

6th EWA / JSWA / WEF Joint Conference
„The Resilience of the Water Sector“
15-18 May 2018, Munich, Germany



Resilience Learning for Water Sector Culture Change

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15th May 2018

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Safe & SuRe water management

Safe: *Reliable*

SuRe: Sustainable and Resilient

Aim of the S&S research project:

To develop a new paradigm for ‘Safe & SuRe’ urban water management in the UK in response to emerging challenges and global uncertainties



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Why?



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EWA | 
EUROPEAN WATER ASSOCIATION


JSWA

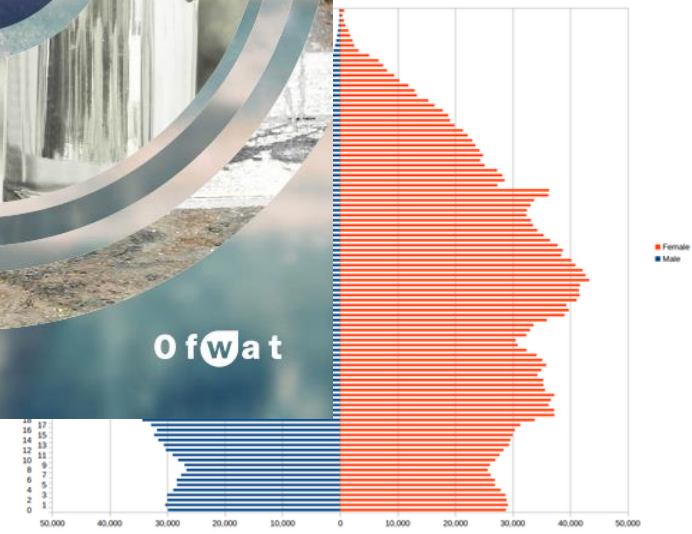
 Water Environment
Federation®
the water quality people®

Global threats



Resilience in the round
Building resilience for the future
#resilienceintheround

ofwat



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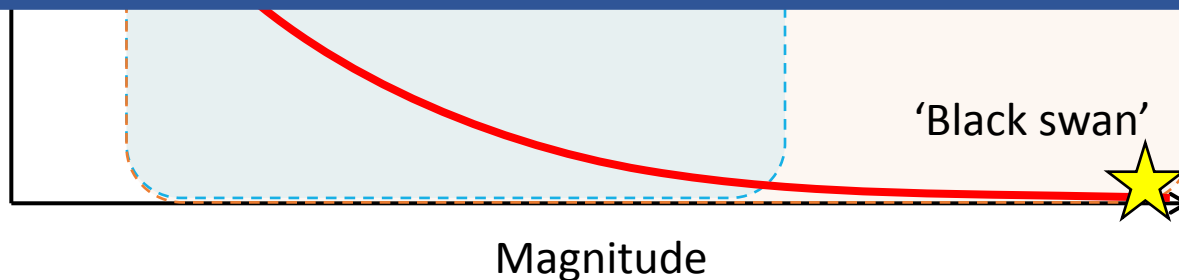
What?



High probability events –
expected to occur within
design life

Extreme events, including
those which cannot be
predicted

Resilience definition: “the degree to which the system
minimises level of service failure magnitude and duration
over its design life when subject to exceptional conditions”
(Butler et al. 2014)



Resilience learning for culture change

1. Are the workforce and customers ready for a culture shift to create a more resilient sector?
2. What are the threats that water companies are facing in making the shift to create a more resilient workforce?
3. Can the resilience-building measures reported be mapped onto the Safe & SuRe interventions framework?



Methodology

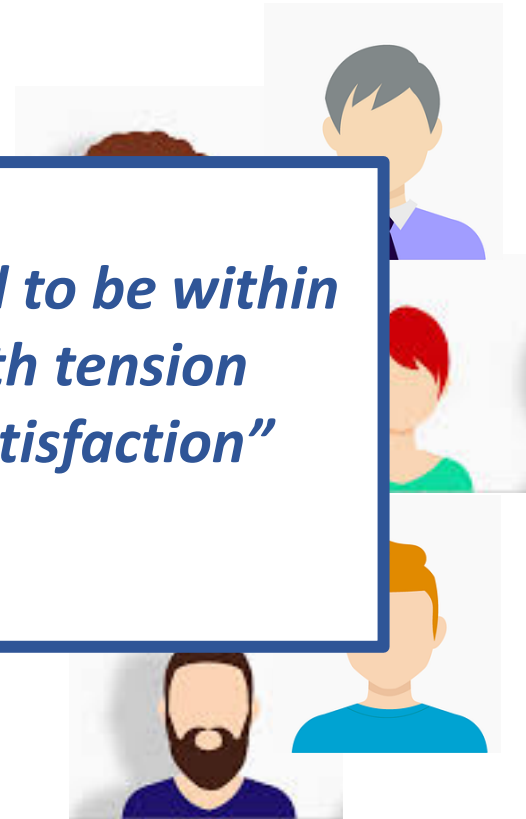
- **Water and sewerage companies:** Semi-structured interviews were conducted with five water and sewerage companies
- **Ofwat:** Semi-structured interview with Director of Strategy & Planning. Ofwat are responsible for overseeing the sector and setting price limits for water and sewerage services



1a. Are customers ready for a culture shift to create a more resilient sector?

