

Commissioned by the KPMG consortium for:

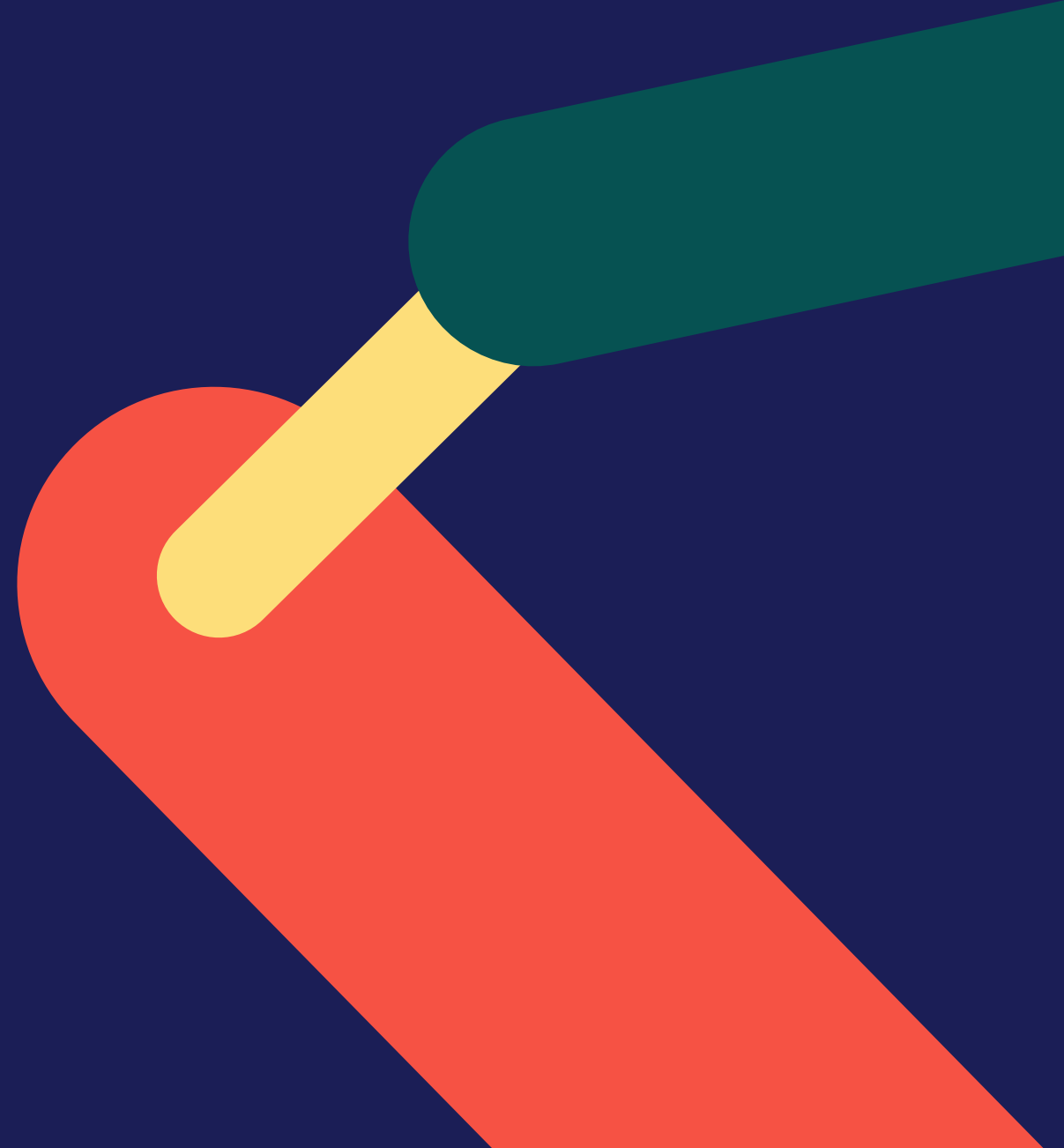


Designed and delivered by:

The PSC

Policy Framing: Problem Structuring and Analytical Thinking

Part 1



Welcome!

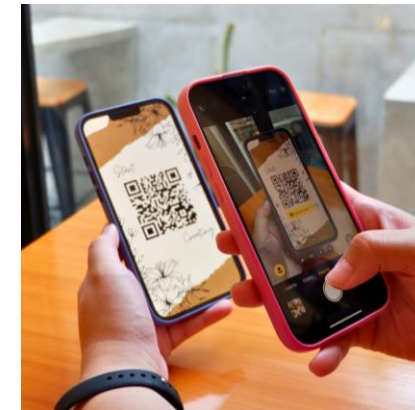
PRE-COURSE SURVEY

Before we get started, please complete the following form to rate your confidence with different elements of project work.

- **Link to pre-course survey:** <https://forms.office.com/e/9siz3NGKj4>
- **Name of this course:** Problem Structuring and Analytical Thinking
- **You can also follow the QR code** below to access the form:



You can scan the QR code with a **mobile device camera** to access the form



Who are you? (30 seconds each)

INTRODUCTIONS

- What's your name?
- What's your role?
- What are your objectives for this programme?
- What's your secret passion?

Why are we here today?

PROGRAMME AIMS

- The aim of this course is to introduce successful approaches to **problem-solving** and **analytical thinking**
- Today we will look at a **range of tools** to support you in effective problem-solving
- You will leave with an awareness of these tools and will have had some opportunity to **practise their application**
- Further practice is key to making them a part of your problem-solving skillset
- There are blog articles, templates and further strategic problem-solving and project delivery tools available on The PSC's website at <https://thepsc.co.uk/capability-building>

Today's agenda

PART ONE

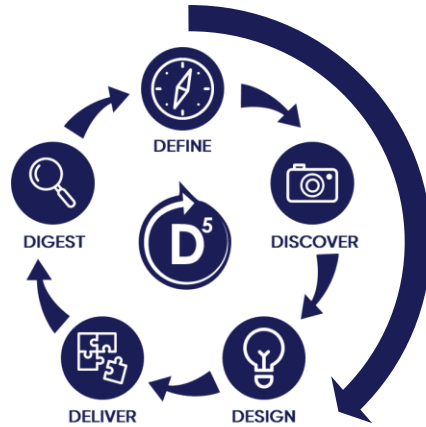
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Introduction	09:30
Tool 1: Problem Definition Sheet	09:50
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Reflection and wrap up	13:35

What is the intended end-point for your policy problem?

RANGE OF FAST EFFECTIVE PROJECTS AND PROBLEMS

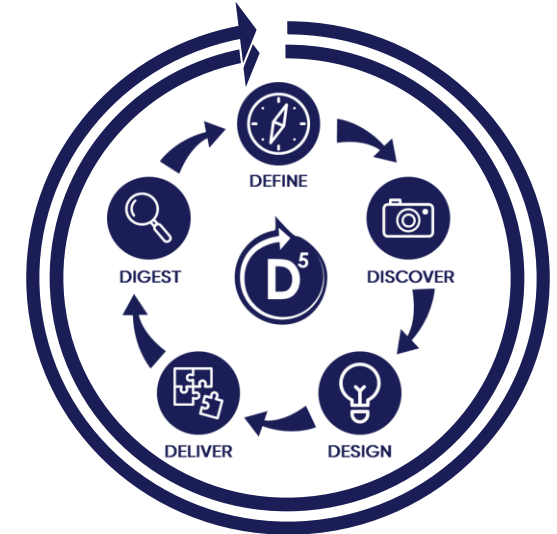
STRATEGIC RECOMMENDATIONS

DELIVERY AND CONTINUOUS IMPROVEMENT



Where the project is on the spectrum depends on...

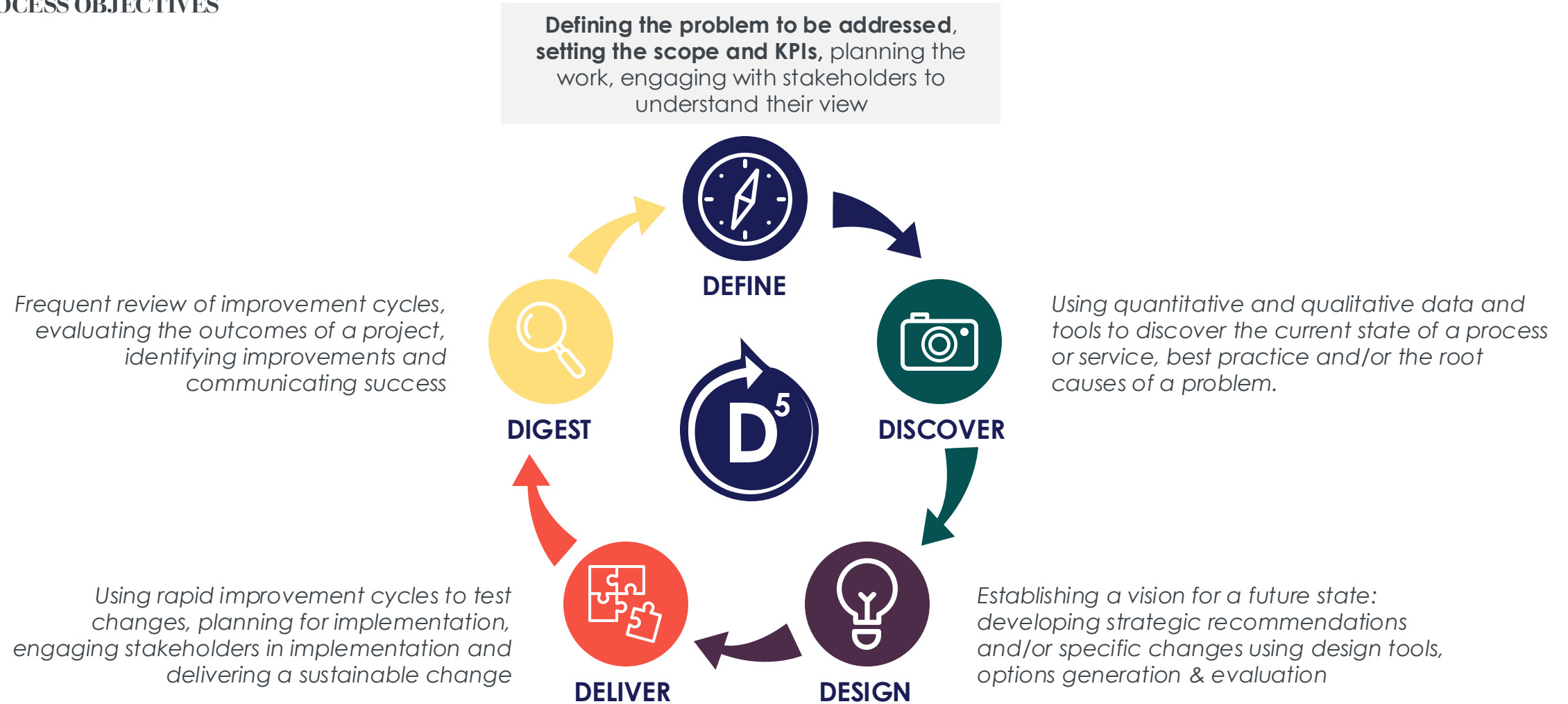
Project aims
Involvement in implementation
Time to delivery
Feasibility of rapid improvement cycles



- The project is focused on **design of an evidence-based recommendation** or set of options.
- The project team is responsible for **developing realistic and achievable recommendations** to inform a decision making process, but may not be involved in the implementation of the recommendations.
- The project is focused on **delivering a change**; this could be a new service model, pathway, or process.
- The team is involved in **implementing the options** and may use rapid improvement cycles to test and refine their recommendations

Problem-solving and where the tools fit in

D5 PROCESS OBJECTIVES

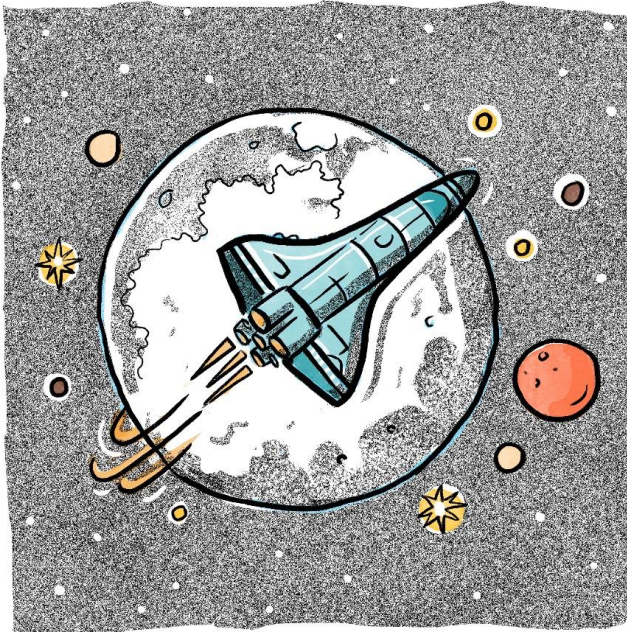


What is the context for your policy problem?

PREDICTABLE VERSUS COMPLEX PROBLEMS

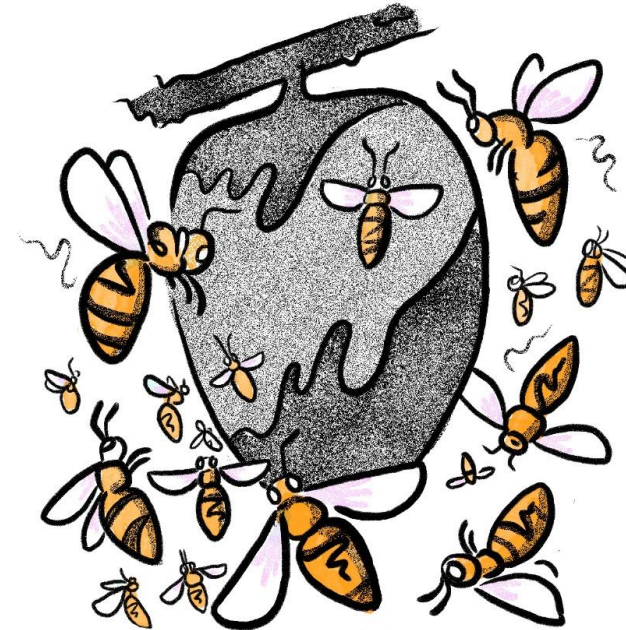
Problems within linear systems or deterministic systems:

... where we can predict the likely effect of a particular action with considerable confidence, and over a long timescale



Problems within complex, adaptive, or chaotic systems:

... where the presence of feedback loops, non-linearities, complex sub-systems and memory effects make long-term predictions impossible



What tools will we learn about today and how will they help to solve your policy problem?

Tool 1: Problem Definition Sheet

What are all the key factors of your problem?

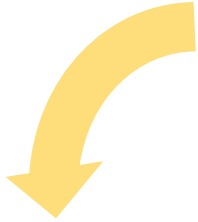
Setting out the question to be addressed and the important parameters of the project on a single page

What is the problem you are trying to solve?

What tools will we learn about today and how will they help to solve your policy problem?

Tool 1: Problem Definition Sheet

Setting out the question to be addressed and the important parameters of the project on a single page



Tool 2: Issue Tree

Breaking down your question or problem into distinct parts or workstreams, so that you can start to tackle it

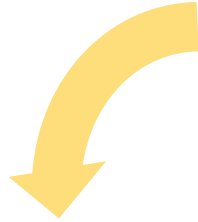
How can we break down your problem into manageable chunks?

What are the component parts of your problem?

What tools will we learn about today and how will they help to solve your policy problem?

Tool 1: Problem Definition Sheet

Setting out the question to be addressed and the important parameters of the project on a single page



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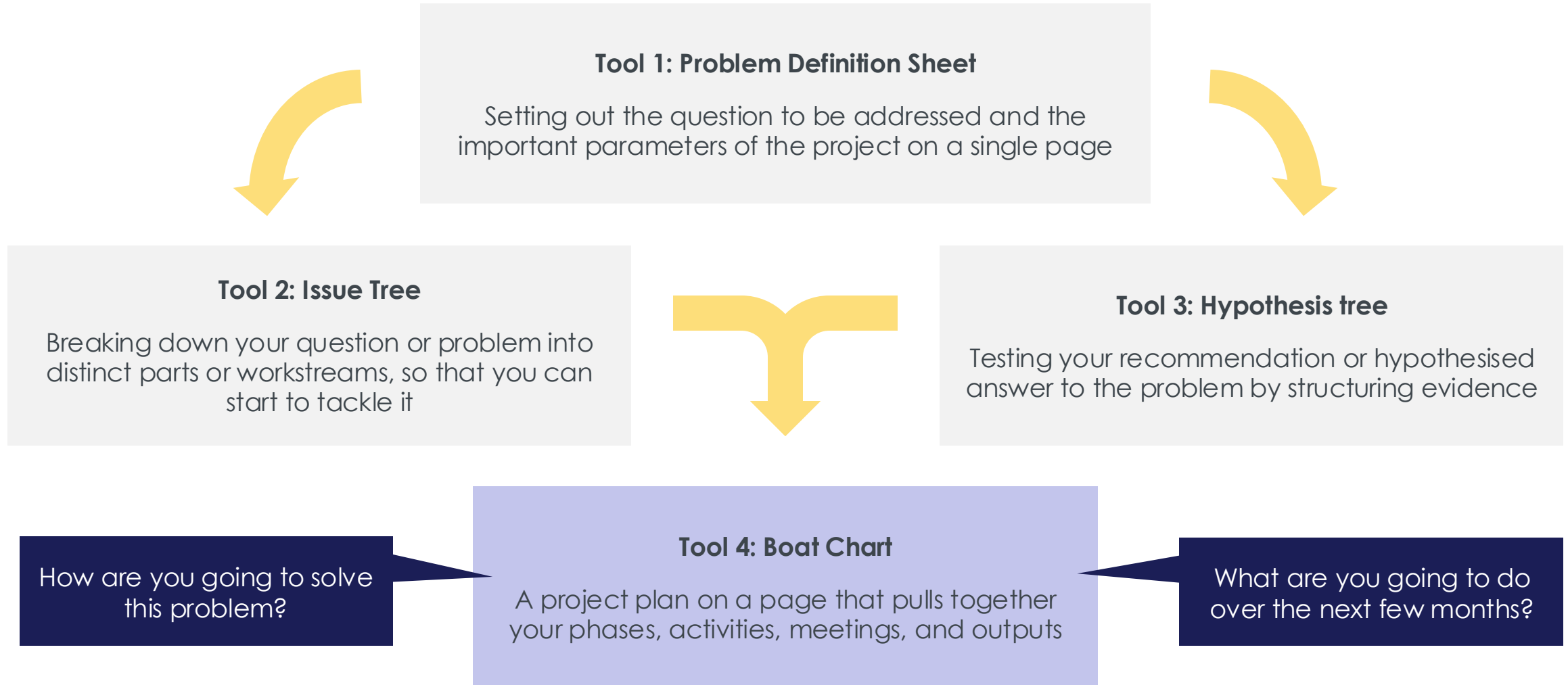
Tool 3: Hypothesis tree

Testing your recommendation or hypothesised answer to the problem by structuring evidence

What is your recommended solution?

What evidence do you need to collect to prove or disprove this?

What tools will we learn about today and how will they help to solve your policy problem?



Today's agenda

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Defining the problem: Problem Definition Sheets (PDS)

The Problem* Definition Sheet ('PDS')

- A Problem Definition Sheet sets out on a single page the question to be addressed and the important parameters of the project.
- They are helpful in ensuring everyone starts from the same understanding and agreement.

The problem statement needs to show the underlying question, and not a solution for it.

1. Basic question to be resolved

2. Stakeholders, decision makers and project resourcing	3. Desired outputs and outcomes
4. Scope of the work (in/out)	5. Outline timings and milestones
6. Context/ background	7. Constraints and risks/ dependencies/ interfaces

The Problem Definition Sheet sets out your project on a page

PROBLEM DEFINITION SHEET (GUIDANCE)

Integrating AI

Record an internal kick-off meeting where you discuss each of these themes, and use your LLM of choice to turn the transcription into a first draft PDS for you to then refine

1. Basic question to be resolved

Be as specific as possible and, within this, as succinct as possible. The question should be time bound and refer to a specific organisation, department, or process. Describe the underlying question that the project is aiming to answer, so you can use it to shape your analysis and test your hypotheses.

2. Stakeholders, decision makers and project resourcing

- Who are the project lead, sponsor and project mentors?
- What type of **project governance** is needed to monitor quality, decide on plans and provide external challenge, for example, a project board or steering group?
- Who are the **key stakeholders** with whom you must engage? Where do you expect the most support for this project to come from?
- Who are your **delivery partners** (e.g. information team)?
- Who has **lived experience** of the question/problem to be resolved?

