



UK Research  
and Innovation

# Strategic Themes

DAFNI Conference

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# Overview

- Born from UKRI's five year strategy Transforming Tomorrow Together
- Running from 2023 until 2029
- Speak directly to national and global priorities
- Five strategic themes each one encouraging working across disciplines to leverage new and existing investment and activity.
- Harnessing the full power of the UK's research and innovation system to tackle large-scale, complex challenges.

# The strategic themes

- Each theme tackles a different large-scale, complex challenge
- Designed to be complementary to each other
- Distinct target areas but working together



# Our approach

Each theme will address major national and global challenges by:

- Developing more coordinated and collaborative approaches across UKRI and with our many partners
- Using the breadth of our disciplinary and sector expertise to tackle major societal challenges
- Developing funding opportunities for multidisciplinary programmes aligned to our strategic themes
- Seeking opportunities to coordinate and leverage additional investment with other public, private, third sector and international funders
- Building strategic international partnerships
- Supporting UK leadership and participation in international research and innovation programmes to address challenges on a global scale



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**Building a Secure  
and Resilient World**



# The challenge: Building a secure and resilient world

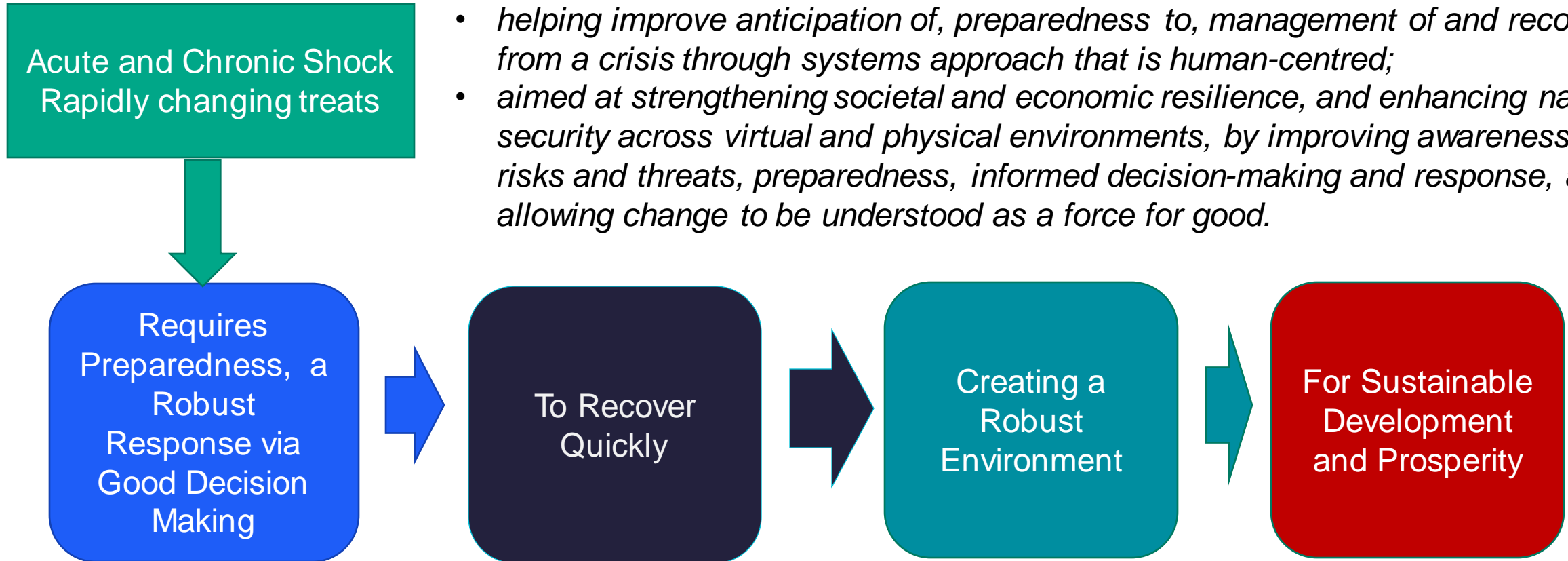
COVID-19, the war in Ukraine, global geopolitical shifts have all contributed to the UK experiencing issues across multiple areas that challenge our country's resilience and security.

From disruption to energy and food supply chains, to an increase in physical, environmental and virtual threats, these large and complex challenges cannot be solved individually.



# Building A Secure and Resilient World: our vision

- *Research and Innovation positioned to address the impact of repeated systemic shocks from the financial crisis to pandemic to climate emergency to conventional armed conflicts;*
- *helping improve anticipation of, preparedness to, management of and recovery from a crisis through systems approach that is human-centred;*
- *aimed at strengthening societal and economic resilience, and enhancing national security across virtual and physical environments, by improving awareness of risks and threats, preparedness, informed decision-making and response, and allowing change to be understood as a force for good.*



# Theme objectives: sub-themes

Each of five sub-themes views risks and vulnerabilities through a human-centred prism, from designing technologies and developing policies to preparing for and mitigating risks to making decisions in the aftermaths of a disaster.

## Sub-Themes

### **Global order in a time of change**

Help strengthen UK role in shaping an international order that is secure, resilient and just

### **Technologies for resilience security and defence**

Advance the capacity of state defence and security, economy and society to reduce vulnerabilities, to respond to and recover from shocks through innovation and technological advancement

### **Resilient and Secure Supply Chains**

Increase the resilience of supply chains (food, critical materials, manufacturing, complex systems) to a wide variety to potentially interacting shocks

### **Behavioural and Cultural Resilience**

Reduce the impact of shocks on individuals and communities through adaptation and embracing change, deployment of resources for personal resilience that is fair and just

### **Strengthening Resilience in Natural and Built Environment**

Mitigate impact of natural and anthropogenic hazards and risks on wider societal processes and operations being responsive to particular requirements of place



Subtheme	Investing into...			
Global order in a time of change	Polarities and Regions Network Plus			
Technologies for resilience, security and defence	Digital Twins	Quantum Technologies Position, navigating and timing (PNT)	Data and analytics facility for national infrastructure (DAFNI)	National centre for space situational awareness (NCSSA)
Resilient and secure supply chains	Strengthening resilience across UK food system	Supply chains as complex systems		
Behavioural and cultural resilience	Building behavioural science capability for defence and security research	Mobilising community assets to tackle health inequalities	Cultural Heritage and Climate Change	
Strengthening resilience in natural and built environments	Nature based solutions for equitable resilience	UK Climate Resilience	De-risking the risk of solid earth hazards (in partnership with India)	
Crosscutting	A research and coordination hub	BSRW Flexible Fund		

# Ambition: building a secure and resilient world

By the end of the programme we aim to have improved communities abilities to prevent and respond to threats in the real world and online by:

- bringing people together from different communities and research areas to solve complex real world challenges
- recognising that different communities have different requirements and needs when responding to the same threat
- encouraging the translation and growth of knowledge from local to national and international communities
- discovering new solutions to existing problems and challenging assumptions about what will work for a community
- using our knowledge to help create a safer, more resilient world



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**Thank you!**

