Assurance

July 2025

Assurance roadmap

CATAPULT
High Value Manufacturing

	Short term	Medium term	Long term
Industry challenges	Agile assurance for material		
	Digital thread for assurance		
		Assurance for in-service and end of life	
	Understanding and streamlining routes for assurance		
	Skills for assurance		
	Design for assurance		
	Assurance for new and existing processes		
	Closed loop assurance		
	Assurance awareness value and process considerations		
Technology capabilities	In-process V&V		
	Input to policy/strategy - materials strategy		
	Skills for current and future (inc. digital capabilities)		
		New product assurance pathways	
	Assurance at design		
	Assurance certification of AI		
	Better integration of assurance into product development		
	Certification by process analysis		
	Digital interface		
	Digital thread		
	Manufacturing process		
	Positioning of assurance with stakeholders		
	Reduce burden of physical testing		
		Assurance for all the Rs	
HVM Catapult developments	Certification by analysis		
	Single source of truth		
	Standards		
	Test facilities		
	Investment		
	Circularity		
	Frameworks and maturity grids		
		Automation	
		Supply chain development	
	HVM Catapult process audit		
	HVM Catapult positioning assessment		
	Regulatory networking		
	Supply chain collaboration		

Assurance roadmap

cATAPULT
High Value Manufacturing

	Short term	Medium term	Long term
HVM Catapult developments	AI machine learning		
	Closed loop decision making		
	Digital management		
	Sensor development		
	Uncertainty simulation		
		Cyber security	
		Data capture in process/product	
		Integrity analysis	
	Training		