4. Scope of the work

- What's **included** within the project and what's not?
- If it is **out of scope**, is it being reviewed elsewhere?

6. Context / background

Why is the work being done now?

3. Desired outputs and outcomes

- What **outputs** are required?
- What are the **outcomes** (quantitative or qualitative) that will ultimately show the project has been successful? If final success of work won't manifest in short-/medium- term, what interim outcomes can be used to evaluate success?

5. Outline timings and milestones

- When are the project steering groups or **end of phase reviews**?
- When are the **key deliverables due**?

7. Constraints and risks / dependencies / interfaces

- Outline the key likely **risks / constraints** to the project and any interaction with other projects or work.

Here's a draft PDS for a Ministry of Justice question – what can you learn?

PROJECT: ADDRESSING PRISON OVERCROWDING

1. Basic question to be resolved

How can the Ministry of Justice reduce prison occupancy to 90% of usable operational capacity by March 2028?

2. Stakeholders, decision makers and project resourcing

- Project sponsor: MoJ / HMPPS senior leadership
- Key decision makers: Lord Chancellor / Justice Ministers, HMPPS Executive Team
- Key stakeholders: prison governors, probation leadership, judiciary, Parole Board, HM Inspectorate of Prisons
- Delivery partners: MoJ analysts, HMPPS operational teams, prison estate / capacity planning teams, legal and policy teams

4. Scope of the work

In scope:

- Options to reduce prison occupancy in the short and medium term
- Demand-side levers: sentencing, remand, recall, release, community alternatives
- Supply-side levers: additional capacity, estate management, more effective use of existing places

Out of scope:

- Fundamental redesign of the criminal justice system
- Long-term prison estate reform beyond the timeframe of this project
- Broader social drivers of offending, except where directly relevant

6. Context / background

- Prisons in England and Wales are operating at around 98% occupancy.
- This is above the 95% level at which HMPPS says it can run the estate efficiently.
- Overcrowding affects safety, staffing, access to services, rehabilitation and wider system performance.
- For this project, the target is to reduce occupancy to 90% to ease current pressures and provide headroom for future demand.

3. Desired outputs and outcomes

Outputs:

- Set of evidence-based recommendations for reducing occupancy
- Support to implementation planning once recommendations are agreed

Outcomes:

- Qualitative: high-level of confidence from senior stakeholders and experts that recommendations are sound
- Quantitative:
 - Final: 10% reduction in prison occupancy by March 2028
 - Interim: 5% reduction in prison occupancy by March 2027

5. Outline timings and milestones

- Evidence-based recommendations – August 2026
- Wave 1 initiatives – September 2026
- Wave 2 initiatives – March 2027
- Wave 3 initiatives – September 2027

7. Constraints and risks / dependencies / interfaces

- Public protection risk: some occupancy-reduction options may be seen as increasing risk
- Political sensitivity: sentencing, release and prison-building decisions are highly contentious
- Legal / policy constraints: some options may depend on legislation, judicial practice or parole decisions
- Delivery risk: short-term measures may relieve pressure temporarily without fixing the underlying demand-capacity gap

Best practice tips for writing an effective basic question

Your basic question is the **north star** for the project. It shapes your analysis, keeps the team focused, and helps you judge whether the work has actually answered the problem.

Worked example

How can the Ministry of Justice build more prisons?

1. Keep it problem-focused and, where possible, solution-agnostic

A good basic question should describe the **problem to solve**, not lock you into one answer too early.

- **Why?** It keeps your thinking open until you have evidence.
- **Weaker:** *How can the Ministry of Justice build more prisons?*
- **Stronger:** *How can the Ministry of Justice **reduce prison occupancy**?*

2. Make it time-bound

A good basic question should make clear **when** success is needed by.

- **Why?** It creates a clear end-point and makes the project feel real and deliverable.
- **Weaker:** *How can the Ministry of Justice reduce prison occupancy?*
- **Stronger:** *How can the Ministry of Justice reduce prison occupancy **by March 2028**?*

3. Be specific

A good basic question should be precise about the **organisation, issue and measure of success**.

- **Why?** It helps everyone understand exactly what the project is trying to achieve.
- **Weaker:** *How can the Ministry of Justice reduce prison occupancy by March 2028?*
- **Stronger:** *How can the Ministry of Justice reduce prison occupancy **to 90% of usable capacity** by March 2028?*

Final polished version

How can the Ministry of Justice reduce prison occupancy to 90% of usable capacity by March 2028?

Individually or in small groups, spend 15 minutes having a go at writing basic questions

20 minutes

ACTIVITY: WRITING EFFECTIVE BASIC QUESTIONS

Task 1: Improve a weak basic question

- **Project context:** The Department for Education has been asked to advise ministers on rising pressure in the Special Educational Needs and Disabilities (SEND) system. Parents, schools and MPs are especially concerned about children waiting beyond the statutory 20-week deadline for an Education, Health and Care Plan decision which is the responsibility of local authorities. Some officials want to focus on a national digital tracker, while others argue the bigger constraint is educational psychologist capacity or variation between local authorities. Ministers want the work to support visible improvement before the 2028 summer recess; an internal steer suggests marginal gains will not be enough, and that the overdue cohort may need to fall by about half.
- **Weak draft question – to be improved:** *How can the Department for Education improve the SEND system by rolling out better national support for local authorities?*

Tips for effective basic questions

1. Keep it problem-focused and, where possible, solution-agnostic

2. Make it time-bound

3. Be specific

Task 2: Draft a basic question for this project

- **Project context:** The Home Office is reviewing how to improve asylum system performance as part of planning for 27/28. Ministers face pressure on the undecided caseload, hotel use, accommodation costs and the long waits experienced by applicants. Teams are debating whether to prioritise older cases, recruit more caseworkers, change triage rules, improve interview scheduling or invest in digital workflow tools. Operational leaders argue that the most useful measure is the share of initial asylum decisions made within six months, with senior officials suggesting that “around four in five” by financial year-end would be stretching but credible. Any options will need to improve timeliness without increasing errors, appeals or rework.

Task 3: Draft a basic question for something you are working on currently, or have worked on in the past

Today's agenda

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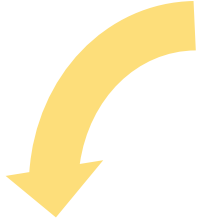
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Structuring the problem: Issue Trees

What tools will we learn about today and how will they help to solve your policy problem?

Tool 1: Problem Definition Sheet

Setting out the question to be addressed and the important parameters of the project on a single page



Tool 2: Issue Tree

Breaking down your question or problem into distinct parts or workstreams, so that you can start to tackle it

How can we break down your problem into manageable chunks?

What are the component parts of your problem?

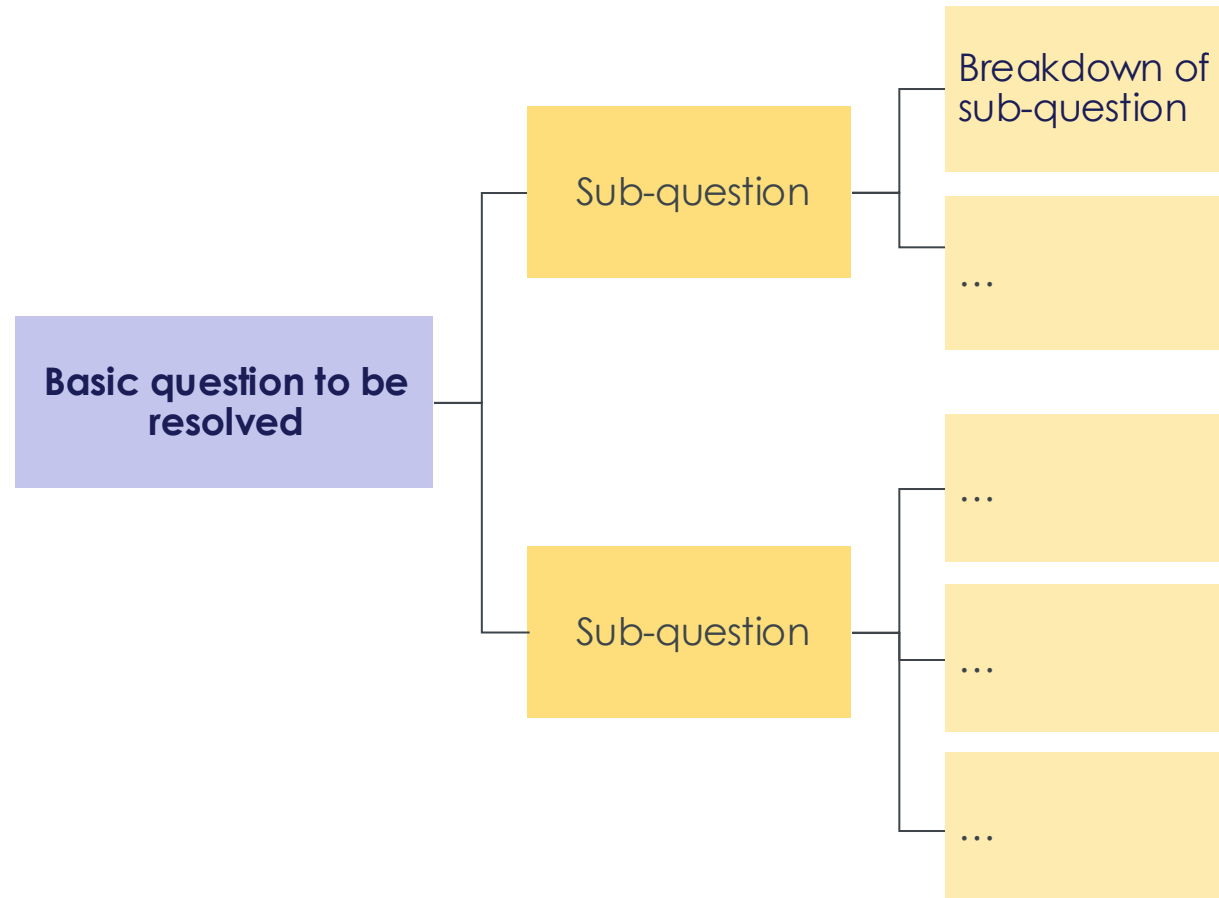
You can use an issue tree to disaggregate your question into effective workstreams

ISSUE TREES - INTRODUCTION

Why are issue trees important?

Once you've written the problem statement, the next step is to break the problem down into manageable chunks. The issue tree helps you to:

1. Break the work down into clear, separate workstreams
2. Give you confidence that you've looked at the full extent of the project



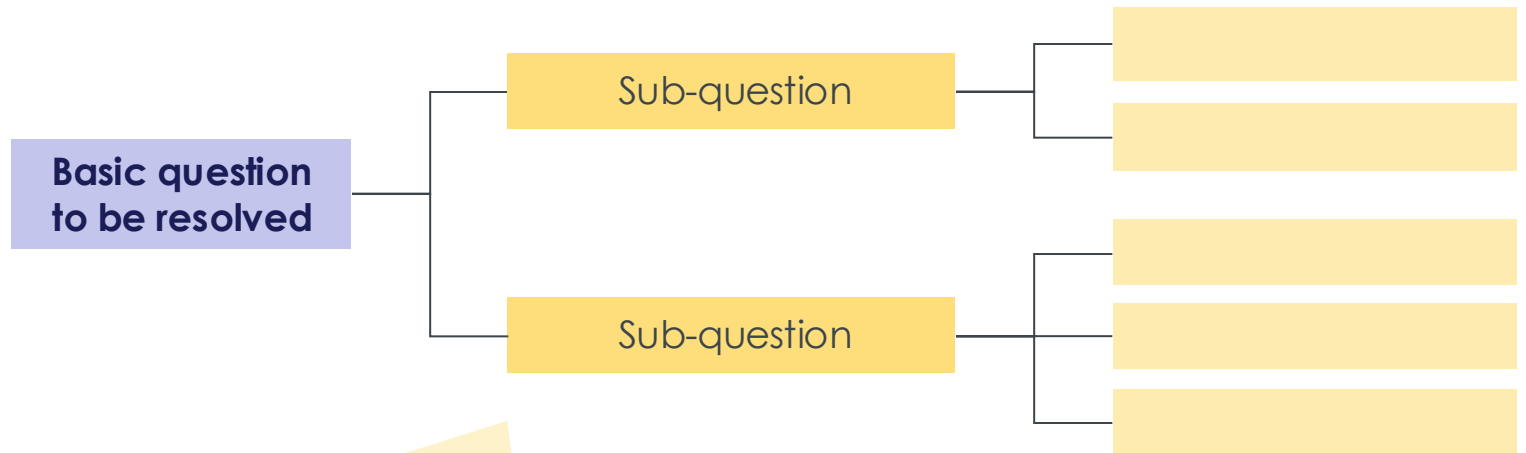
An issue tree sets out the ‘basic question to be solved’, and breaks it out into increasingly more specific questions

HOW ISSUE TREES WORK

An Issue Tree sets out the ‘basic question to be resolved’, and breaks it down into increasingly more specific questions.

The right-hand side of an Issue Tree shows a set of areas of potential experiments / solutions / analyses / workstreams

An Issue Tree works by setting out the ‘basic question to be resolved’ on the left-hand side of the page, then breaking out this question into increasingly more specific questions as you go from left to right



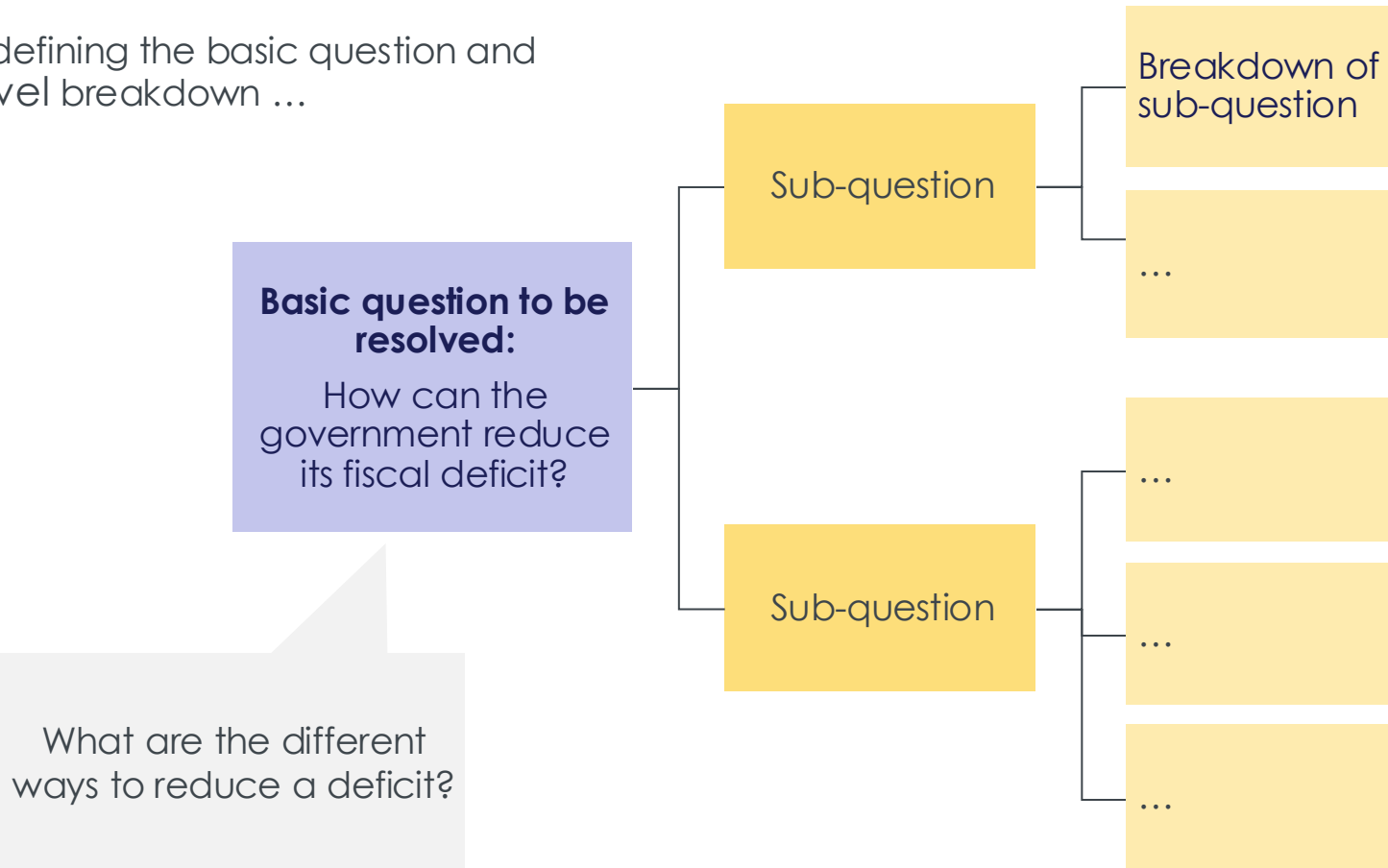
Good Issue Trees have questions at each level (vertical cut through the Tree) which:

- a) can be answered without reference to other questions in the same level (**M**utually **E**xclusive questions)
- b) when taken together, add up to the question to the left (**C**ollectively **E**xhaustive questions)

Start your issue tree by defining the basic question, and think about your first level breakdown

ISSUE TREE EXAMPLE (FISCAL DEFICIT)

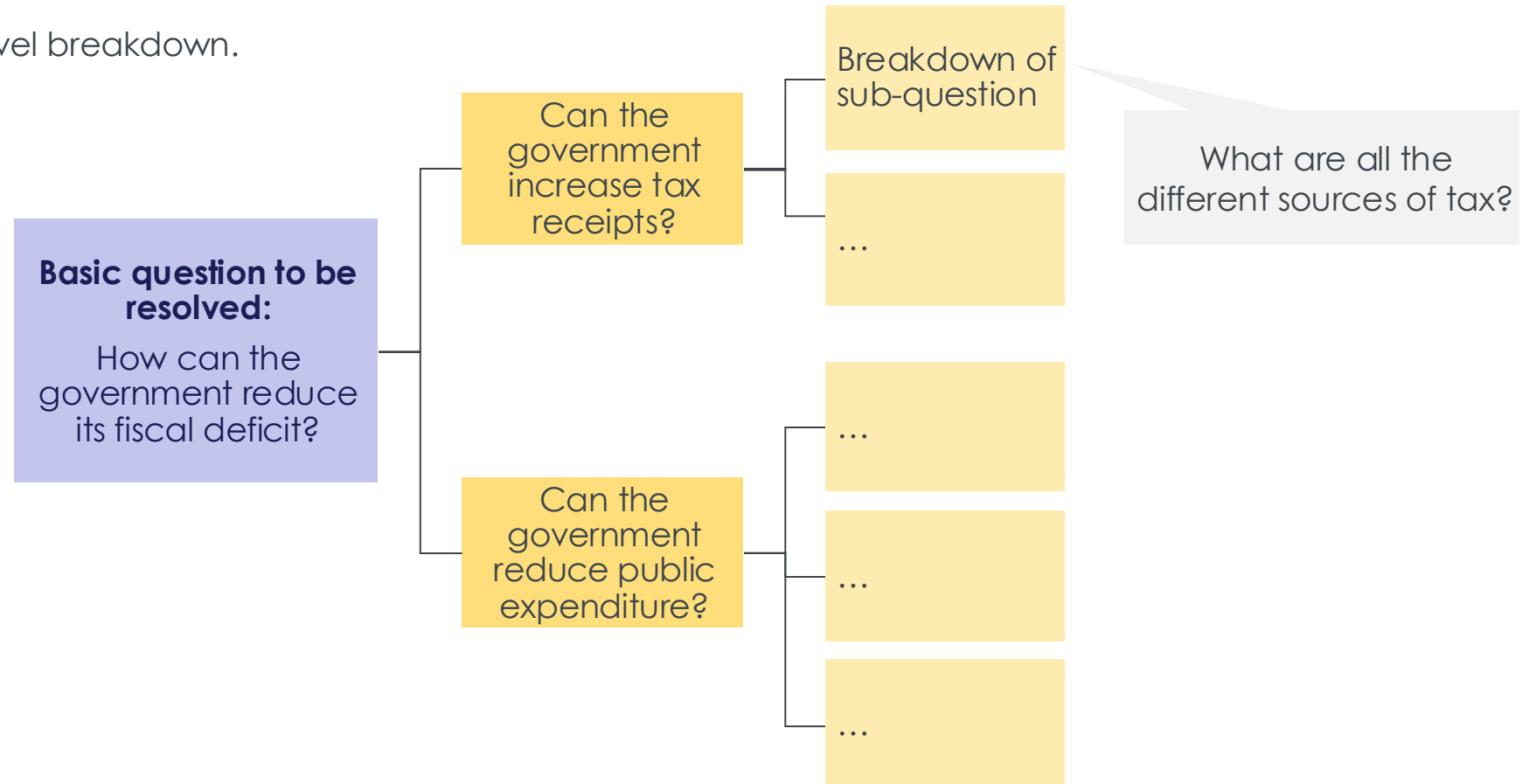
Start your Issue Tree by defining the basic question and think about your first-level breakdown ...



