

# Risk & Opportunity Management of “Wicked” HSEQ Issues & Problems

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Often in assessing and managing the risks of HSEQ issues & problems, more and more are being identified as NOT simple & obvious but rather complex and highly complicated. Many are becoming more difficult to assess and control, enough to call them “wicked”.

This presentation explains the nature of HSEQ systems that can be classified as Complex, Complicated and “Wicked”.

Complex and Complicated risks can be “Wicked” ( adapted from Rittel and Webber <sup>4</sup> ) if they have the characteristics :-

- 1) They cannot be formally defined or described in detail.  
The way a wicked problem is described determines its possible solutions.  
All wicked problems are essentially unique.  
Wicked problems can always be described as the symptom of other problems.
- 2) They do not have a “stopping rule.” These problems lack an inherent Cause/Effect logic that signals when a solution has been found.
- 3) Their solutions are not absolutely true or false, only relatively better or worse.
- 4) There is no way to test the solution to a wicked problem before implementing it
- 5) They cannot be studied through trial and error.  
Their solutions are irreversible so, as Rittel and Webber<sup>4</sup> put it, “every trial counts.”
- 6) There is no end to the number of solutions or approaches to a wicked problem.
- 7) Planners, who present solutions to wicked problems, have no right to be wrong.  
They are liable for the consequences of the solutions they generate; the effects can matter a great deal to the people who are affected by those actions.”

The important and useful concepts of the VUCA and CYNEFIN uncertainty models / frameworks provide ways of understanding “wicked” risks. These models are described in detail. VUCA <sup>2</sup> = Volatility Uncertainty Complexity Ambiguity and CYNEFIN = a Welsh word that Snowden <sup>3</sup> and <sup>5</sup> uses to describe the differences between Simple Complicated Complex and Chaotic systems. CYNEFIN is a key framework in what is known as Sense-making<sup>1</sup>. A useful practical definition of Sense-Making is -

*“how do we make sense of the world so we can plan and act in it”*

Practical examples of how to recognise “wicked” issues problems and risks that exist in HSEQ systems are described. Approaches for practical analysis and approaches to manage such systems will be discussed and demonstrated.

Reference(s)

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[https://www.youtube.com/watch?v=XwC5Gfh\\_h0U](https://www.youtube.com/watch?v=XwC5Gfh_h0U)
2. Bennett, N ; Lemoine, G.J. (2014) “What VUCA really means for you “HBR Business Review 92(1/2)  
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3. Kurtz C. F., Snowden, D. J. The new dynamics of strategy: Sense-making in a complex and complicated world IEEE Engineering Management Review · February 2003 IBM SYSTEMS JOURNAL, VOL 42, NO 3, 2003 <https://thecynefin.co/sensemaker/>
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5. Snowden, D., Rancati, A.(2021): Managing complexity (and chaos) in times of crisis — A field guide for decision makers inspired by the Cynefin framework, Publication office of the European Union, 2021 (pdf)  
<https://thecynefin.co/sensemaker/>