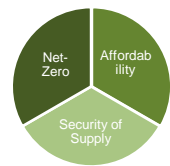


High-Level User Meeting: outcomes

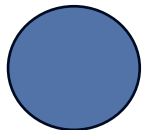
ETN Global Technology Roadmap



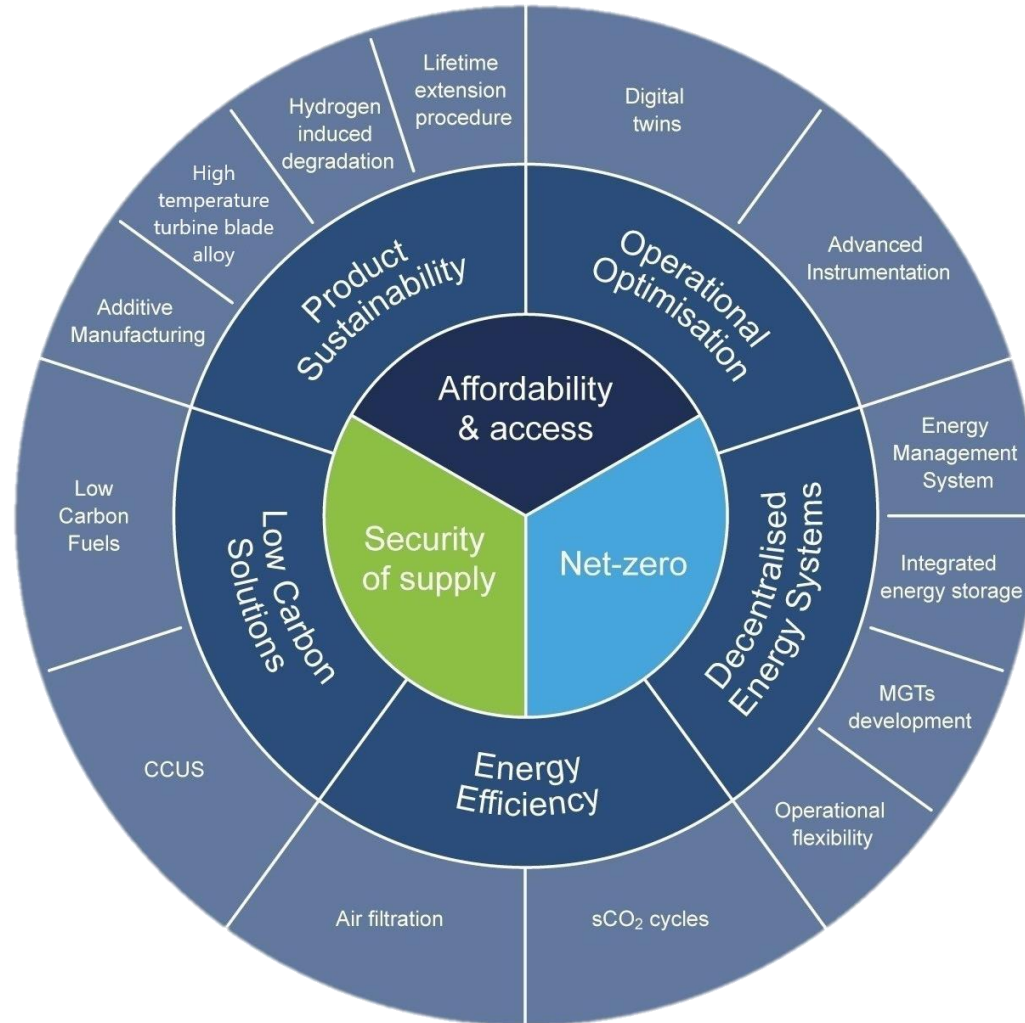
Overall Goal



Key topics



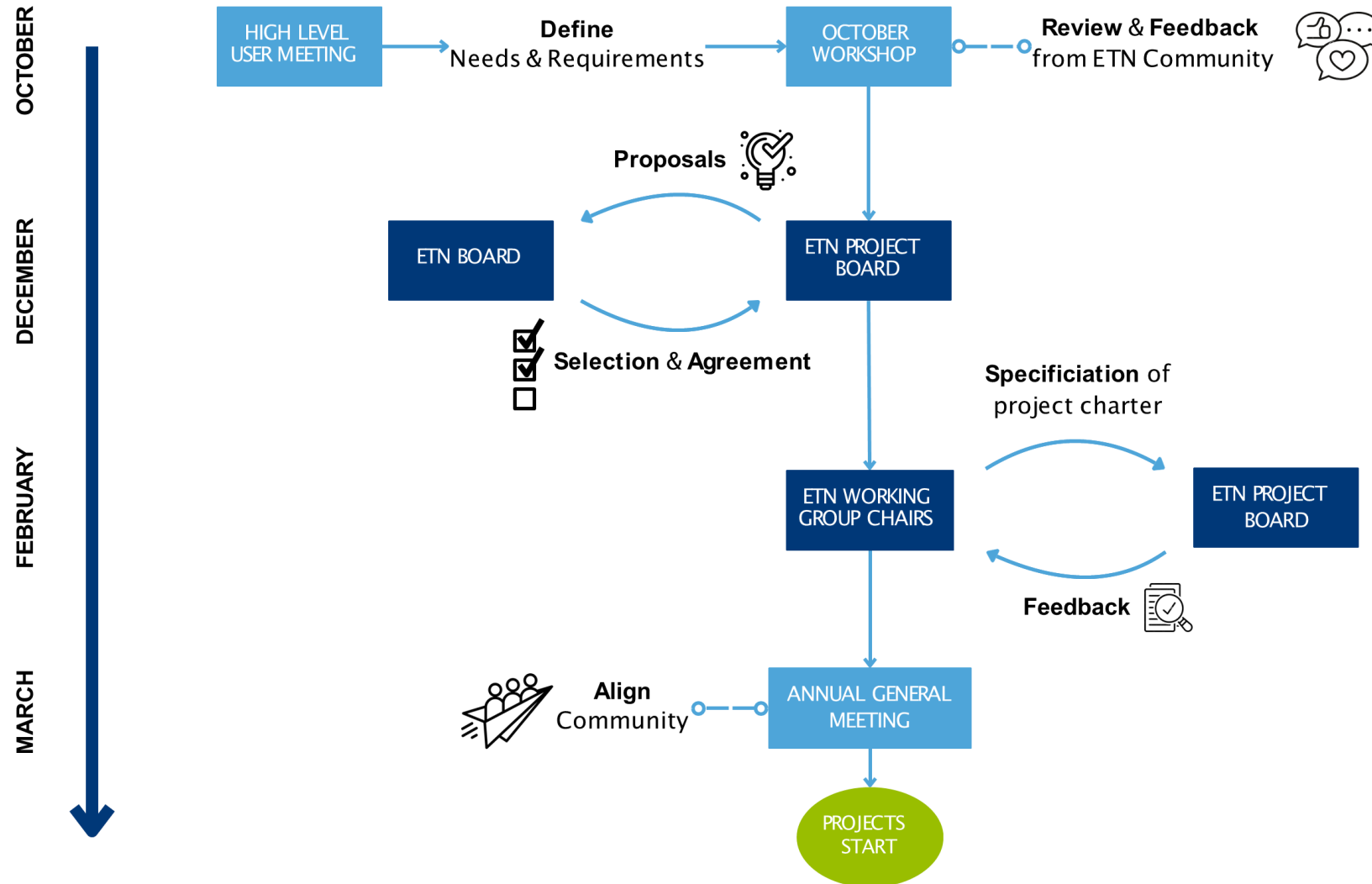
Solutions



ETN Global end-user members



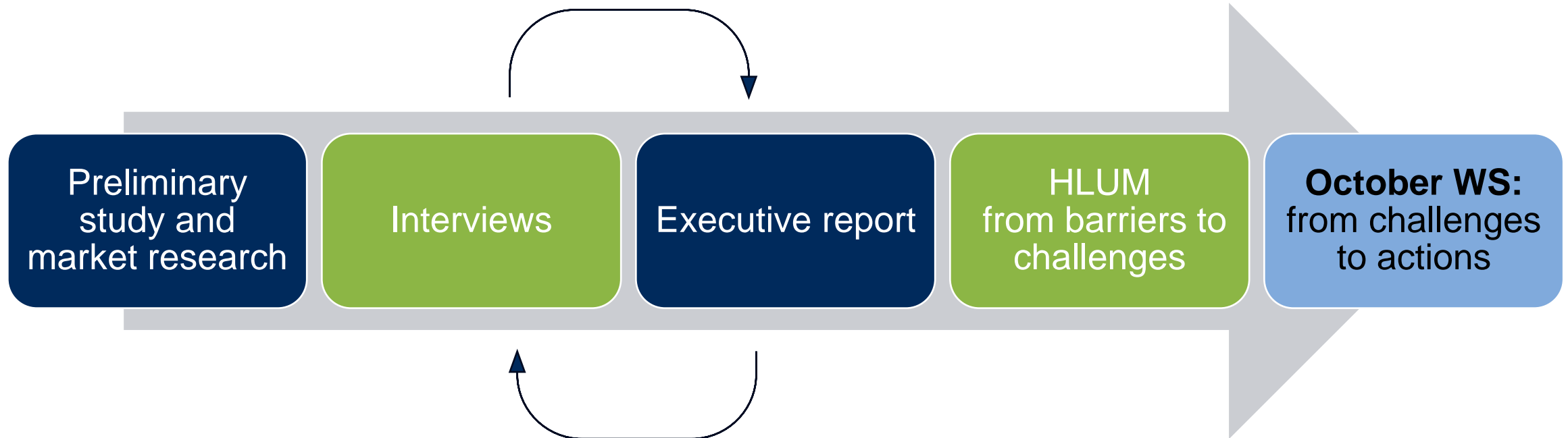
HLUM within ETN Global structure



From barriers

Prioritise: from barriers to challenges

Users
ETN Office
ETN Community



Report's findings: Barriers



ETN
Global

	Barrier	Technology	Financial / Market	Political/ Societal
Cross sector/ Low carbon solutions	Uncertain Policy and regulatory framework, e.g. planning and regulation for a low-carbon economy (hydrogen, CCUS, biofuels, etc.)		X	X
CCUS	Impact on load-following operation	X		
	CCGT efficiency penalty	X		
	High CAPEX and OPEX		X	
	Backbone development for CO2 storage and transport infrastructure		X	
Hydrogen and e-fuels	Low Technology readiness of H2 (> 100%) and alternative fuels (e.g. ammonia)	X		
