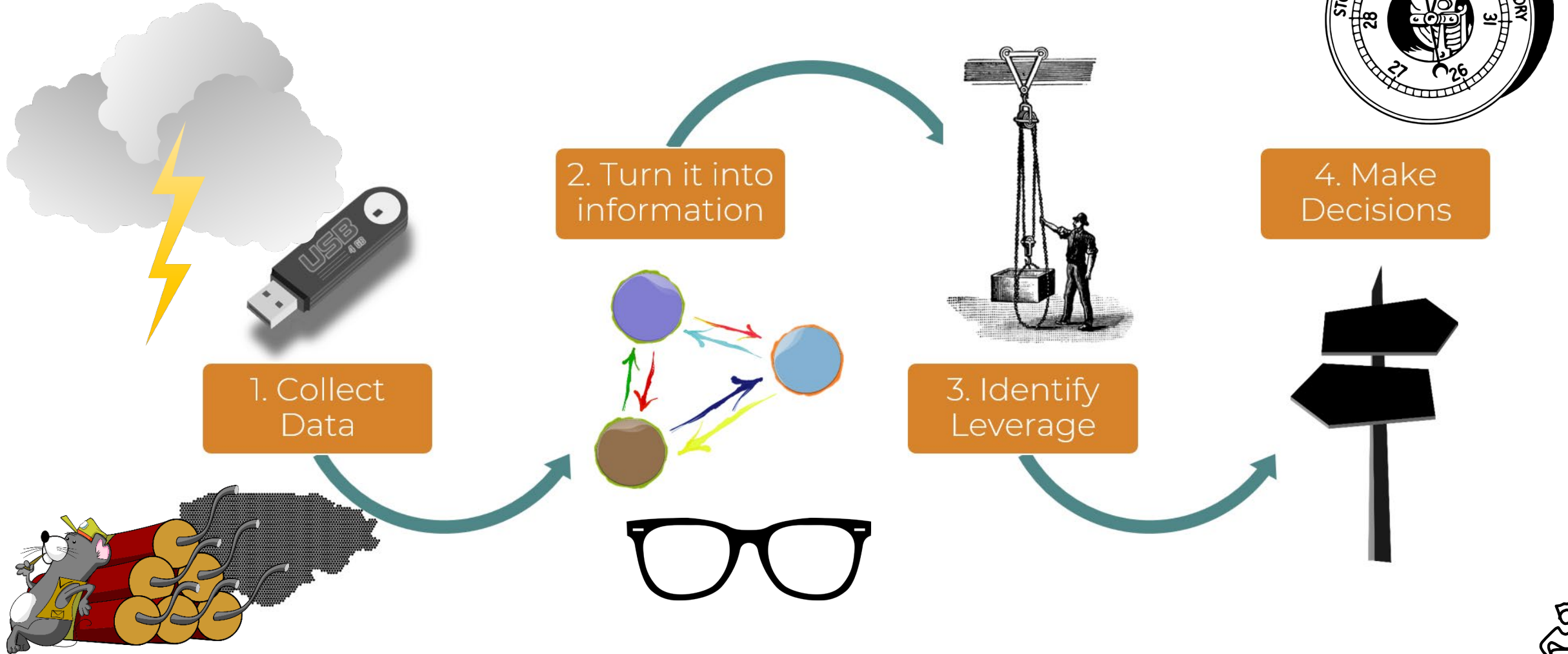
Information Management



Delegate Notes

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Information Management



Delegate Notes

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Information Management

- An explicit information management policy can make a huge difference to your organisation
- The business environment changes very quickly



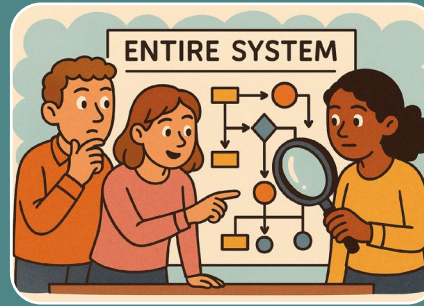
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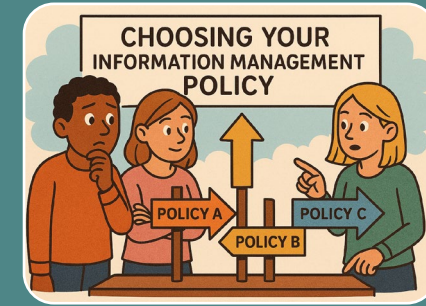
Today I will cover



Why
Information
Management
Matters?



Understanding
the entire
system for
leverage

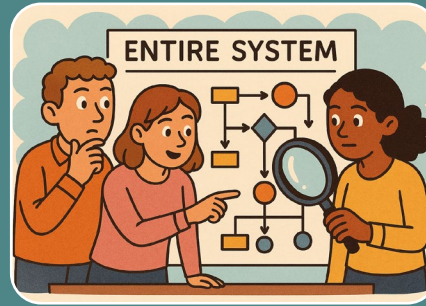


Choosing your
Information
Management
Policy

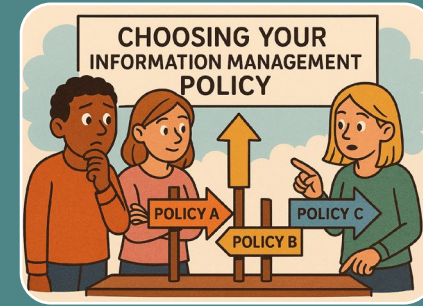




Why
Information
Management
Matters?



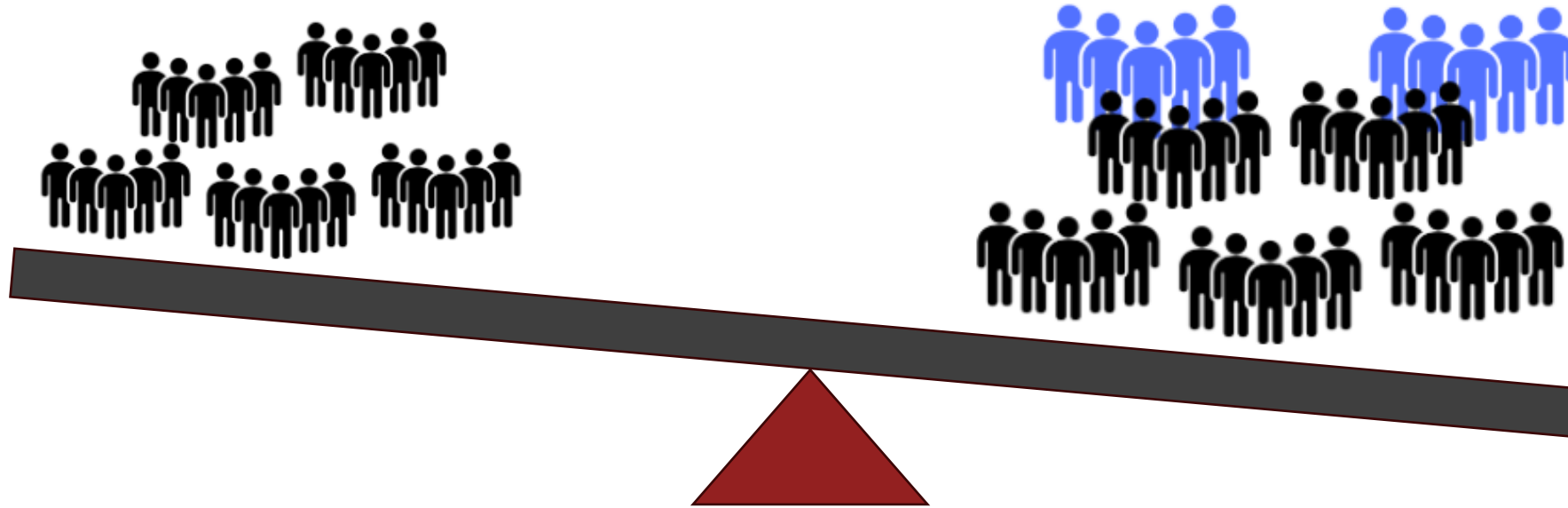
Understanding
the entire
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leverage



Choosing your
Information
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Policy



Trained Strength of the Reserve Forces



We have 25,000

We need 35,000
Within 5 years

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The Recruiting System

Awareness
attraction

Application

Selection

Training

Retention

Delegate Notes

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The Recruiting System

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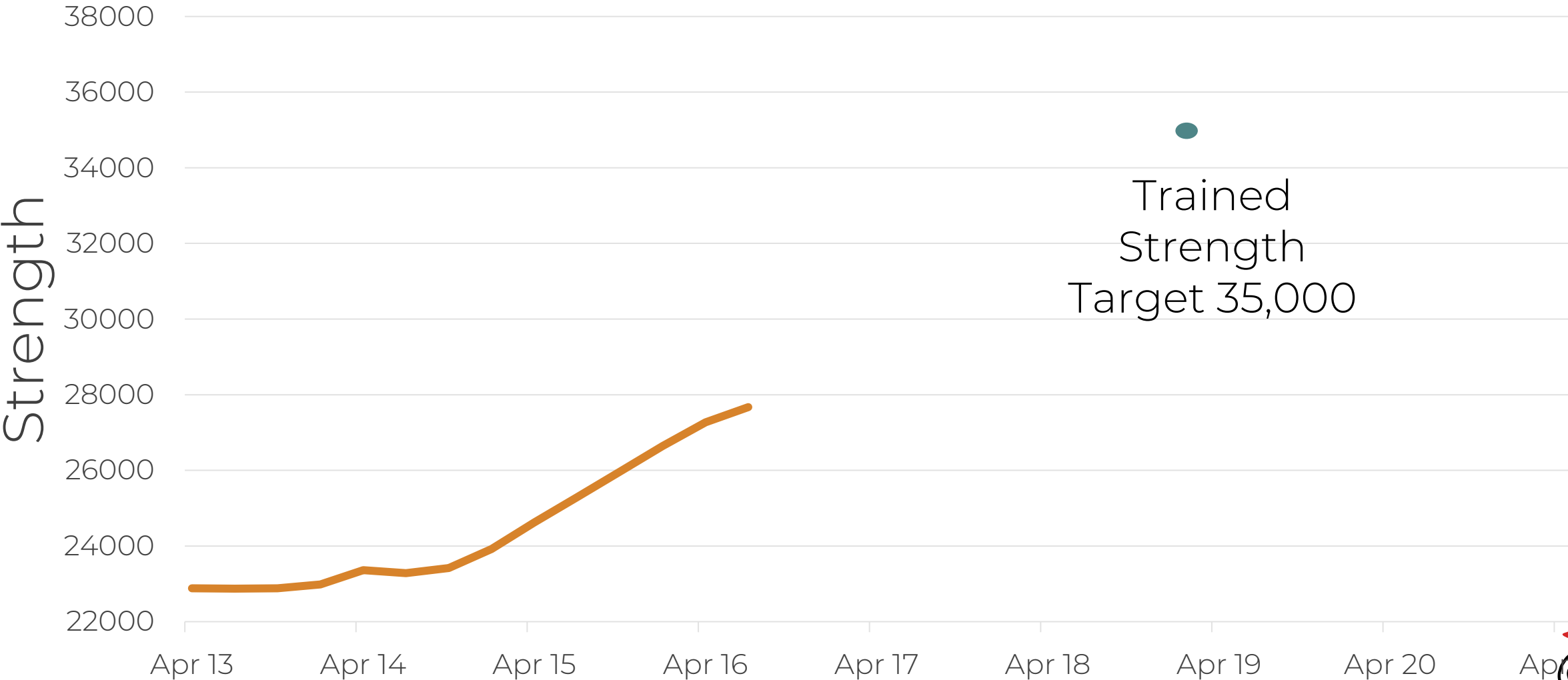
Retention

How many do you need?

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The effect of some Systems Thinking

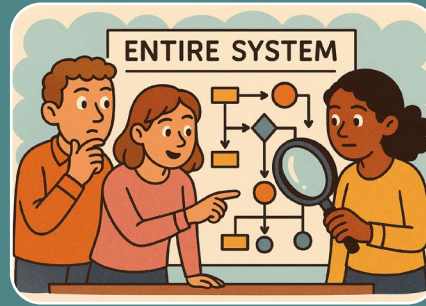


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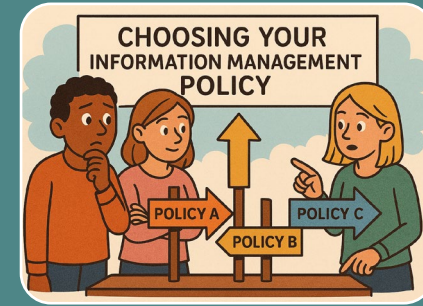
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Why
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Understanding
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Choosing your
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Policy



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Systems Thinking

- Seeing the whole picture
 - A bounded entity
 - Something that changes over time
- Why?
 - So that we can intervene in an efficient way
 - Using leverage



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Systems Thinking Is not ...