Then work through your second level breakdown

ISSUE TREE EXAMPLE (FISCAL DEFICIT)

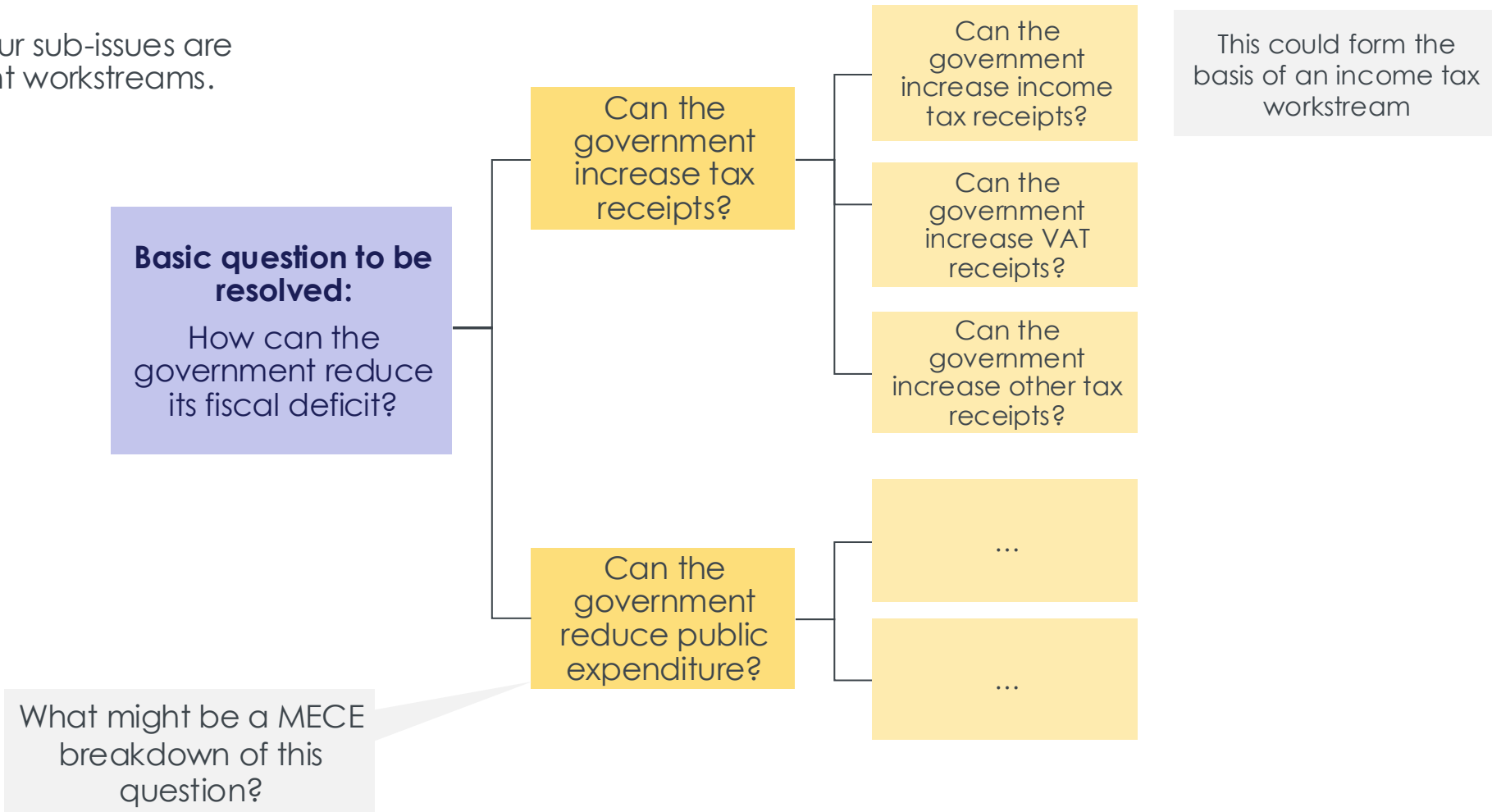
...then work through your second-level breakdown.



Stop breaking down when your sub-issues are sufficient to drive independent workstreams

ISSUE TREE EXAMPLE (FISCAL DEFICIT)

Stop breaking down when your sub-issues are sufficient to drive independent workstreams.



What happens if an issue tree is not MECE?

MECE ISSUE TREES

Implications if not

**Mutually
Exclusive**

- Workstreams become tangled together, with minor changes to one part of the answer affecting other parts of the problem solving

**Collectively
Exhaustive**

- Important analyses may be missed

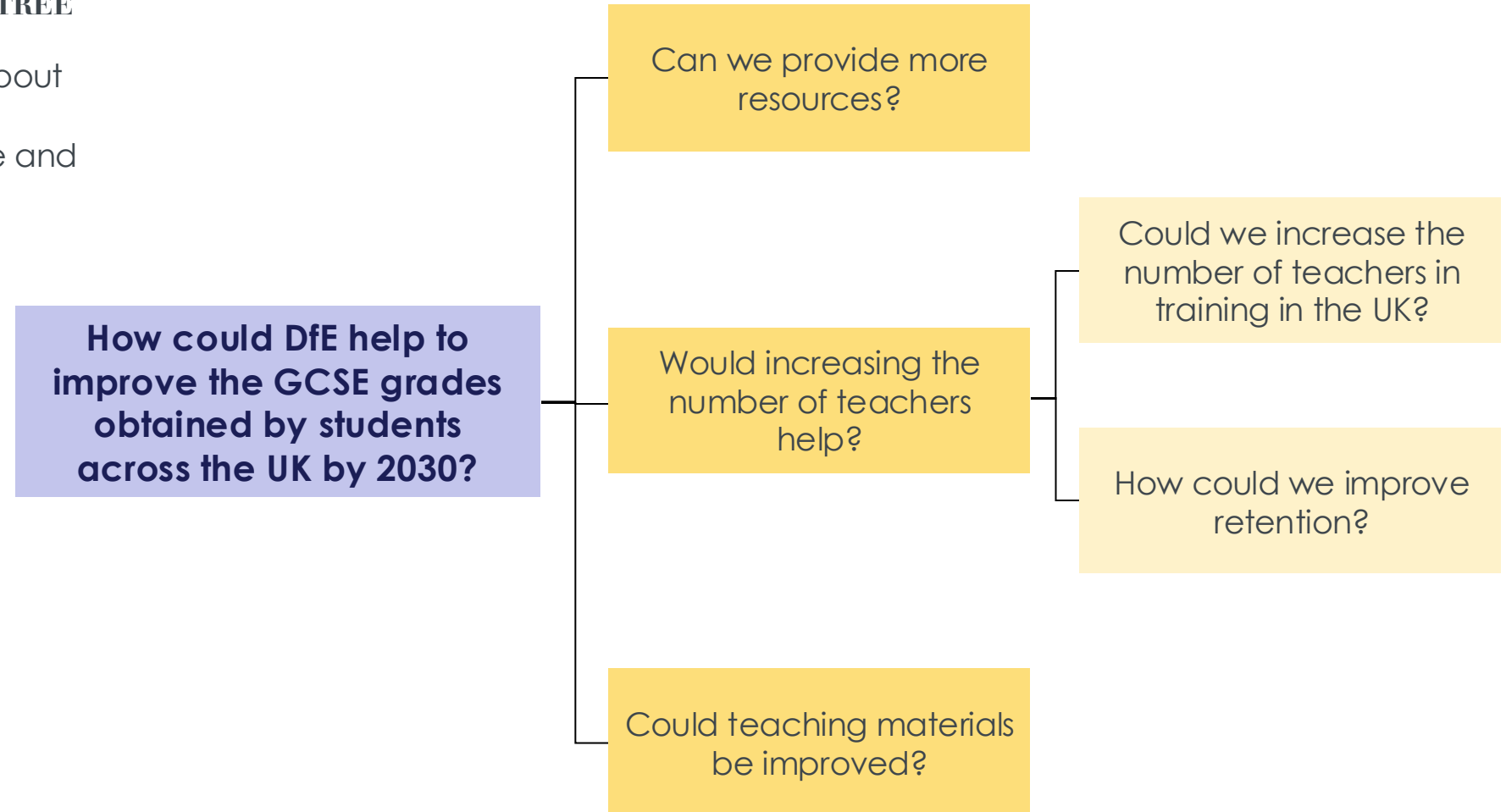
Conversely, a MECE issue tree implies that:

- All the questions at the right hand side collectively add up to the 'basic problem to be solved', without overlapping
- You have reached the right level of disaggregation when the questions are specific enough to assign resources to them

What's weak/ineffective about this tree? Is it MECE?

WORKED EXAMPLE: A WEAK ISSUE TREE

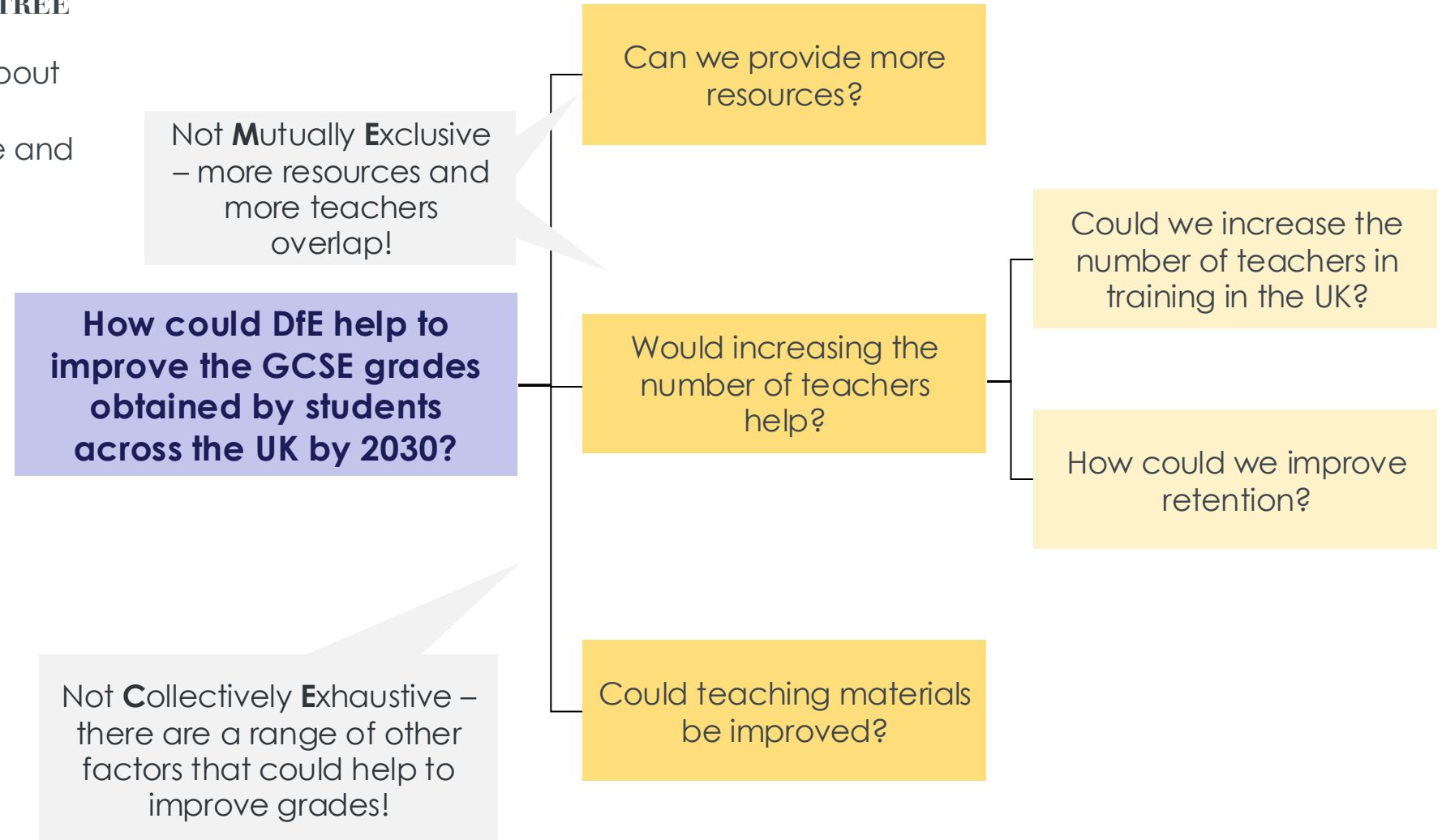
- What is weak or ineffective about this Tree?
- Is it 'MECE' (Mutually Exclusive and Collectively Exhaustive)?



What's weak/ineffective about this tree? Is it MECE?

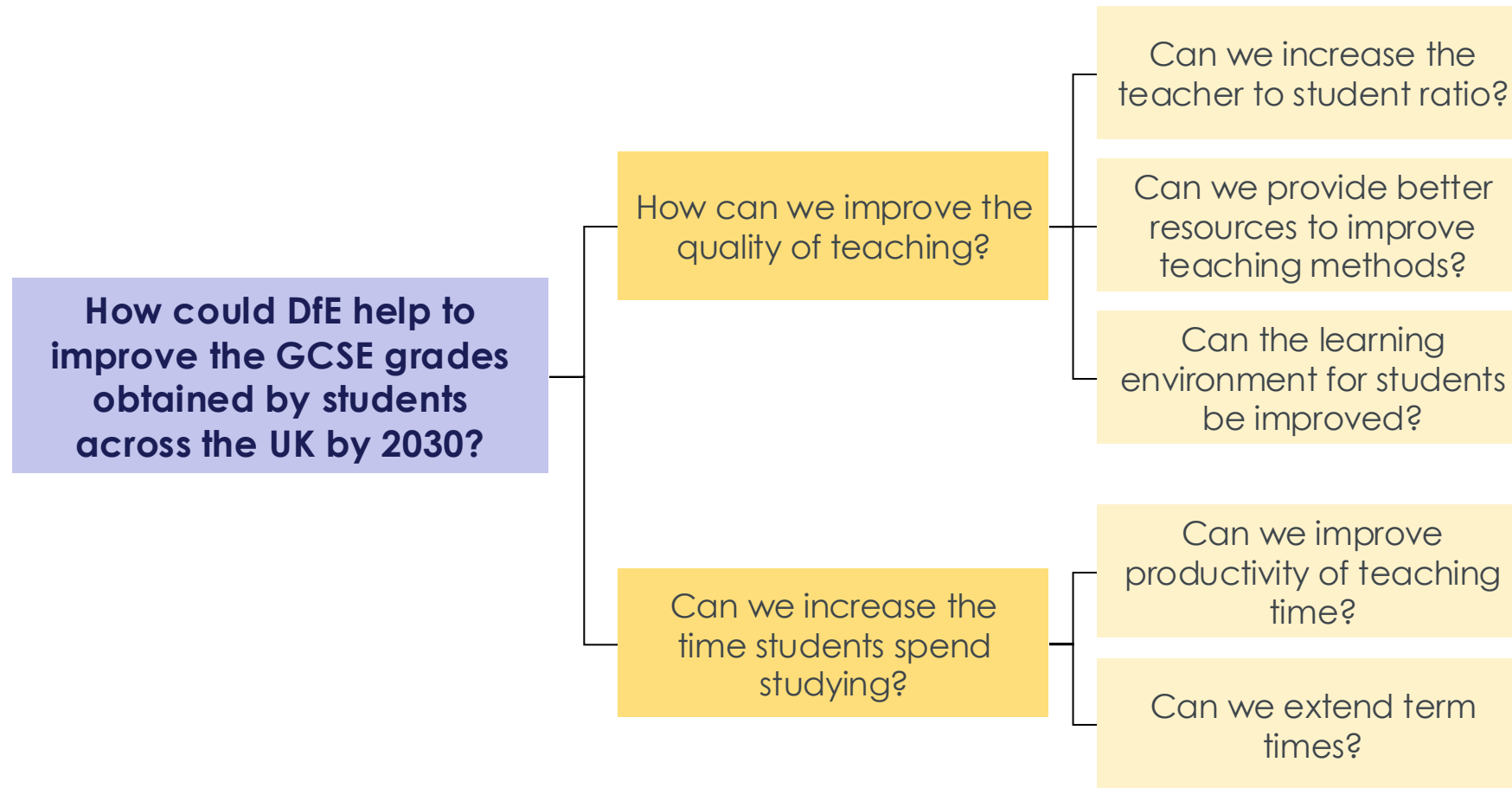
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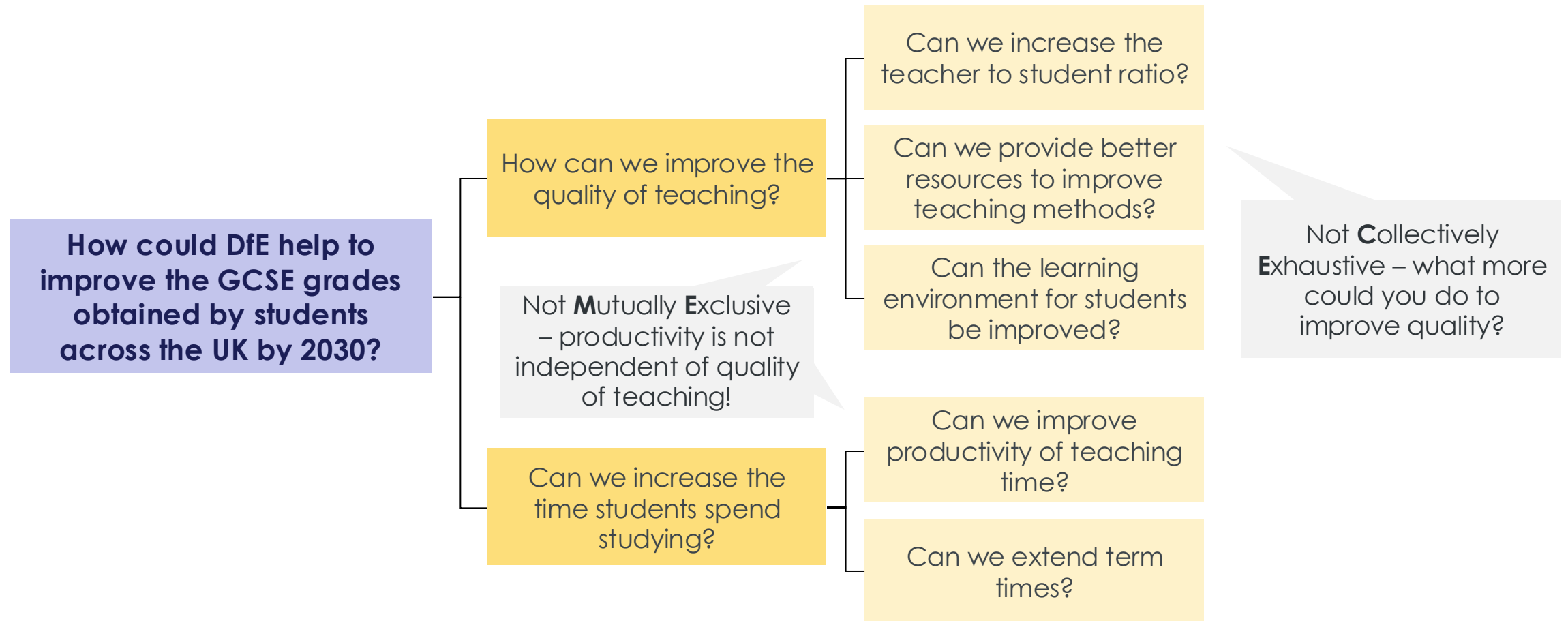
Is this one stronger / more effective? Why?

WORKED EXAMPLE: A STRONG ISSUE TREE



Is this one stronger / more effective? Why?

