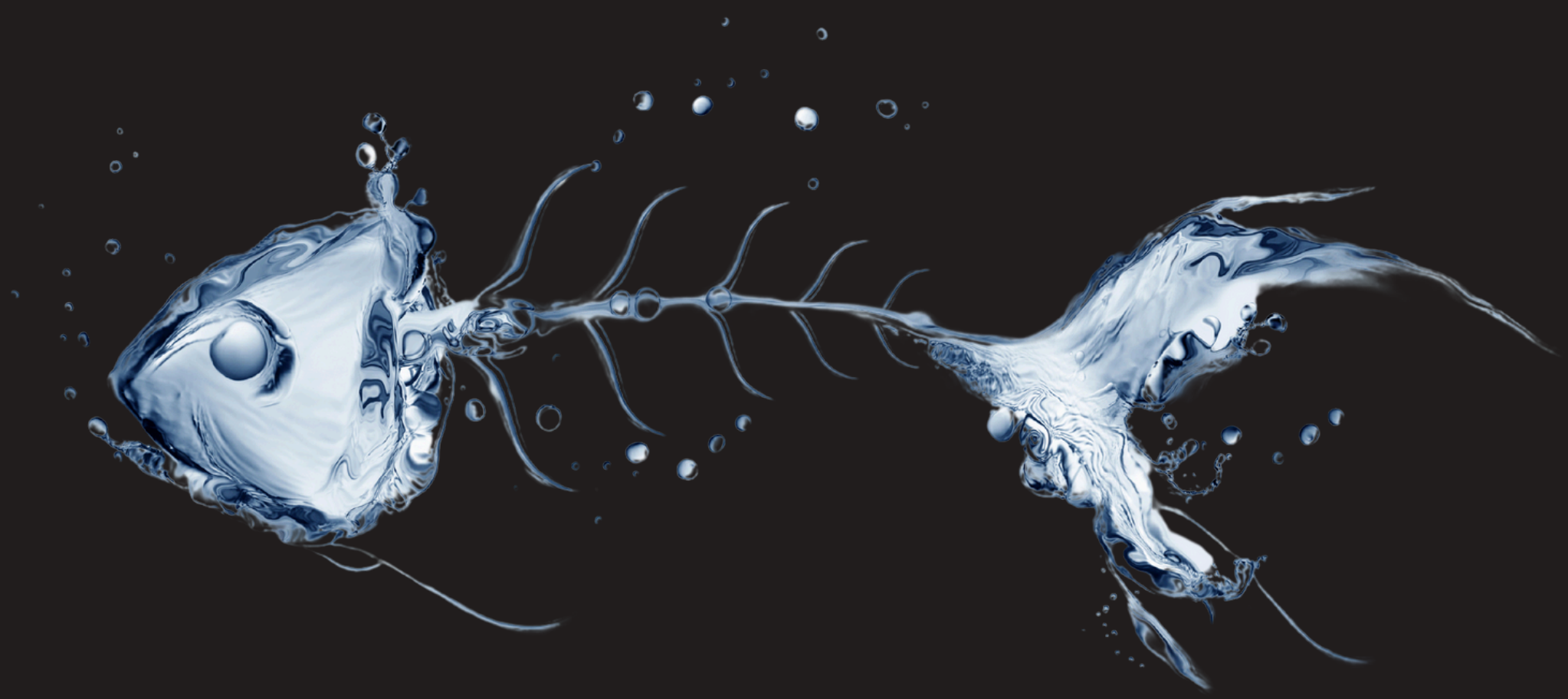
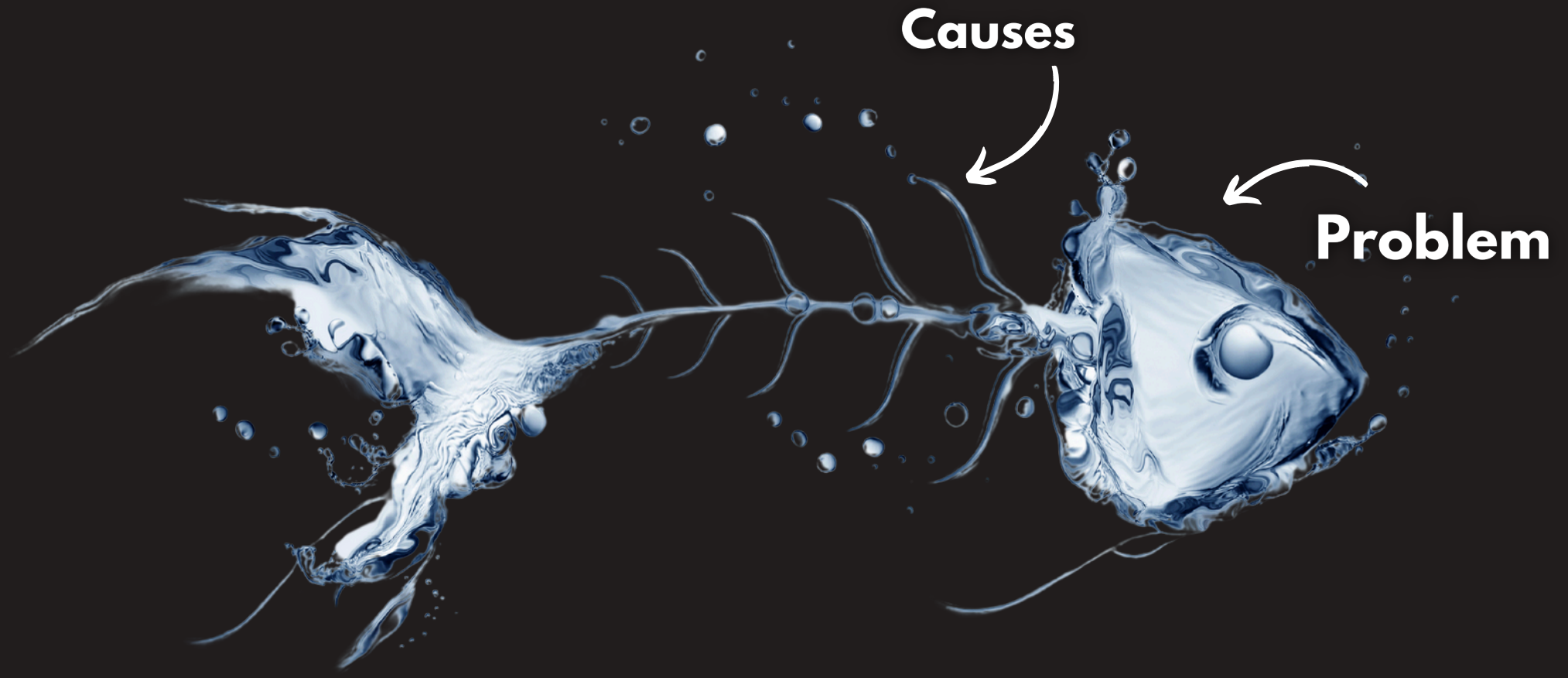
FISHBONE DIAGRAM