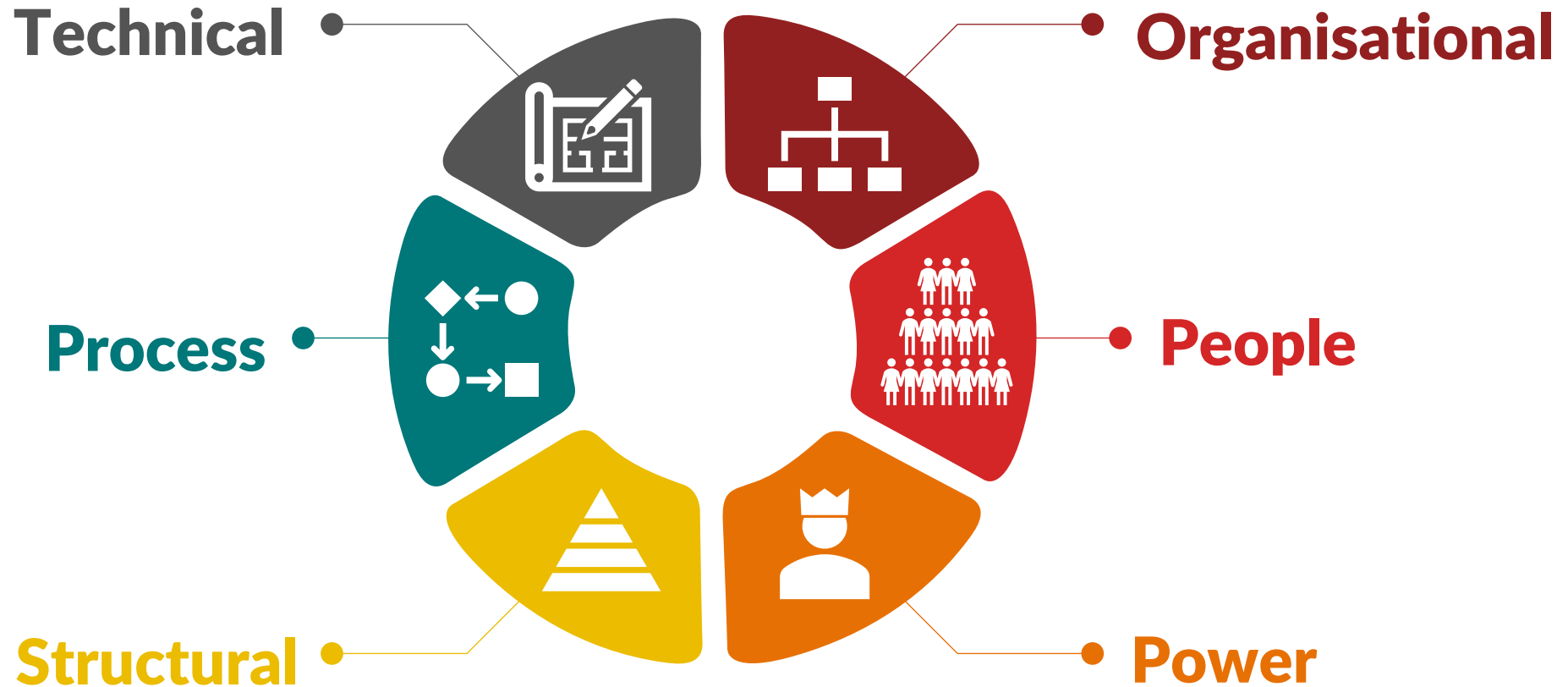
- A way of finding quick fixes e.g “the Cobra Effect”
- In India people were paid for every dead cobra.
 - Fewer wild cobras ... led to them being bred
- Soon the money ran out ... so
 - The breeders released their snakes
- There were more wild cobras than before



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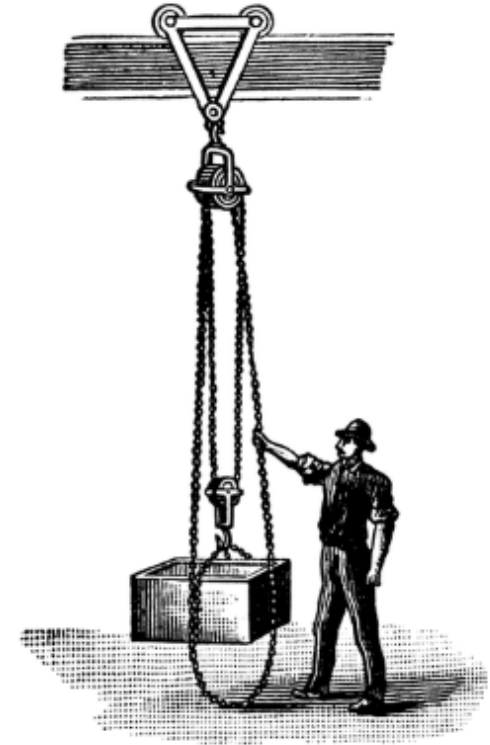
Six Types of Complexity



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Aim to use Leverage



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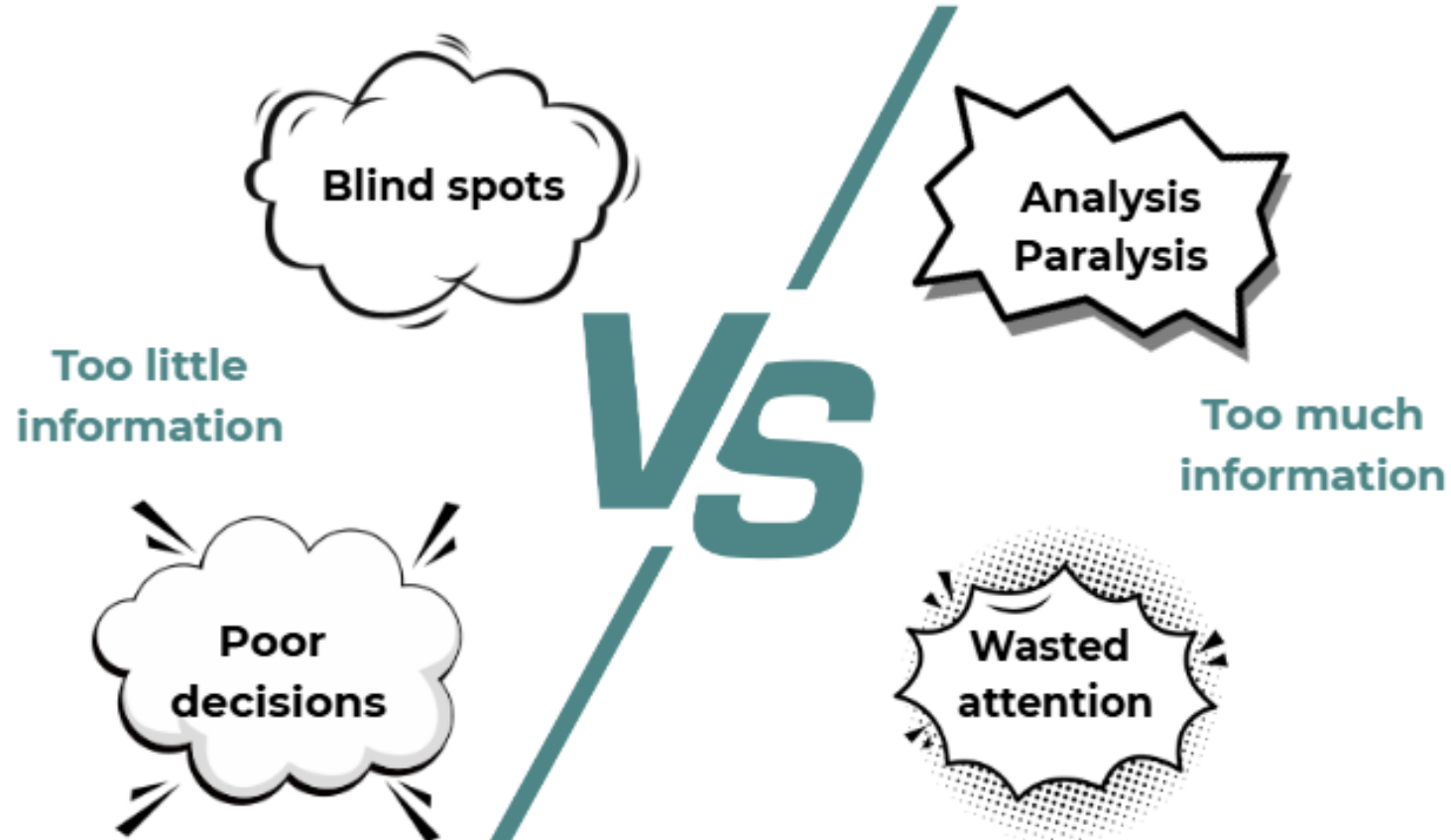
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Improving Information Management

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Information

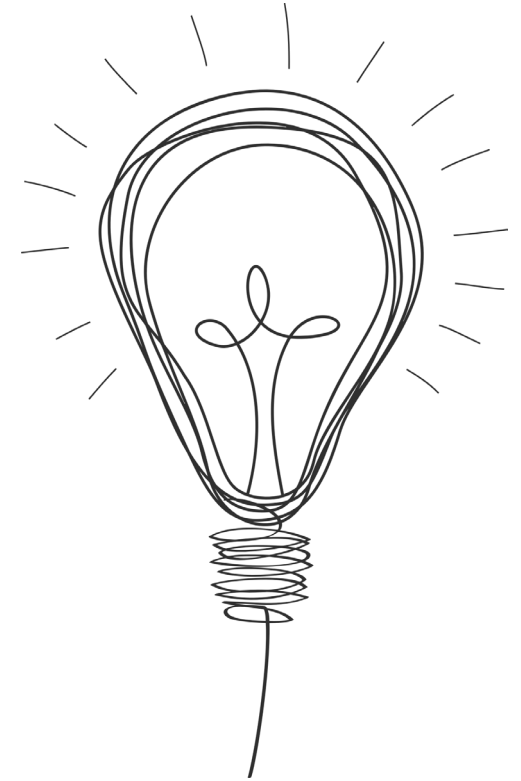


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Information Tells us ...

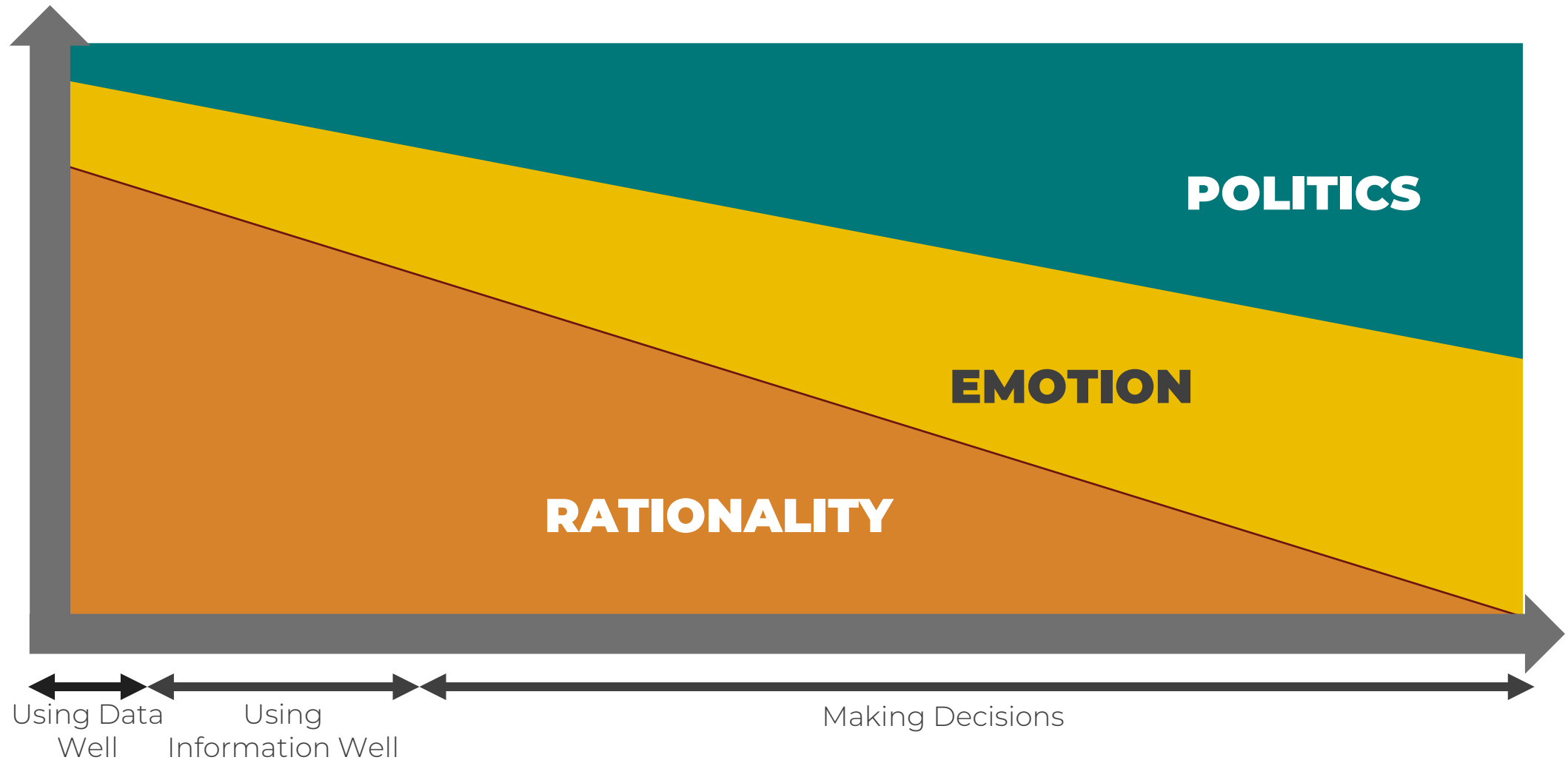
- What is safe and what is not
 - How well our organisations are being run
 - What are good decisions and what are bad
-
- It is the lifeblood of our society and our organisations
 - If we have an emergent information strategy let's **refine** the it



