

# AI for Communications

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## 2<sup>nd</sup> ITU/WMO/UNEP Workshop on AI for Natural Disaster Management

23 June 2021

Adam Fysh



**UNDRR**

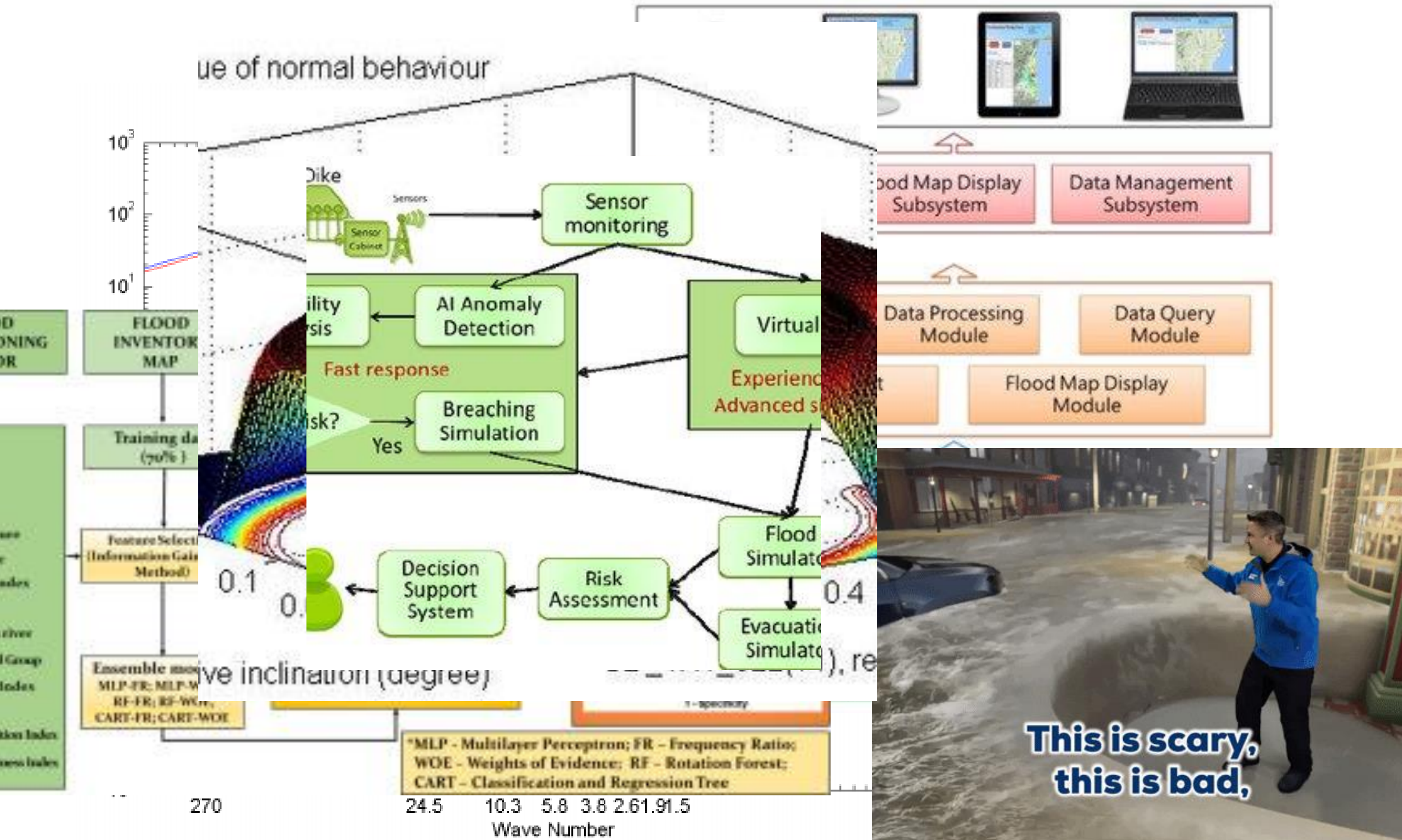
UN Office for Disaster Risk Reduction



**SENDAI FRAMEWORK**

FOR DISASTER RISK REDUCTION 2015-2030

# AI support to early warning



# Drivers of Risk

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Understanding risk is more than just understanding hazards