A VISUAL GUIDE TO PROBLEM SOLVING

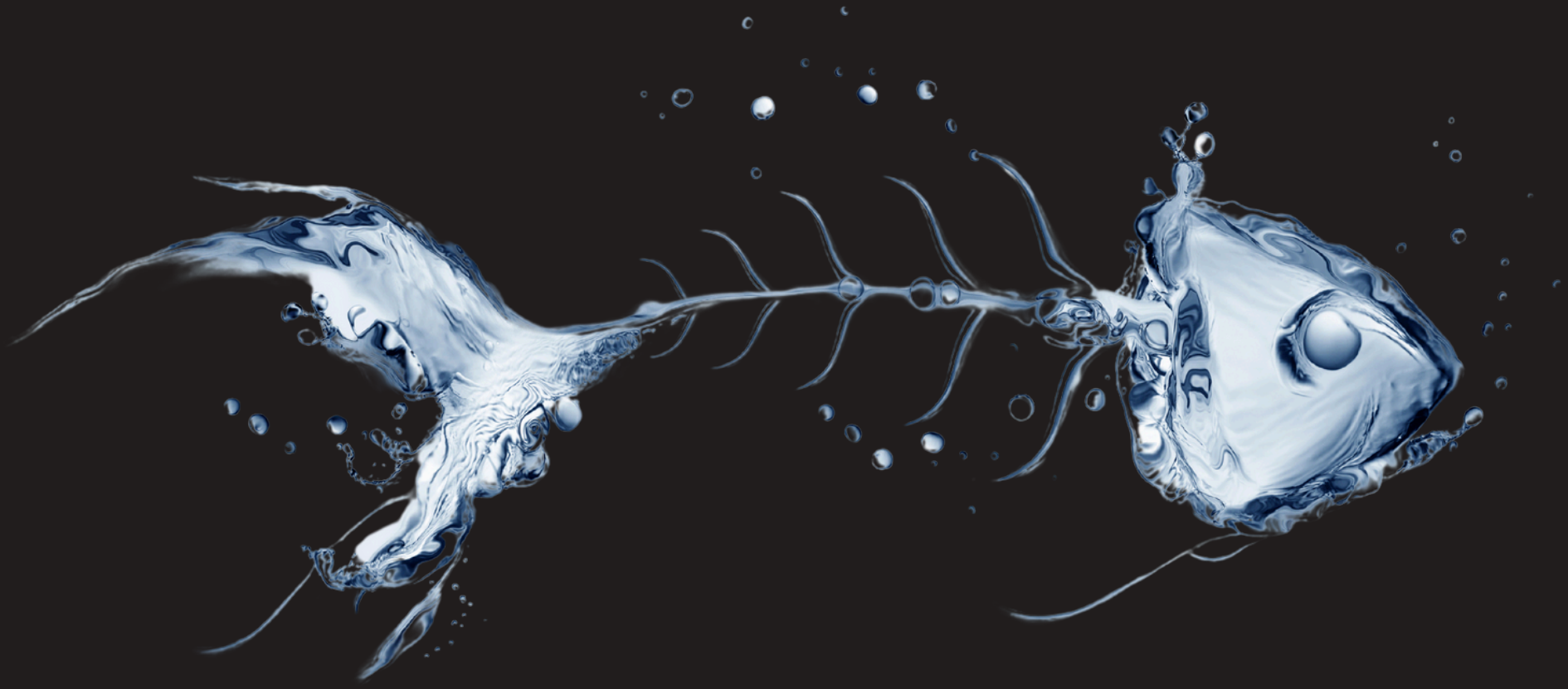
WHAT IS A FISHBONE DIAGRAM?

The Fishbone Diagram, also known as the **Ishikawa Diagram** or **Cause-and-Effect Diagram**, is a visual tool used to identify and analyze the root causes of a problem. The diagram is shaped like a fishbone, with the **problem at the "head"** and **potential causes branching out like bones**.



WHY USE A FISHBONE DIAGRAM?

- Systematic Problem Solving: Helps break down the problem and identify possible causes.
- Visual Representation: Provides a clear, easy-to-understand visual of contributing factors.
- Focus on Root Cause: Guides teams to find the underlying cause, not just symptoms.
- Team Collaboration: Encourages brainstorming and discussion among teams.