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Real Decisions Are Difficult

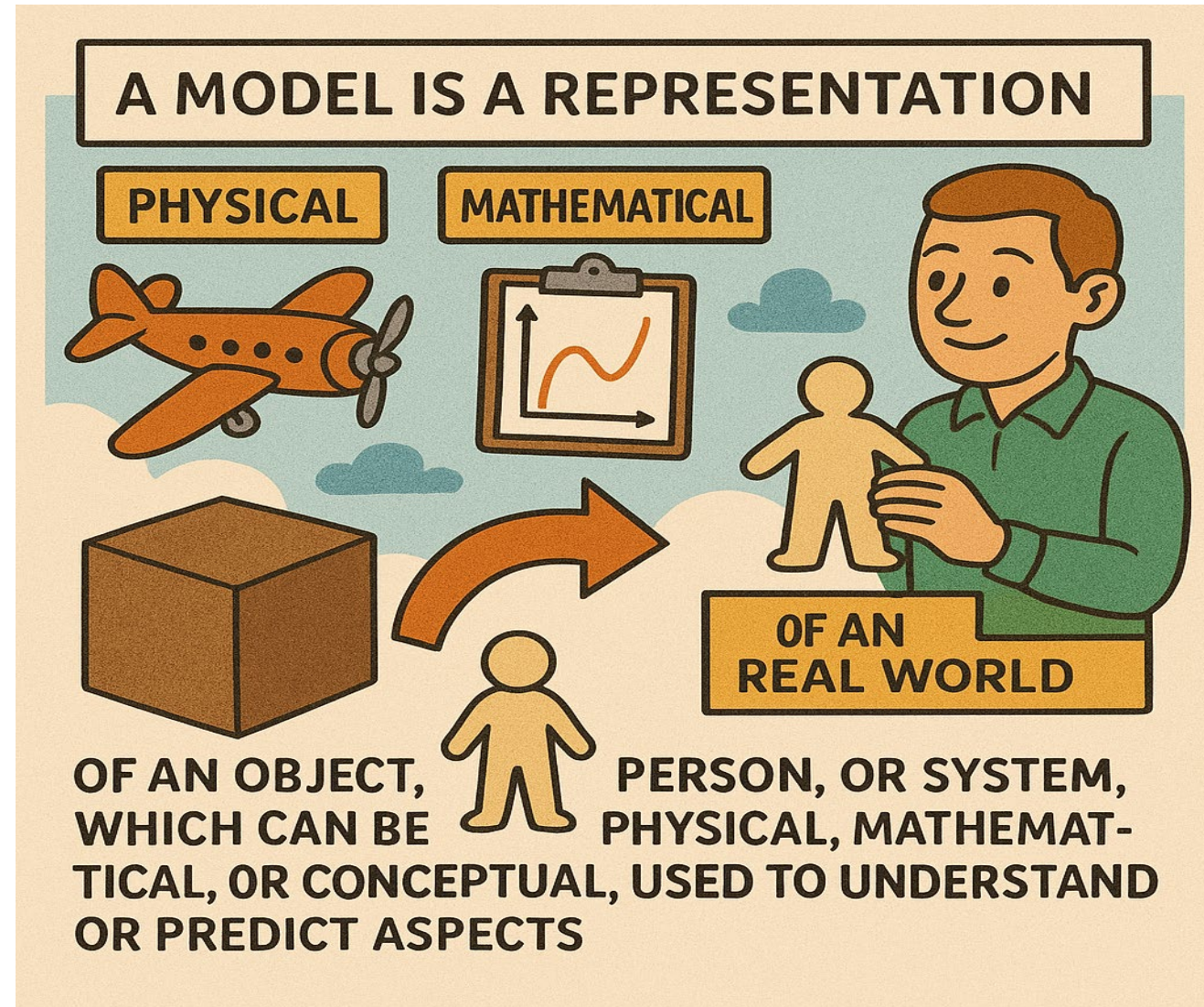


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Models

- What is a model?
- Why is it useful?



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The Viable System Model

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Utility of the Viable System

What would be required to maintain a **Viable System** in this scenario?



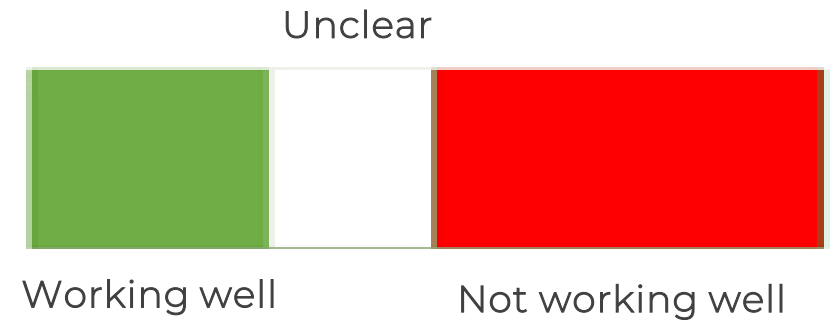
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The Viable System Model is ...

- A template to:
 - Diagnose
 - Or to Design
- That considers:

- The Board
- Managing 'inside and now'
- Managing in the future
- Coordination
- Operations



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What is Variety?

DEFINITION: The number of states in which a system can exist



A switch has a variety of 2 (on and off)



A human has enormous variety

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What is the Variety of an Electric Kettle?



On and full
On and empty
Off and full
Off and empty

And more?

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What is the Variety of an Electric Kettle?



Water level: empty or full
Temperature
Power (on/off)
Lid (open/closed)

(1) Full, warm, on, lid closed



(?) Empty, cold, on, lid closed



(??) Full, boiling, on, lid open



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Why worry about variety?

- To control an entity:
 - We need to have a response to any state that it is in
 - The wrong response will lead to a poor outcome



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Variety Reduction



1,000 types of customer questions



Press 1 for sales
Press 2 for service
Press 3 for anything else

3 categories

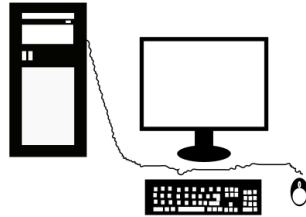
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Variety Amplification



Elderly relative



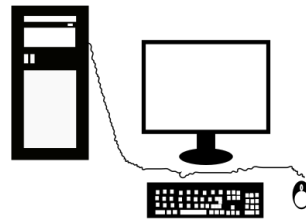
“my PC doesn’t work”



“Call Jane, Fred, Sam ...”



Elderly relative
After some training



“my PC doesn’t work”

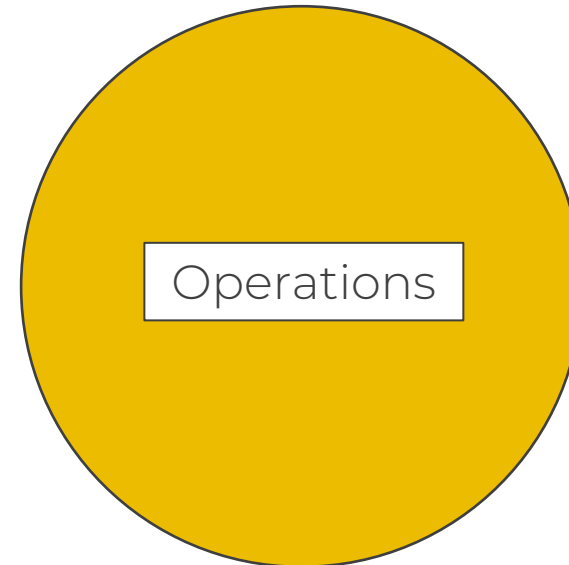
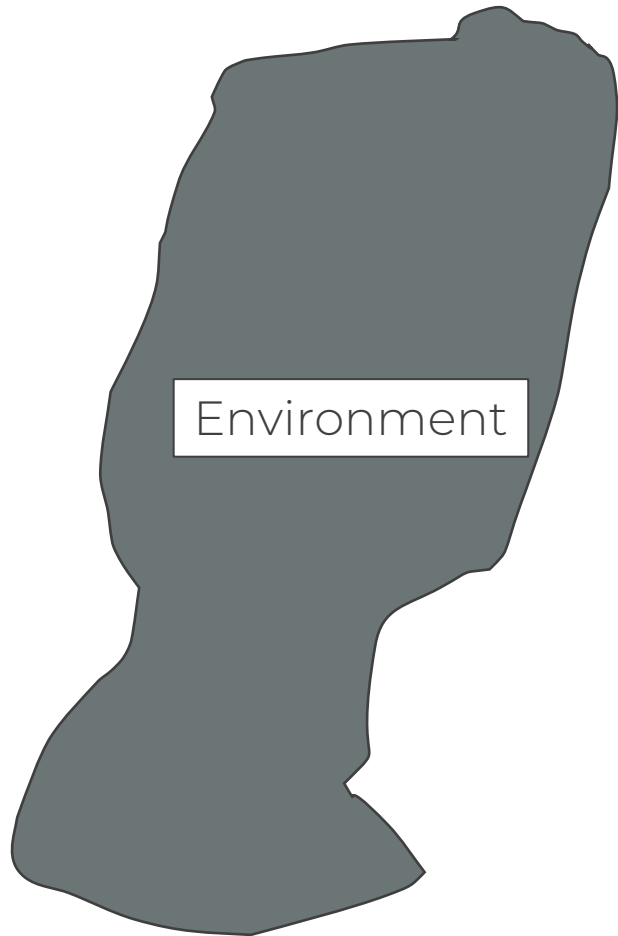
I will try resetting the network adapter and re-booting

Maybe I will need a new network adapter

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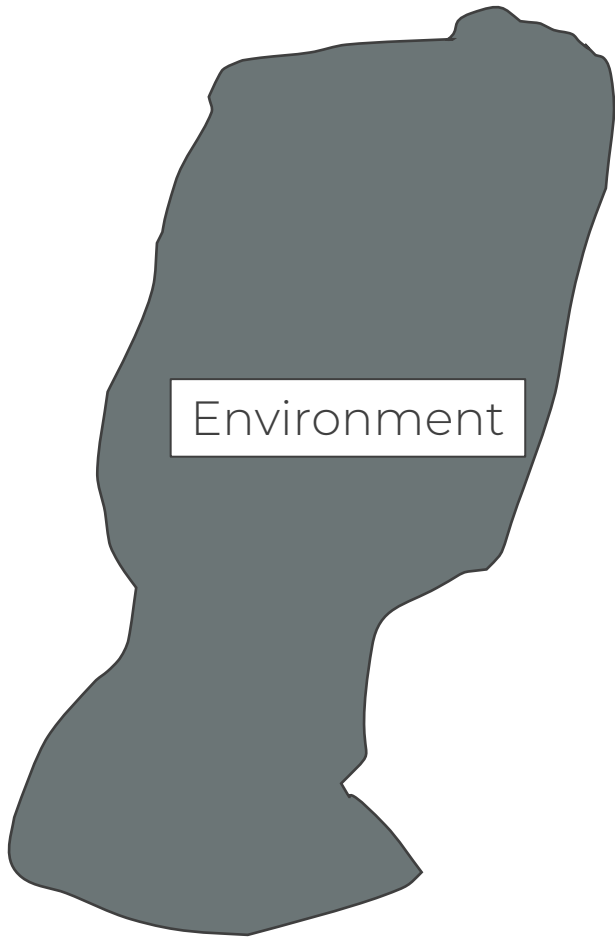
The Viable System Model Begins With Three Elements



