

Climate change adaptation

An industry perspective

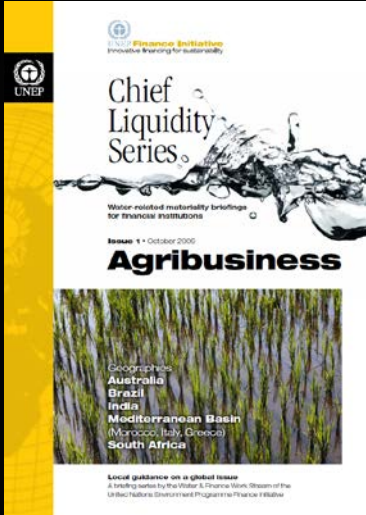
Geneva

Justin Abbott

ARUP

An industry perspective

Drivers



1 KG COTTON TEXTILE
11,000

An industry perspective

Understanding risk



GEMI Local Water tool

Ceres Aqua Gauge

Water Footprint Assessment Standard by the Water Footprint Network

Global Water Tool by the World Business Council for Sustainable Development

Aqueduct by the World Resources Institute

Water Risk Filter by WWF/DEG

Corporate Water Disclosure Standards led by the Pacific Institute

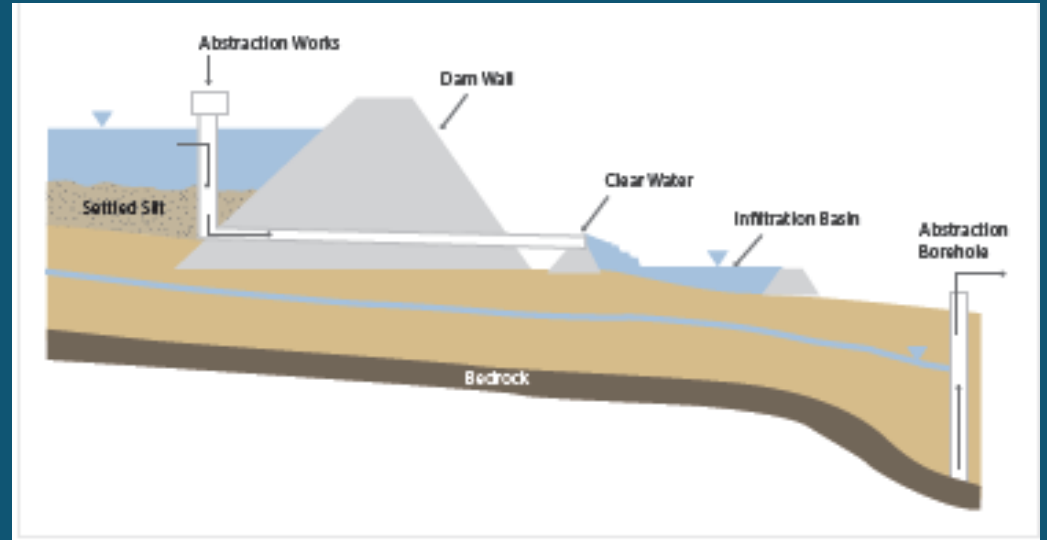
An industry perspective

Adapting to risk

An industry perspective

Adapting to risk – Developing alternative sources

- Sector; Mining
- Groundwater recharge; dam and infiltration basins to capture and store flood waters.



An industry perspective

Adapting to risk - Recycling water

- Sector; Food
- Harvesting rainwater, capturing process waters.



