

Pentagonal problem

How It Works:

**STEP 1. Define Yourself (10 min)**

Participants begin by introducing themselves and their organizational context. Each person shares their perspective, which provides essential context for the collaborative exploration. Different viewpoints from the same organization are captured separately to reflect diverse perspectives.

**STEP 2. Problem Statement/Challenge (10 min)**

Participants describe their problem or challenge in one sentence or short paragraph, creating a clear "big picture" view. This conversational approach helps identify the real and visible implications of each challenge. Ideas are captured on post-it notes for visibility.

**STEP 3. Long-Term Drivers (10-15 min)**

This step identifies factors driving the need for change, including global challenges like CO2 emissions, water scarcity, or biodiversity loss that relate to the problem statements. Ideas are organized into clusters to reveal main themes of long-term drivers.

**STEP 4. Social Challenges (10-15 min)**

Here, the focus shifts to societal dimensions:

* How does societal behavior affect the problem?
* What societal challenges underlie the issue?
* Which groups are especially affected?
* What role do institutions, organizations, or regulations play?
* What changes are needed or expected?

Multiple perspectives are captured and clustered to create a comprehensive picture of societal challenges.

**STEP 5. Socio-Technical Alternatives (10-15 min)**

This step explores existing and potential solutions by examining:

* Technical challenges to be resolved
* Technological bottlenecks to overcome
* Technical foundations for potential solutions
* Experiments or approaches from other sectors

All ideas are captured without evaluation, then clustered by topic or solution type.

**STEP 6. Dominant Solutions and Resource Gaps (10-15 min)**

Participants identify gaps preventing progress:

* Missing technology
* Knowledge deficits
* Regulatory barriers
* Other resource needs

Understanding these gaps helps plan future actions and identify potential partners.

**STEP 7. Debrief and Innovation Vision (10-15 min)**

The canvas is reviewed as a whole, revealing how initial problem statements have been enriched through multiple perspectives. Participants then formulate innovation visions, ideas, and expectations by combining insights from technical, social, and environmental dimensions identified throughout the process.