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The Viable System Model Begins With Three Elements

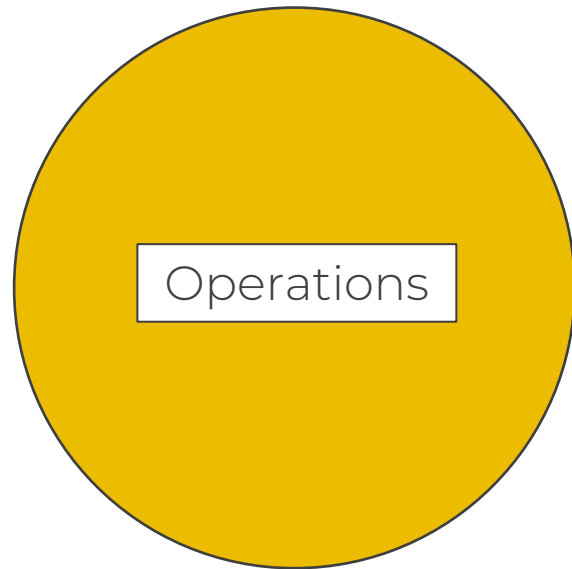


everything outside the company that affects it or is affected by it

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The Viable System Model Begins With Three Elements



The parts of the organisation that do the work

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The Viable System Model Begins With Three Elements



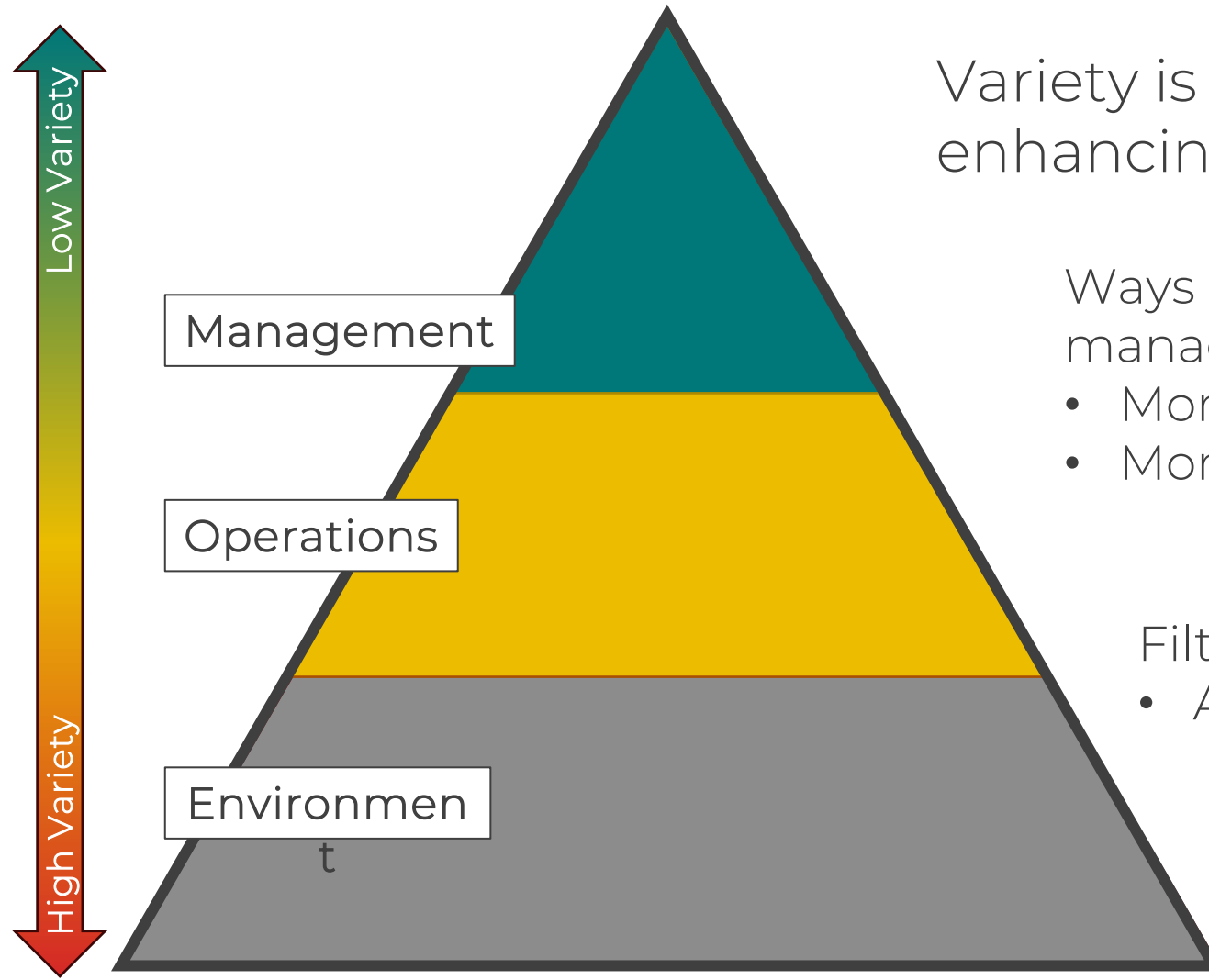
Management

Everything above and around the operational units that helps them work together, adapt, and stay viable over time

Delegate Notes

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How Variety Affects A System



Variety is **managed**: reducing or enhancing variety as needed.

Ways of **increasing variety** in management:

- More managers
- More specialists

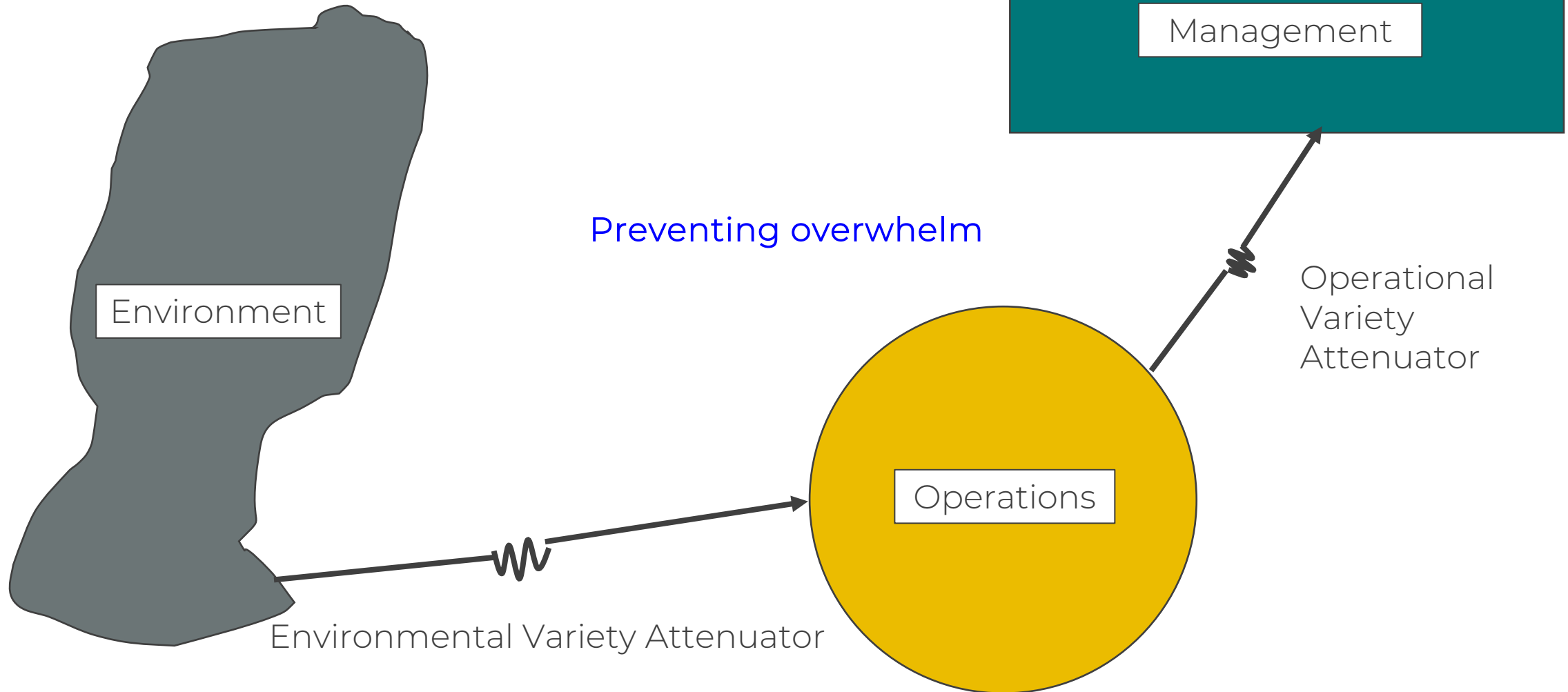
Filtering is a common **variety reducer**:

- Averages, annual figures etc.

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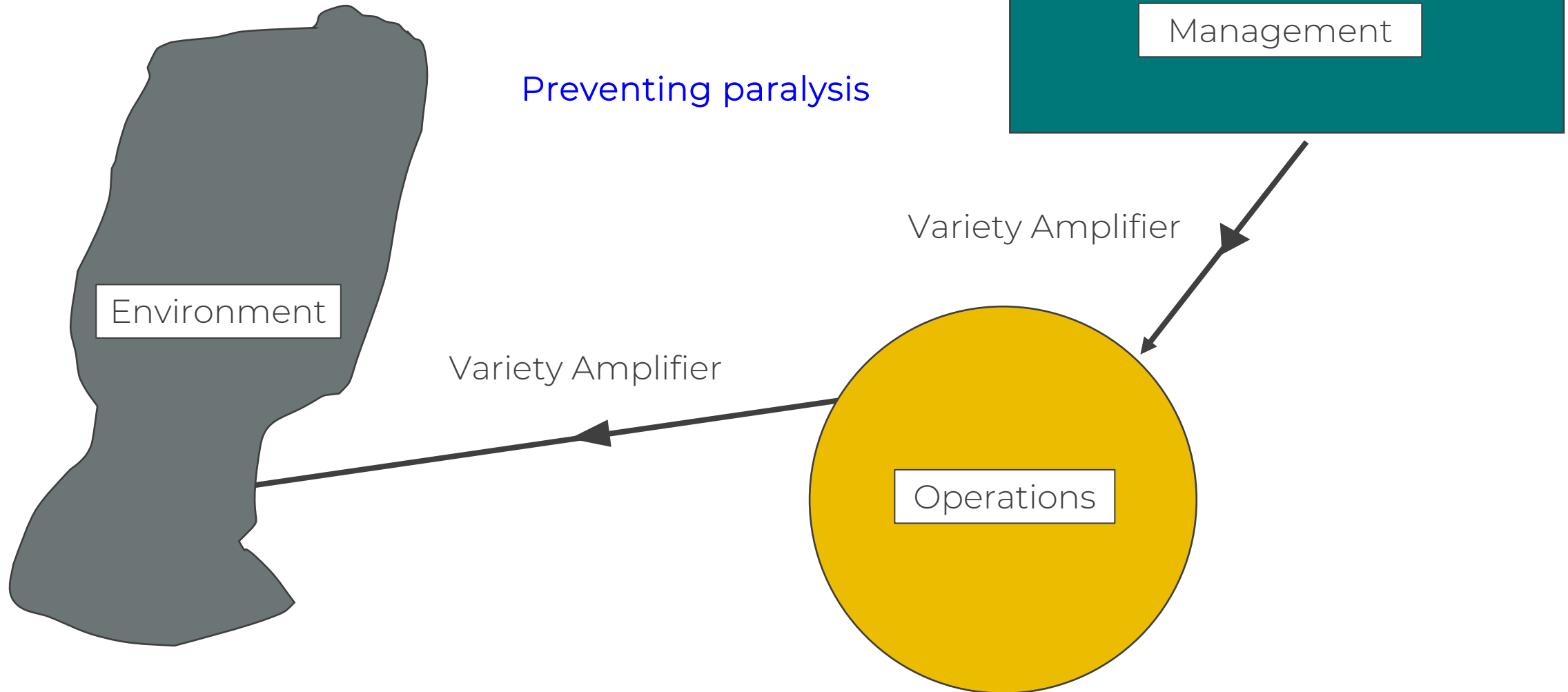
Matching an organization's Complexity to its Environment