- Engaging customers is hard, therefore...
- Water companies expect resilient customers...
- Customer expectations...

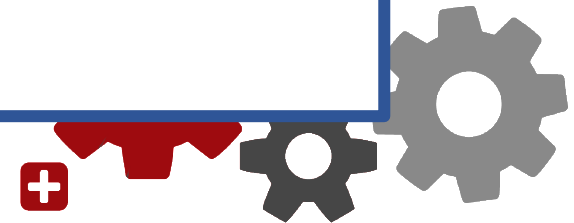
*“Customer expectations need to be within the limitations of budget, with tension between affordability and satisfaction”
(Water company one).*



1b. Is the workforce ready for a culture shift to create a more resilient sector?

- A resilient workforce is reactive
- Operational staff are solving the problem

*“Water companies need to make staff feel passionate and rewarded by doing the routine work very well instead of fixing a major problem”
(Water company five)*



Safe & SuRe Interventions Framework

Poor leadership

Lack of resources

Geography

Staff Profile

2. Threats water companies are facing in making the shift to create a more resilient workforce

Unhappy customers



3. Mapping resilience-building measures, reported by the water companies & Ofwat, onto the Safe & SuRe interventions framework

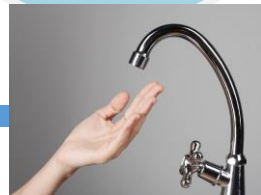


Organised with poor engagement with customers



Limited knowledge of customer appetite...

engagement with customers



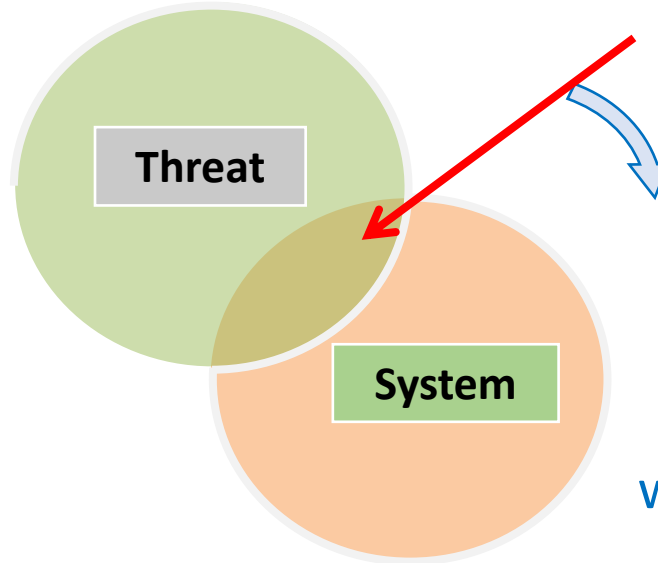
Safe & SuRe Interventions Framework

Poor Leadership

Mitigate ->

Talent spotting &
investment

Mitigation: ‘Any physical
or non-physical action
taken to reduce the
frequency, magnitude or
duration of a threat’



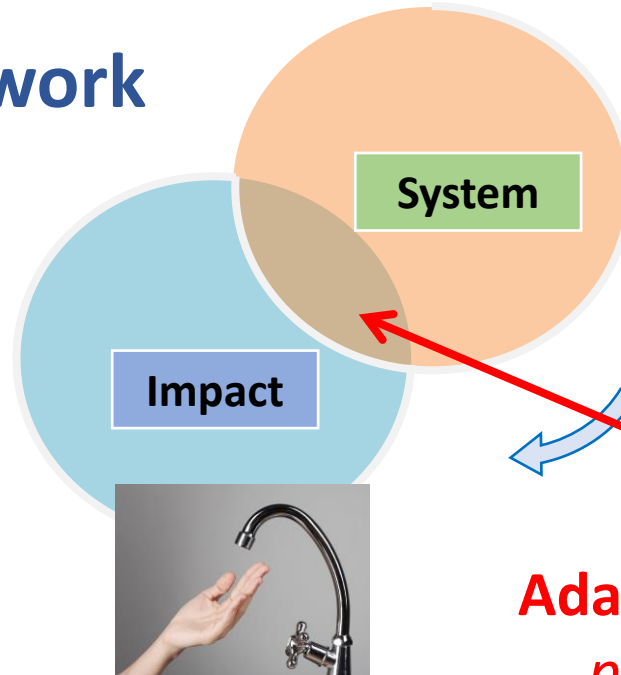
Disorganised
workforce with poor
engagement with
customers

*“Having the capabilities of pulling out the top candidates”
(Water company three).*

Safe & SuRe Interventions Framework

Adaptation: ‘Action taken to modify specific properties of the water system to enhance its capability to maintain levels of service under varying conditions’

Limited knowledge of customer appetite...