An industry perspective

Adapting to risk – Closing the loop

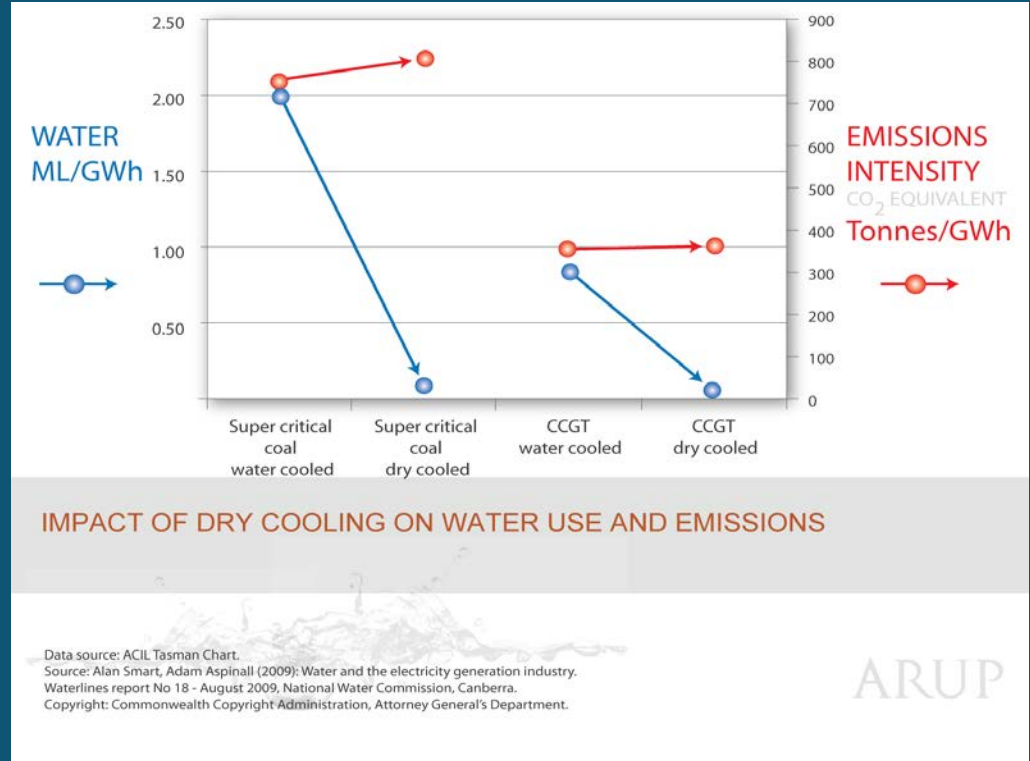
- Sector; Power and Steel
- Water re-use across sectors



An industry perspective

Adapting to risk – Reducing water consumption

- Sector; Power
- Water efficient technologies; direct dry cooling



An industry perspective

Adapting to risk – Understanding systems

- Sector; Utilities
- Developing consistent understanding of flood risk.



Indicative design standard	Target asset performance level			
	Unaffected	Restricted operation	Safe but not operational	Near failure
(1 in x annual chance)				
10 -75	CAT 1			
75 -100	CAT 2	CAT 1		
100 -200	CAT 3	CAT 2	CAT 1	
200 -1,000	CAT 4	CAT 3	CAT 2	CAT 1
> 1,000	CAT 5	CAT 4	CAT 3	CAT 2

An industry perspective

Adapting to risk – Partnerships

- Sector; Energy
- Community engagement, addressing leakage within community infrastructure.