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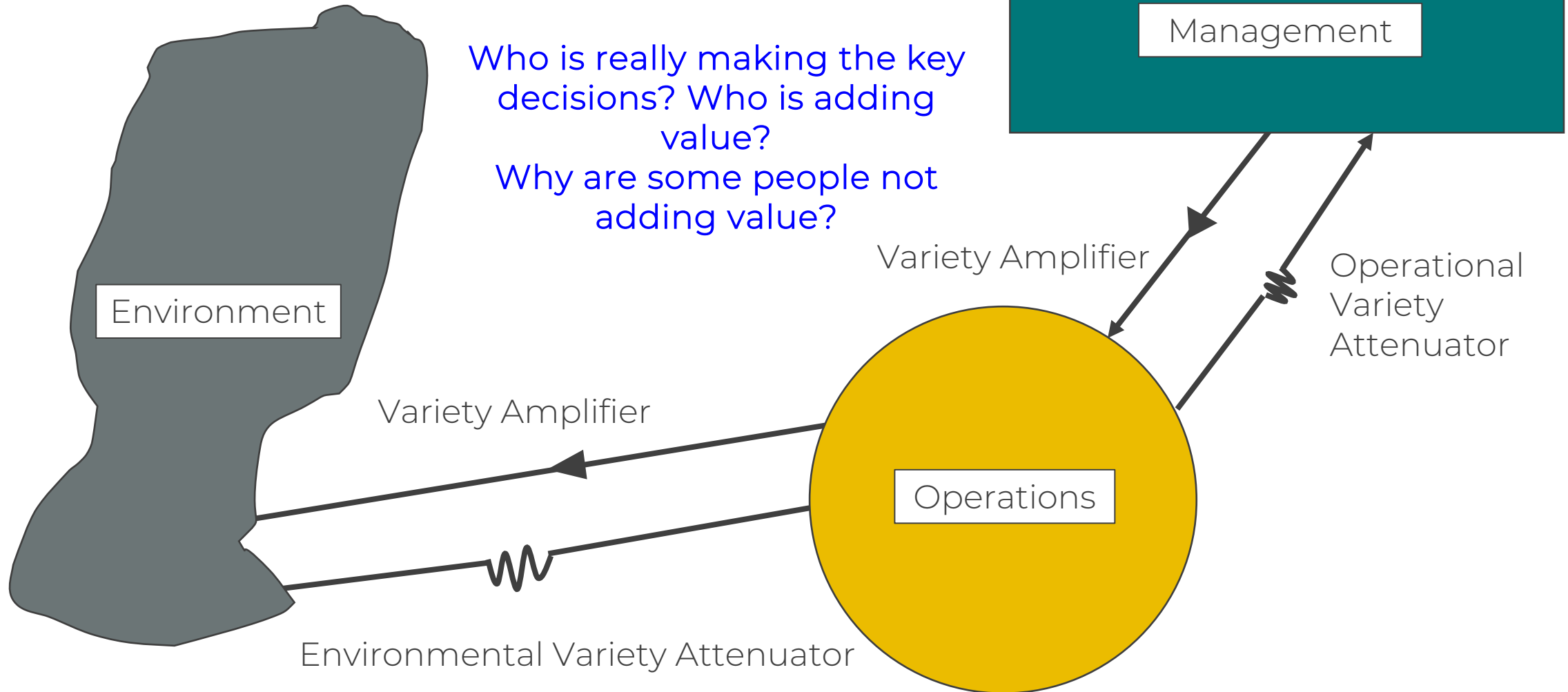
Matching an organization's Complexity to its Environment



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Matching an organization's Complexity to its Environment



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Good Variety Engineering Approaches (if it is done well)

Attenuation

- Data > Average
- Meeting > Minutes
- A Year's work > Staff Report
- Organisation's Work > Annual Report
- Eligibility rules to pre-filter who can apply, reducing application numbers

Amplification

- Empowering customer service reps to handle unusual requests without escalation
- Cross-training employees: Staff can perform multiple roles, increasing the organization's response flexibility.

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Bad Variety Engineering Approaches

Attenuation

- Over-standardization: Rigid rules prevent useful exceptions, making the organization brittle. ("The computer says no.")
- Suppressing feedback: Management filters out bad news
- Filtering out everything

Amplification

- Too much autonomy without support: Staff are "empowered" but have no training or resources,
- Micromanagement disguised as amplification: Managers intervene constantly thinking they're helping, but really they reduce others' effectiveness.

Delegate Notes

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In a Court Case, Each Side Attenuates, Giving a Specific Lens to the Case

Did 'A' murder 'B'?

Conclusion

Major Premise

Major Premise

Major Premise

Subargumen
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Delegate Notes

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In a Court Case, Each Side Attenuates differently

Did 'A' murder 'B'?

GUILTY

Conclusion

NOT GUILTY

Major Premise

Major Premise

Major Premise

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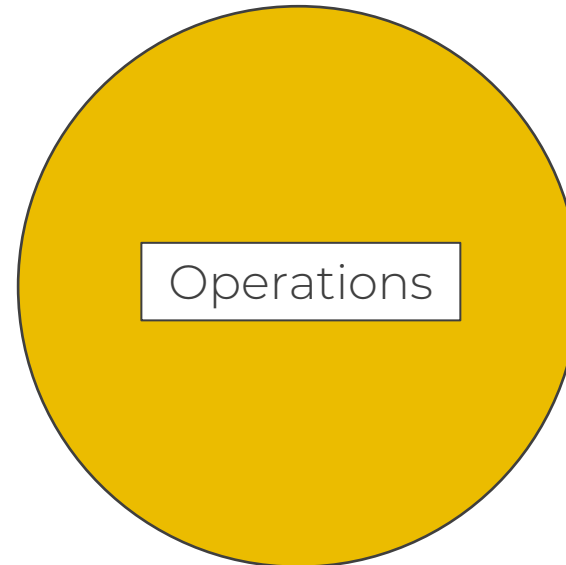
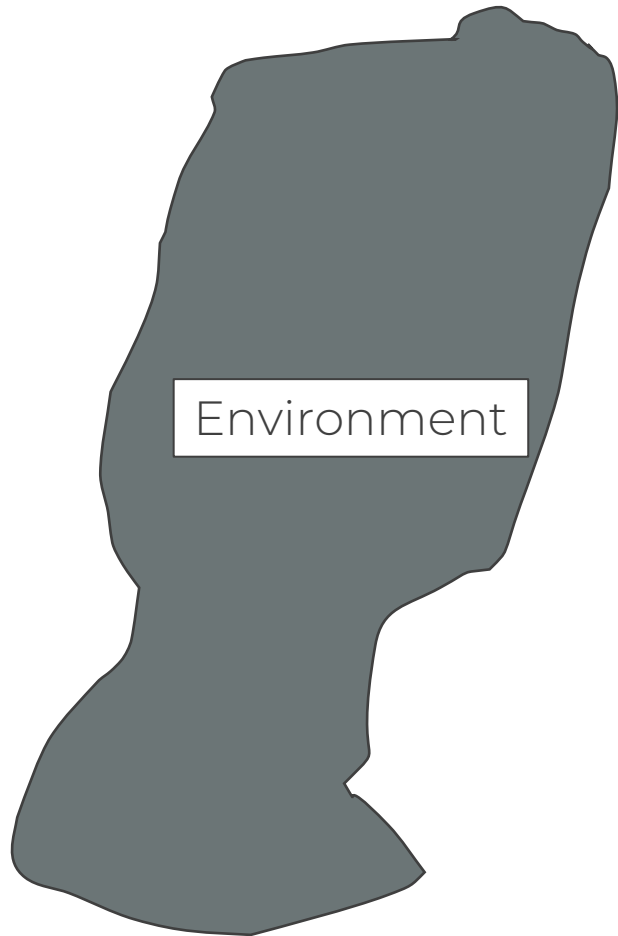
Sub-
Subargumen
t Premise



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Looking more deeply into Management



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Coordination

- Keeps operations from “bumping into” each other. Examples:
 - Timetables
 - Production planning schedules and safety codes.
- The importance of coordination is often forgotten

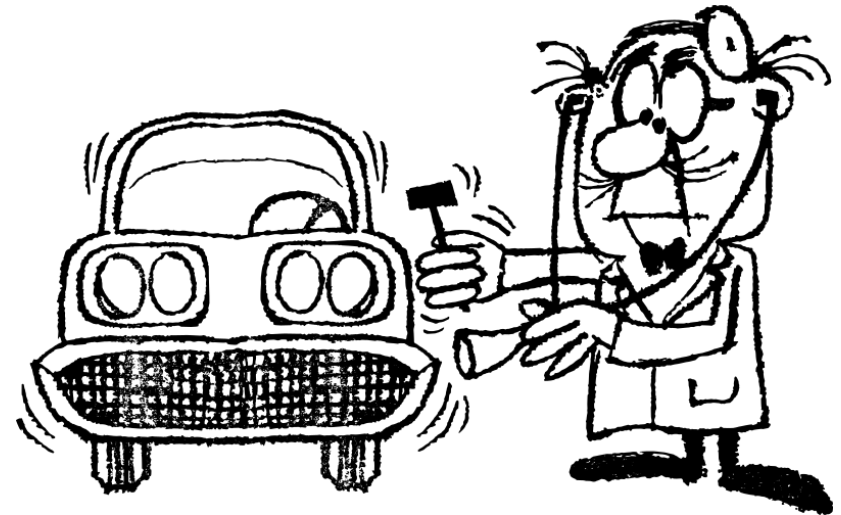


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Managing: Inside and now

- Communicate the organisation policy to Operations, ensuring that the policy is implemented
- Allocate resources between the various activities
- Monitor actual performance



Delegate Notes

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Managing the Future

- This looks **"outside, then"**
- Looks for changes in the environment that can make the current operations ineffective

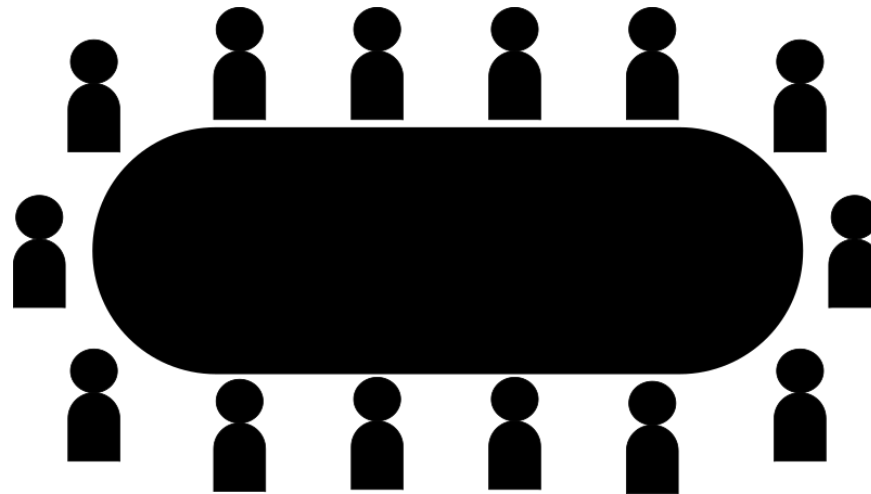


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The Board

- represents the organisation
- chooses a 'future' to enact between "inside and now" and "the future",
- Can take action in extreme circumstances: The **Algedonic system** (to do with pain and pleasure)