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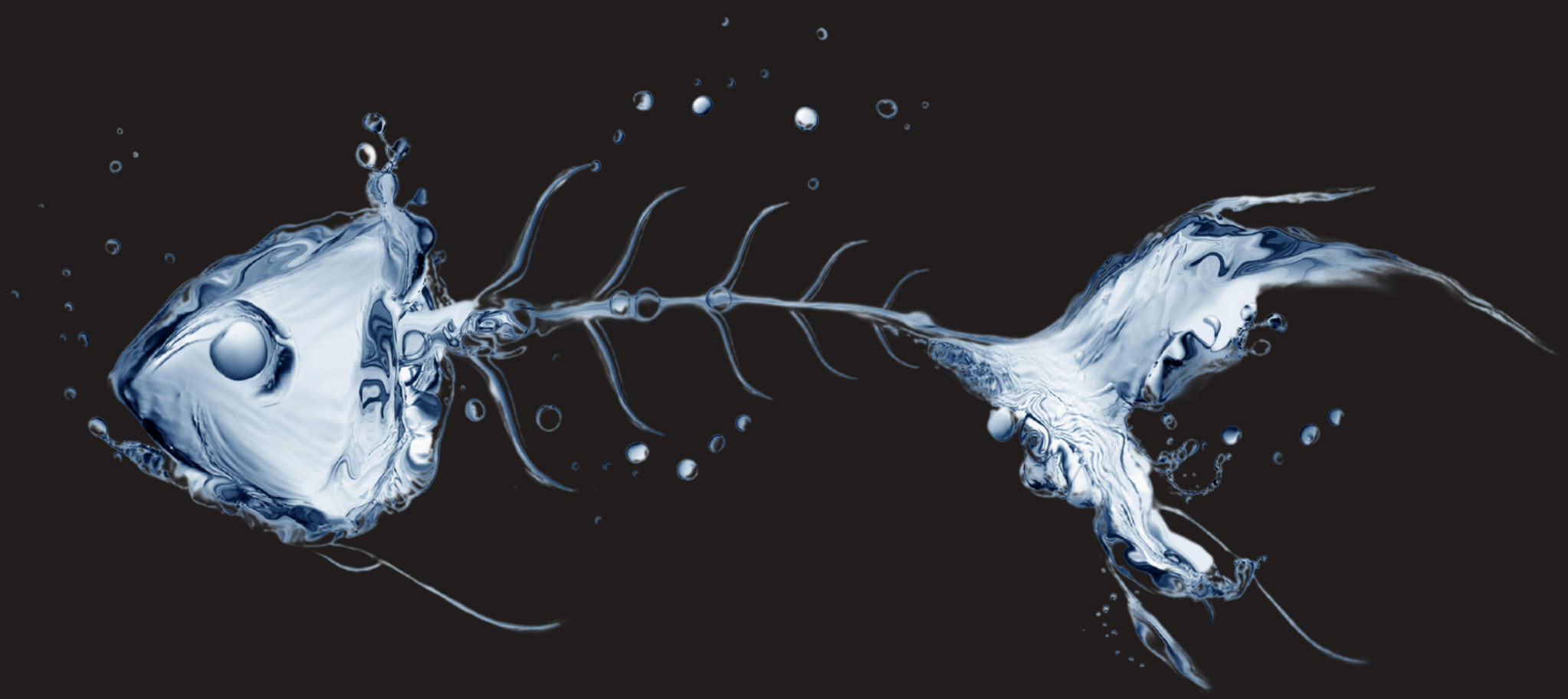
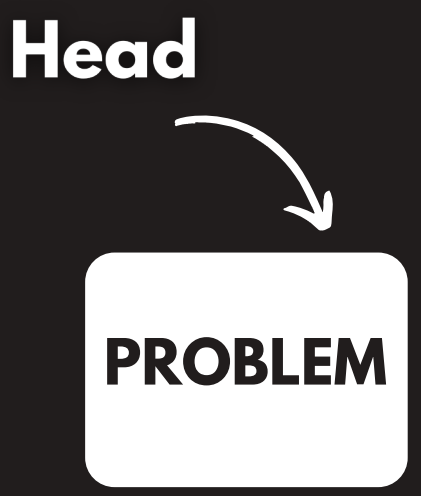


FISHBONE DIAGRAM

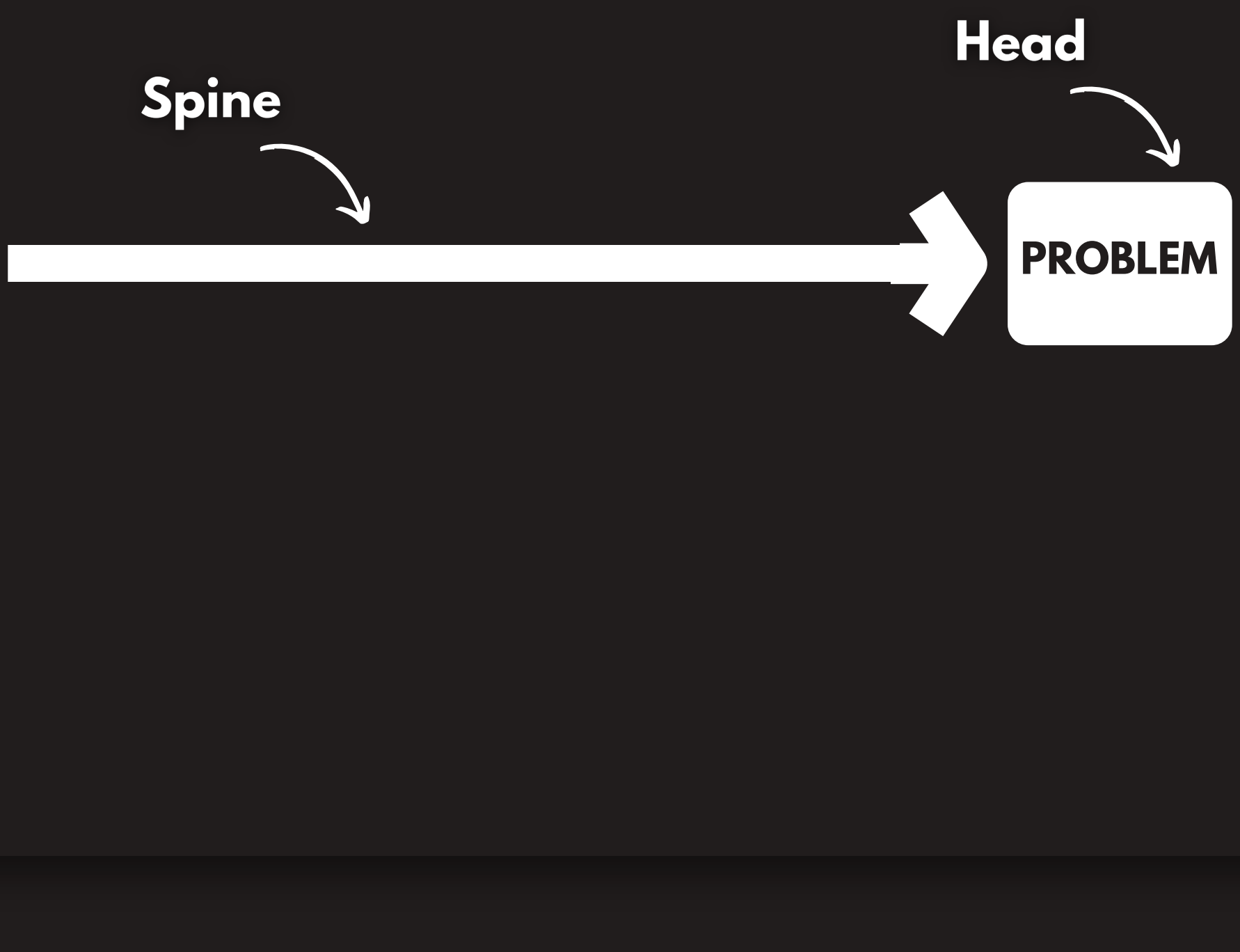
IDENTIFY THE PROBLEM:

Write down the specific problem or effect in a box at the "head" of the diagram. This will be the focus of your analysis.



