Critical thinking encourages innovators to pinpoint the actual nature and cause of problems and the dynamics that underlie them to logically identify strengths and weaknesses of alternative approaches. Critical thinking works best when individuals or groups use evidence to evaluate problems and propose potential solutions.

Cultivating Critical Thinking
Critical thinking involves developing a deep understanding of the problem to inform data-driven decisions. Below we outline key components of the critical thinking process.¹ ³

<table>
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<tr>
<th>Components of Critical Thinking</th>
<th>Description</th>
<th>Questions addressed</th>
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| Interpret the problem          | Apply multiple perspectives and knowledge (often multidisciplinary) to pinpoint the actual nature and cause of the problem. | • What is the problem?  
• Why is this an important problem to explore? |
| Identify relevant information  | Develop actionable lines of injury to provide and synthesize well-founded, objective information that captures the nature and context of the problem. | • What information is necessary to understand this problem?  
• What contextual factors may influence the problem? |
| Analyze and evaluate information | Analyze information to better understand the problem, challenge assumptions, and evaluate strengths and weaknesses of alternative approaches to problem-solving. | • What story does the information tell?  
• How can we look at this problem from another perspective? |
| Propose solution               | Generate solutions that apply logical, purposeful judgment using extant evidence. | • Based on available information, what solution(s) best address this problem? |
| Self-regulate                  | Monitor own reasoning and proposed solutions for errors or deficiencies. | • What assumptions or self-interest may impact my analysis or proposed solutions? |

Assessing Your Critical Thinking Competency
Critical thinking promotes an evidence-based approach to innovation. As you assess personal development in this competency, consider the extent to which you:

• employed diverse, multi-disciplinary thinking regarding the actual nature of the problem(s),
• gathered broad information to understand the underlying dynamics and context of the problem(s),
• evaluated alternate approaches to solving the problem(s), and/or
• decided future direction based on all available evidence.

For More Information