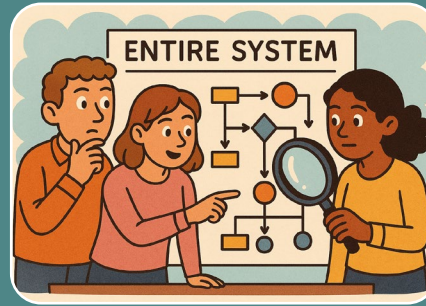


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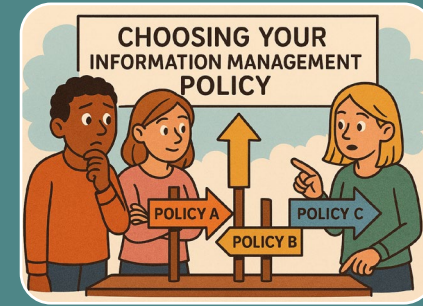
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Understanding
the entire
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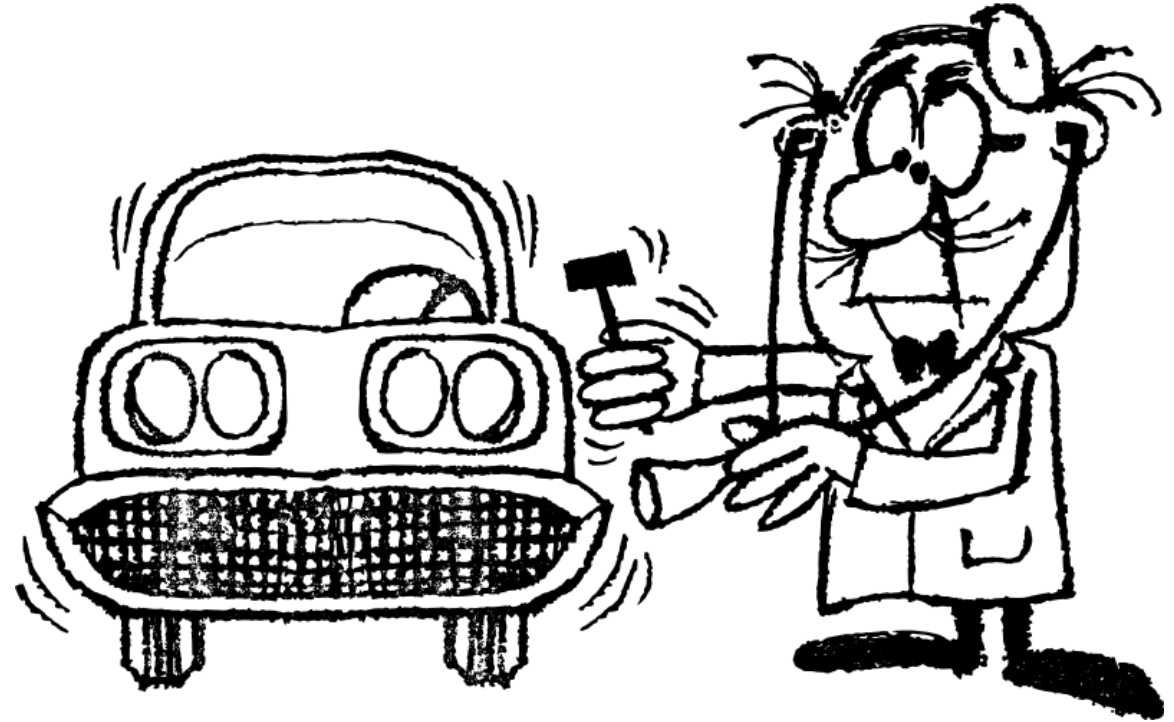
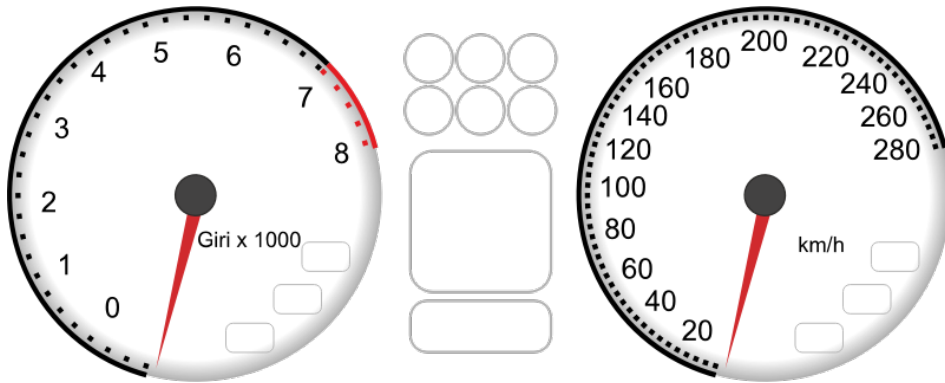
Choosing your
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Indication and Diagnosis



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Case Study: Splitting a Government Owned Research Company



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Why?

To deliver a
manifesto promise
to move
organisations into
the private sector

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The Top-Level Risk Register

Type of Complexity	Relative Importance (at the outset)	Main Considerations (at the outset)
Technical	Medium	Many challenges to be resolved later in the design phase
Process	Medium	Many challenges to be resolved later in the design phase
Structural	Medium	Many challenges to be resolved later in the design phase
Organisational	Very High	The biggest risk in the change programme: Failure to hold the enterprise (both organisations) to account
People	High	Disruption and confusing during the change will worry and demotivate staff
Power	High	Balancing power between the two organisations, and motivating them to do the right thing will be critical to success

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The aim

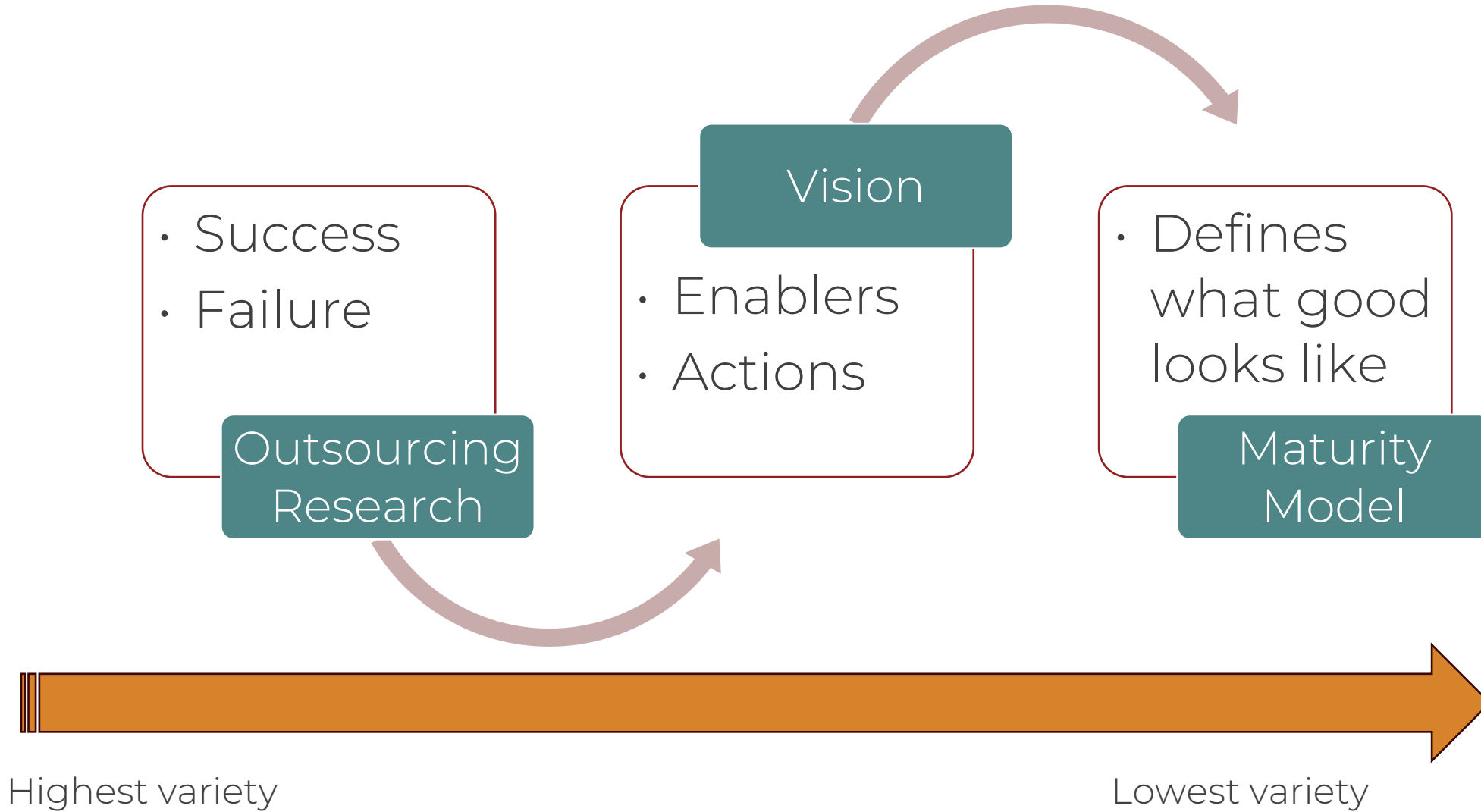
- To provide a rapid indication of:
 - How seamlessly the two organisations are operating



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Measuring 'Good' Outsourcing



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Maturity Grid Example*

*(The real one is confidential)

		Maturity Level			
		1	2	3	4
Area of Interest	Strategic Leadership and Governance	The two organisations meet regularly to plan current and future investment decisions	Maturity level 1 + The governance model is principle driven, not rules based	Maturity level 2 + Risks and opportunities are identified well into the future and actioned	All strategic issues arising are planned seamlessly between the two organisations. The staff working for the directors can see plans and strategies working for all strategic issues
	Project, Programme and Portfolio Management				

Dealing with low but essential variety

Dealing with higher variety



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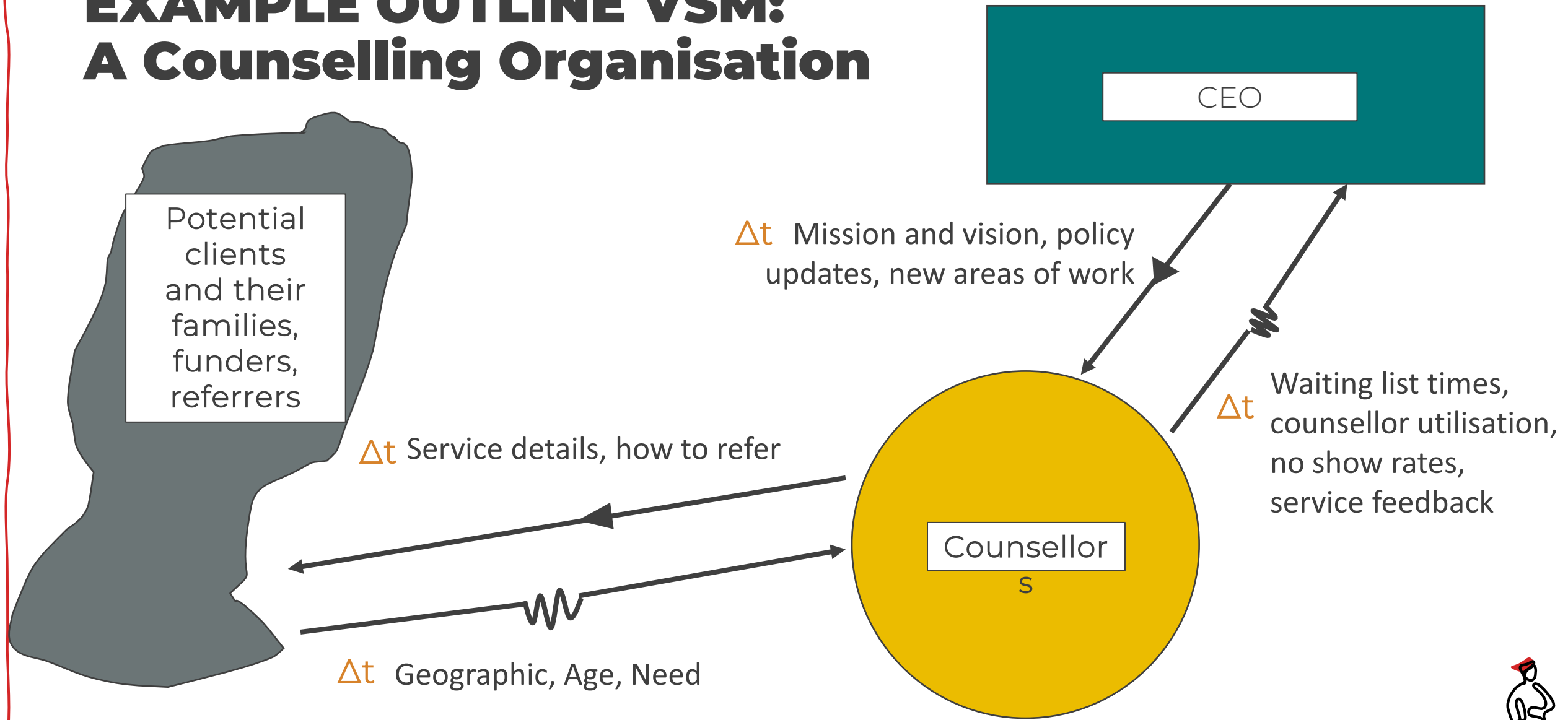
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Using information to form a picture

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EXAMPLE OUTLINE VSM: A Counselling Organisation



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Activity One: Background of Counselling Service