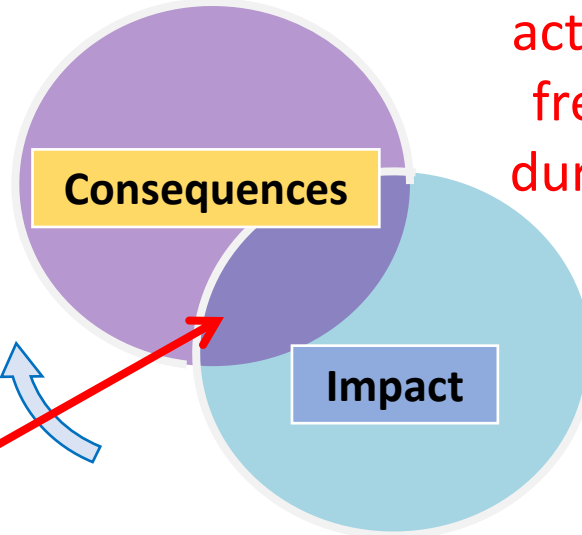
Disorganised workforce with poor engagement with customers

Adapt → Diversify perspectives, communication, training

*“Diversity needs to be encouraged at all levels in the company”
(Water company three).*

Safe & SuRe Interventions Framework

Unhappy customers...

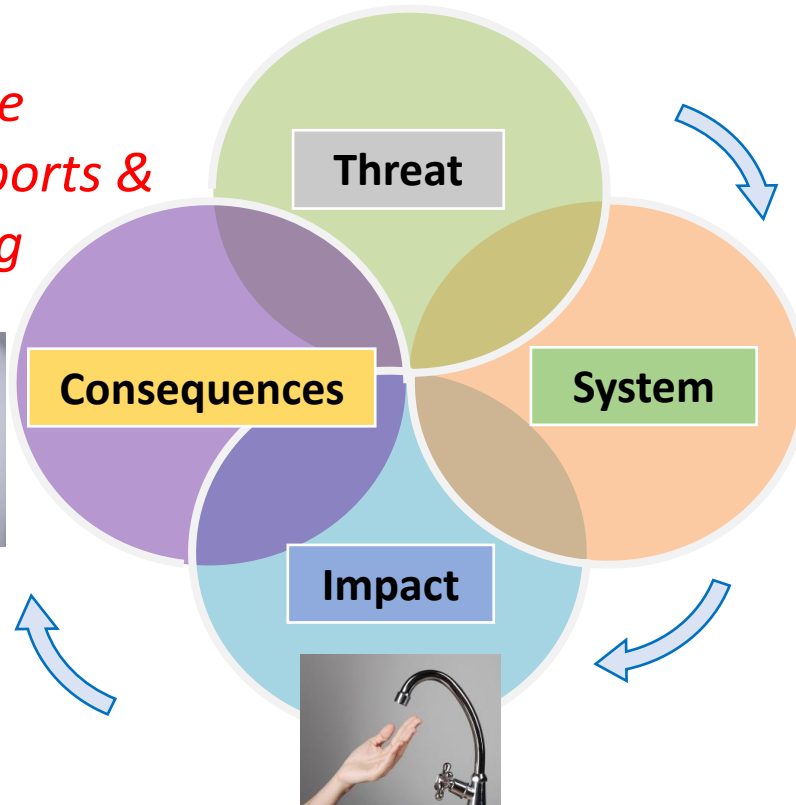


Coping: ‘Any preparation or action taken to reduce the frequency, magnitude or duration of an impact on a recipient’

Cope -> Utilise goodwill & ensure flexibility

“Having procedural approaches to resilience is fanciful as all droughts and floods are never the same” (Water company two).

**Learning -> Produce
failure/learning reports &
embedding learning**



**Learning: ‘Embedding
experiences and new
knowledge in best
practice’**



*“Failure still has the old-fashioned understanding. [The water sector] is in contrast to the aviation industry which has a no blame policy. Although failure is natural it goes against human nature, we want to succeed”
(Water company two).*

Conclusions

- People are fundamental in creating any paradigm or regime shift
 - Main threats and failure modes for resilience learning in the water sector were highlighted as poor leadership, lack of resources, geography and the changing staff profile
 - Safe and SuRe framework worked a powerful toolkit to raise awareness of the need to tailor approaches
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