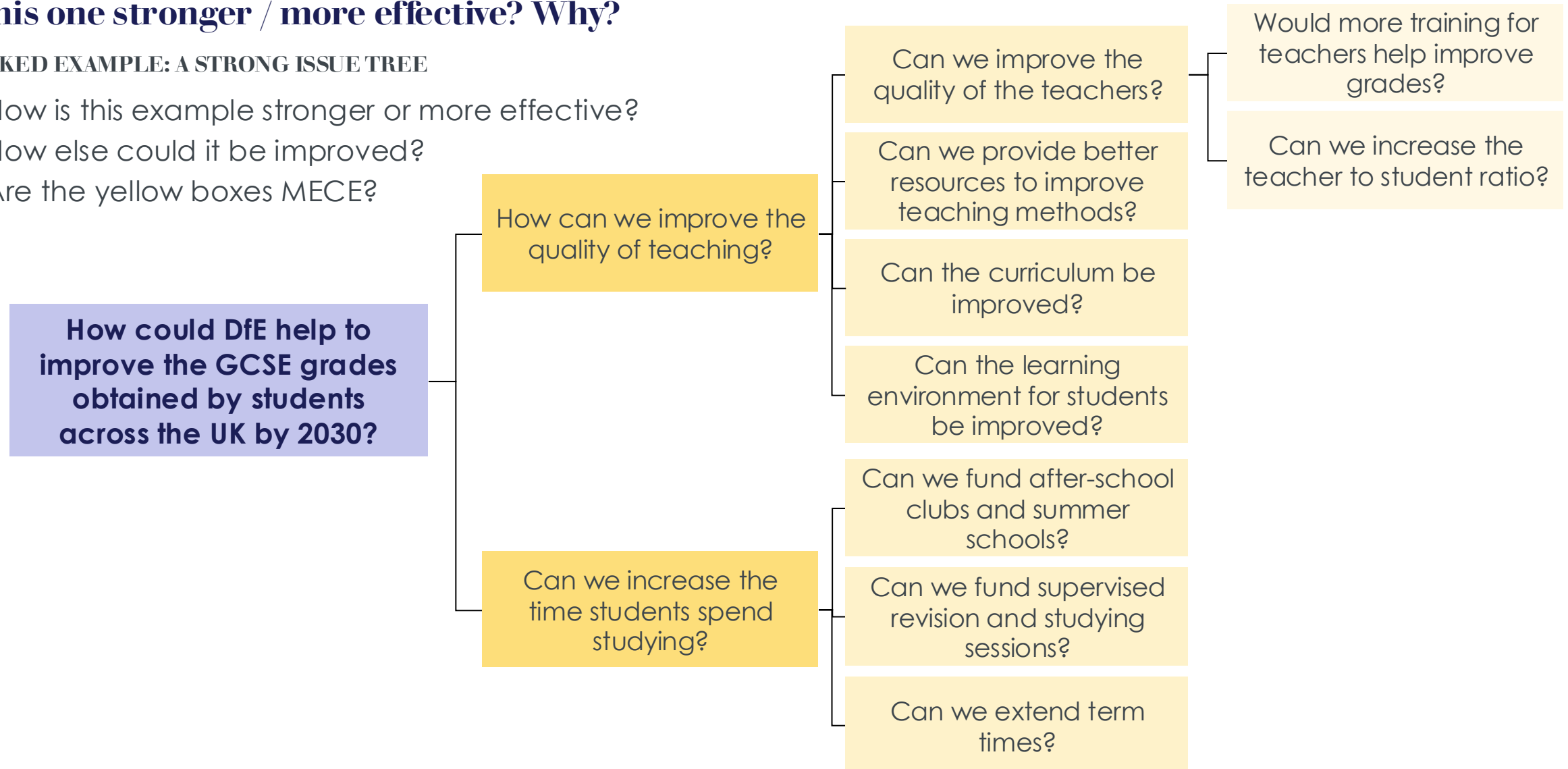
WORKED EXAMPLE: A STRONG ISSUE TREE



Is this one stronger / more effective? Why?

WORKED EXAMPLE: A STRONG ISSUE TREE

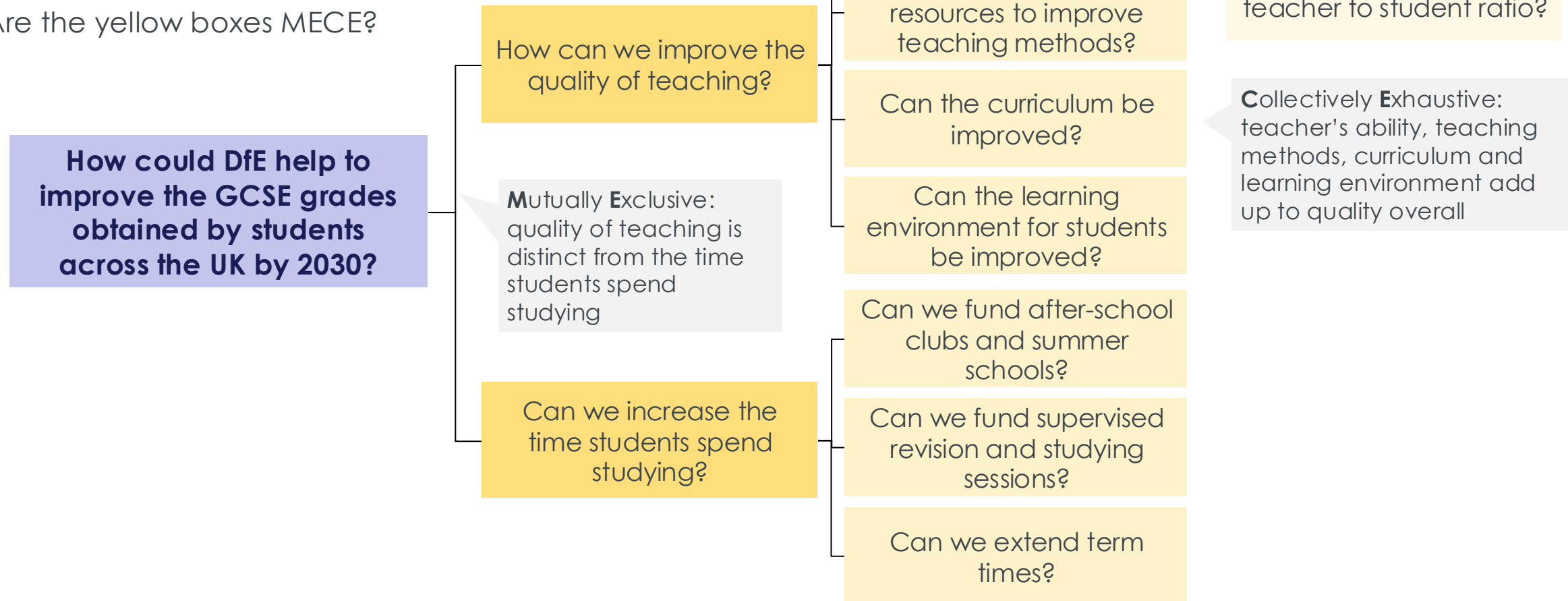
- How is this example stronger or more effective?
- How else could it be improved?
- Are the yellow boxes MECE?



Is this one stronger / more effective? Why?

WORKED EXAMPLE: A STRONG ISSUE TREE

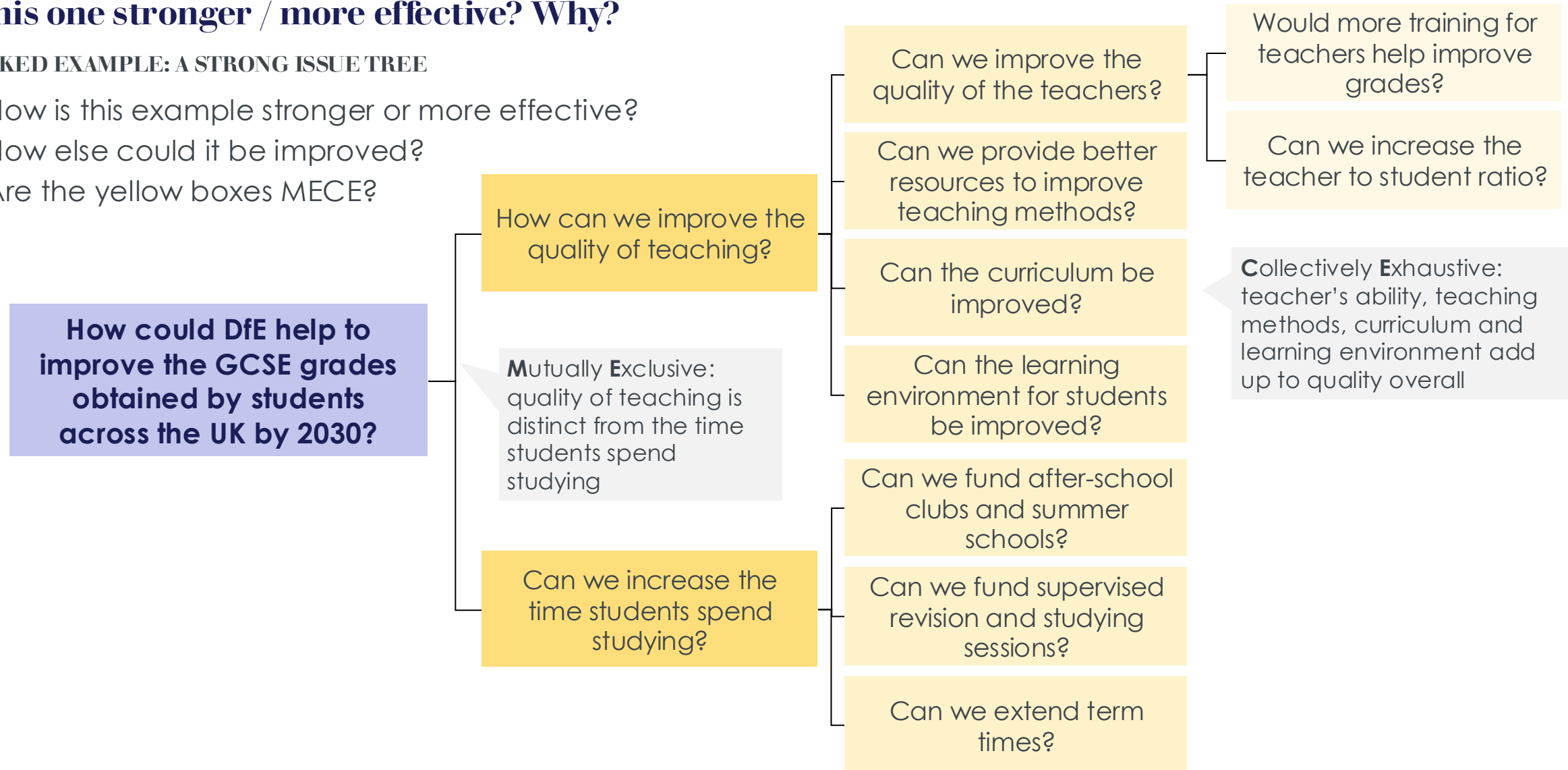
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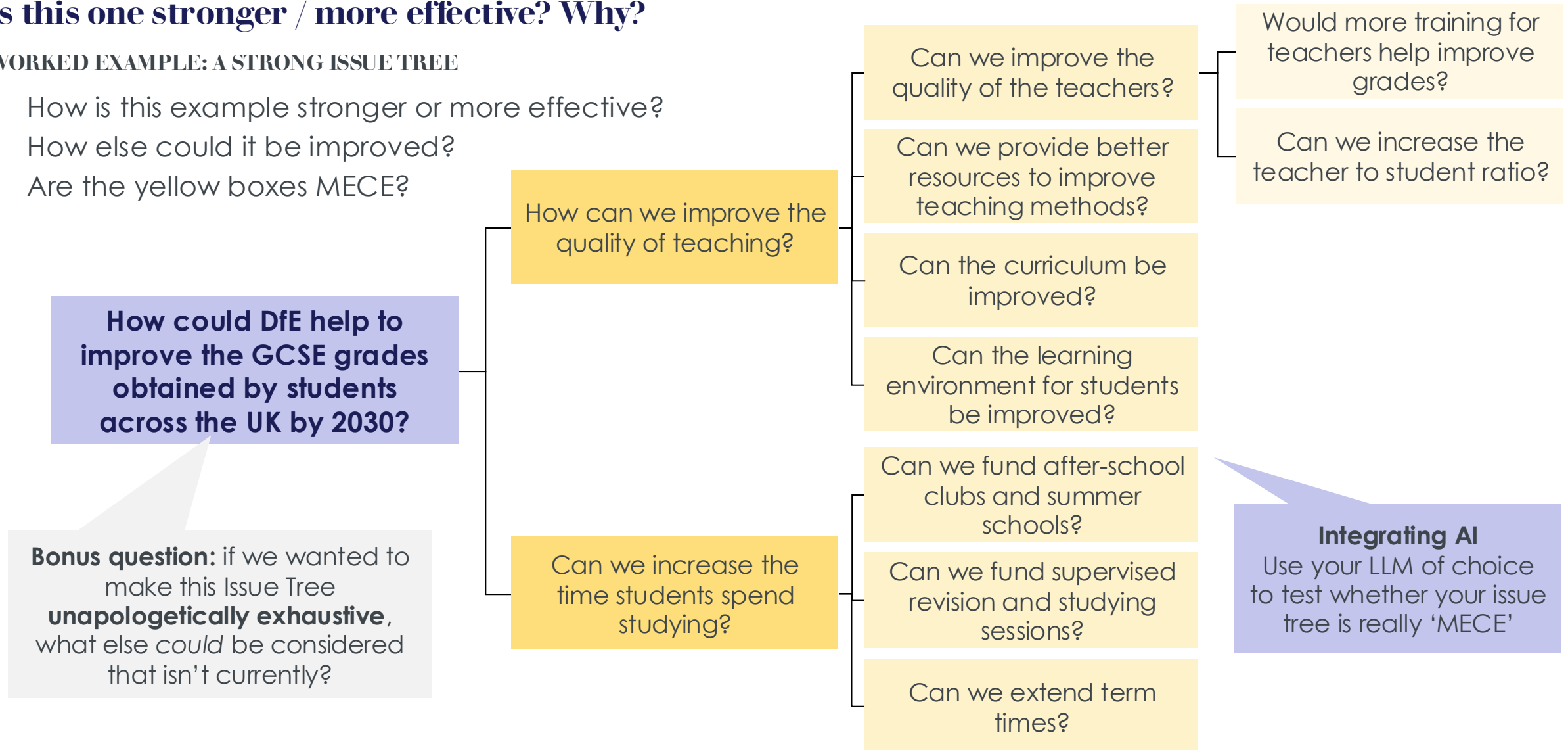
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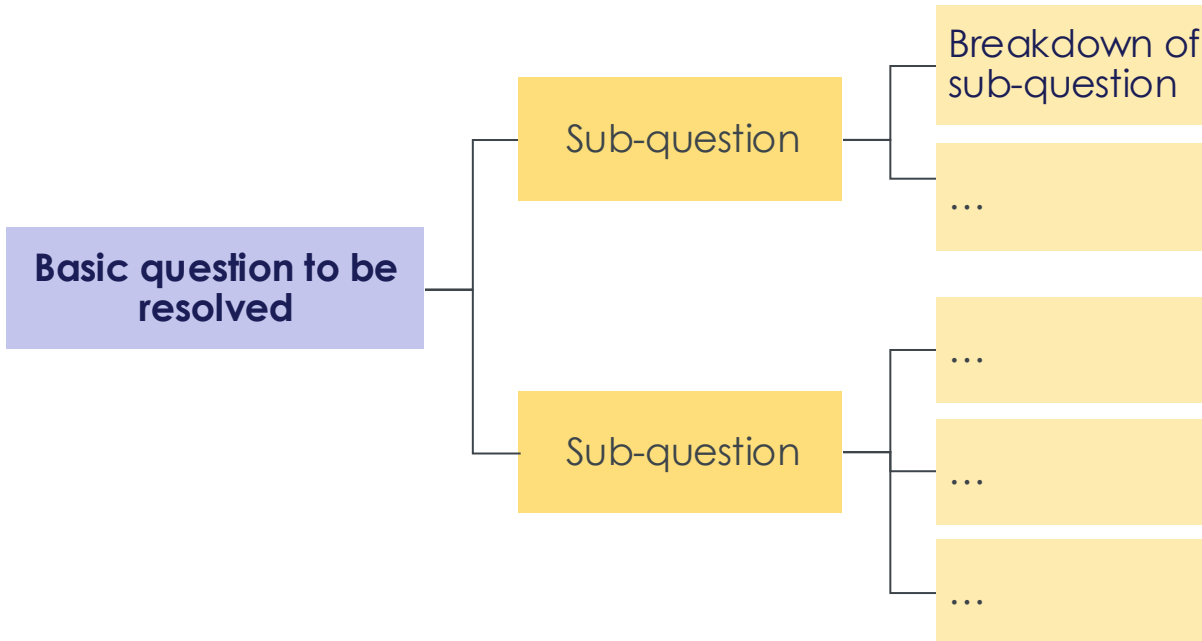
- How is this example stronger or more effective?
- How else could it be improved?
- Are the yellow boxes MECE?



Individually or in small groups, spend 20 minutes preparing an Issue Tree based on your own project or using one of the example questions

ACTIVITY: ISSUE TREE

20 minutes



1. Get to **individual tasks or workstreams** – experiments, qualitative and/or quantitative analysis, or research
2. Check that each level is **Mutually Exclusive & Collectively Exhaustive**
3. Keep **iterating**
4. There's **no right answer**

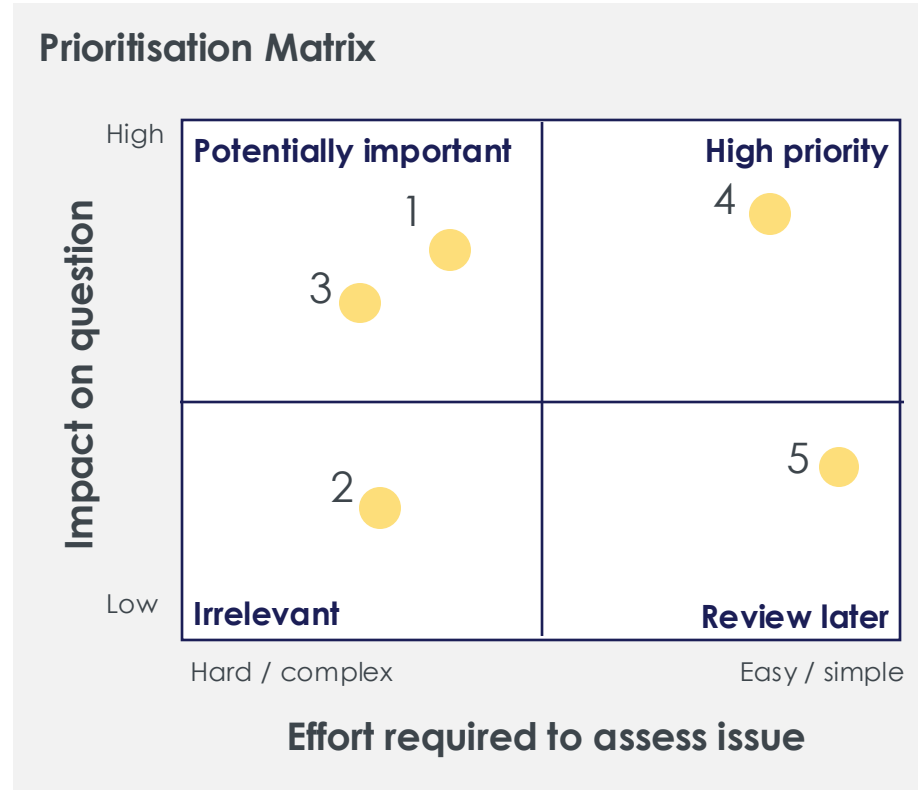
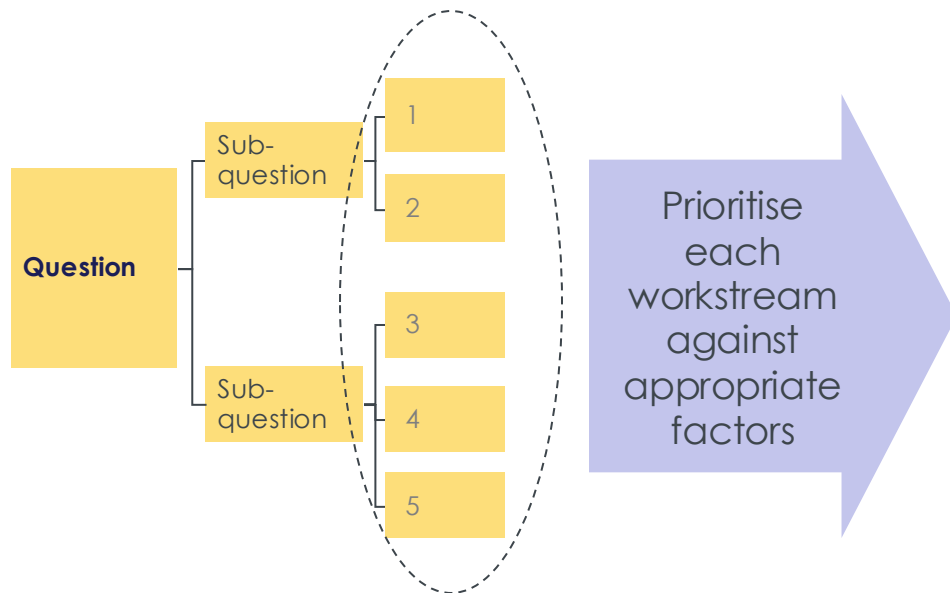
We will wrap up with sharing for 5 minutes as a whole group.