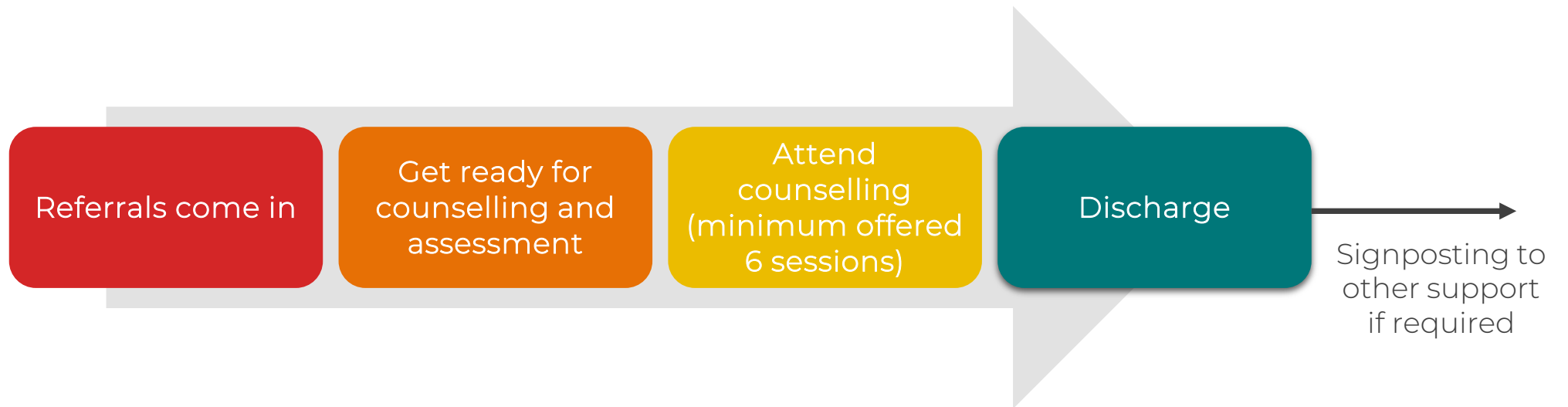
- Run by a **charity**:
 - Restricted funding: Can only be spent as directed by the funder, including specific demographics, timelines etc.
 - Unrestricted funding – can be spent as the charity sees fit
 - Can't make a profit
- **multiple programmes** of counselling, include
 - individual counselling for adolescents and adults
 - relationship and family counselling
 - group counselling for various specific areas (e.g. bereavement)



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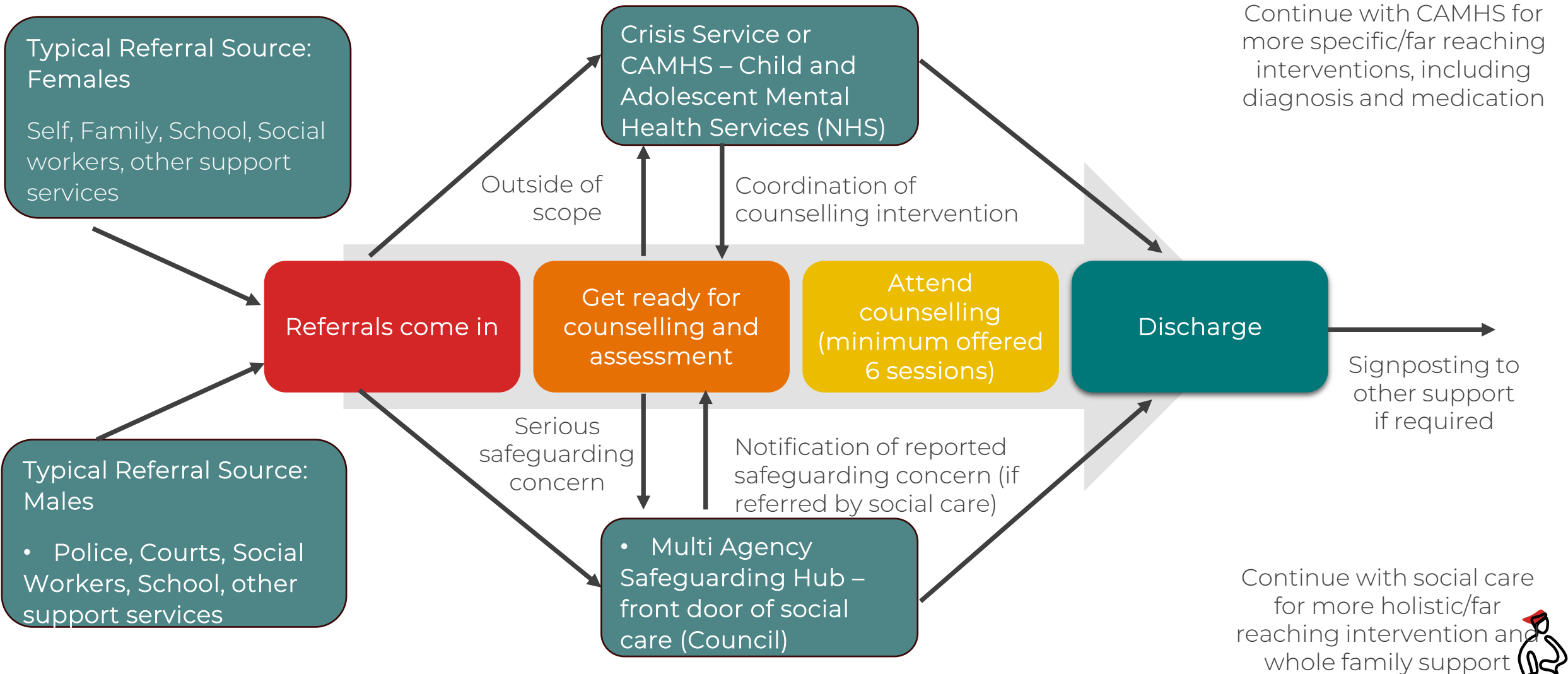
Activity One: Process for Adolescent Counselling



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Activity One: Process for Adolescent Counselling



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Activity One

- On each table there are cards about the counselling organisation.
- The card has information that a particular team member might need:
Only to provide an indication – not to do a diagnostic
- Task: Sort the cards into “Essential”, “Useful” or “Unimportant” information for either a director or a service manager.

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What is Essential, Useful and Unimportant to Demonstrate that the Service is Running Well?

- Number of clients waiting
- Number of clients in counselling
- Waiting times from referral to first session
- Client demographics
- Client wellbeing progress scores
- Client goal progress scores
- Client feedback
- Client no show rates
- Client late cancellation rates
- Organisation's monthly cost
- Organisations monthly income
- Organisations room capacity and utilisation
- Organisation's technological capacity and utilisation
- Organisation's administrative capacity and utilisation
- Counsellor capacity and utilisation
- Counsellor demographics
- Counsellor restrictions and specialisms
- Admin Staff Capacity

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For a board member

Essential

Number of clients waiting	Organisation's monthly cost
Number of clients in counselling	Organisations monthly income
Client wellbeing progress scores	Counsellor capacity and utilisation

Useful

Client goal progress scores	Waiting times from referral to first session
Client feedback	Client demographics
Client no show rates	

Unimportant

Client late cancellation rates	Organisations room capacity and utilisation
Counsellor demographics	Organisation's technological capacity and utilisation
Counsellor restrictions and specialisms	Admin Staff Capacity
Organisation's administrative capacity and utilisation	

“Essential” will show you quickly when things are going off the rails

What is useful and unimportant will need to be rapidly looked at and some will be key to diagnose **WHY** things have gone wrong

Delegate Notes

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For a Service Leader

Essential

Number of clients waiting
Number of clients in counselling
Client wellbeing progress scores
Client late cancellation rates
Technology Capacity
Organisations room capacity and utilisation

Counsellor restrictions and specialisms
Client no show rates
Client goal progress scores
Counsellor capacity and utilisation
Organisation's technological capacity and utilisation

Useful

Client feedback
Admin staff capacity
Counsellor demographics

Waiting times from referral to first session
Client demographics

Unimportant

Organisation's monthly income

Organisation's monthly cost

“Essential” will show you quickly when things are going off the rails

What is useful and unimportant will need to be rapidly looked at and some will be key to diagnose **WHY** things have gone wrong

Delegate Notes

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Activity two: Information Management for PMO Services

- Pick a role of: Service Owner, Service Manager or Service Operative perspective
- What are the key input information requirements? What are the key output information requirements?
- Beware ... all may not be as simple as it seems ...
- Use post-it notes and paper to record these

Delegate Notes

PMO Service Owner - A role undertaken within the PMO, accountable for the setup, running and closing of PMO services that deliver the required objectives. The role includes the monitoring of PMO service outcomes and KPIs and ensure any risks and issues are addressed.

This role is typically undertaken by a PMO Director or a PMO Manager.

PMO Service Manager - A role undertaken within the PMO, responsible for the day to day running of the PMO service. The role includes KPI reporting in relation to the PMO services.

This role is typically undertaken by a PMO Manager or a PMO Analyst.

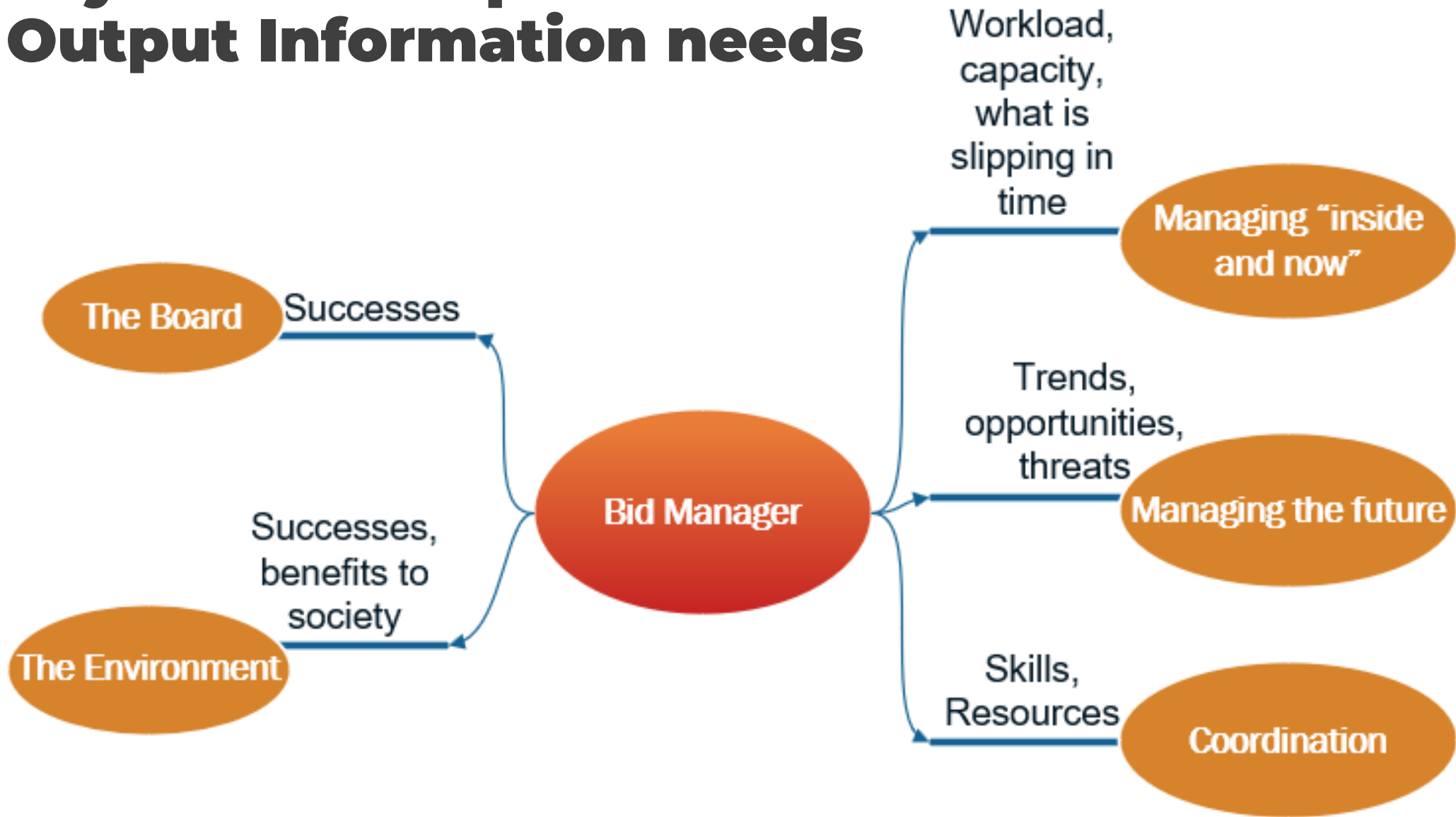
PMO Service Operative - A role undertaken within the PMO and/or on behalf of the PMO, responsible for the execution of the process(es) required to deliver the outputs of the PMO service.

