

# RISSB Product Proposal (and Prioritisation)

<b>Primary information</b>			
Type of product being suggested:		Guideline	
Title of product being suggested:		Effective group decision making within the Rail Industry	
Date of suggestion:		14/02/19	
Reason for suggestion:		Lack of consistent methodologies or techniques for effective group decision making. Support groups of engineers / other SMEs to collaborate effectively and improve the quality of safety decisions	
Railway discipline area:		Across all Rail domains - infrastructure, rolling stock, train control, operations, safety	
<b>Objective:</b>			
<p><i>What</i> – standardised techniques and tools to improve group decision making</p> <p><i>For whom</i> – Executive level through to technical working groups across an organisations governance structure.</p> <p><i>Why</i> – To improve decision making outcomes being influenced by cognitive biases or errors from within the group</p>			
<b>Scope:</b>			
<p>Groups of rail experts are regularly brought together for the purpose of producing safety-critical recommendations, yet the group decision-making process itself is often little more than a ‘free talk’ meeting. There is overwhelming scientific evidence that this ‘free talk’ method allows a number of cognitive biases and errors to creep into group decision making process, potentially tarnishing the quality of the decision(s) the group arrives at, and the recommendations that follow.</p> <p>This guideline intends to provide decision support frameworks (such as the <b>Delphi method</b> or <b>Analytical hierarchy process</b>) to maximise the quality of recommendations from groups of experts. This will also include recommendations of appropriate techniques based on ideal group sizes and the expected benefits of group diversity, as well guidance to effectively communicate the group’s decisions.</p>			
<b>Hazard identification:</b>			
1	Chaotic environment for decision makers	6	Underestimating the probability of adverse safety events in the future
2	Not having qualified and competent personnel making effective and informed decisions	7	
3	Not considering whole of life implications and having a “siloed” mentality	8	
4	Not considering safety in design during decision process	9	

5	Increased likelihood of failing to consider certain types of risks during safety risk reviews	10	
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### **Definitions**

i A **Guideline** is a set of informative guidance. It is not normative but informative.

A **Code of Practice** is a set of descriptions. It is the “how” one can meet a higher-level requirement (either of a Standard, or a piece of Legislation). It is normative, but by its nature can contain several options about how to achieve compliance with the higher-level requirement. It can also have some informative guidance within it if it is more practical than writing a separate guideline.

A **Standard** is a set of requirements only. It is the “what” must be done to be claim compliance to the standard. It is normative. It can also contain optional and/or supplementary requirements, but they still should be worded as requirements.

<b>Benefits:</b>		
<b>Safety</b>		
<ul style="list-style-type: none"> <li>• Allow consideration and eventual reduction of safety risk so far as is reasonably practicable through making informed decisions</li> <li>• Decrease the risk of errors within decisions which will ultimately affect workers/society</li> <li>• Improve the well-being of decision makers through a structured process reducing mental anxiety</li> </ul>		
<b>Interoperability / harmonisation</b>		
<ul style="list-style-type: none"> <li>• Process can be incorporated as part of the organisations professional development and leadership training.</li> <li>• Will support the governance structure of the organisation</li> <li>• Audience potentially beyond rail, although intention would be to make guideline rail-specific.</li> </ul>		
<b>Financial</b>		
<ul style="list-style-type: none"> <li>• Minimal cost for training as it can be incorporated as part of the Competency &amp; Learning framework within an organisation</li> <li>• Guidelines will provide a framework to allow greater opportunities to drive innovation and allow potential economic benefits</li> <li>• More effective time management within meetings and in addressing actions and recommendations from meetings.</li> </ul>		
<b>Environmental</b>		
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<b>Impacts:</b>		
Lack of technical content of guideline. Applicable to all industries, not just rail		
<b>Reference / source materials:</b>		
#	<u>Reference / source material</u>	<u>Available from</u>
1	The IDEA Protocol for Structured Expert Elicitation	<a href="http://Methodsblog.com">Methodsblog.com</a>
2	The Delphi Method	<a href="http://Rand.org">Rand.org</a>
3	Use (and abuse) of expert elicitation in support of decision making for public policy	<a href="http://NCBI.gov">NCBI.gov</a>

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## **Definitions**

ii ***Interoperability*** is the ability of a process, system or a product to work with other process, systems or products (aka compatible systems through managed interfaces).

iii ***Harmonisation*** - the act of bringing into agreement so as to work effectively together (aka uniformity of systems).