Example questions

- How can the Ministry of Justice reduce prison occupancy by 10% by December 2027?
- How can the Home Office ensure 80% of all passport applications are processed within one month by March 2028?
- How can Sunny South NHS Trust eliminate its >52 week waiting list by January 2027?

Depending on the complexity of your issue tree – and the capacity of your team – you may need to prioritise your workstreams

WORKSTREAM PRIORITISATION



- Use simple tests – don't do the project at this stage!
- Focus time on the simplest work that's likely to get to a 'good enough' answer that meets your success criteria
- Prioritise ruthlessly – be clear on what you're NOT doing, whether it's entire potential workstreams, or limiting the scope / activity within a workstream

Today's agenda

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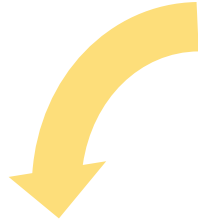
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Developing Insight: Hypothesis Trees

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Tool 2: Issue Tree

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Tool 3: Hypothesis tree

Testing your recommendation or hypothesised answer to the problem by structuring evidence

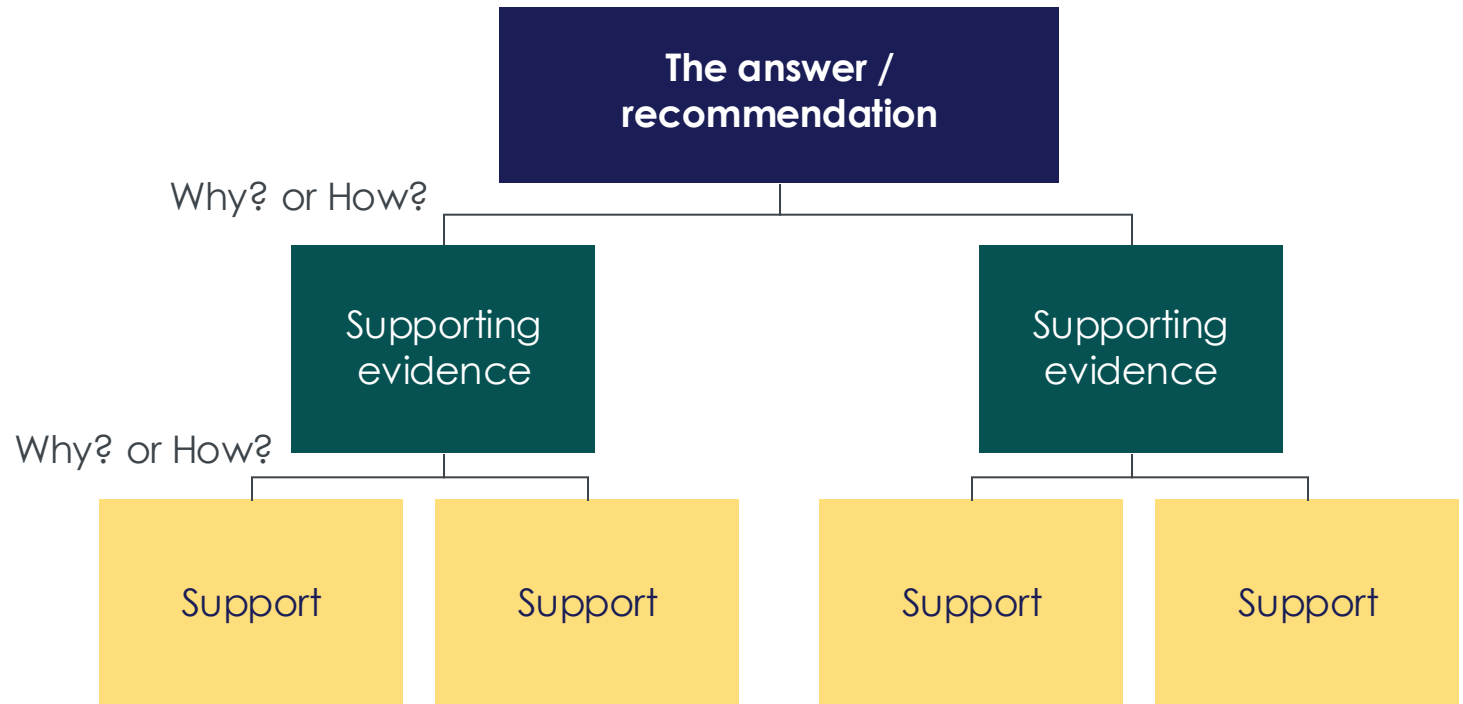
What is your recommended solution?

What evidence do you need to collect to prove or disprove this?

Hypothesis Trees help us order our thinking by proposing a likely answer to a question and laying out the supporting evidence

HYPOTHESIS TREES – INTRODUCTION

- Hypothesis trees are used to **help organise our thoughts** into answers or recommendations, and to lay out the **supporting evidence** for that answer
- They are especially useful when you have an **emerging hypothesis** but **incomplete or ambiguous evidence**
- The hypothesis tree helps you work out **what would need to be true to prove your hypothesis** – and exposes the **gaps in your logic** that need further work



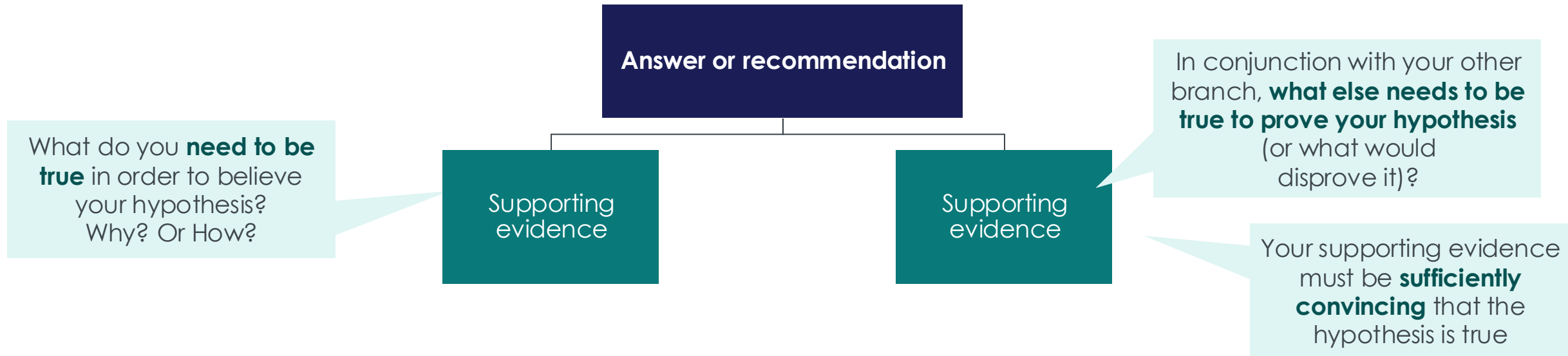
We develop a Hypothesis Tree by asking “Why do we believe this?” at each level until it’s self-evident or it is a statement you can test

DEVELOPING A HYPOTHESIS TREE



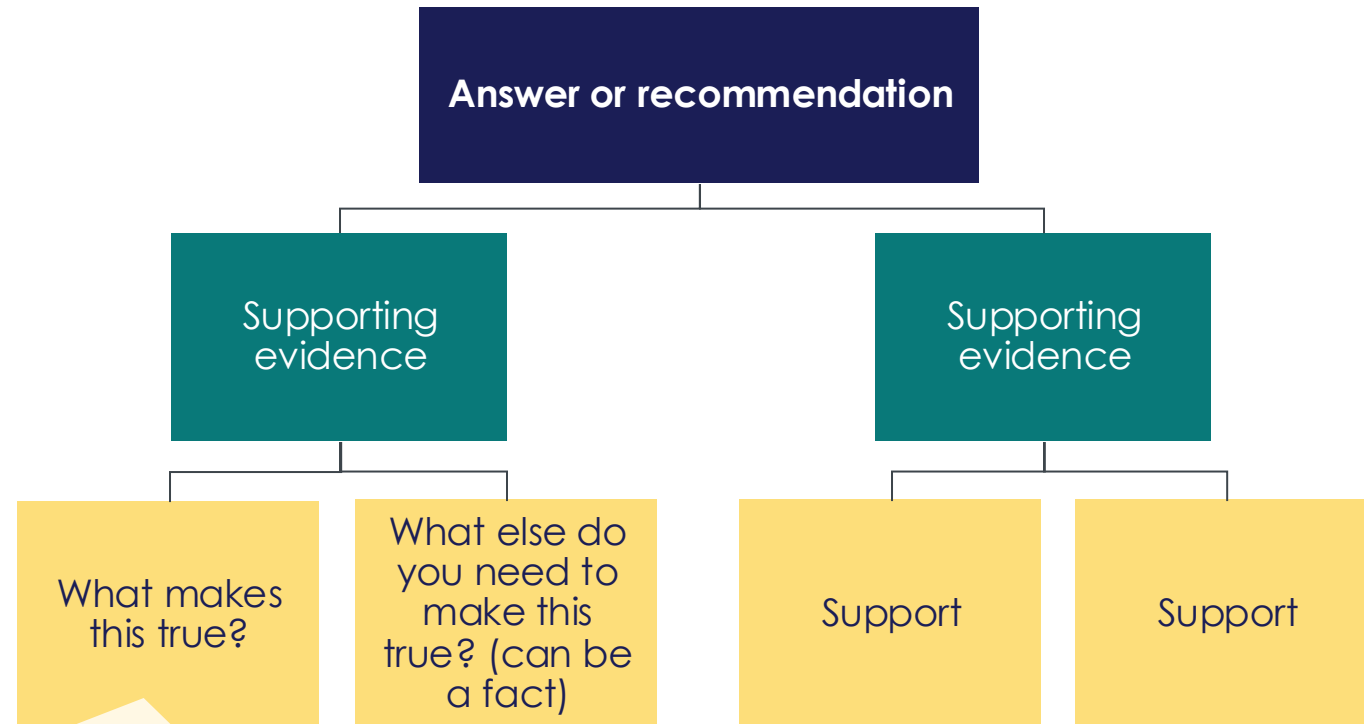
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DEVELOPING A HYPOTHESIS TREE



We develop a Hypothesis Tree by asking “Why do we believe this?” at each level until it’s self-evident or it is a statement you can test

DEVELOPING A HYPOTHESIS TREE



You know you've reached your lowest level when you are either **stating facts** that are self-evident, not opinion / drawn conclusions, or points which you are **planning to test** through your work

- Ideas at **any level** in the pyramid must always be a '**summary hypothesis**' based on the ideas grouped below
- Ideas in each grouping must always be the **same kind of idea**
- Ideas in each grouping must always be **logically ordered**

Question: what should we do this weekend?

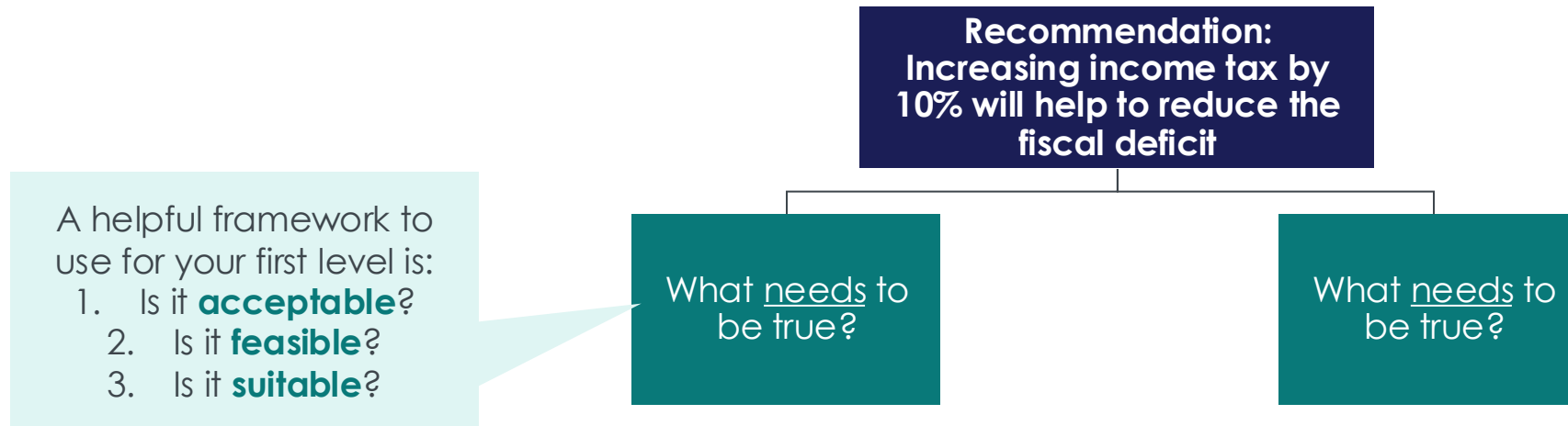
LIVE EXAMPLE

My current best guess is that we
should go to the beach this
weekend because...

```
graph TD; A[My current best guess is that we should go to the beach this weekend because...] --- B[ ]; A --- C[ ]; A --- D[ ]
```

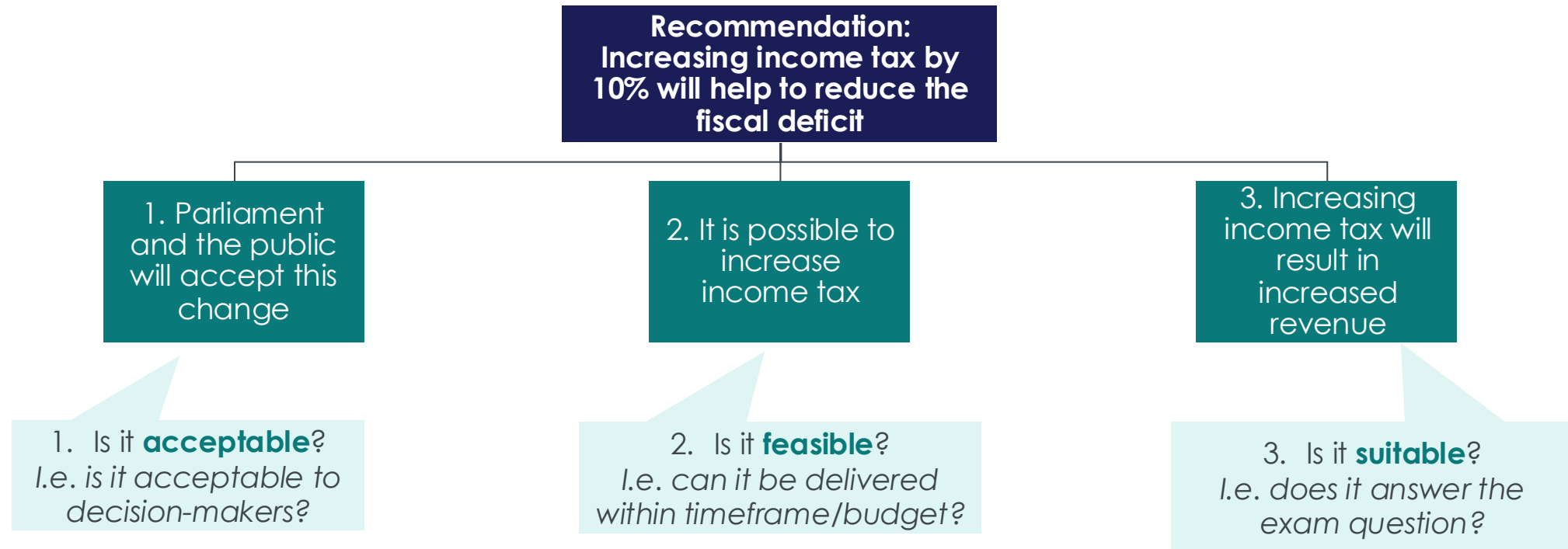
Illustrative example: Reducing fiscal deficit

DEVELOPING A HYPOTHESIS TREE – ILLUSTRATIVE EXAMPLE



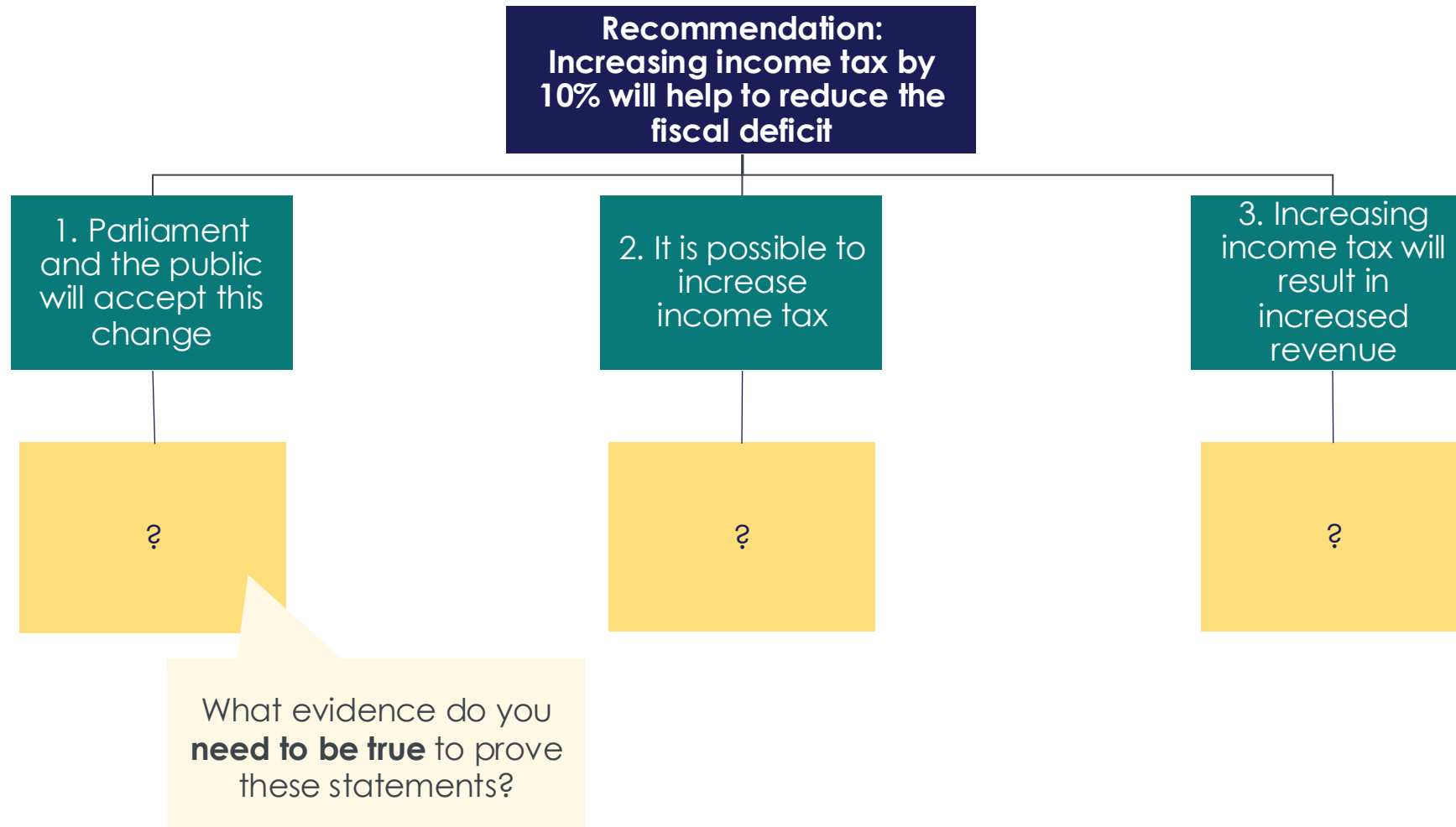
Illustrative example: Reducing fiscal deficit

