

Preparation Guide	
Choose a Topic for Exploration	Choose a topic students have already encountered through teaching. Apply the topic as a simplified solution to real-world problems. Applying theory to problem-solving allows the students to train their innovation skills while gaining a deeper understanding of an area of theory they have encountered earlier in the course. A simple format might be useful: [Innovation] will be used to address [problem] in [real world context] Example: “New cell-based diagnostic tool” will be used to address “diabetes” in “Kenya” Example: “New piece of Legislation” will be used to address “Deforestation” in “Brazil” The goal here is to decide on the theoretical topic and apply it to a real-world problem that enforces complex consideration to an otherwise “simple” solution. Often when students are asked to solve complex challenges, they don’t get further than the “simple” out of context solution and never get to interact with the complexities that affect it. Here we have done that work for them and thereby forces them to engage deeply in the complexities of the dynamic systems of the world.
Identify the Hidden Innovation Challenge(s) <i>This is the most important design step.</i>	Narrow down the scope of the challenge for your students to allow them to engage deeply with topic and apply innovation skills. The hidden innovation challenge is the implementation challenge embedded within a simple solution in context. Many solutions appear straightforward when viewed in isolation. However, when they are introduced into a real-world context, competing interests, limited resources, regulations, ethical concerns, and practical constraints create complexity. These tensions provide opportunities for students to explore how solutions can be adapted, strengthened, and improved in new and creative ways. Ask yourself: What tension, constraint, or conflict is likely to emerge when this solution is introduced into the chosen context? & What would need to change for this solution to succeed?

	Good hidden innovation challenges often emerge from trade-offs between different legitimate priorities. Examples: <table border="1"> <tr> <th>Proposed Solution</th><th>Hidden Innovation Challenge</th></tr> <tr> <td>New diabetes diagnostic technology in Kenya</td><td>How can a high-performing but costly technology create meaningful impact in a resource-constrained healthcare system?</td></tr> <tr> <td>New anti-deforestation legislation in Brazil</td><td>How can rainforest protection be pursued without undermining national sovereignty and economic development?</td></tr> <tr> <td>AI-supported cancer diagnosis</td><td>How can trust and accountability be maintained when clinical decisions increasingly rely on AI?</td></tr> </table>	Proposed Solution	Hidden Innovation Challenge	New diabetes diagnostic technology in Kenya	How can a high-performing but costly technology create meaningful impact in a resource-constrained healthcare system?	New anti-deforestation legislation in Brazil	How can rainforest protection be pursued without undermining national sovereignty and economic development?	AI-supported cancer diagnosis	How can trust and accountability be maintained when clinical decisions increasingly rely on AI?
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Select Stakeholders	Choose 2-3 stakeholder groups the students will represent. For first-time facilitators, two stakeholders are often ideal. Select stakeholders that help students explore the hidden innovation challenge from different perspectives. Look for stakeholders with: • A shared interest in addressing the overall challenge. • Competing priorities regarding how the challenge should be addressed. • Different resources they can contribute. • Different constraints that limit their actions. Useful questions: • Who benefits from the solution? • Who is affected by the solution? • Who controls key resources? • Who has influence over implementation? • Who may resist change? If students have already produced stakeholder maps, select the stakeholders whose interaction best illustrates the tensions and trade-offs within the case.								
Define the Learning Objectives	Define the learning objectives. Start with your course learning objectives, not the simulation. Examples: Increase Knowledge • Explain a concept, theory, system, technology, or policy. • Describe factors contributing to a real-world challenge.								

	• Investigate how theory applies in practice. • Identify competing perspectives or interests. Develop Skills • Analyse stakeholder perspectives and trade-offs. • Apply theoretical knowledge to practical challenges. • Evaluate alternative approaches. • Critically reflect on implementation barriers. • Apply innovation skills complex challenges Strengthen Competences • Collaborate across different perspectives. • Develop realistic compromises. • Communicate and justify decisions. • Navigate complexity and uncertainty. • Utilize system thinking
Create the Case Brief	Prepare a 1-3 page briefing . Include: • Background - What is happening? • Key theory or facts - What do students need to know? • Existing situation - What challenge or opportunity exists within the chosen context? • Constraints - What limits possible actions within the specific context? • Additional resources (optional) – Link relevant articles, videos, reports, websites, course material. The briefing should provide enough information for informed discussion while leaving room for negotiation and discovery.
Create Stakeholder Role Cards	For each stakeholder prepare: • Identity - Who are they? • Objectives - What do they want? • Resources - What do they control? • Constraints - What limits them? • Non-Negotiables - What cannot be compromised? • Motivation - Why do they care about the issue? • Possible Compromises - Where might flexibility be possible? Keep role cards brief. The goal is to provide enough information for students to explore the role while leaving room for interpretation and discussion. Students should be encouraged to expand and interpret their stakeholder role during the simulation rather than treating the role card as a complete description. Note on stakeholder design:

	Stakeholders should be agents that can act within the challenge context, such as organisations, government institutions, initiatives, companies, associations, or advocacy groups. Avoid using broad categories of people as stakeholders. This can encourage assumptions and stereotypes rather than meaningful analysis. Examples of useful stakeholder groups: • Patient Advocacy Association • Hospital Management Board • National Farmers Union • Research Consortium Examples of less useful stakeholder groups: • Patients • Older People • Citizens • Underrepresented group
Design Negotiation Challenges	Prepare 3-5 negotiation challenges. In most simulations, not all challenges need to be used. Additional challenges can be introduced if discussion slows down or groups reach agreement too quickly. The purpose of the simulation is to explore possibilities rather than reach a predetermined outcome. Good negotiation challenges typically involve: Trade-Offs • Quality vs Access • Sustainability vs Cost • Evidence vs Speed Scarcity • Limited funding • Limited infrastructure • Limited time Uncertainty: • Unknown risks • Incomplete information • Future consequences Stakeholder • Different priorities • Competing incentives • Unequal power Ask yourself:

	What challenges would realistically appear if this solution was introduced tomorrow?
Define the final output	Decide what students should leave the simulation with. For most simulations, a facilitated plenary discussion is sufficient. Prepare prompts that help students finalize and summarize the adapted solution: • The original solution – What solution were we given? • The key tensions – What conflicts or trade-offs emerged? • The adapted solution – How did the solution change? • The remaining challenges – What still needs to be addressed? If time allows it, give the students 1-2 reflection prompts to answer individually or in pairs. The goal here is to encourage the students to identify the innovation skills they have leveraged during the simulation and perhaps see themselves as actual innovators. Examples: • What challenged your thinking during the simulation? • How did you personally contribute to the process? • What opportunities or issues became visible that were not obvious at the beginning? • What did the simulation teach you about creating change in complex situations? • What did this experience teach you about your own ability to contribute to change?

Material	Purpose
Case Brief	Introduces the challenge, context, theory, and hidden innovation challenge.
Stakeholder Role Cards	Defines the stakeholder perspectives students will represent.

Material	Purpose
Negotiation Challenges	Drives the negotiation and exposes implementation tensions.
Closing Discussion Questions	Prompts for summarising the negotiation, adaptations to the solution, key tensions, and remaining challenges.
Reflection Prompts	Encourages students to reflect on learning and innovation.