An industry perspective

Adapting to risk – Observations

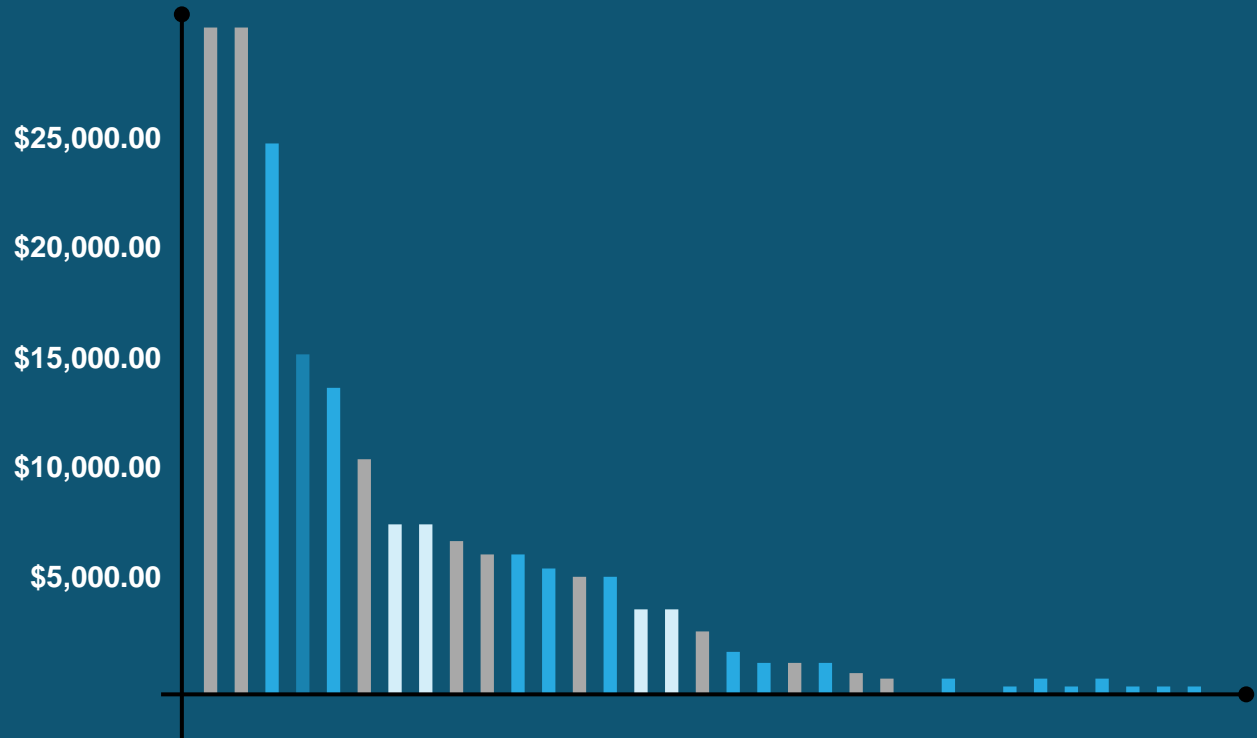
Data

Single issue

Boundary mindset

Cost effectiveness

Deliverability



An industry perspective

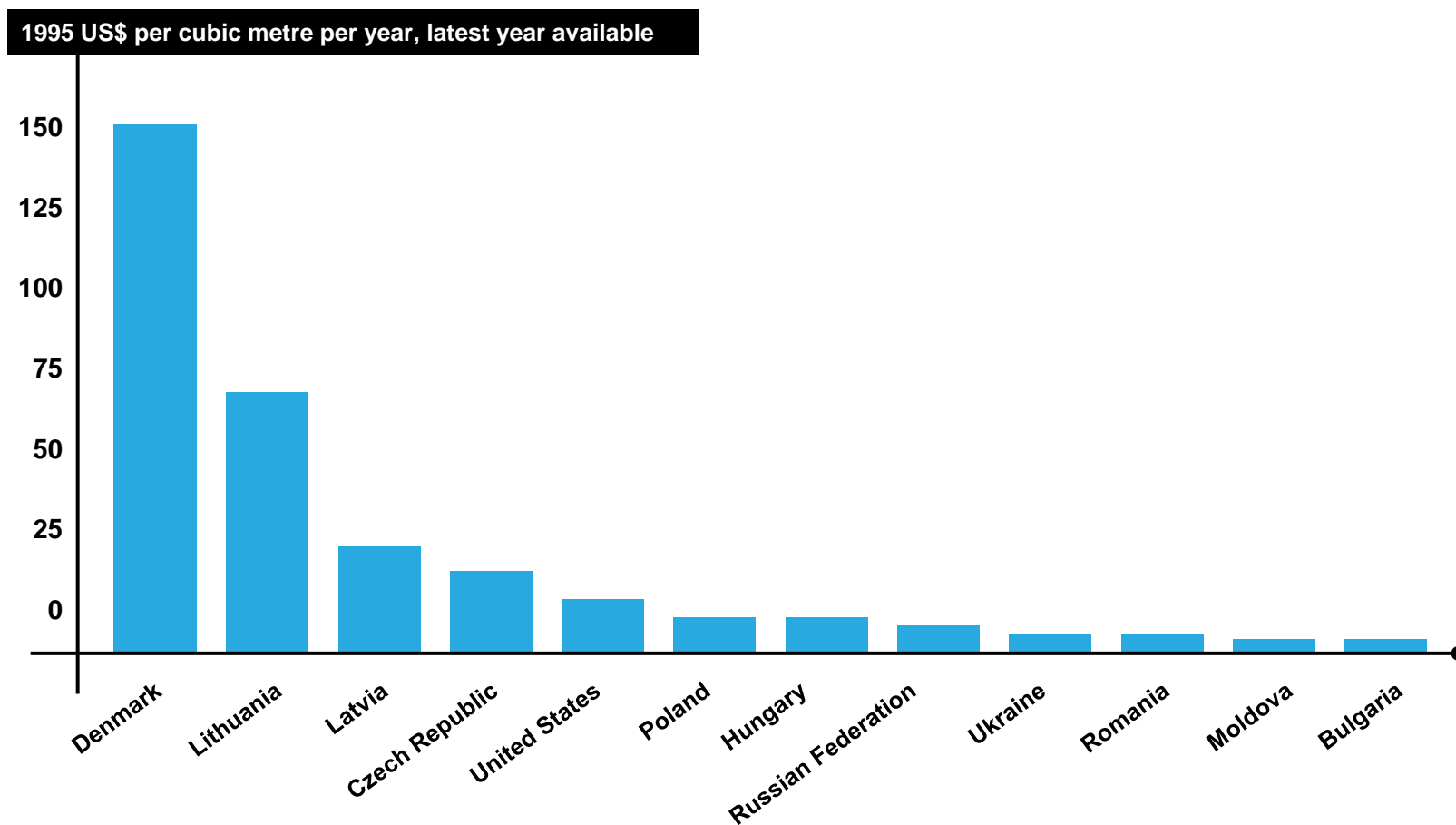
Looking forward

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An industry perspective

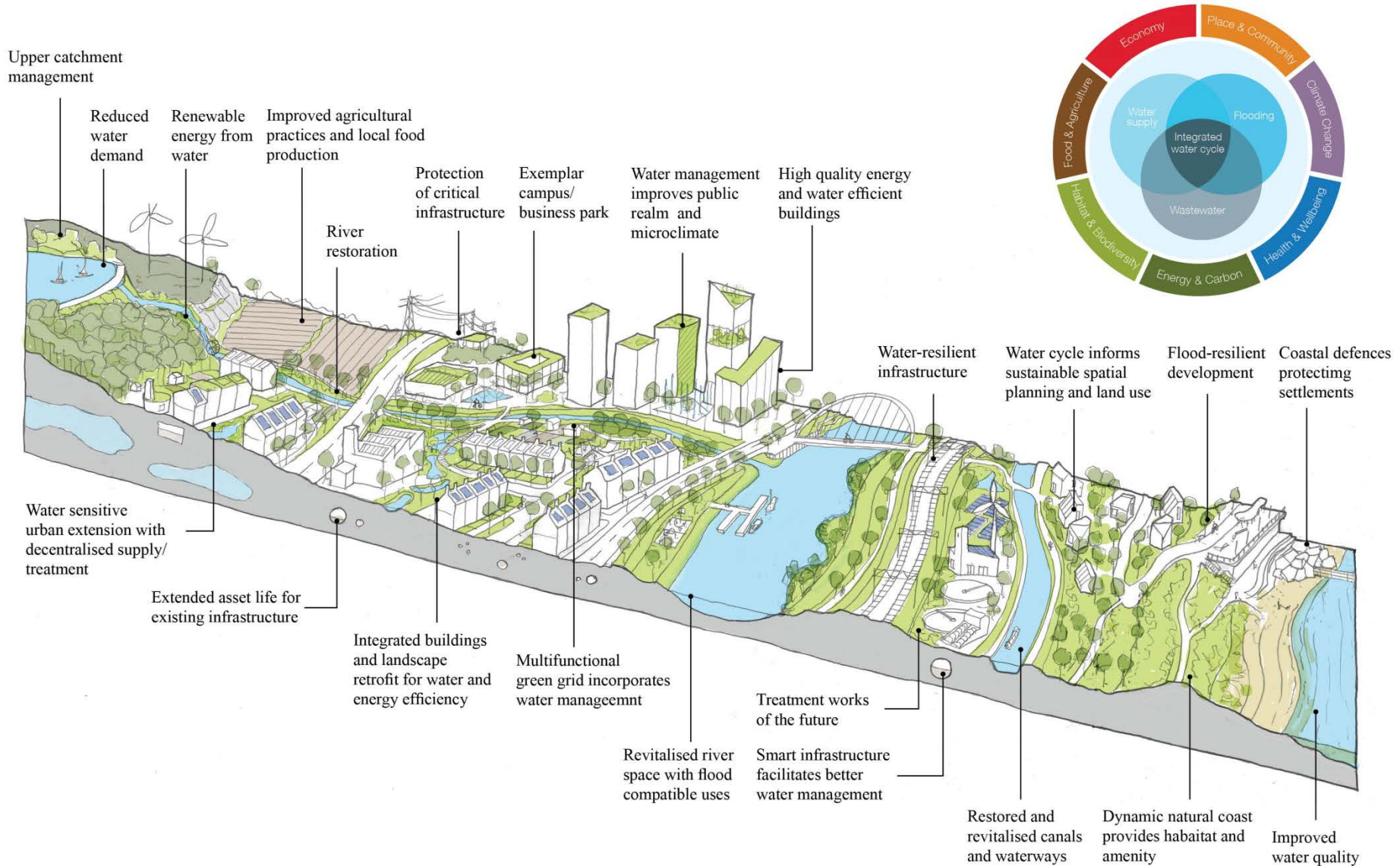
Looking forward - Recognising opportunity

Industrial water productivity varies greatly across countries



An industry perspective

Looking forward - Efficient interventions, working across catchments



An industry perspective

Looking forward - Evidence base for action



Managing Water Use
in Scarce Environments :
A Catalogue of Case Studies



Thank you.