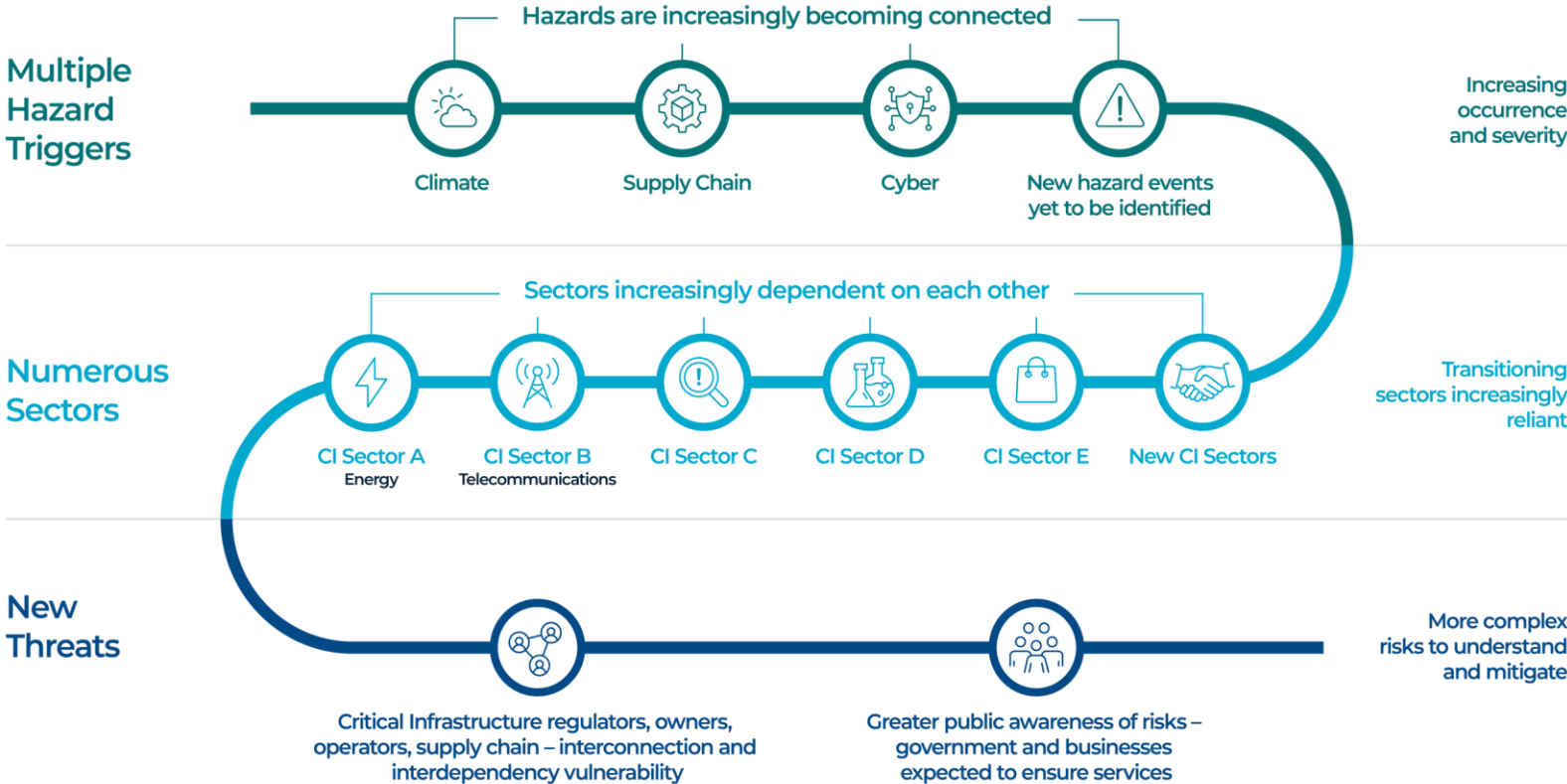# CSIRO

Critical Infrastructure Protection and Resilience

Dr Marthie Grobler | 30 July 2024
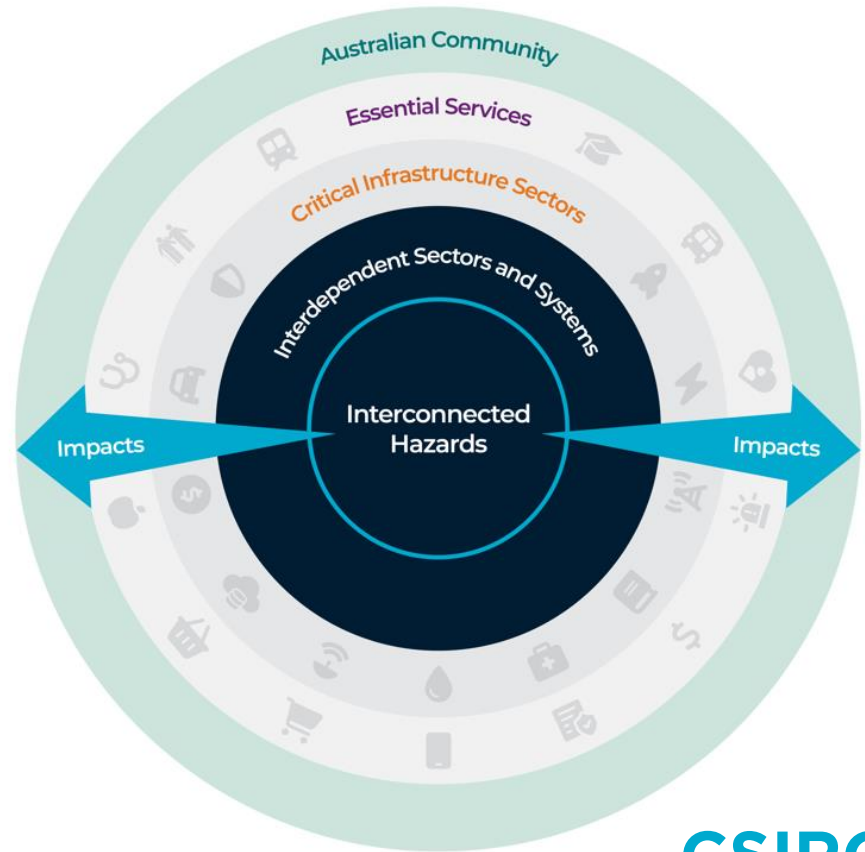
CIPR

Critical infrastructure challenges

Critical Infrastructure Protection and Resilience Mission in development 2024

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Critical infrastructure protection and resilience

Enhance capability to understand and mitigate:

1. **growing interconnections, interactions and interdependencies** between different hazards, systems and sectors

2. **risks, vulnerabilities and impacts** these growing interconnections presents

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Critical infrastructure and critical technology

https://research.csiro.au/cybersecurity-quantum-systems/

Future communication (6G)

Future energy (DER/CER)

AI

https://wp.csiro.au/ai4c/
AI for Climate

Quantum

Digital twins

Icons created by Freepik

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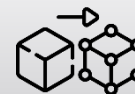
The Nexus and workshop outcomes

Digital Infrastructure

The foundation of an organisations IT and operation including physical and virtual technologies such as connectivity, cloud, computer, storage, network, applications and Everything as a Service (XaaS) platforms. Provides a basis for data consumption, sharing and other digital tasks.

Physical Infrastructure

Structures that directly drive the economy of a country including the power grid, transportation networks, banks, highways and mobile towers.

Convergence

Interconnected Hazards

Extreme weather events including fire and flood and cyber incidents including attacks by bad actors, criminals and trusted insiders.

Interdependent Sectors and Systems

11 regulated sectors under the SOCI Act: energy; communications; food and grocery; financial services and markets; defence industry; transport; higher education and research; data storage and processing; healthcare and medical; water; space technology.

CSIRO

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https://www.csiro.au/en/about/challenges-missions/Critical-Infrastructure