

<b>TSC Category</b>	Productivity and Innovation					
<b>TSC</b>	Applied Research and Development Management					
<b>TSC Description</b>	Manage research and development projects and activities to innovate and develop new products or operational processes.					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
				<b>AER-RND-4001-1.1</b>	<b>AER-RND-5001-1.1</b>	<b>AER-RND-6001-1.1</b>
				Interpret research and development (R&D) aims and objectives to execute R&D projects that are aligned with the organisation's business direction and strategies	Formulate research methodologies to achieve the research aims by overcoming potential constraints or critical requirements	Establish strategies for research and development so as to achieve the organisation's strategic aims and objectives
<b>Knowledge</b>				<ul style="list-style-type: none"> <li>• Research principles and methods</li> <li>• Statistical analysis techniques</li> <li>• Innovation methods</li> <li>• Technology developments</li> <li>• Technology-driven research collaboration methods</li> <li>• Guidelines for collaboration in applied R&amp;D</li> </ul>	<ul style="list-style-type: none"> <li>• Areas in which research can be undertaken by the organisation</li> <li>• Market trends and sector products</li> <li>• Factors that may have a critical effect on research methodology</li> <li>• Various research methods</li> <li>• Processes and data statistical analysis techniques</li> <li>• Factors in determining the most effective research methods</li> <li>• Time scales required for research</li> <li>• Resources required for research</li> <li>• Sources of external technical expertise, partnerships and alliances</li> <li>• Research collaboration management</li> </ul>	<ul style="list-style-type: none"> <li>• Regulations and guidelines for research and development (R&amp;D)</li> <li>• Market trends and sector products</li> <li>• Organisational innovation management</li> <li>• Innovation strategies</li> <li>• Emerging technology trends</li> <li>• Strategies and processes for R&amp;D partnership and alliances</li> <li>• New technology developments in research collaboration strategies</li> </ul>
<b>Abilities</b>				<ul style="list-style-type: none"> <li>• Interpret the aims and objectives of research</li> <li>• Identify factors impacting research methodologies</li> </ul>	<ul style="list-style-type: none"> <li>• Determine scopes, aims and objectives of the research</li> </ul>	<ul style="list-style-type: none"> <li>• Lead new technologies and research techniques and integration into R&amp;D projects</li> </ul>

**SKILLS FRAMEWORK FOR AEROSPACE  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

				<ul style="list-style-type: none"> <li>• Assess potential constraints on research and develop contingency plans</li> <li>• Apply research methods which best achieve the aims and objectives</li> <li>• Support complex, innovative technical based studies, experiments, analysis and evaluation</li> <li>• Apply technology in research collaboration methods</li> <li>• Collaborate with internal and external stakeholders in conducting research where specified</li> </ul>	<ul style="list-style-type: none"> <li>• Identify factors that may have an impact on research methodologies</li> <li>• Assess potential constraints on research and develop contingency plans</li> <li>• Select research methods which best achieve the aims and objectives</li> <li>• Prioritise and schedule research activities that are necessary</li> <li>• Calculate the resources and time scales required to implement the methodology</li> <li>• Produce detailed plans of research and record them in the organisation's information systems</li> <li>• Establish benefits and opportunities of collaborating with others in conducting research</li> <li>• Manage the use of technology in research collaboration</li> <li>• Maintain up-to-date knowledge of technical developments within the industry</li> </ul>	<ul style="list-style-type: none"> <li>• Build tools to translate business strategy into a portfolio of innovation initiatives</li> <li>• Build processes and structures to enhance the capabilities of the organisation to generate creative ideas for different purposes and with different value propositions</li> <li>• Drive the use of technology in research collaborations</li> </ul>
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