DRAW THE SPINE:

Draw a horizontal line from the problem to the left. This is the "spine" of the fishbone diagram.



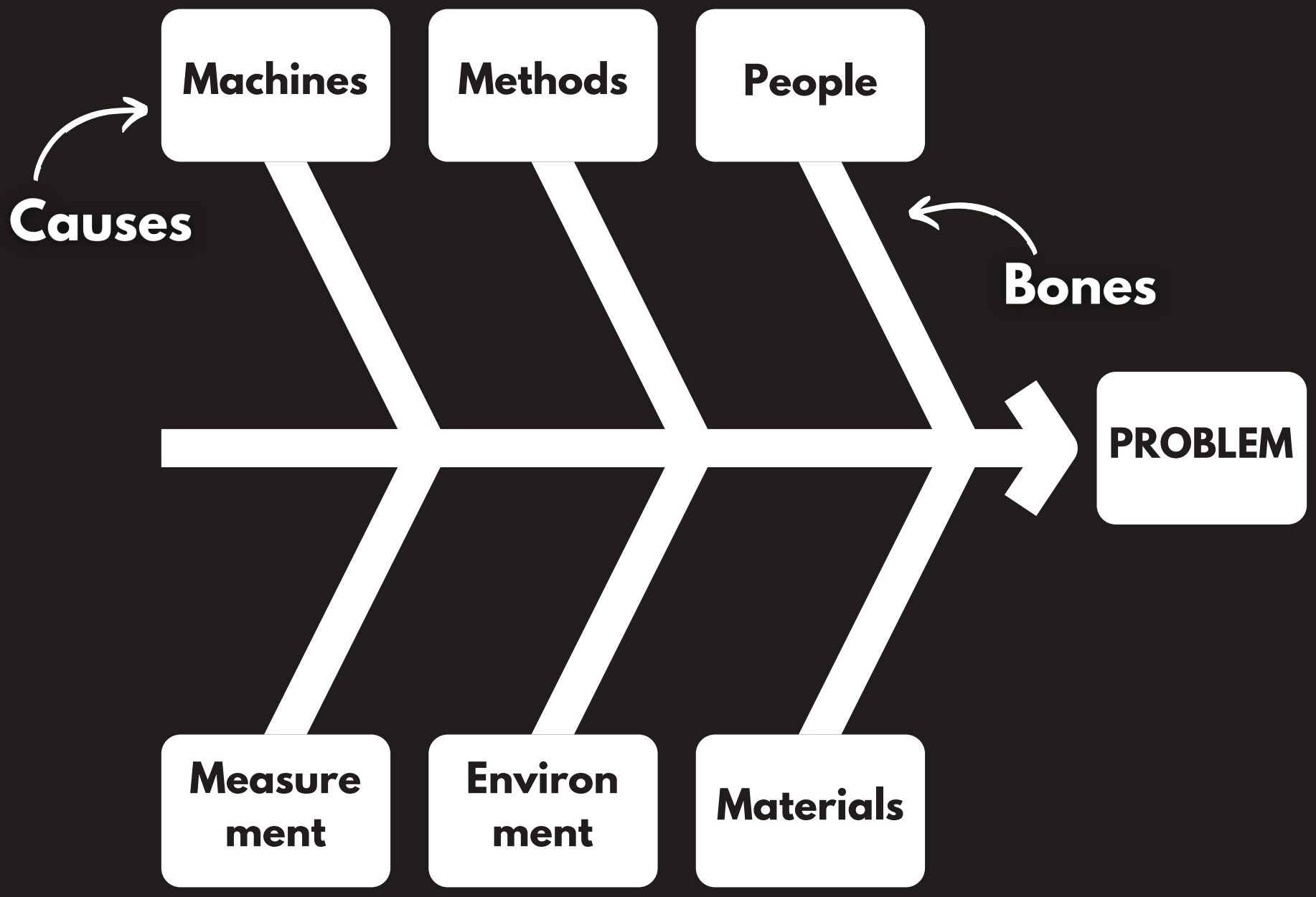
CATEGORIZE CAUSES:

Identify the main categories of causes that could contribute to the problem. Common categories include:

- People
- Methods
- Machines
- Materials
- Environment
- Measurement

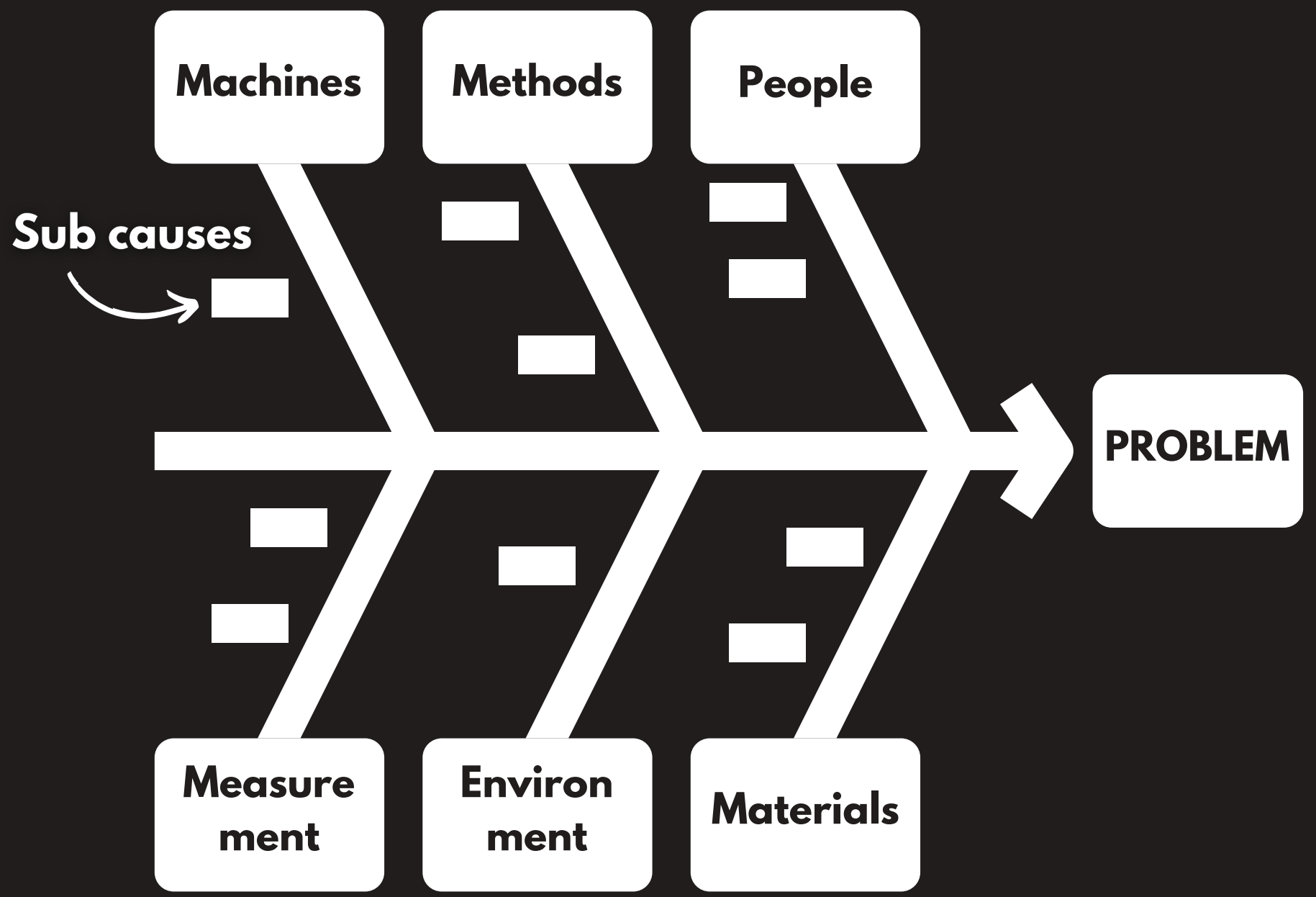
BRANCH OUT CAUSES:

