The impact of plumbing on risk and resilience

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Outline

- What is resilience and how can plumbing can affect it
- Barriers to improving resilience
- Strategies to improve resilience

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Resilience

"Resilience is the ability to cope with, and recover from, disruption and anticipate trends and variability in order to maintain services for people and protect the natural environment now and in the future"

Ofwat

"*the ability of a system to withstand shocks and continue to function*"

Defra and the Welsh Government

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Aim

Maintain safe and sufficient supplies

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Aim

Improve & maintain safe and sufficient supplies

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Disruptors and trends

- Drought, water shortages and population growth
- Heat waves
- Flooding
- Cold snaps
- Pandemic
- Aging assets
- New technology and product innovations

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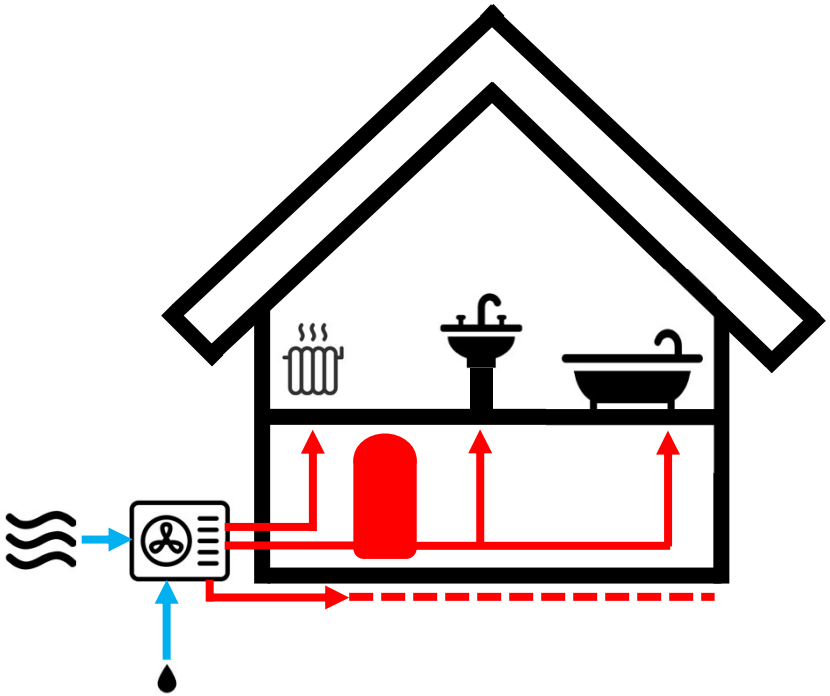
Product innovations

Heat pumps



Showers
Water recycling
Heat recovery

Smart metering
Artificial intelligence

Barriers and challenges

- Not in direct control of water companies
- Legacy plumbing
- Funding
- Consumer awareness
- Installer competence
- Product compliance
- Growing population

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Making plumbing more resilient

High level risks

- Installers
- Products
- How we use water
- Existing issues

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Installers

- WaterSafe
- Water company contractors
- Qualifications and training
- Public funding
- Mandatory registration

Products

- Checks
- Standards
- Product specific risks
- Public funding
- Compliance at point of sale

How we use water

- Better information about water use
- Raising awareness of how to avoid risks

Identify & resolve current issues

- Inspections programmes
- Failures, queries and complaints
- Joined up thinking
- Lead strategies

Good plumbing is essential for resilience

25% of leakage is due to supply pipes

Leaky loos

Supply pipe leaks

Leaks

Metals

Nickel

Lead

Backflow

Taste & odour

Contamination

Cross connections

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