Linking an understanding of multiple hazards, plus exposure and vulnerability gives a clearer picture of risk



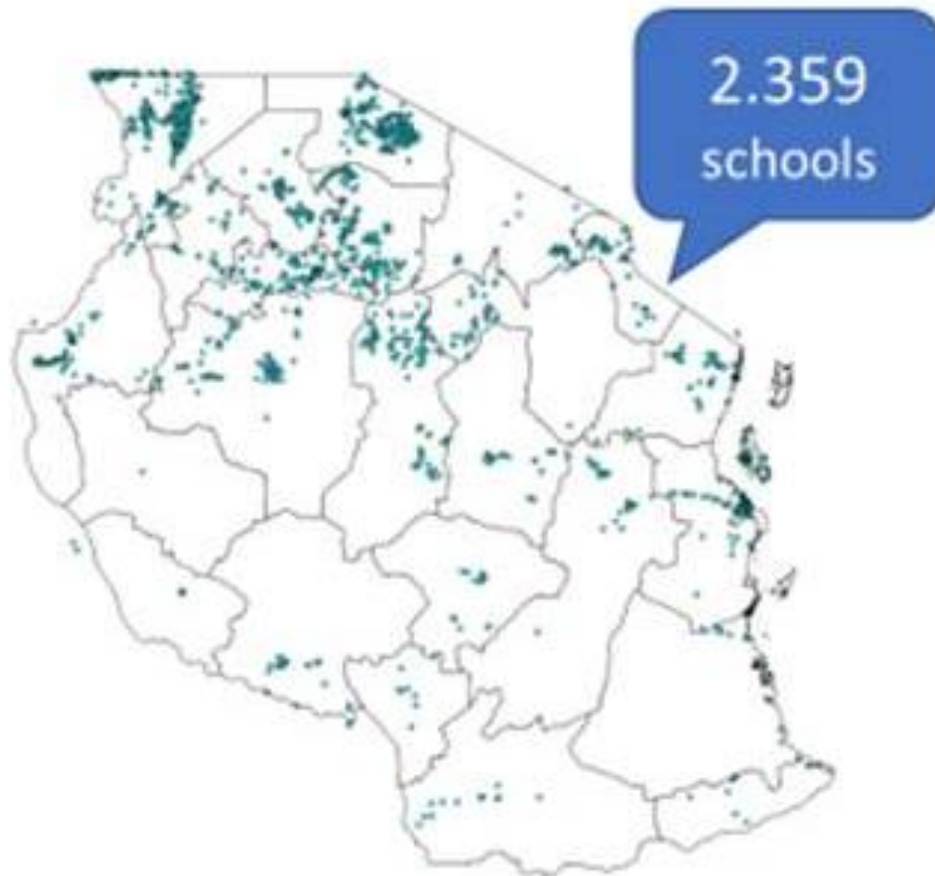
Interconnecting all our knowledge is complex, but the better linked the data, the better the interconnected nature of risk is explained