For each category, draw diagonal lines (the **“bones”**) extending from the spine. Add potential **causes** for each category. These are the possible factors that might be leading to the problem.



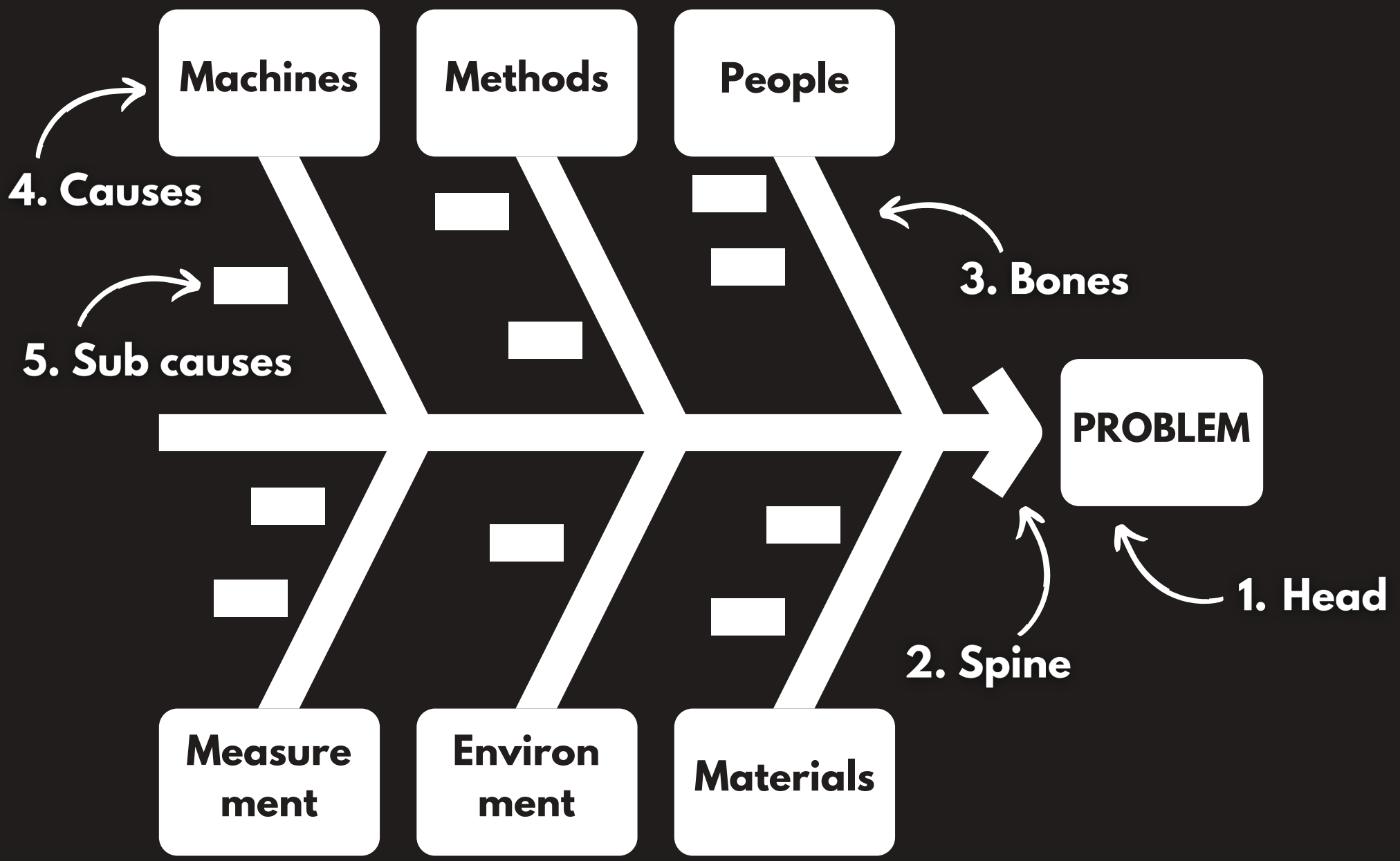
DRILL DOWN:

For each cause, continue branching out by asking **“Why?”** to dig deeper. Add sub-causes under each main cause to explore further.