DEVELOPING A HYPOTHESIS TREE – ILLUSTRATIVE EXAMPLE



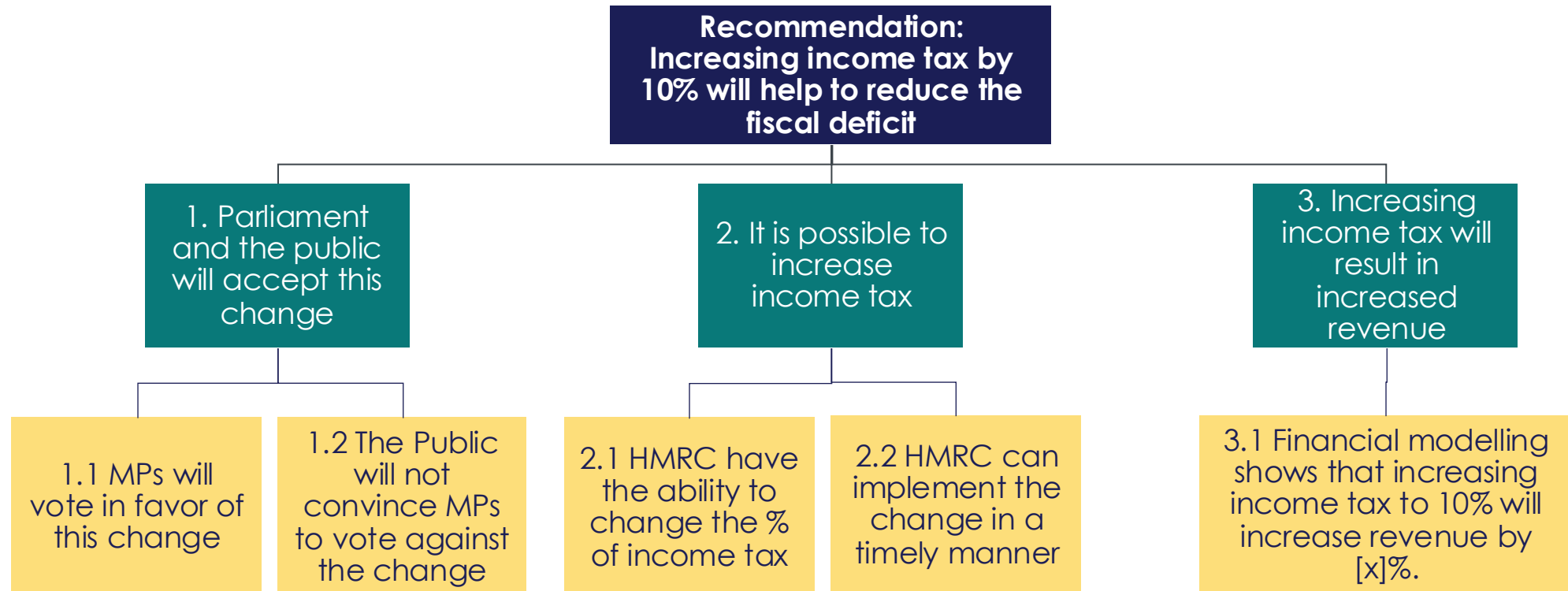
Illustrative example: Reducing fiscal deficit

DEVELOPING A HYPOTHESIS TREE – ILLUSTRATIVE EXAMPLE



Illustrative example: Reducing fiscal deficit

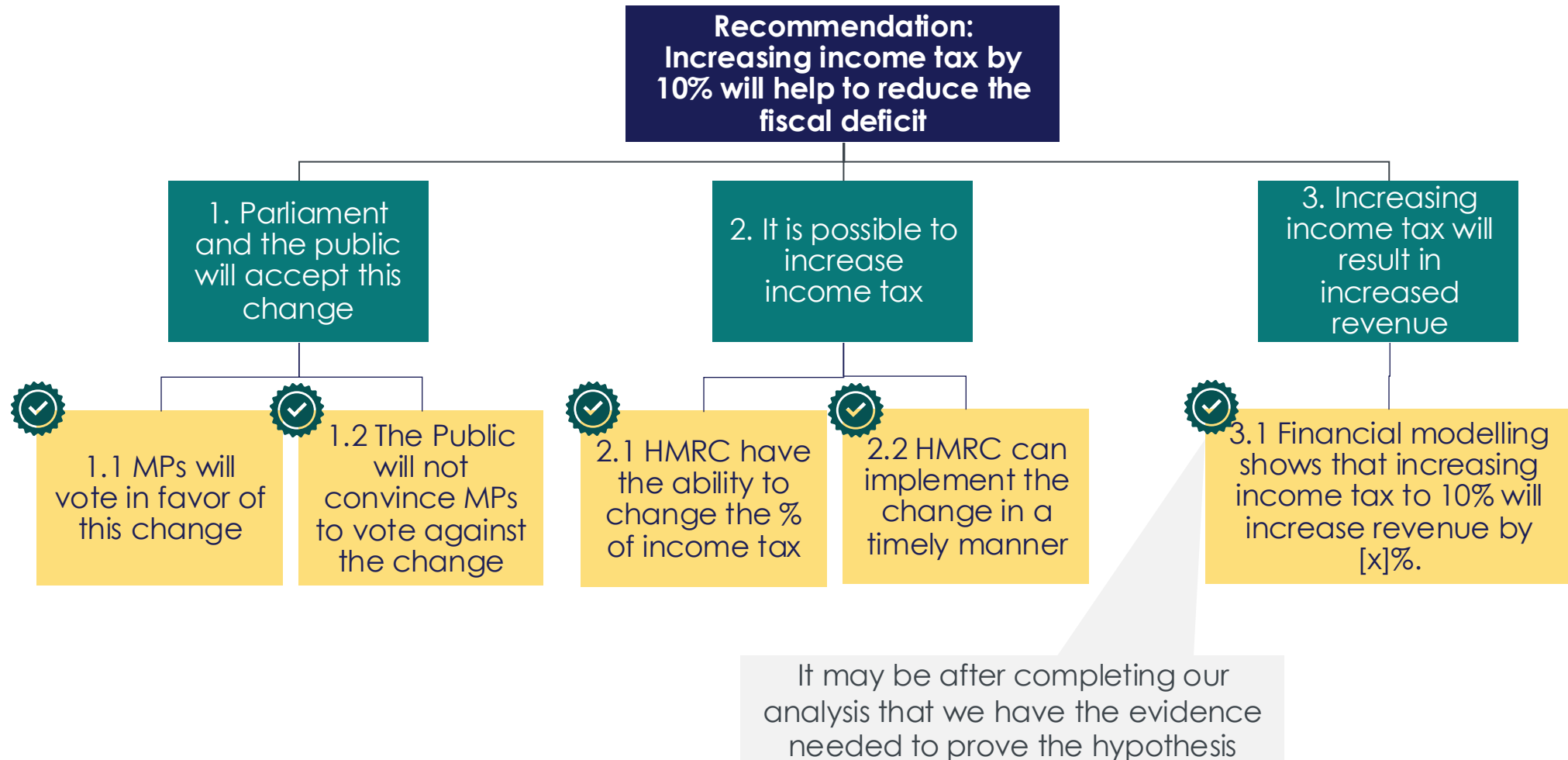
DEVELOPING A HYPOTHESIS TREE – ILLUSTRATIVE EXAMPLE



You would now need to answer: **Are these statements true?**
You would now go away and complete the required analysis to
either prove or disprove the statements

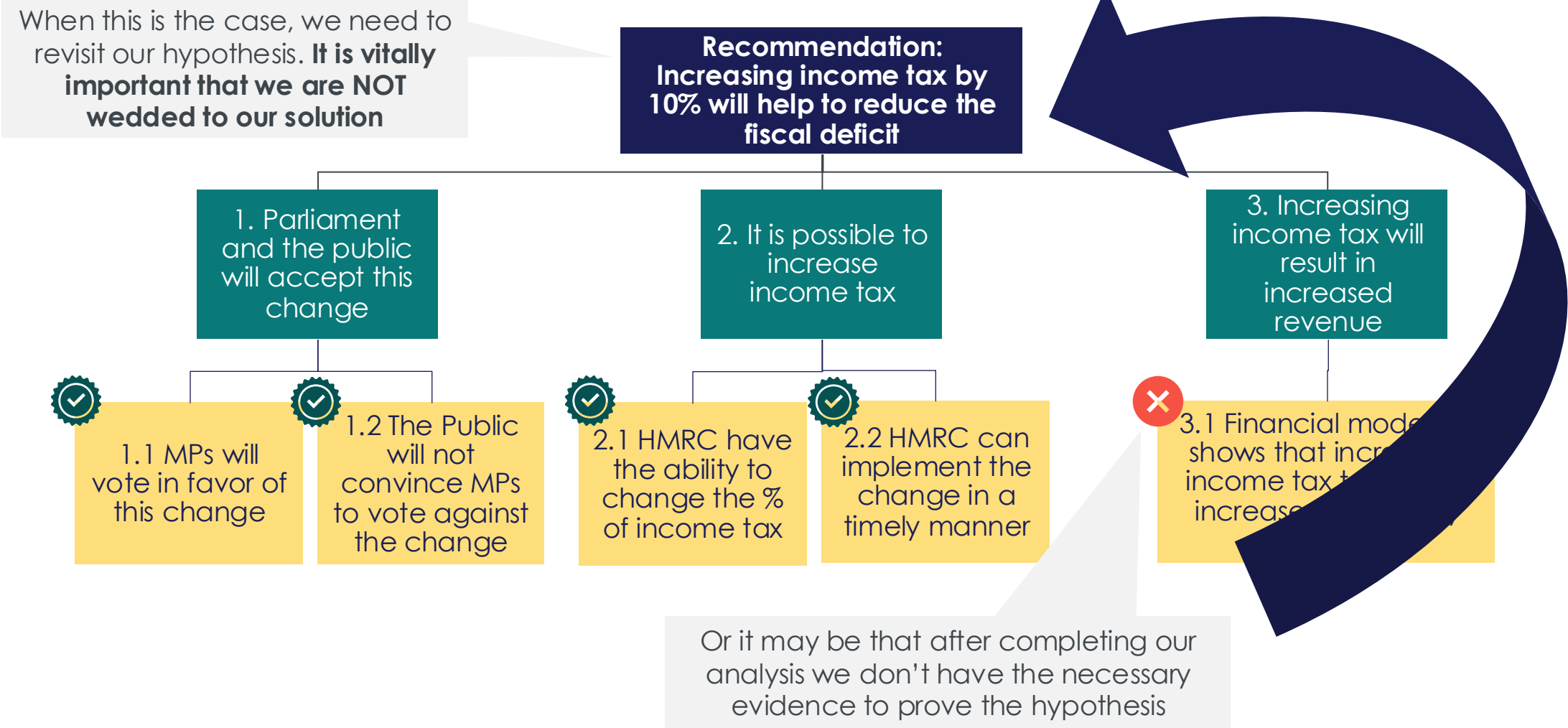
Illustrative example: Reducing fiscal deficit

DEVELOPING A HYPOTHESIS TREE – ILLUSTRATIVE EXAMPLE



Illustrative example: Reducing fiscal deficit

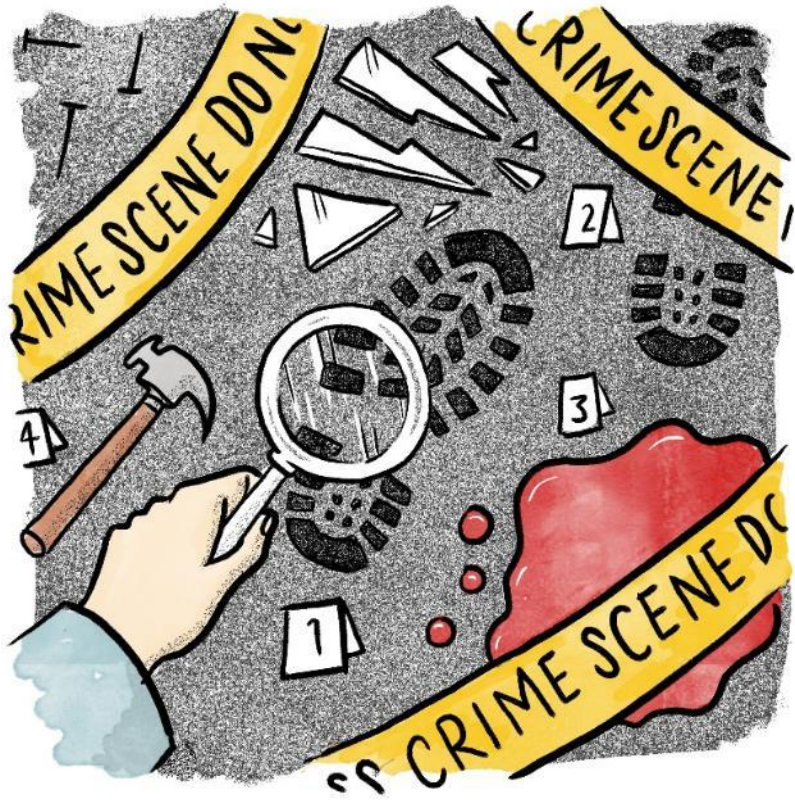
DEVELOPING A HYPOTHESIS TREE – ILLUSTRATIVE EXAMPLE



Hypothesis testing is common in many professions

HYPOTHESIS TESTING EXAMPLES

Hypothesis testing in criminal justice

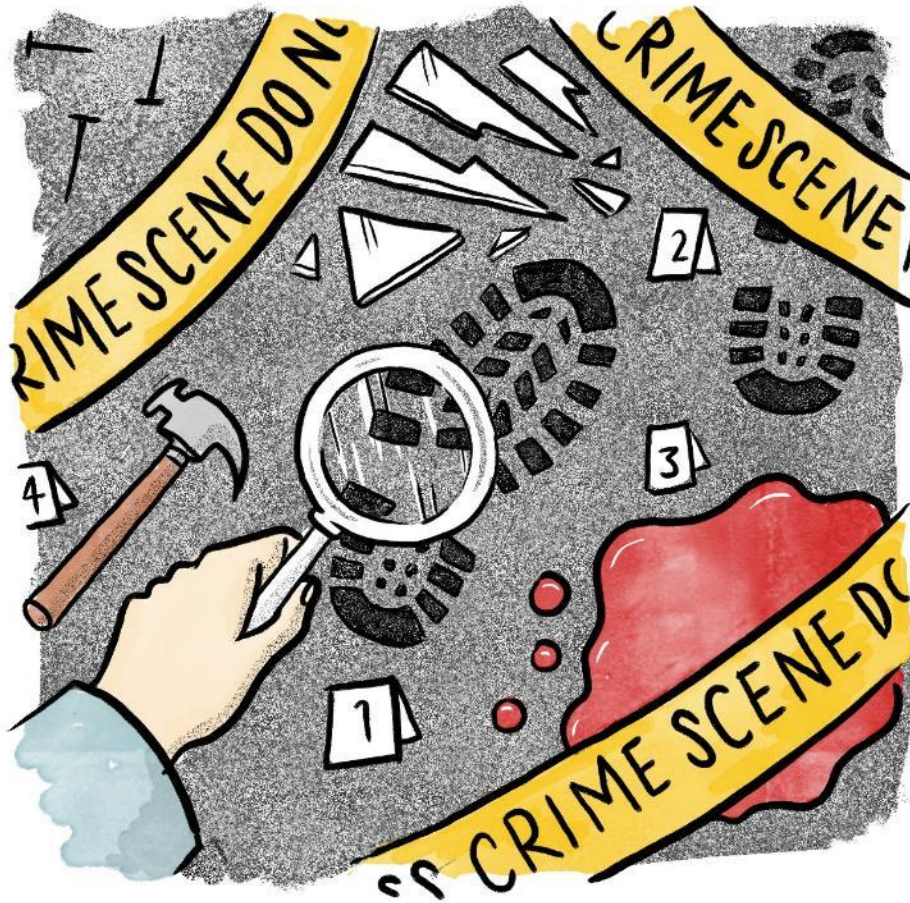


Hypothesis testing and medical diagnosis



How do criminal investigators use exhaustive vs hypothesis based processes?

EXAMPLE 1: HYPOTHESIS TESTING AND CRIMINAL JUSTICE



When investigating a crime, what steps do investigators take that are exhaustive, for example, not hypothesis-based)?

What steps do investigators take that are **hypothesis-based**?

Once hypotheses are formed, **how are these tested** in the criminal justice system?

How do GPs diagnose their patient's illness?

EXAMPLE 2: HYPOTHESIS TESTING AND MEDICAL DIAGNOSIS



A 50-year-old man sees this advert (left) and visits his GP, stating that he has a cough that he has had for more than 3 weeks, and that he is worried that it is not getting better

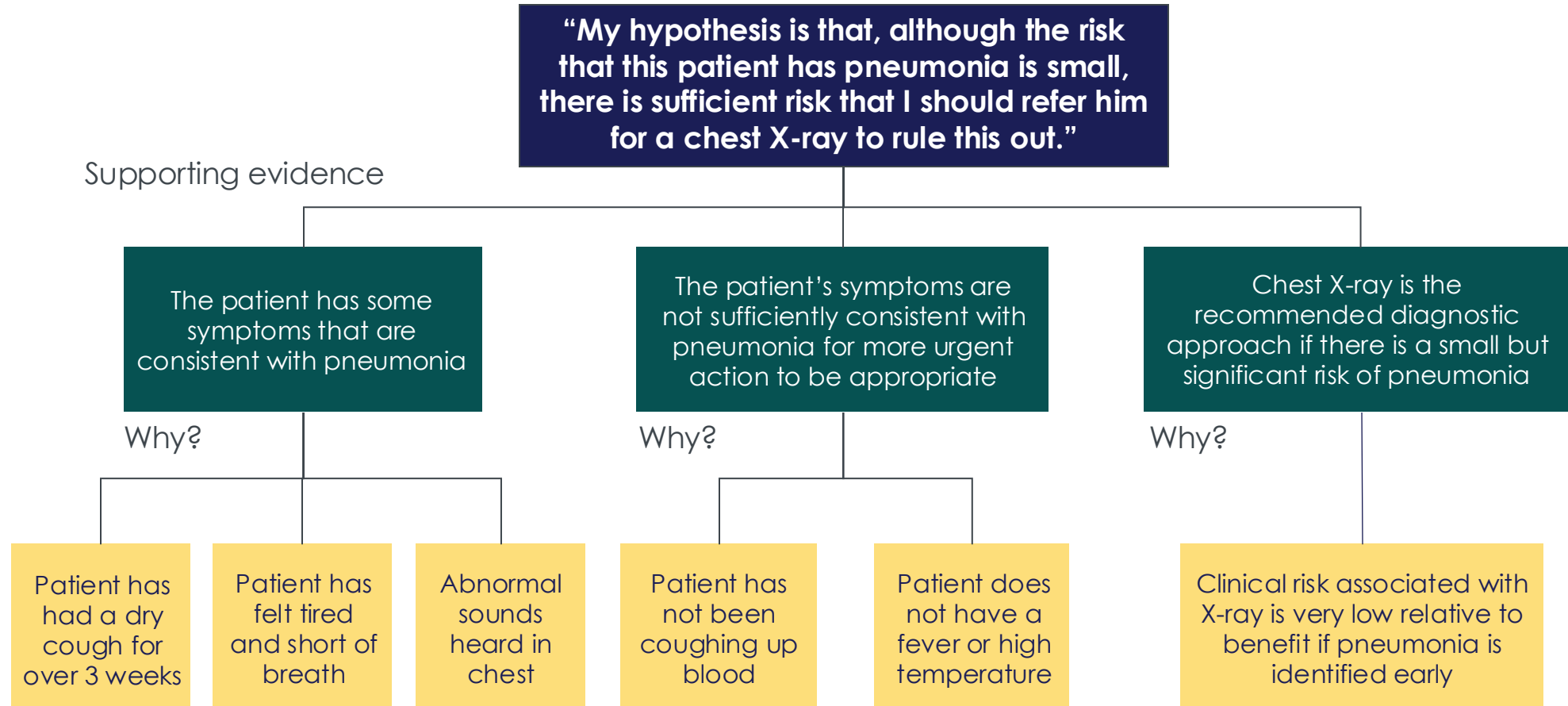
How might the GP **diagnose the cause** of the problem?

What hypotheses might the GP test, and how might they **test these**?