# How stakeholders can be better integrated into development of tools

## Global Dataset



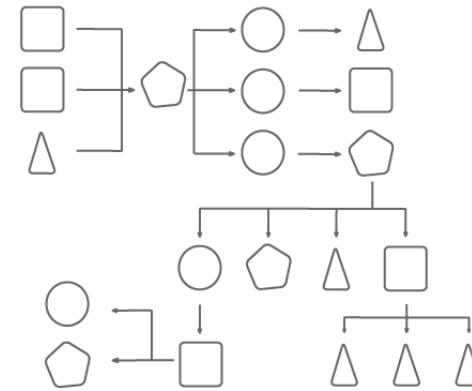
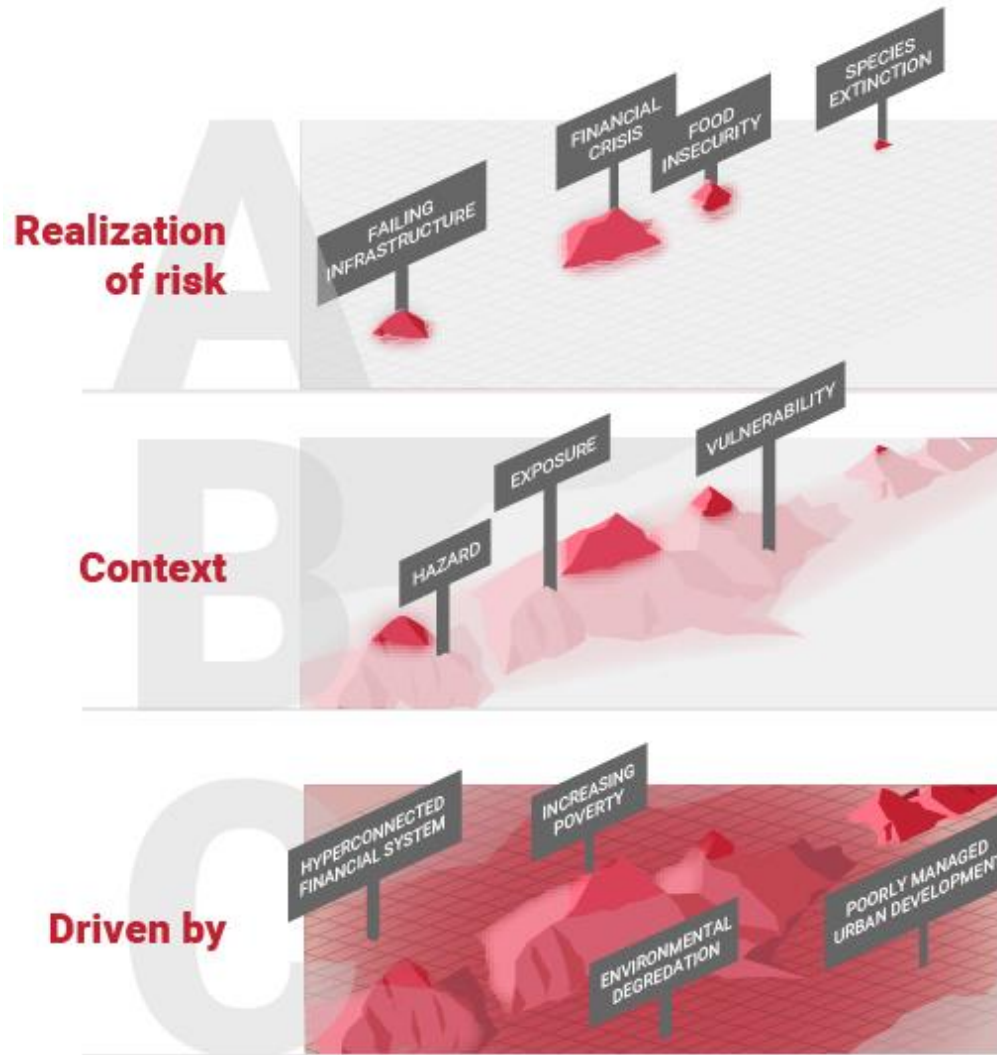


# DRR at national, regional and international levels

		Knowledge about <u>Outcomes</u>		
		Continuum of Outcomes	Discrete set of Outcomes	Outcomes Poorly Defined
Knowledge about <u>Likelihoods</u>	Firm basis for Probability	Frequentist Distribution Functions	Discrete Frequentist Probabilities	<b>Ambiguity</b> Fuzzy Logic Sensitivity Analysis
	Shaky basis for Probability	Bayesian Distribution Functions	Discrete Bayesian Probabilities	
<u>No</u> basis for Probability		<b>Uncertainty</b> <i>Scenario Analyses</i>		<b>Ignorance</b> <i>Apply Precaution</i>