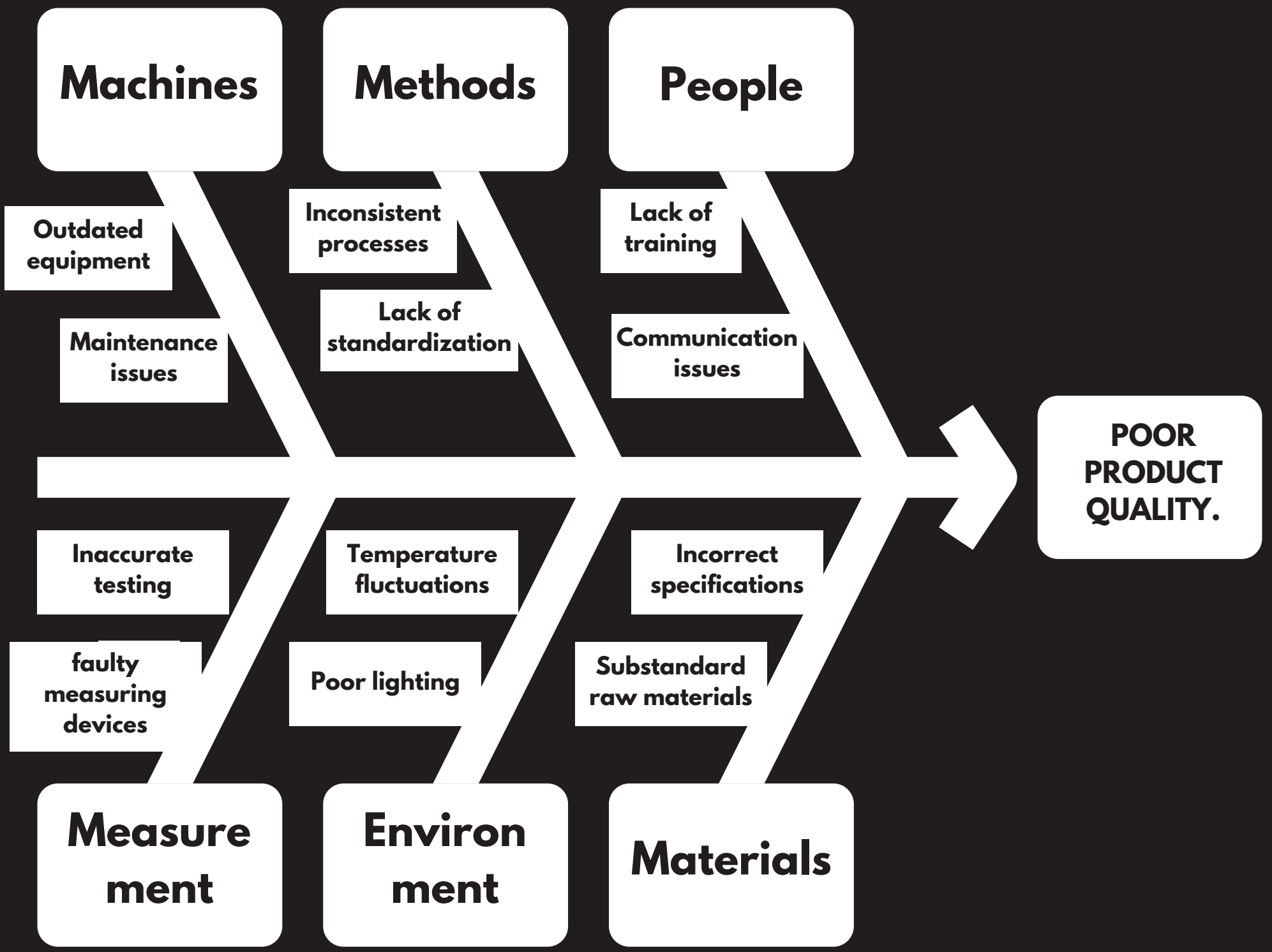


FOCUS OF THE ANALYSIS

Once you have a completed diagram, review it with the team. Identify the most likely causes or patterns, and prioritize them for investigation.