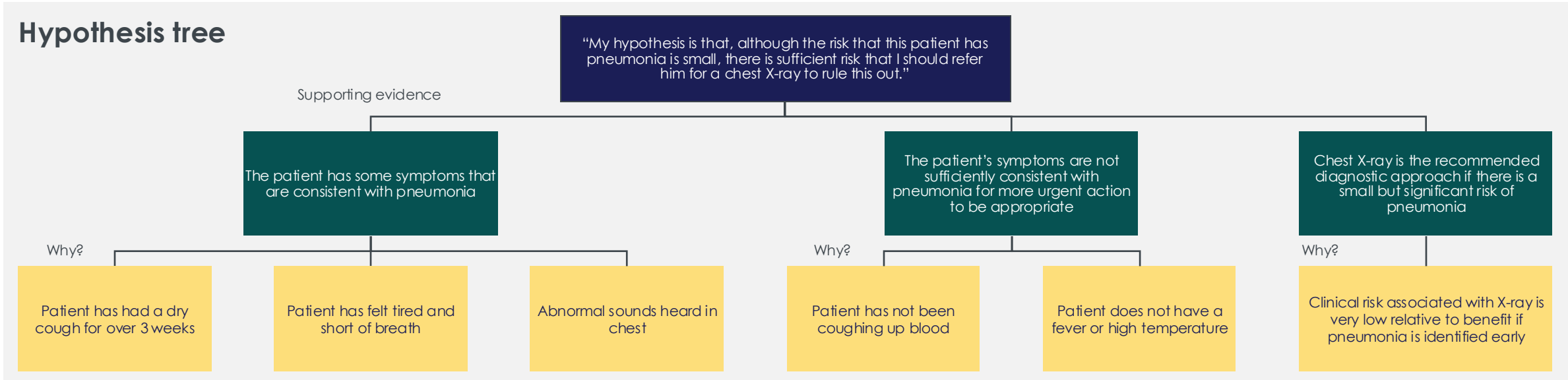
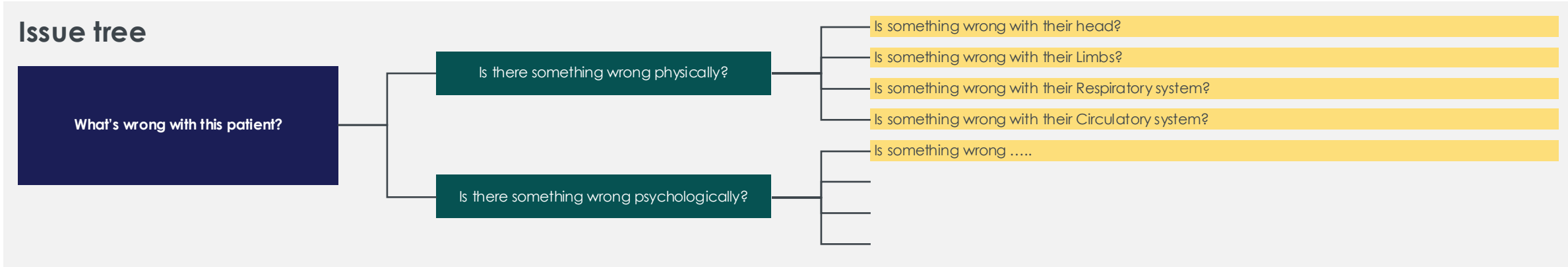
The GP can use a Hypothesis Tree to rule out an unlikely (but serious) diagnosis

HYPOTHESIS EXAMPLE: MEDICAL DIAGNOSIS RISK



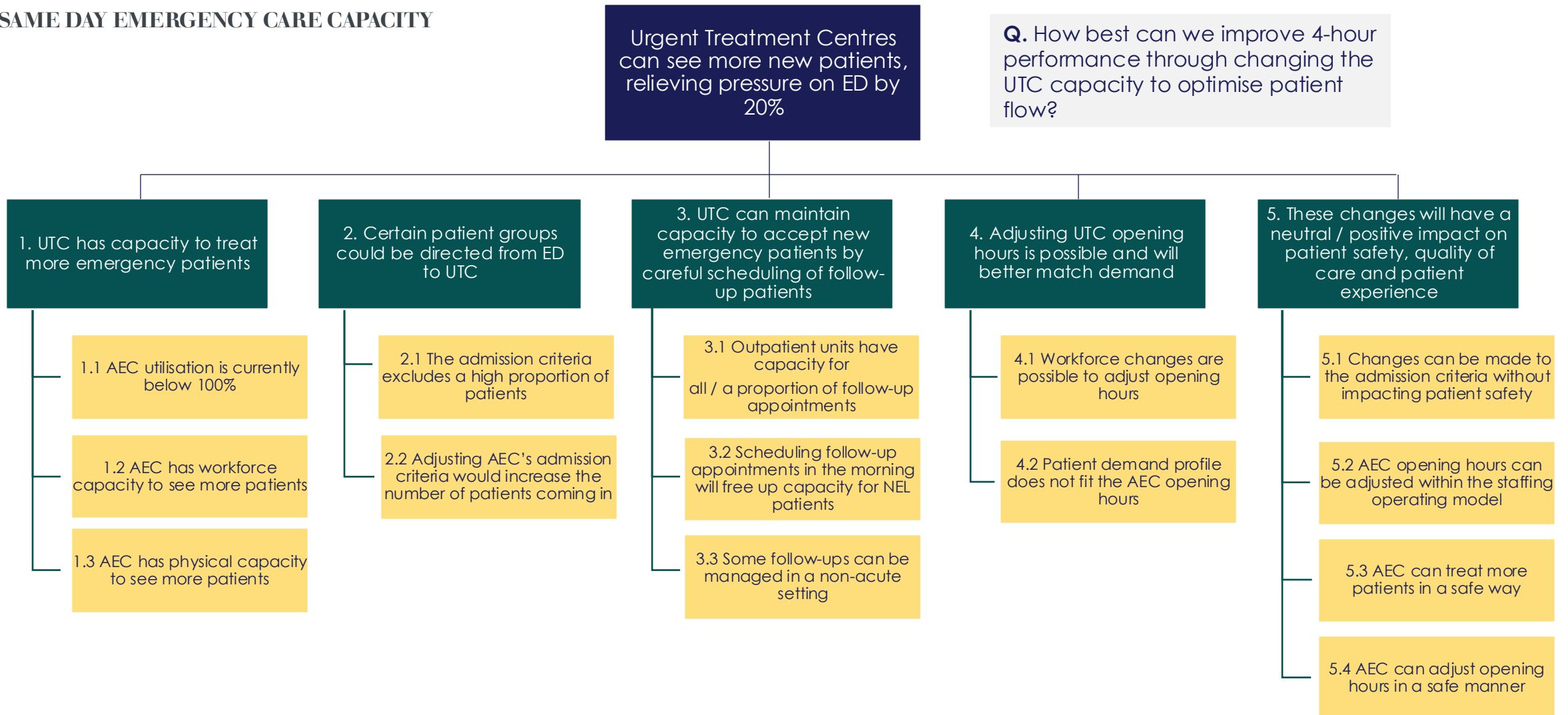
Using purely an issue tree on its own would take more time and effort than using a hypothesis based approach

ISSUE VS HYPOTHESIS TREES: MEDICAL EXAMPLE



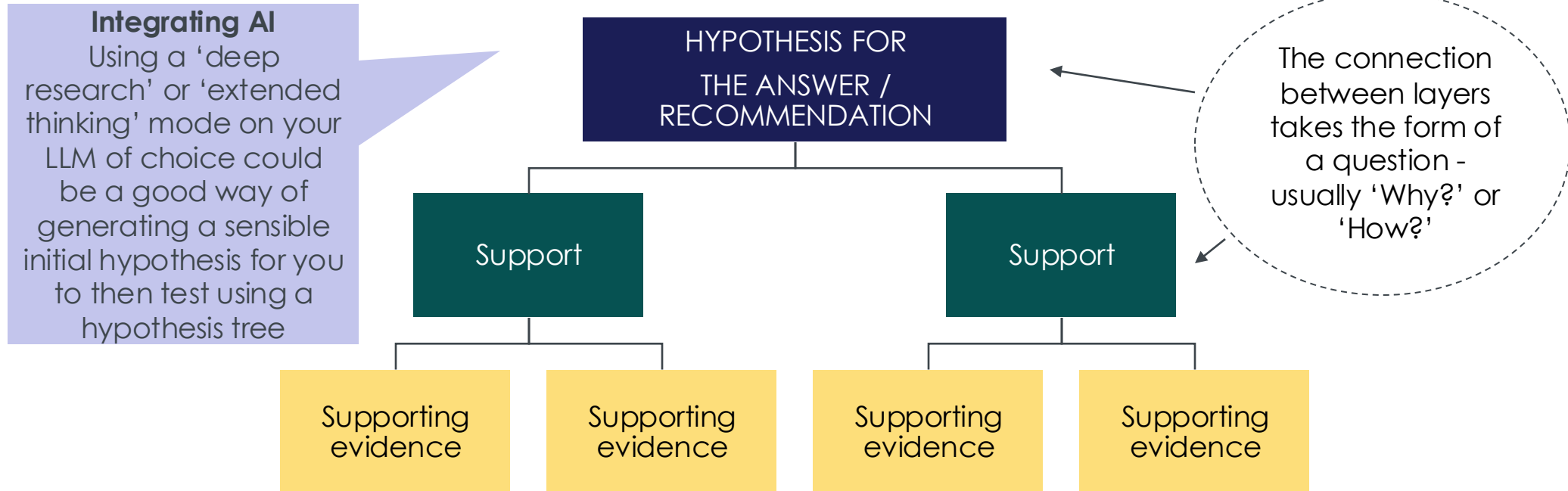
Hypothesis Trees can structure and support answers to strategic and policy questions

SAME DAY EMERGENCY CARE CAPACITY



Recap: How to structure a hypothesis tree

HYPOTHESIS TREES - INTRODUCTION

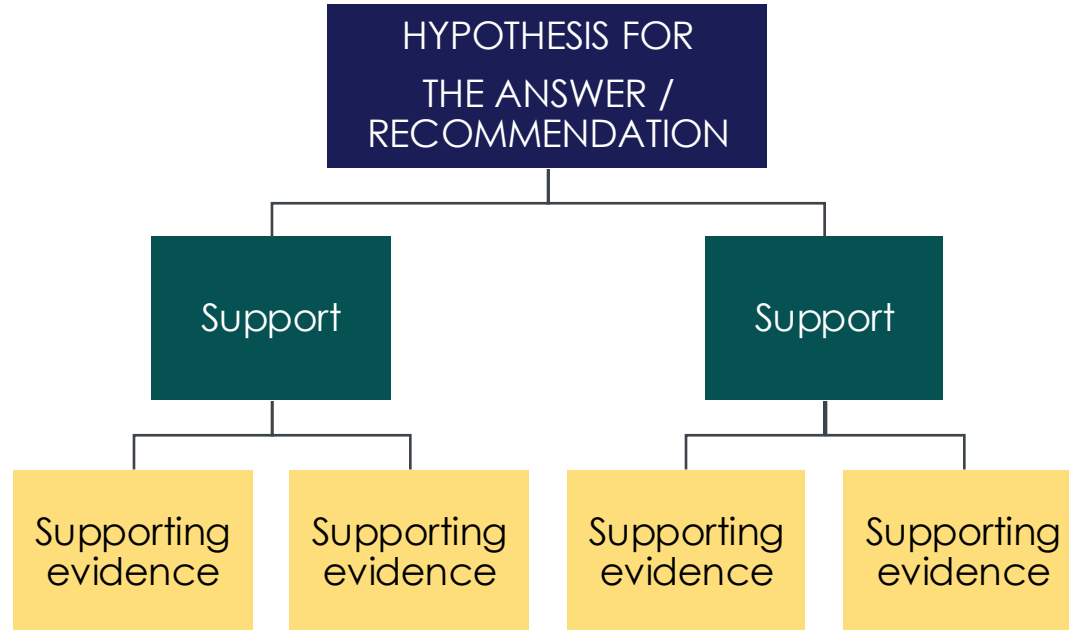


1. Ideas at any level in the pyramid must always be summaries of the ideas grouped below
2. Ideas in each grouping must always be the same kind of idea
3. Ideas in each grouping must always be logically ordered

Individually or in small groups, spend 20 minutes preparing a Hypothesis Tree based on your own project or in-response to one of our example questions

ACTIVITY: HYPOTHESIS TREE

20 minutes



1. You can start **top down** by proposing a solution and assembling facts to support it.
2. Or you work **bottom up** by grouping facts and asking: "What does this mean for my question?"
3. At the early stages in a project, a Hypothesis Tree is simply to guide analysis more efficiently than randomly seeking data. **It does not have to be correct.** Being able to disprove a hypothesis and move on is a success.

We will wrap up with sharing for 5 minutes as a whole group.

Example questions

- How can the Ministry of Justice reduce prison occupancy by 10% by December 2027?
- How can the Home Office ensure 80% of all passport applications are processed within one month by March 2028?
- How can Sunny South NHS Trust eliminate its >52 week waiting list by January 2027?

Hypothesis Trees are used throughout the problem-solving cycle and they become more certain as more analysis is completed

HYPOTHESIS TREES THROUGHOUT THE PROBLEM-SOLVING CYCLE

Early planning and setup

During problem-solving

Final recommendations

Purpose:

- Guide analysis more efficiently than randomly seeking data
- Disprove some hypotheses and develop new ideas to test
- Synthesise your findings and communicate to stakeholders

Usage:

- Structure your project workstreams, by understanding what an answer might look like
- Make sure the project analyses test the supporting arguments
- Communicate why previous ideas have been disproved
- Scope additional analyses needed to test new ideas
- Bring together your findings into a structure recommendation based on robust analysis

Evolution:

- Trees do NOT have to be correct at this stage – they are only designed to give you an efficient way to analyse information
- Being able to disprove a hypothesis and move on is a success
- Your tree is becoming more confirmed at this stage
- Your tree is now confirmed and is designed to make your supporting evidence transparent

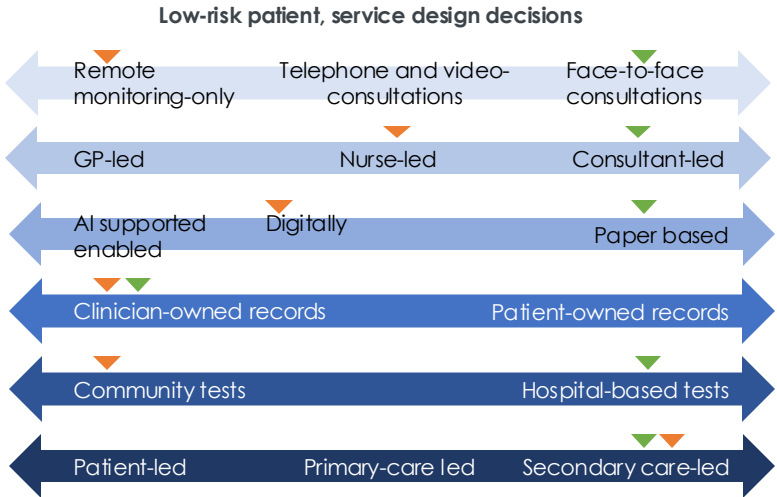
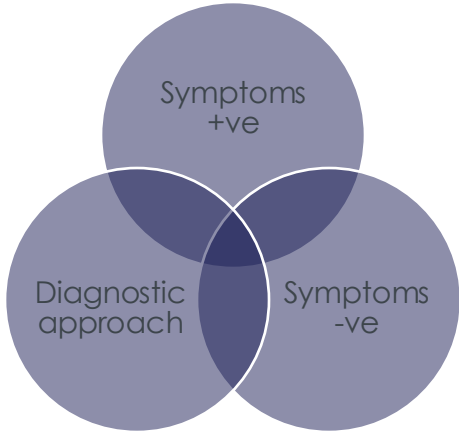
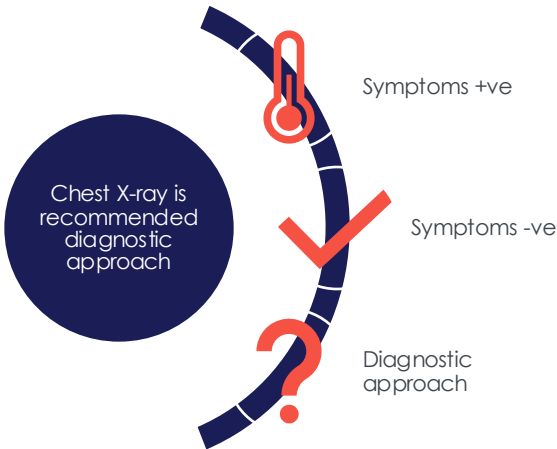
Whilst the concept of a Hypothesis Tree is a pyramid structure for communicating with others, they can be simple dot-dash lists, visual-lists or fully visual diagrams with varying levels of detail

HIDDEN HYPOTHESIS TREES

My hypothesis is that, although the risk that this patient has asthma is small, there is sufficient risk that I should refer him for a chest X-ray to rule this out.

- The patient has some symptoms that are consistent with asthma
 - Patient has had cough for more than 3 weeks
 - Patient says that he has recently lost weight
 - Patient's age (50) elevates the risk
- The patient's symptoms are not sufficiently consistent with asthma for more urgent action to be appropriate
 - Patient has not been coughing up blood
 - Patient has recently had a respiratory infection
- Chest X-ray is the recommended diagnostic approach if there is a small but significant risk of asthma
 - Clinical risk associated with X-ray is very low relative to benefit if asthma is identified

My hypothesis is that, although the risk that this patient has asthma is small, there is sufficient risk that I should refer him for a chest X-ray to rule this out.	The patient has some symptoms that are consistent with asthma	▪ Patient has had cough for more than 3 weeks ▪ Patient says that he has recently lost weight ▪ Patient's age (50) elevates the risk
	The patient's symptoms are not sufficiently consistent with asthma for more urgent action to be appropriate	▪ Patient has not been coughing up blood ▪ Patient has recently had a respiratory infection
	Chest X-ray is the recommended diagnostic approach if there is a small but significant risk of asthma	▪ Clinical risk associated with X-ray is very low relative to benefit if asthma is identified



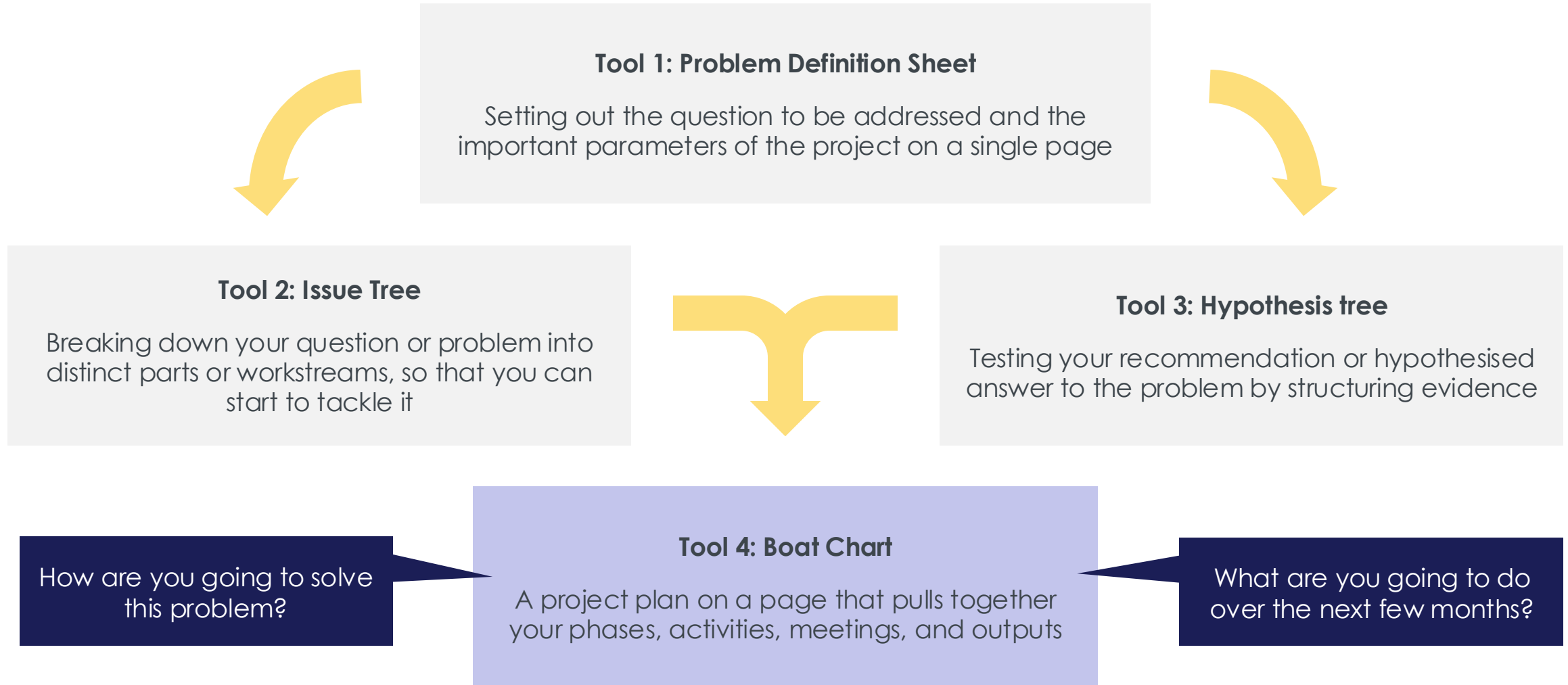
Today's agenda

PART ONE

Section	Time
Introduction	09:30
Tool 1: Problem Definition Sheet	09:50
<i>Break</i>	10:30
Tool 2: Issue Trees	10:45
Tool 3: Hypothesis Trees – part A	11:35
<i>Break</i>	12:00
Tool 3: Hypothesis Trees – part B	12:30
Tool 4: Boat Chart work planning	12:55
Reflection and wrap up	13:35

Planning the work: Boat Chart workplans and prioritising

What tools will we learn about today and how will they help to solve your policy problem?



