

# Innovative Solution Report Rubric

Reports should probably be somewhere between 5 and 10 pages depending upon the depth of explanation and content. These are not hard limits - just general indications - highly detailed reports with complex ideas for planning and implementation may be much longer.

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| Title Page | Team Name   |
|            | Solution Title  |
|            | Submission Date   |
|            | The words "STEM4Innovation Hospital Immersion Challenge" or similar reflecting the specific challenge you're addressing.  |
|            | Names of Each Team Member with emails   |
|            | Name of Each Team Member's School with mailing address  |
|            | School / Organisation   |
|            | Name of Mentors with emails   |
|            | Image of Team Members   |
|            | Image/Graphic for Solution  |
| Background | <p>Clearly describe the context of the problem and help the reader clarify the issue including:</p> <ul style="list-style-type: none"> <li>· empathetic insights,</li> <li>· how is the problem revealed in practice</li> <li>· consequences and considerations</li> <li>· impacts – work, health, economics, environmental, etc</li> <li>· dependencies</li> <li>· prior attempts at solutions</li> <li>· etc</li> </ul> |
| Technical  | A clear articulation of the specific problem your team identified   |
|            | Includes a general narrative explanation of how your solution works.  |
|            | Describes how the solution addresses the problem you've identified.   |
|            | Explains what is innovative about the solution including the proprietary features it has (e.g. did the team create a completely new idea, or take several concepts from emerging technologies to synthesize a new configuration of ideas, or take an existing idea and concentrate on scalability and feasibility issues, etc.).  |
|            | Address the science, technology, engineering and/or mathematical considerations in your solution.   |

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|               | Explain the principles clearly and how they apply to your solution.   |
|               | Human and social factors – explain how this solution impacts upon, or draws from human behaviours for its success.  |
|               | Critical and creative factors – what other elements does this solution introduce that enhance its value and contribution as a solution?   |
|               | Quantifies how this process addresses your selected problem.  |
|               | Discusses whether the idea is or is not technically feasible at this time.  |
|               | Includes product or process drawings.   |
|               | Demonstrates a clear and well- synthesized understanding of the science, environmental, economic and social concepts presented.   |
|               | <p>Undertake and explain your team’s approach to ecology checking:</p> <ul style="list-style-type: none"> <li>· Think as if you are in the future (future pace)</li> <li>· What are the wider consequences of my solution?</li> <li>· What will we lose if we deploy this solution?</li> <li>· What extra will we have to do?</li> <li>· Is it worth it?</li> <li>· What will we gain if we make this change?</li> <li>· What is the price of making this change and are we willing to pay it?</li> <li>· What are the good aspects of the present state?</li> <li>· How can we keep those good aspects while making the change that we want?</li> <li>· How will our change affect others?</li> <li>· Does it go against any of their values?</li> <li>· Does this matter?</li> <li>· How will they react?</li> <li>· What is the cost of NOT making this change?</li> </ul> |
|               | All references in this section appear in the Bibliography.  |
|               | Penalty for copied materials without attribution  |
| Key Personnel | Introduces each team member. Tell the reader about yourselves.  |
|               | Discusses the team structure for this project. If you had designated team roles, describe them.   |
|               | Explains how the team made decisions.   |
|               | Includes an individual statement from each team member in his or her own words that describes his or her experience with the program. What did you learn about your individual strengths through the year?  |
|               | Includes a statement from each individual concerning his or her change in understanding of science during this project.   |
|               | Introduce your mentors. What are their areas of expertise? Why was it valuable to the team? Remember to THANK YOUR MENTORS!!!   |

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|   | Recognizes anyone else who may have been a resource for the team or, makes note that no individuals outside of your adult team members were used as a resource.   |
| Evidence of Collaboration/Communication | Explains how team members communicated.   |
|   | Discusses what you learned about being a part of a collaborative team.  |
|   | What was the most challenging aspect of maintaining team communications?  |
| Bibliography                            | Cites all referenced work using the APA format  |
|   | All references in the Bibliography appear in the narrative.   |
|   | Originality/creativity of idea or analysis.   |
|   |   |
| <b>VIDEO</b>                            | <p><b>Create a 3 minute video that imparts all the information above into an engaging and documentary summary of your work.</b></p> <p><b>Include the URL in your final report - it will be linked to from the STEM4Innovation website.</b></p> |