

An industry guide to enhancing potable water resilience

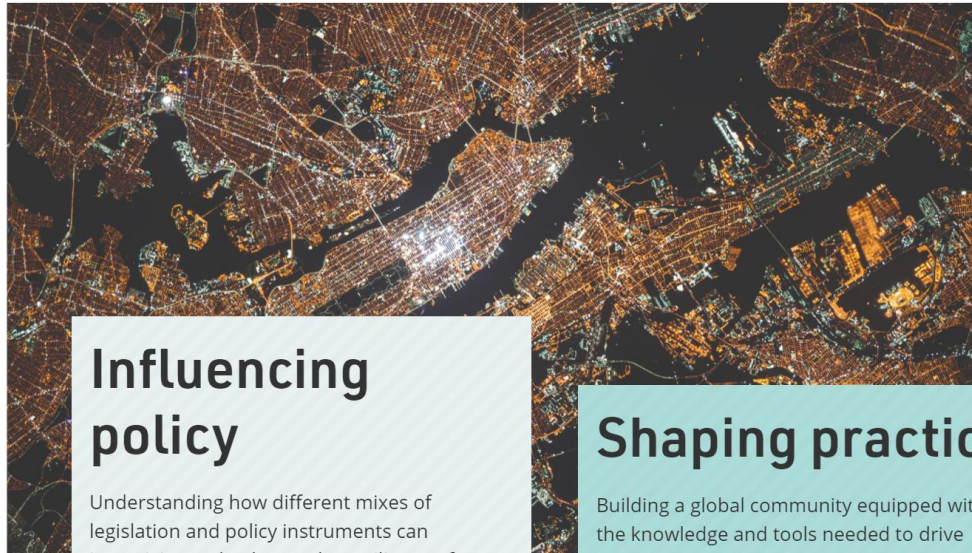
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Resilient 
ORGANISATIONS

The Resilience Shift

Inspire and empower a shift in critical infrastructure resilience thinking

Funded by the Lloyds Register Foundation, hosted by Arup



Influencing policy

Understanding how different mixes of legislation and policy instruments can incentivise and enhance the resilience of critical infrastructure, and shape resilience-led policy making.