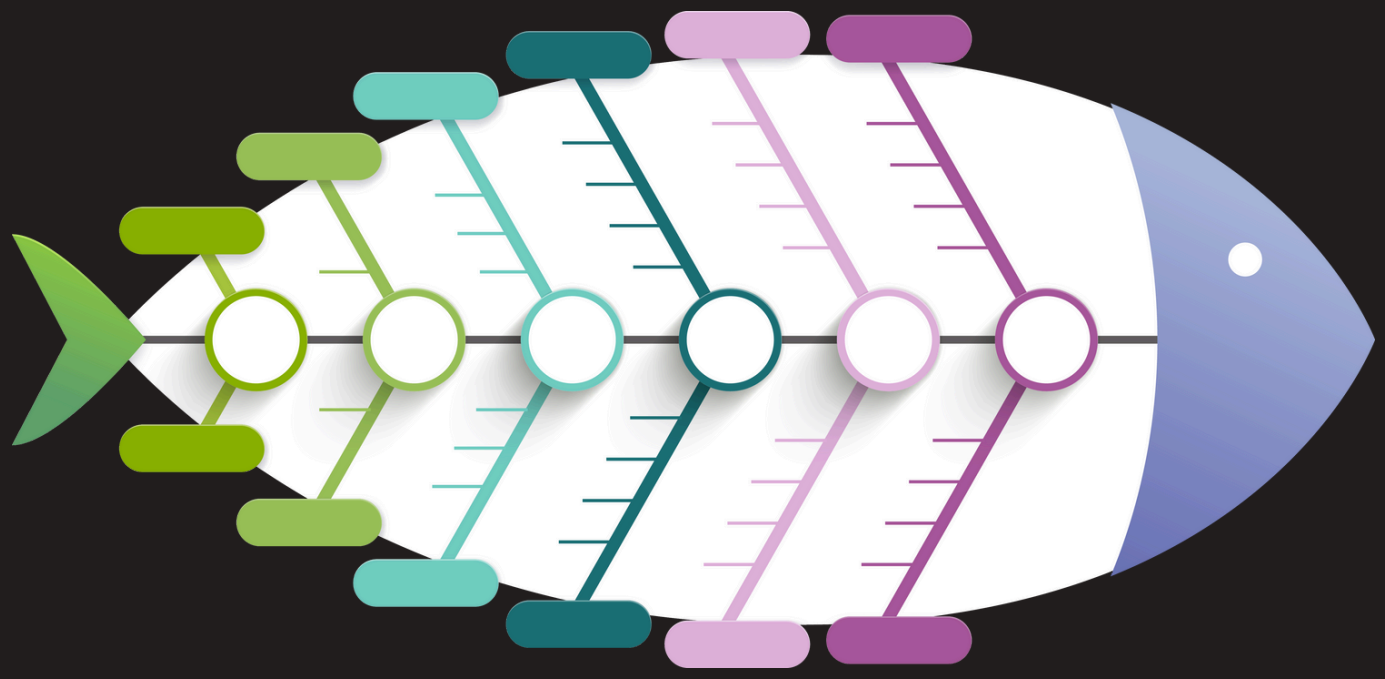


EXAMPLE: FISHBONE DIAGRAM FOR POOR PRODUCT QUALITY



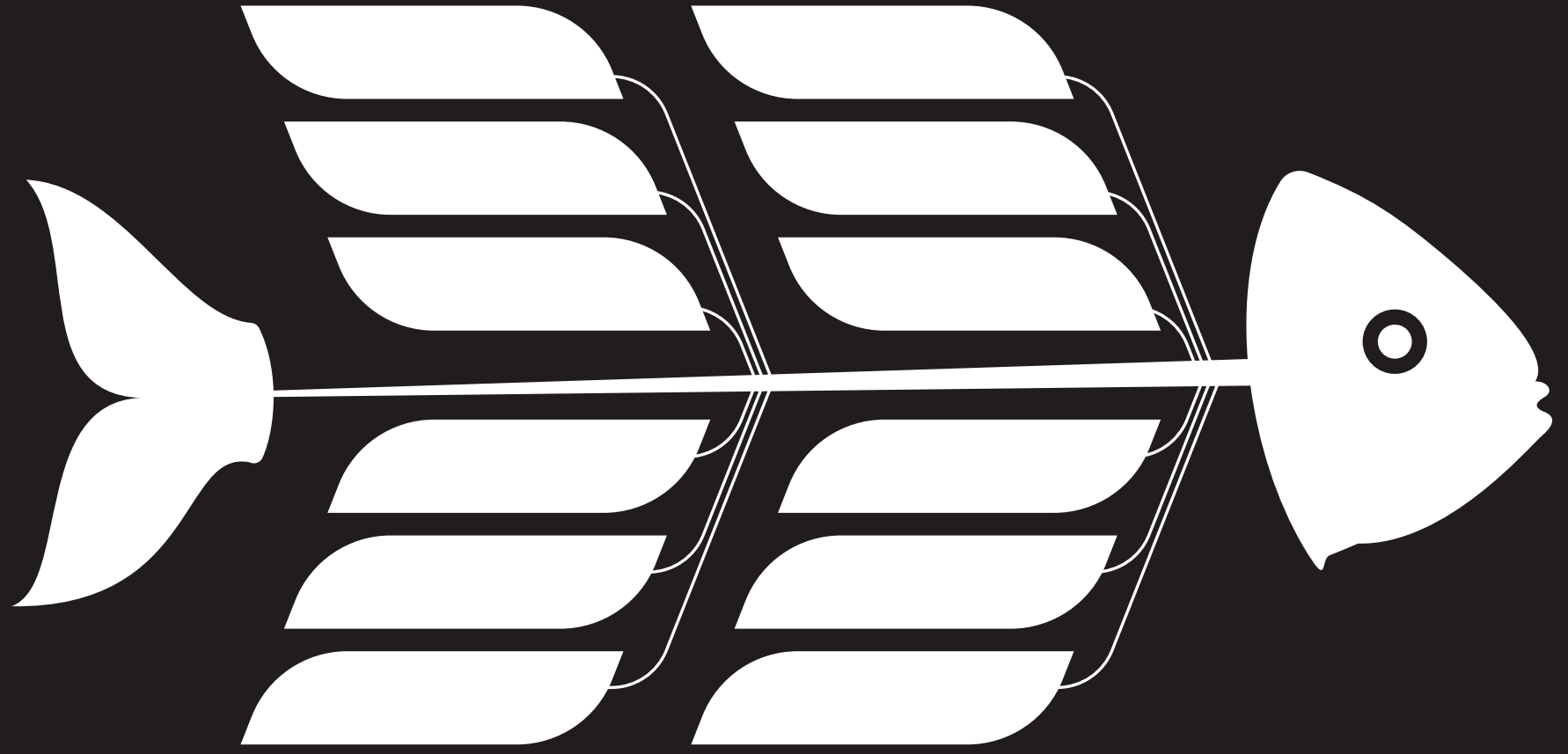
BENEFITS OF USING A FISHBONE DIAGRAM

- **Uncover Hidden Causes:** Helps dig deeper beyond surface-level issues.
- **Collaborative Tool:** Involves teams and experts for diverse input.
- **Improves Efficiency:** Focuses problem-solving efforts on the root cause rather than spending time on symptoms.
- **Adaptable to Different Problems:** Can be applied to any industry or scenario.



