New challenges in regulation: climate change, carbon footprint, water service licensing

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25 November 2010

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Nature of challenges

Ofwat strategic response

Climate change
– Adaptation
– Mitigation (including catchment management)

Driving sustainable decision-making by revealing the value of water

How our market reform project and other strategic projects are helping

Challenges

Adapting to a changing and unpredictable climate

Reducing emissions to help mitigate climate change

Population growth, particularly in south east England where water is already scarce

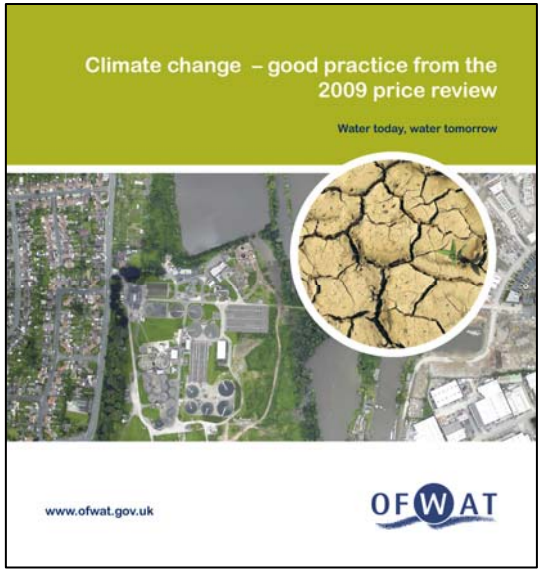
Changing consumer expectations (for example for more tailored, bespoke arrangements) and lifestyle changes

Economic uncertainty and affordability

Further tightening of environmental standards

These challenges are different in nature, scale and complexity to those of the past

The 2009 price review and climate change



Challenge of regulating in face of uncertainty

The companies must now deliver – and learn

Categories of climate change proposals:
Demonstration of a clear need now (resilience)

Immediate carbon reduction benefits (renewables)

Multiple future benefits beyond climate change (catchment management)

Areas where further evidence is needed (supply/demand balance)

Big climate change challenges – adaptation

Three big impacts: water scarcity, floods and water quality

Abstraction pressures in south-east England will be exacerbated, damaging sensitive ecosystems

Our work with Met Office also shows that the frequency of extreme daily rainfall events in England and Wales is likely to more than double by the 2040s

This will result in increased pressures on drainage infrastructure and above-ground resilience

Need to get the economics right to justify long-term sustainable investments and enable robust cases for action to be developed

Questions for long-term adaptation

How to regulate when there is temporal separation?
Cause and effect
Solutions and benefits

How to protect consumers' long-term interests?
Maintaining incentives
Balance of risks
Understanding there will be a cost involved

How to establish the appropriate balance between overarching frameworks and local implementation?
Appropriate level of environmental quality
Levels of resilience

Big climate change challenges – mitigation

Water and sewerage sectors responsible for about 1.1% of UK greenhouse gas emissions, rising to 6% if emissions related to water use are included

Sectors will therefore be expected to play their part in reaching UK HMG target of 80% reduction in GHGs by 2050

Need to develop low-carbon approaches and give consumers incentives to reduce use, for example through smart metering

Carbon implications of quality programme funded at PR09

1.6 million tonnes to build new infrastructure (embedded emissions)

180,000 tonnes every year to run it (operational emissions)

Equivalent to:
Almost 500,000 additional cars on the road
Almost 50,000 for every year the infrastructure is used

The challenge of carbon – what we are working on

Developing low-carbon, sustainable solutions to water quality challenges (such as catchment management)

Developing more sustainable planning, drainage and land management solutions to reduce the demand on drainage infrastructure

The case for rolling out smart metering and joining up approaches to promoting both energy and water efficiency

Pressing for broader environmental impacts to be taken into account in developing and implementing quality standards

Addressing unsustainable abstraction by using the value of water to incentivise bulk water trading and making the abstraction licensing system more flexible

Support for catchment management in PR09

More than 100 schemes and investigations

18 companies

£56 million investment, £9 million opex

Schemes include structural interventions, survey work, mapping, modelling, data purchase, monitoring, advice to landowners (for example on metaldehyde)

Potentially multiple benefits, for example water quality, carbon storage, flood retention, biodiversity