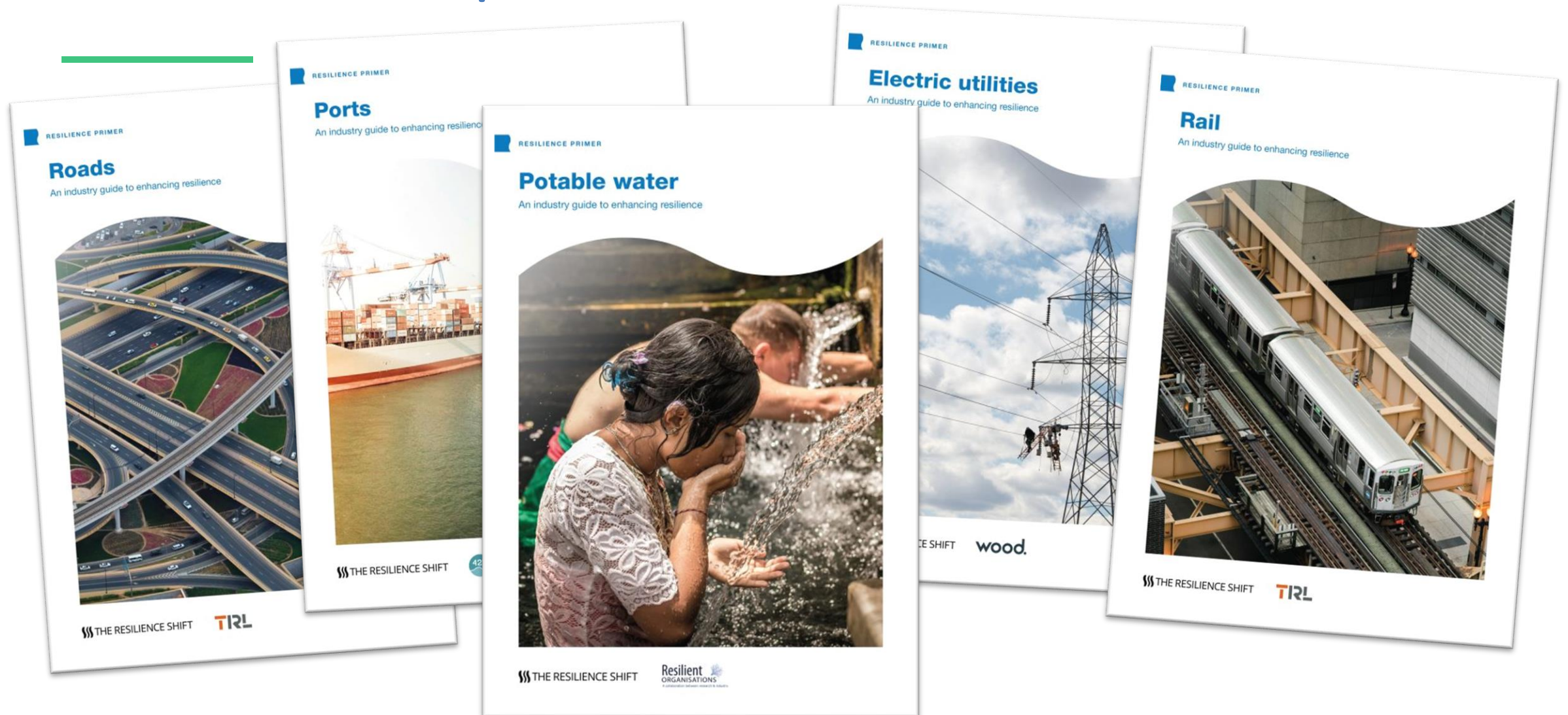
Shaping practice

Building a global community equipped with the knowledge and tools needed to drive practice towards better, more resilient critical infrastructure and a safer world.