	Lack of viable business case / high cost of fuel		X	
	BoP adaptations and safety issues	X		
Operational Flexibility	Spare parts availability / TAT	X	X	
	Profitability of thermal assets		X	
	Ageing fleet (life extension vs new engines)		X	
	Peaking operation requires design adaptations that allow more starts/stops (Performance degradation) and adaptation of BOP (industrial users).	X		

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Interactive sessions

Challenges

Barrier	Challenge	Goal
Uncertain Policy and regulatory framework	How can the industry develop a clear definition of low-carbon ready solutions to support the decarbonization of thermal assets?	Achieve consensus on the definition of low-carbon ready solutions.
H2 - BoP adaptations and safety issues	What safety measures and modifications are needed to retrofit existing power plants to be H2-ready by 2030?	Raise awareness of safety measures and necessary modifications for H2 retrofitting
Assets flexibility	Will existing and future power plants be able to provide the flexibility needed to ensure grid resilience and supply security?	Ensure security of supply through flexible gas turbine operations
Ageing Fleet	How can asset owners ensure long-term operational capacity for aging power plants when critical parts, spare parts availability, and legacy system support remain uncertain?	Maintain capacity while assessing critical parts, spare parts availability, and legacy system support.
Digitalisation needs	In the context of increasing digitalization across industries, how can the market adapt to meet the evolving competitive demands of end-users?	Expand the competitiveness of solutions that address digitalisation concerns
Climate impact	How can we define and mitigate the risks that changing ambient conditions and extreme climate hazards pose to the resilience and operations of gas turbine power plants?	Develop risk definitions and mitigation strategies to ensure operational resilience

Interactive sessions

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