You will need to decide whether a waterfall- or agile-style delivery approach will best meet your needs before planning

WATERFALL-STYLE DELIVERY

- Work is **planned in detail upfront**
- Delivery happens in **clear, sequential stages**
- Plans are relatively stable, with change managed through formal controls
- Progress is tracked against the agreed plan and milestones
- Best suited to **well-understood problems** where requirements are unlikely to change.

AGILE-STYLE DELIVERY

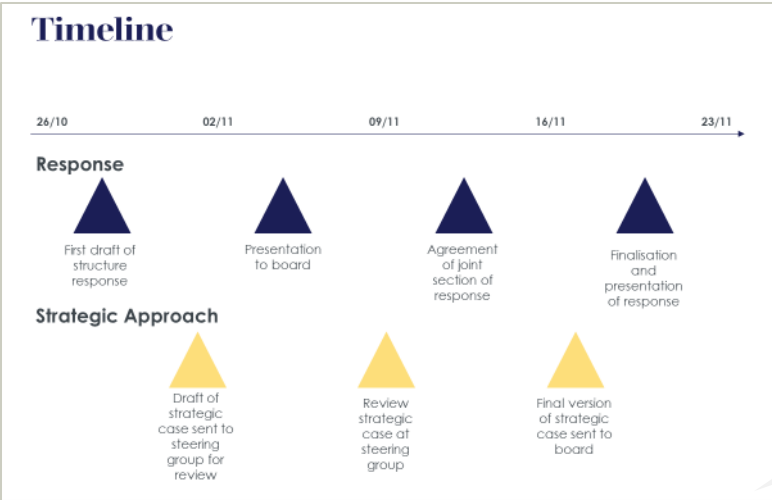
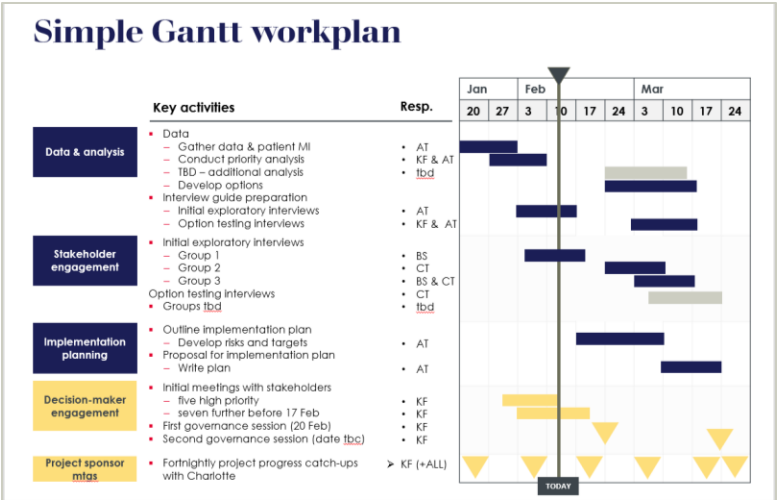
- Work is planned at a **high level** initially
- Detail is added iteratively – **in the open** – as delivery progresses
- Work is delivered in **short cycles**, with frequent review and adjustment
- Plans are expected to change as learning emerges
- Best suited to **complex or uncertain problems** where early feedback is valuable

A boat chart – or project plan on a page – is often a sufficiently detailed workplan for agile-style projects, and a useful project summary for waterfall-style projects

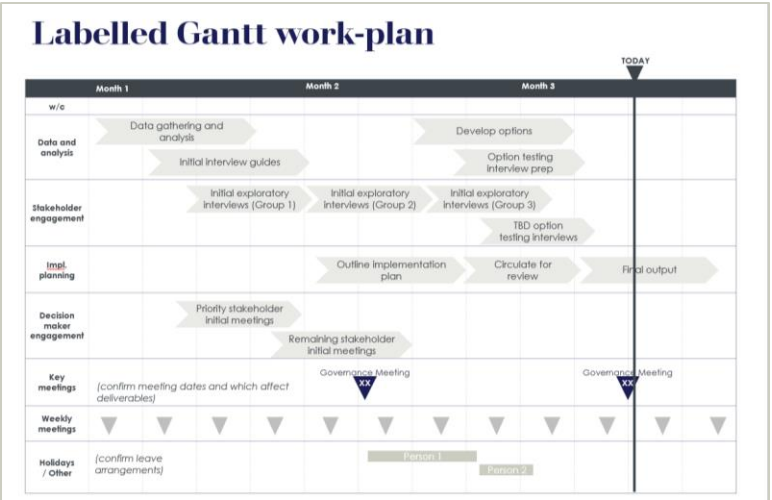
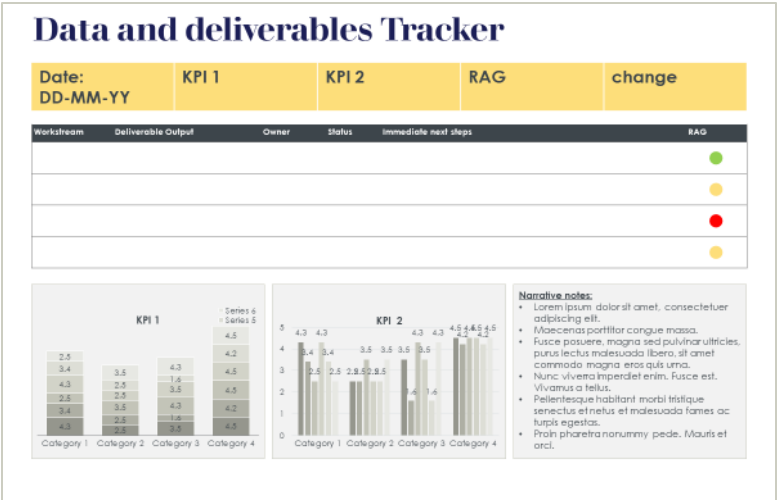
EXAMPLE ‘BOAT CHART’ PROJECT WORKPLAN

	September	October	November	December	January	
	Stage 1: Set-Up		Stage 2: Diagnosis and Option Development		Stage 3: Option Development and Review	Stage 4: Recommendations and Report Development
Estimated Duration	1-2 weeks		~1.5 months		~1 month	2-3 weeks
Key activities	- Understand context - Establish team working relationships - Identify key stakeholders - Put in data requests - Set up interviews / fieldwork		- Conduct interviews with key stakeholder groups (see separate slide for initial list) - Gather data and patient MI - Determine analytical priorities and conduct analyses		- Collate and review findings - Conduct follow-up interviews as appropriate	- Share recommendations - Work with Steering Group to: – Influence key decision-makers – Develop outline action plan for implementation
Key meetings	- First Steering Group meeting - Kick off working team meeting		- Workshop to test and improve initial findings (October 21) - Steering Group (first week of November)		- Workshop to develop options (early November) - Steering Groups (first week December)	- Final Steering Group (last week December) - Workshop improve options and agree recommendations (second week December)
End products	- List of interviewees / fieldwork - Interview guides - Data request		Initial findings report diagnosing strategic challenges		- Emerging recommendations report, including: – Interim list of options, with associated financial impact – SWOT analysis / risk assessment of delivering each option	Final report
TIP: Start from the bottom right, then work up and across!						

More detailed workplans may be required for the different stages of your project if using a waterfall-style approach, but not always



Regardless of whether you are applying a waterfall- or agile-style approach, **aim to use the minimum / simplest format necessary for planning and monitoring your project work**



Individually or in small groups, spend 20 minutes preparing a Boat Chart workplan for your project

ACTIVITY: BOAT CHART

20 minutes

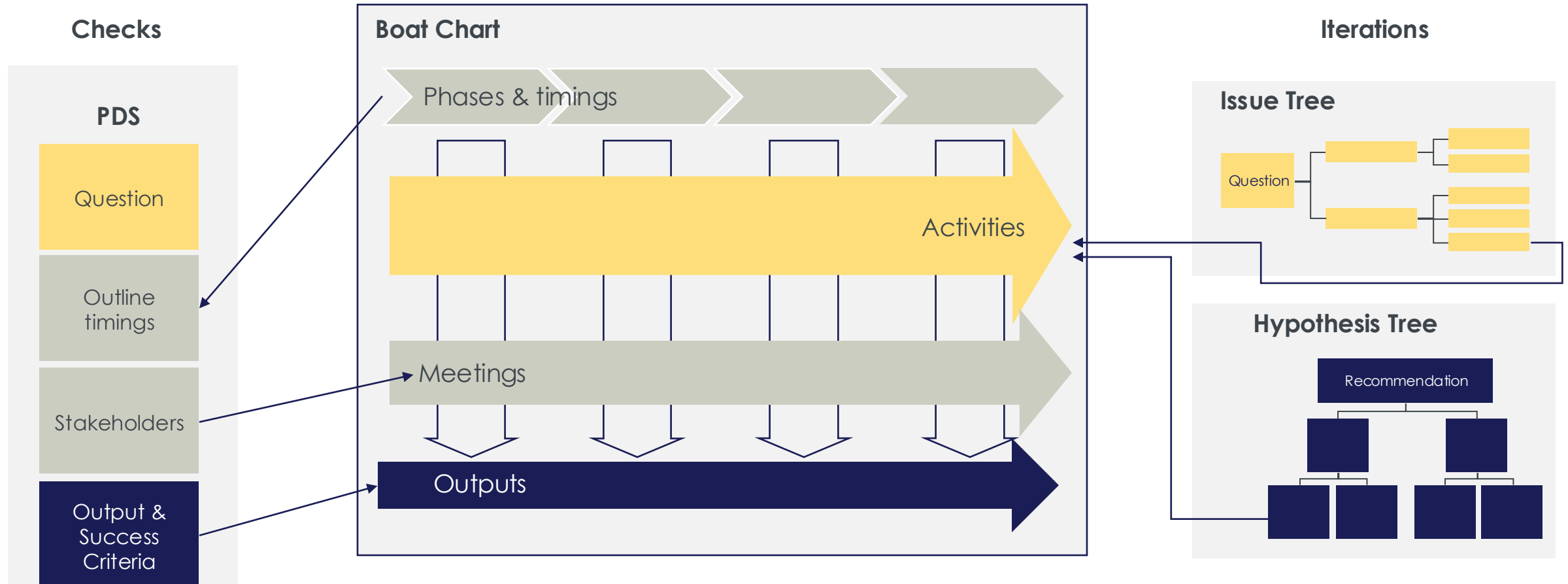
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Remember to work (or at least check) from right to left and bottom to top.

We will wrap up with sharing for 5 minutes as a whole group.

To plan to solve your problem, check your plan against your PDS, and iterate it with your tree(s) as you evolve your hypothesis – so you focus on the most useful activities

THE PLANNING CYCLE



Today's agenda

PART ONE

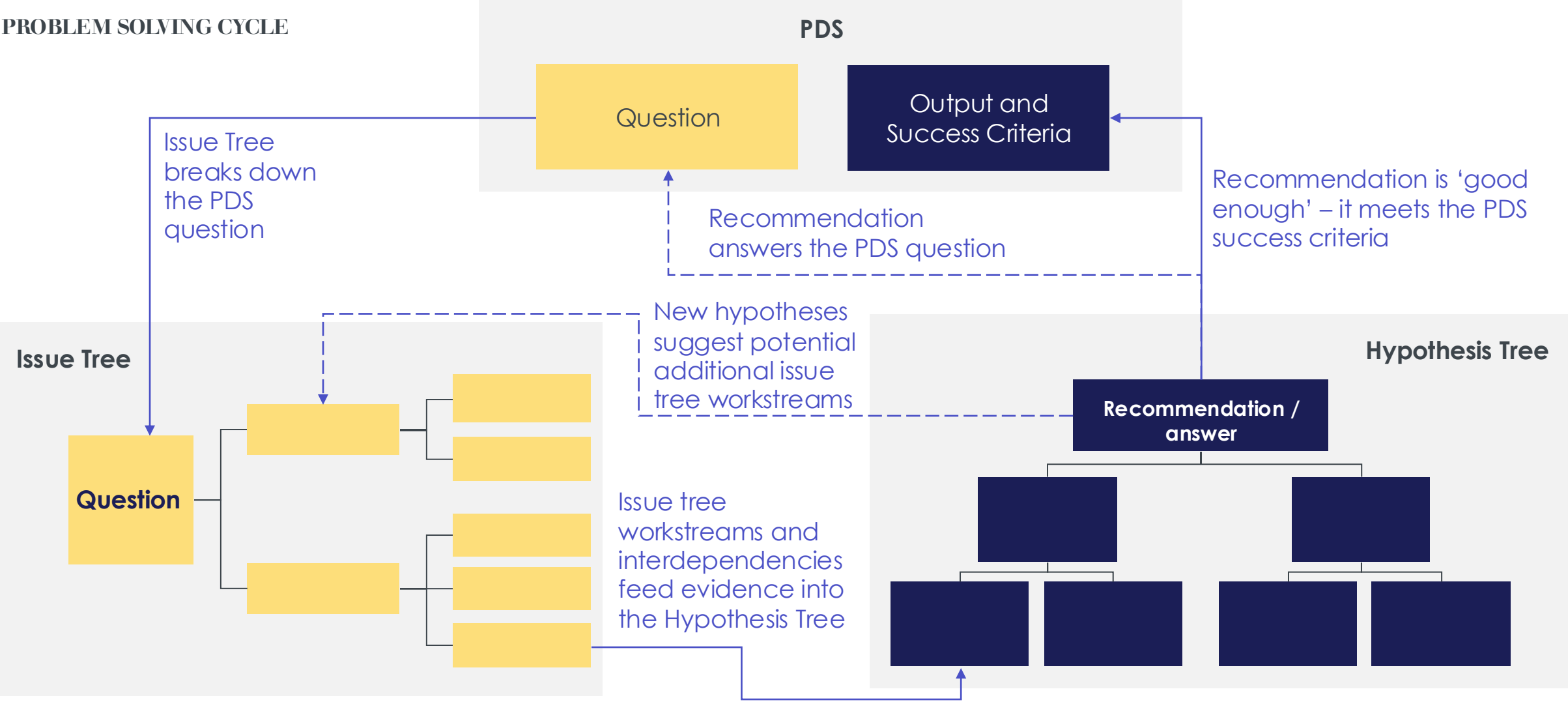
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Review & Reflect

Problem Structuring & Analytical Thinking

The tools are 'live' and iterate over time between each other

PROBLEM SOLVING CYCLE



Before you go home...

END OF PART ONE TASKS

Please share

- One memorable tool or insight from today's training
- One outstanding question, tool, or area you would like to revisit during Part Two

Before we finish...

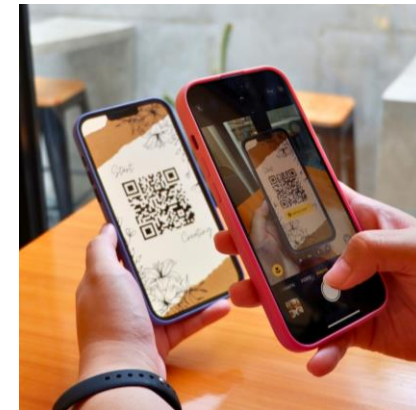
END OF PART 1 SURVEY

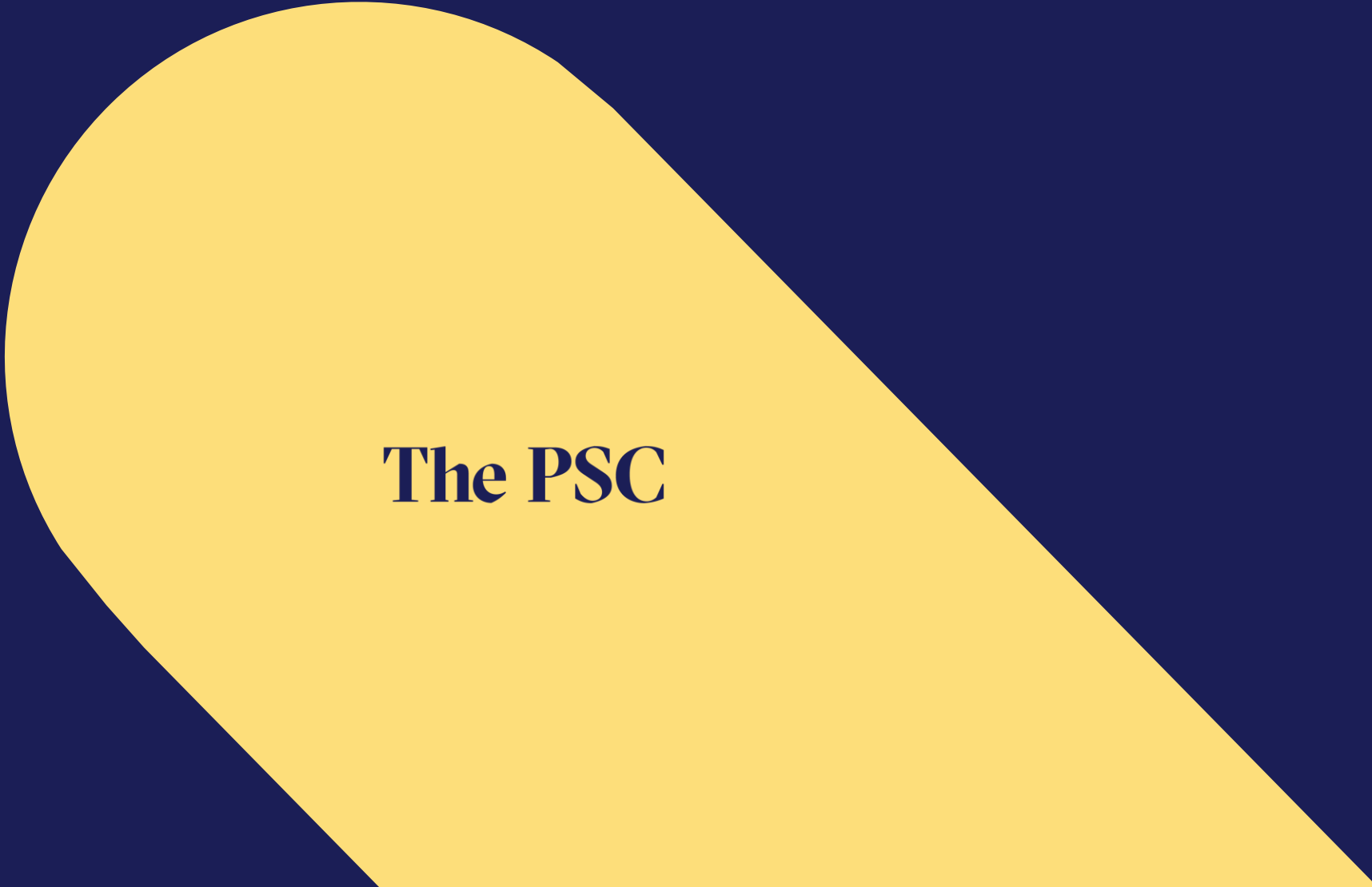
Complete the following feedback form to rate your confidence with different elements of project work and provide feedback on this training session.

- **Link to post-course survey:** <https://forms.office.com/e/WJFJpRbDRi>
- **Name of this course:** Problem Structuring and Analytical Thinking – **Part 1**
- **You can also follow the QR code** below to access the form:



You can scan the QR code with a **mobile device camera** to access the form





The PSC