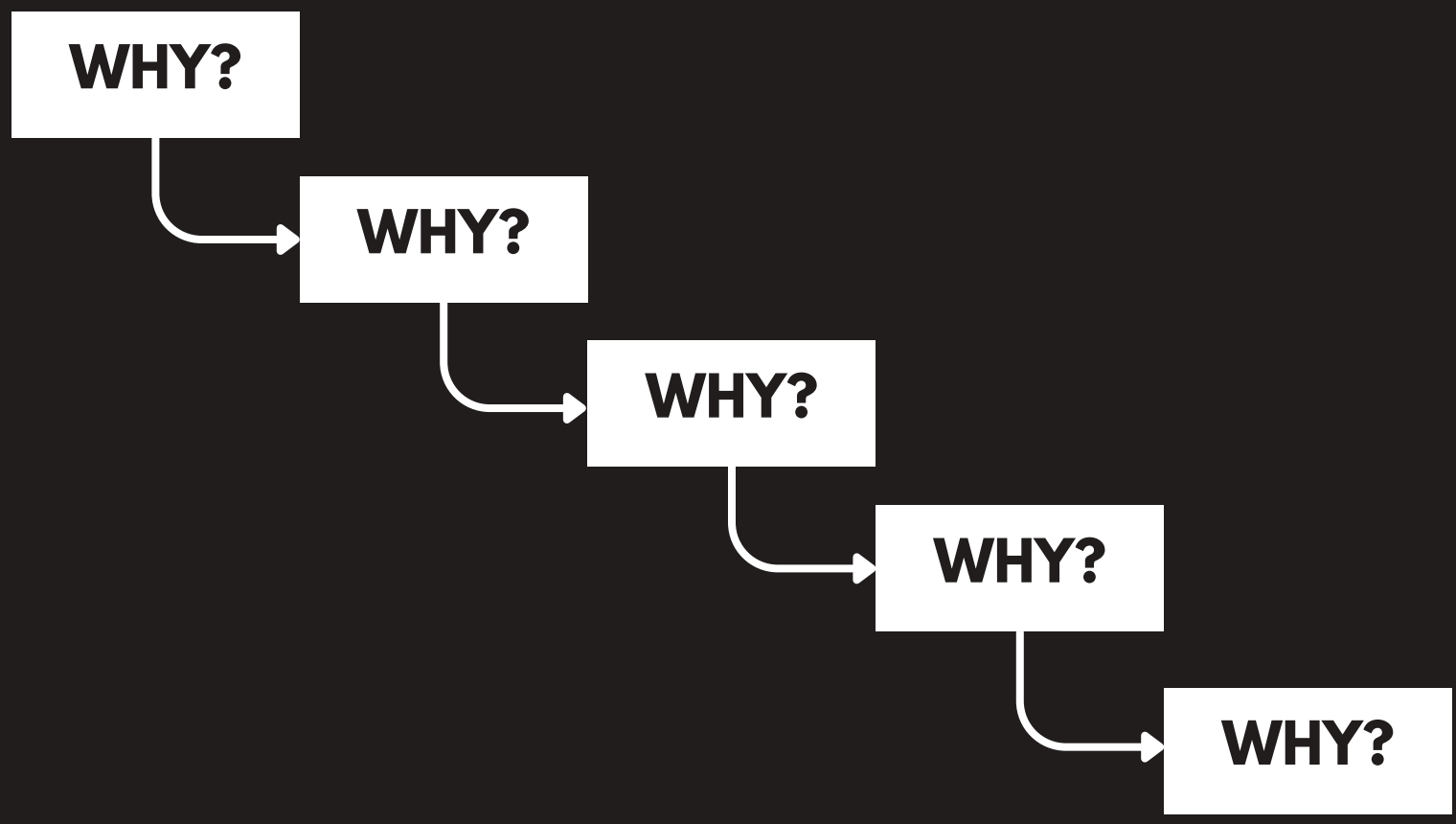
WHEN TO USE A FISHBONE DIAGRAM

- **Root Cause Analysis:** When trying to find the underlying cause of a problem.
- **Brainstorming Sessions:** To explore potential reasons for issues.
- **Project Management:** To avoid future problems by addressing root causes during the planning phase.



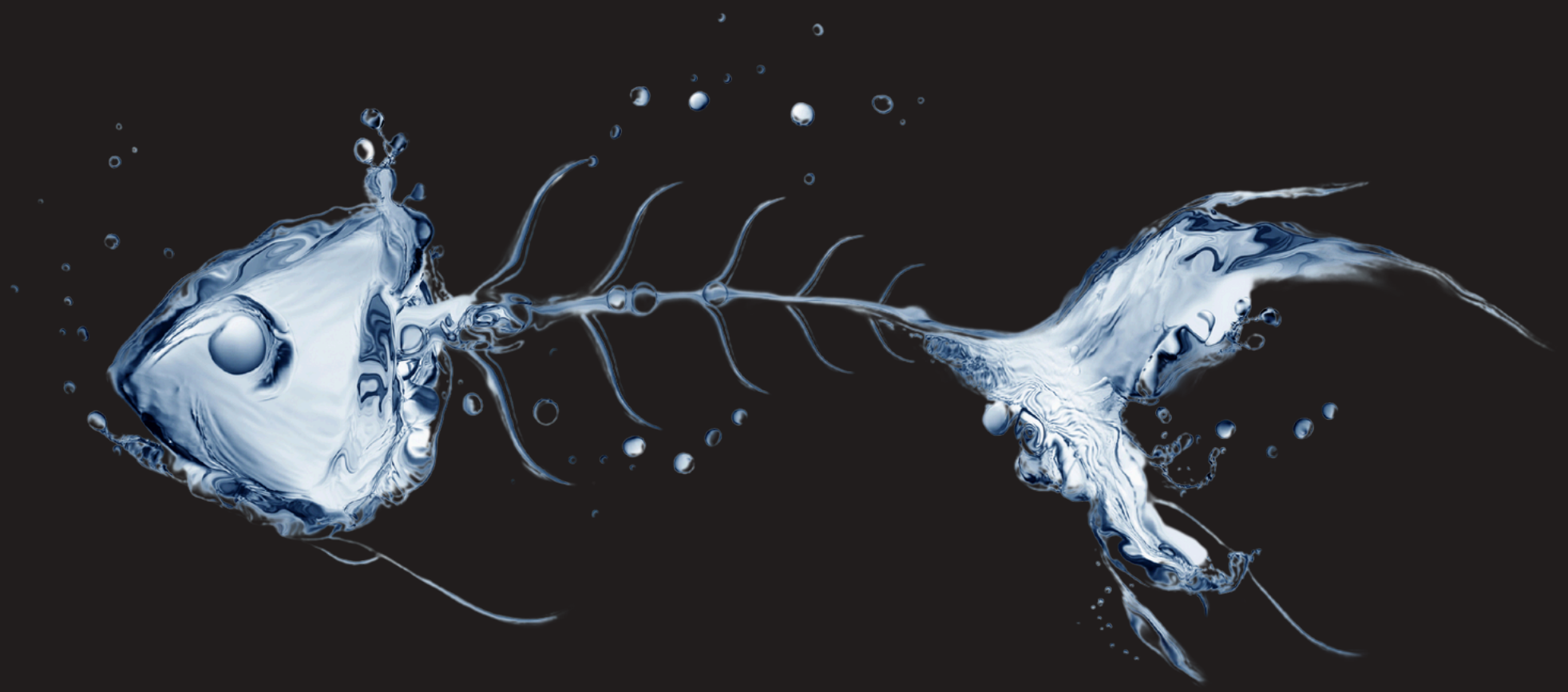
FINAL TIP: KEEP ASKING "WHY?"

For each potential cause, keep asking **“Why?”** to explore further levels of the root cause. This method, often paired with the **5 Whys technique**, helps in narrowing down the core issue.



USE A FISHBONE DIAGRAM TODAY!

Solve problems effectively by visually mapping causes and finding the root of the issue. The Fishbone Diagram helps you get to the core, ensuring that you resolve problems at their source.



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