

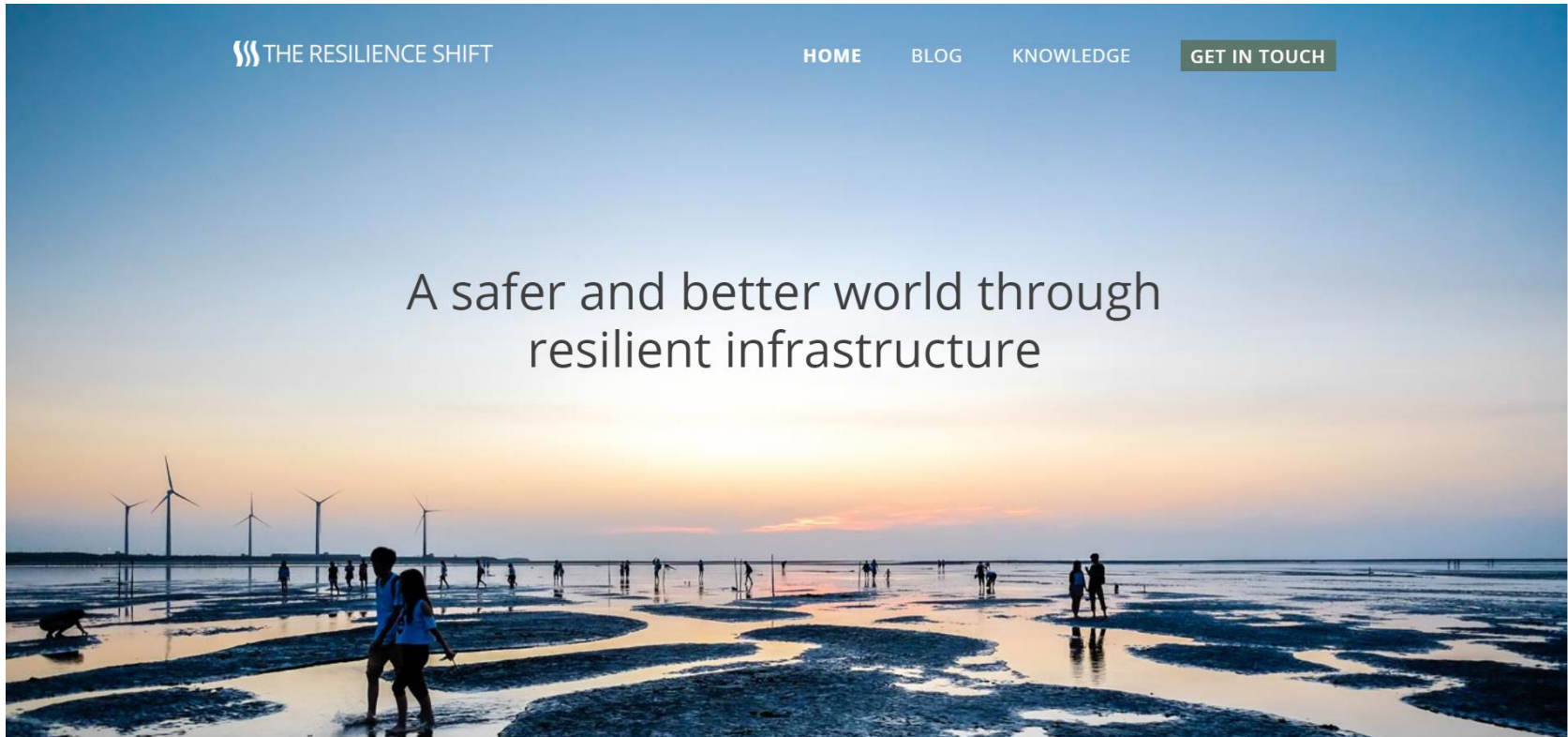


Workshop: Intersections Between Resilience and Risk



Introduction

Dr. Oliver Pritchard, Arup/tRS



The Resilience Shift aims to make our world safer and better to live in, by catalysing change in how critical infrastructure is designed,



Workshop: Intersections Between Resilience and Risk



Water supply, Energy supply, Food supply, Natural resources, Transport and Critical Infrastructures
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What does Resilience mean to you?:

- Maintaining critical functionality to both disruptive events and accumulating pressures (chronic stresses).
- Thinking about systems rather than individual assets.
- An enhancement, transformative element to convert threats into opportunities (not only adapting)

Key Resilience Research Challenges:

- Ensuring infrastructure systems remain functional in diverse conditions.
- Considering infrastructure as socio-technical systems and as system-of-systems.
- Defining critical infrastructure systems in terms of how they protect, connect and provide for society.

Planned Research Focus:

- Tools, approaches, knowledge and technology to make research more tangible, practical and relevant to industry practice.
- Incentives that drive decision making including standards, policy, finance and insurance.
- Transferring learning from one sector to another.

What would good look like?

- Approaching infrastructure design as more than physical parameters.
- Moving away from resilience being defined in terms of preventing failure at pre-defined thresholds.



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Perceived Barriers?:

- Siloed infrastructure sectors.
- Lack of systems thinking.
- Lack of financial/legislative/regulatory incentives.
- Infrastructure design standards.

What are the consequences - Risks?:

- Increasingly uncertain future.
- Majority of people living in cities.
- Safety and wellbeing of billions relies on critical infrastructure services.
- Required to protect and connect us whatever future has in store.

Envisaged Breakthroughs Required:

- Moving from traditional risk-based approaches to resilience-based approach.
- Greater uptake of systems thinking in practice.
- Financial/legislative incentives for resilient design.

Who needs to do what?:

- Academics
- Engineers
- Planners
- Designers
- Infrastructure Operators/Owners
- Insurers/Financiers/Regulators
- Government