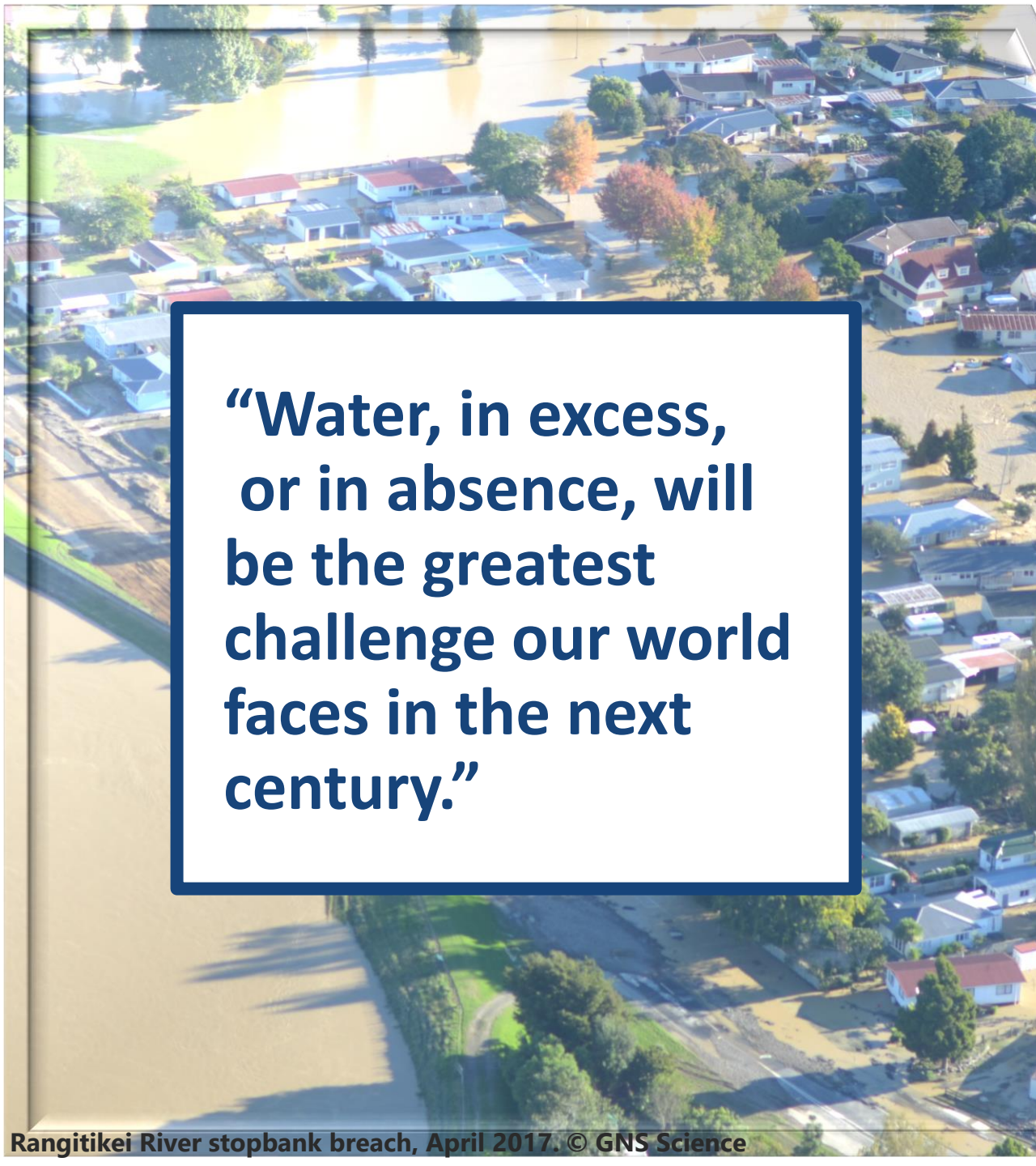
Sharing learning

Advancing best practice across the infrastructure value chain through collaborative working and fostering knowledge transfer.

Resilience Shift primers







resilienceshift.org/campaign/resilience-primers/



**“Water, in excess,
or in absence, will
be the greatest
challenge our world
faces in the next
century.”**

Defining the system

SYSTEM	KEY RISKS
 <p>Potential availability Inflows to natural sources</p>	<ul style="list-style-type: none"> • Over utilisation (competition with other uses) • Environmental change • Quality • Land use changes • Ownership issues
 <p>Captured supply Adequate storage e.g. aquifers, reservoirs</p>	<ul style="list-style-type: none"> • Damage • Contamination (including deliberate and accidental) • Over-use, under replenishment
 <p>Treatment and distribution Wells, pipes, plumbing, treatment</p>	<ul style="list-style-type: none"> • Continuity of function (damage e.g. disaster or terrorism, ageing mechanical failure) • Interdependencies with other services • Quality/contamination
 <p>Demand management Water value, meters, restrictions</p>	<ul style="list-style-type: none"> • Demographic changes • Changing industry usage • Land use change

Eroding resilience



Short-term
thinking



Efficiency &
economy drivers



Single driver
upgrades



Ageing
infrastructure



Competing
challenges



Decision
biases

Enabling resilience

Customer perception (willingness to pay)

As measured by;

- Citizen input to long term plans
- Interest/lobby groups
- Customer consultation

Organisational (making it happen)

- Attitude
- Capability
- Funding

Political will (setting the direction)

- Laws, regulations,
- Business case approval guidelines
- Standards

**Conditions
for resilience
improvement**

17 recommendations

Understand
your risks

Engage
communities
in resilience

Create public
resilience
metrics

Find your
burning
platform

Motivate
change
through
stories

Choose
appropriate
messaging

Learn from
other
countries

Create
effective
organisational
structures

Develop
resilience
advocates

Review
professional
education

Provide the
legislative
mandate to
act

Build
organisational
resilience
capabilities

Ensure water
is valued

Embed
resilience
thinking at
project
inception

Explore
alternative
funding
mechanisms

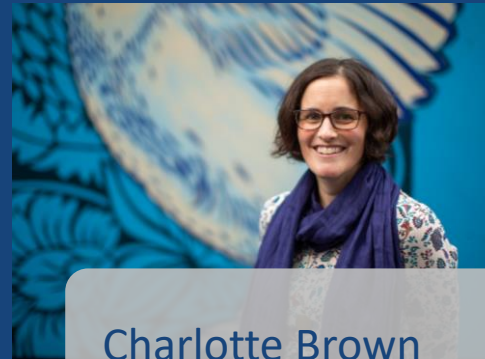
Apply system
not territorial
boundaries

Build and
utilise co-
operative
networks

Thank you



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