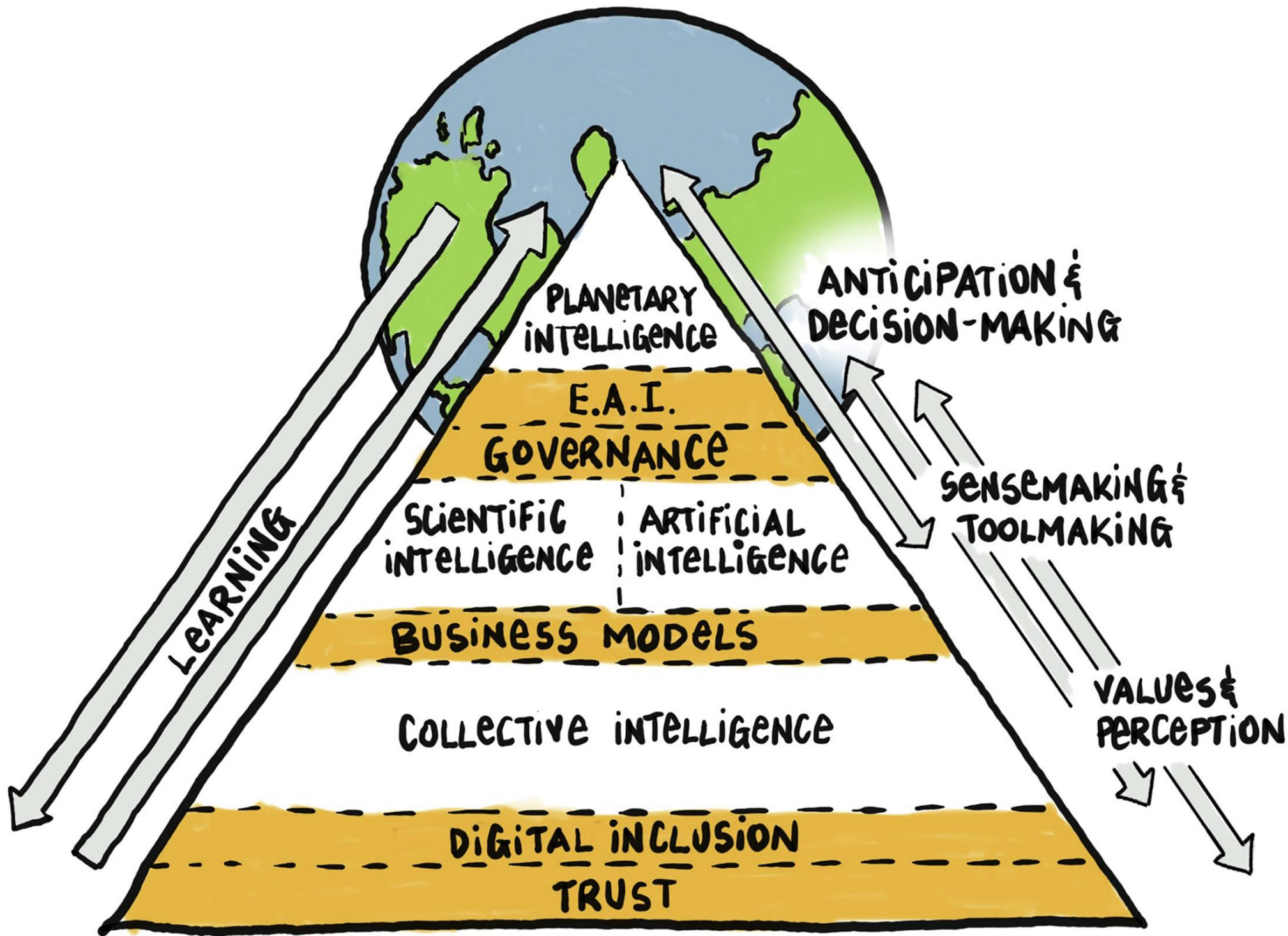
Andrew Stirling, A. (1999) On Science and Precaution, in the Management of Technological Risk, European Commission - JRC Institute Prospective Technological Studies Seville, European Commission Joint Research Centre, EUR 19056 EN.

# Accepting uncertainty – VUCA/LAMO



**COMPLICATED**







# Thank you

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