If the role is undertaken within the PMO, the role is typically undertaken by one or more PMO Analysts or PMO Administrators.

The role of PMO Service Owner, PMO Service Manager and PMO Service Operative may all be held by one person. Where a PMO service is delivered by multiple PMOs, there may be multiple PMO Service Managers.

Activity two: Example

Key Output Information needs

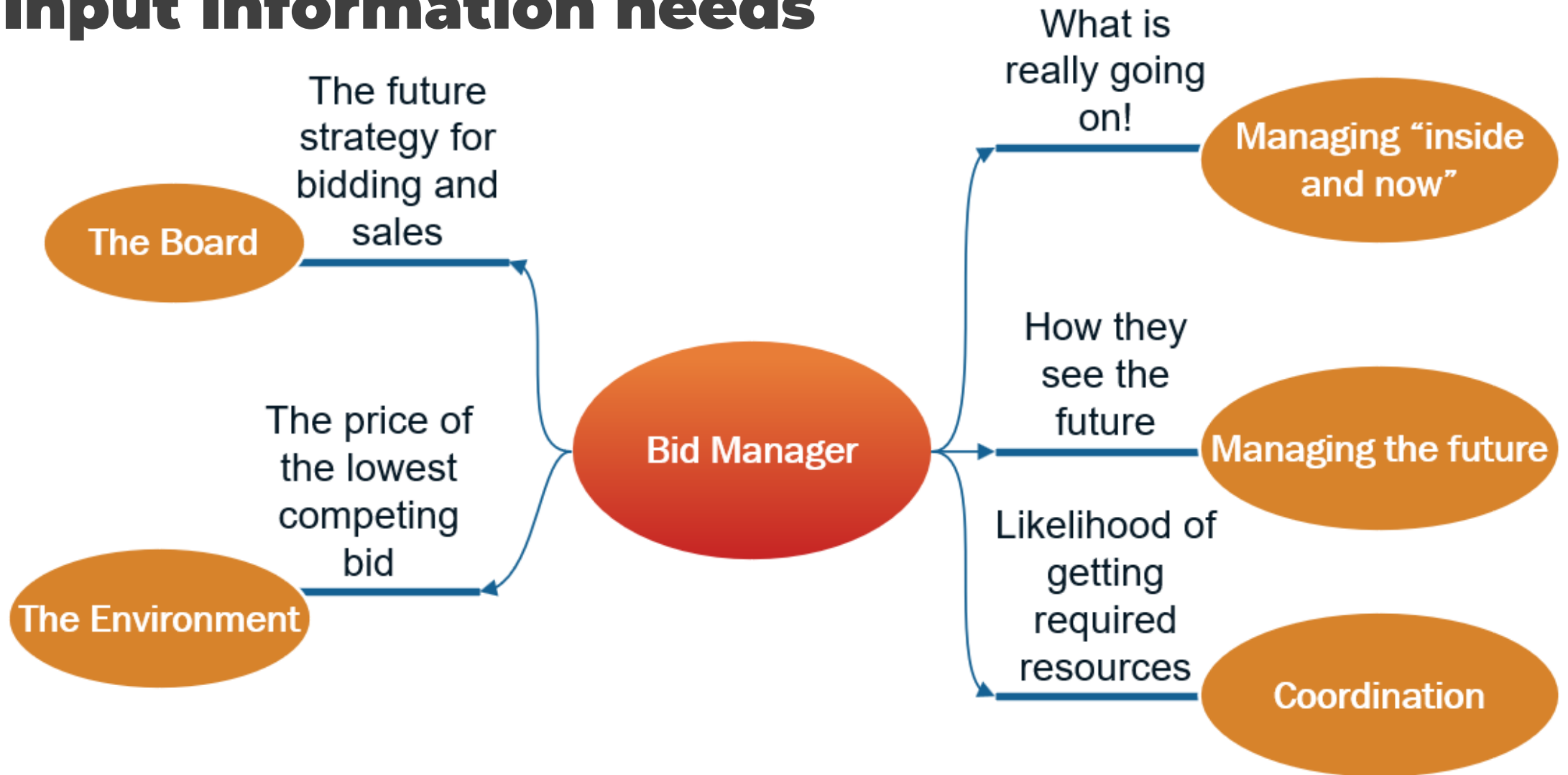


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Activity two: Example

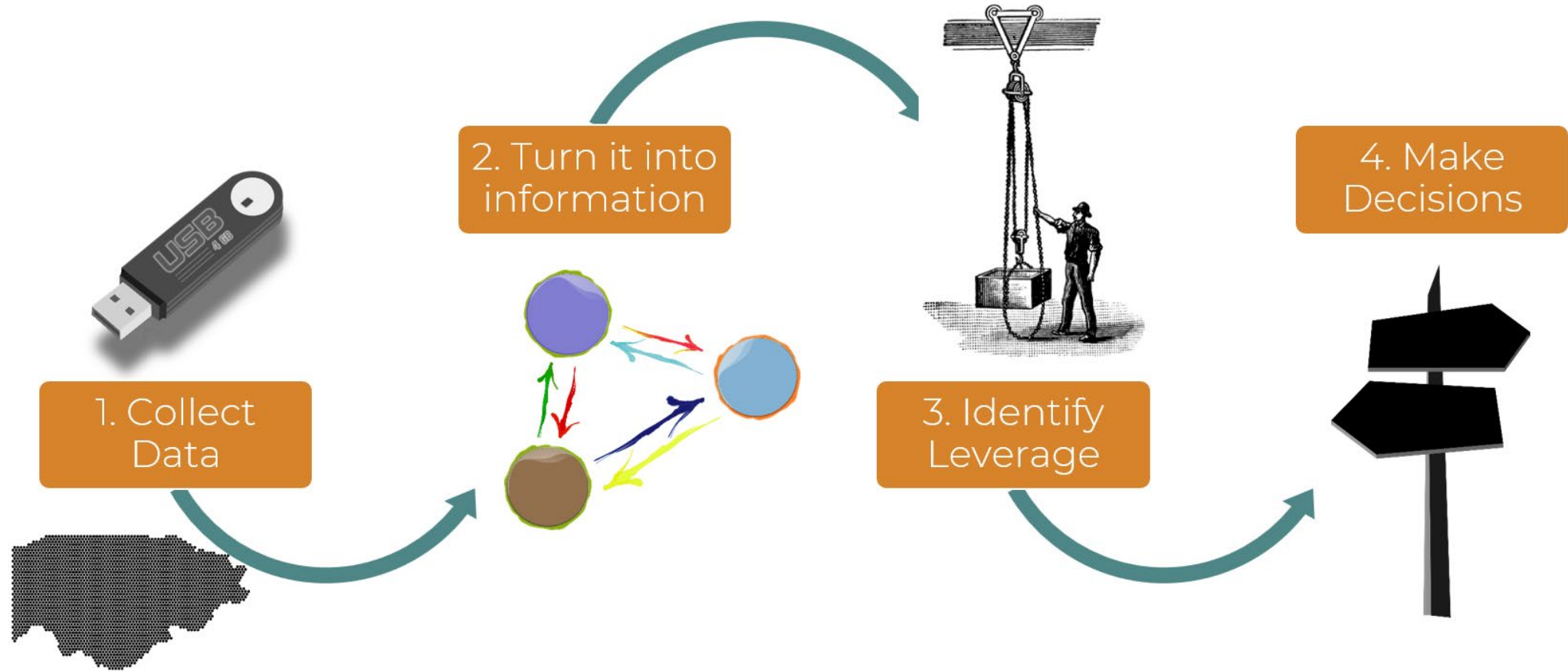
Key Input Information needs



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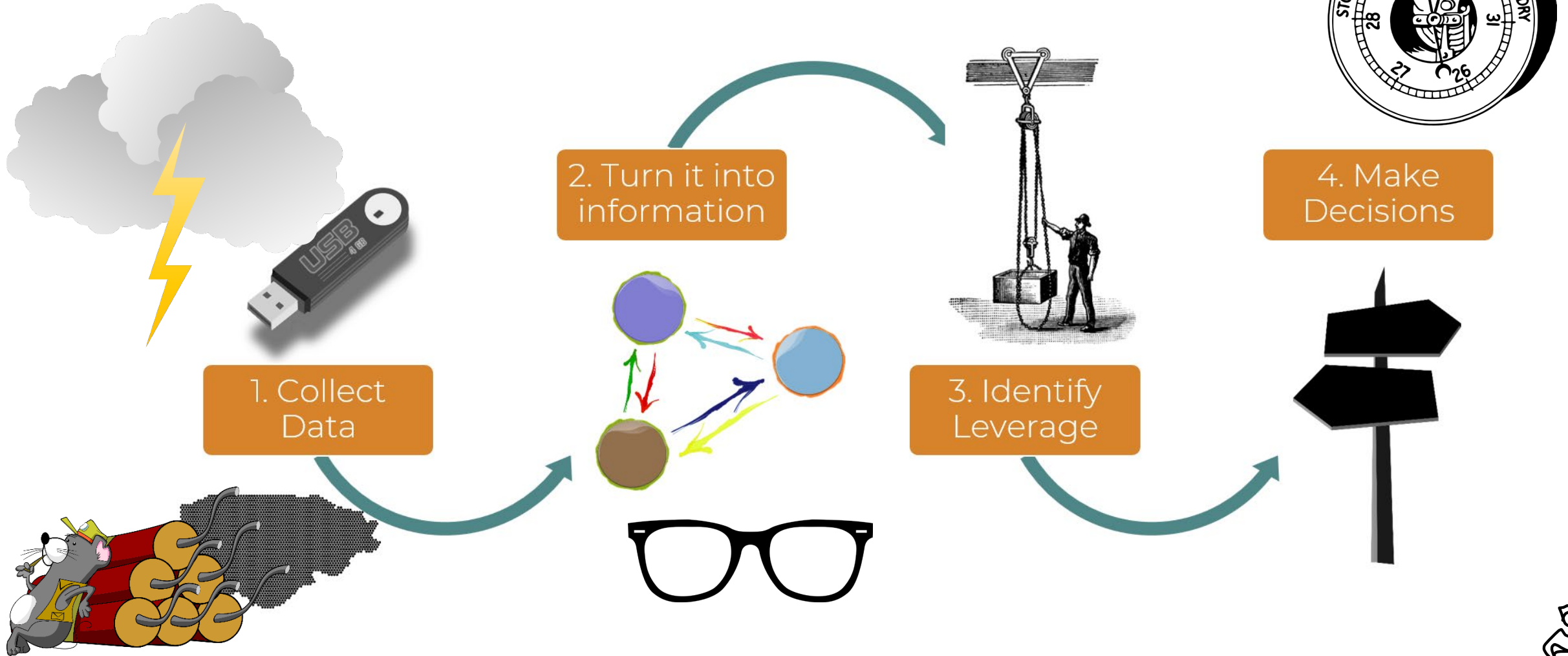
Information Management



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Handwriting practice area with 15 horizontal dashed lines.

Information Management



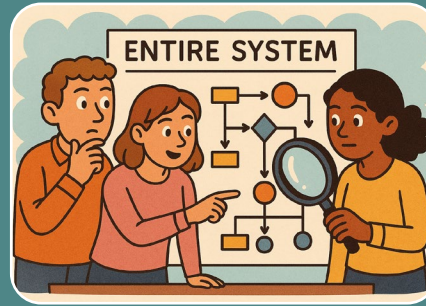
Delegate Notes

Handwriting practice area with 20 horizontal dashed lines.

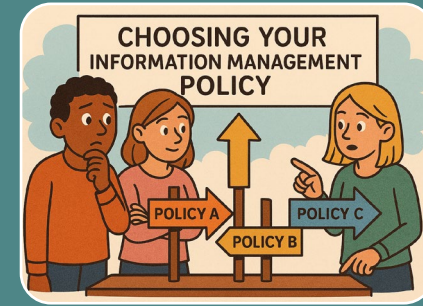
We have covered



Why
Information
Management
Matters?



Understanding
the entire
system for
leverage



Choosing your
Information
Management
Policy



Delegate Notes

Handwriting practice area with 20 horizontal dashed lines.

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A circular portrait of a man with glasses and a dark sweater, smiling. The portrait is set against a background of concentric white circles on an orange field.

Hosted by
Prof Martin
Parr

A square QR code with a black and white pixelated pattern, used for linking to the podcast content.

Every Tuesday

Evolving Enterprises Podcast

Delegate Notes

Handwriting practice area with 20 horizontal dashed lines.