But risky, experimental spend

Catchment management – SCaMP: before

Catchment management – SCaMP: after

Good agricultural practice – buffer strip

Poor agricultural practice

Key challenges ahead – valuing water

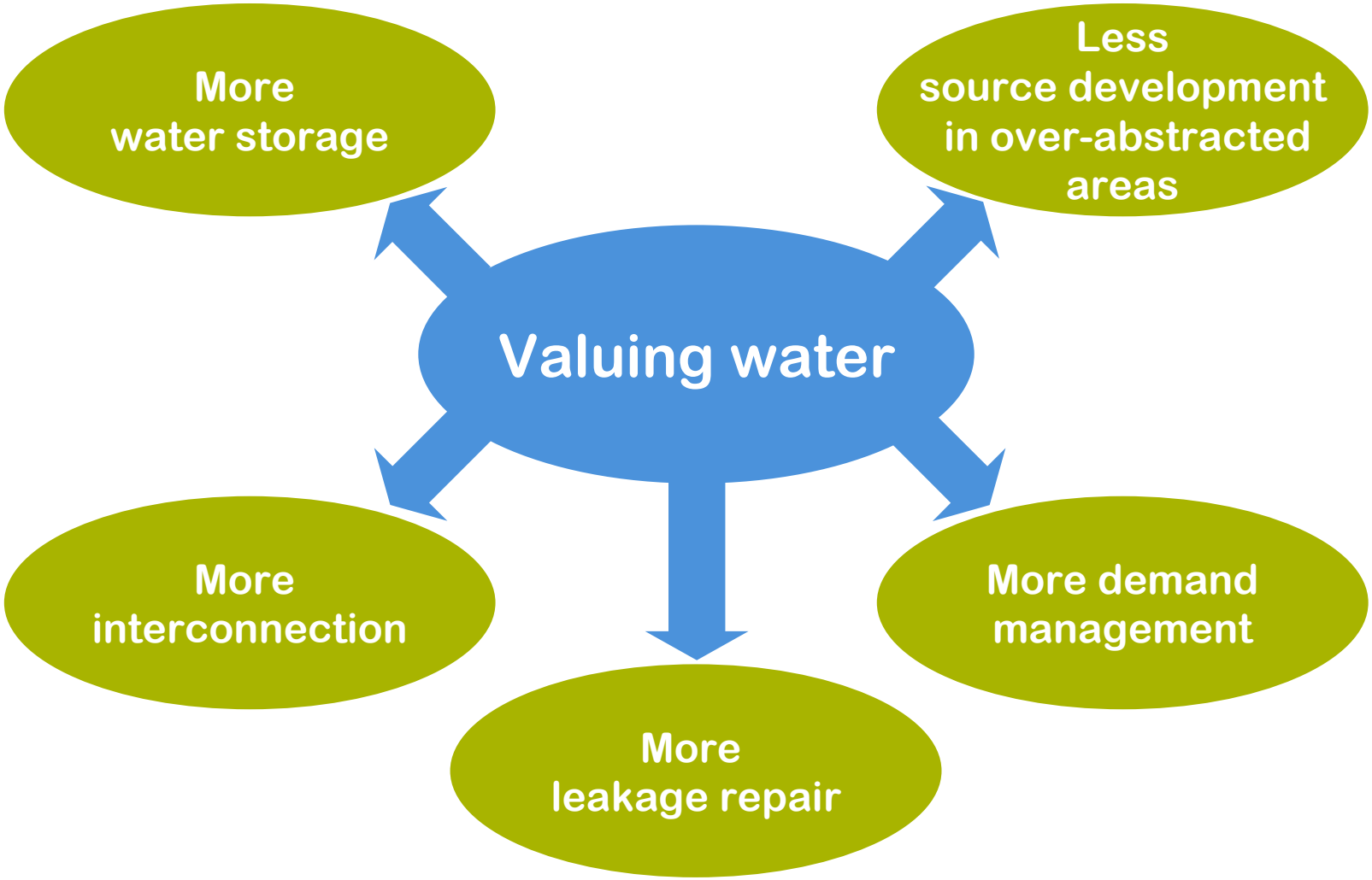
The need to value water more accurately

Improved decisions and behaviours:
Sustainable investment decisions by companies
Changes in behaviour from water users
Greater appreciation of our water resources and the environment

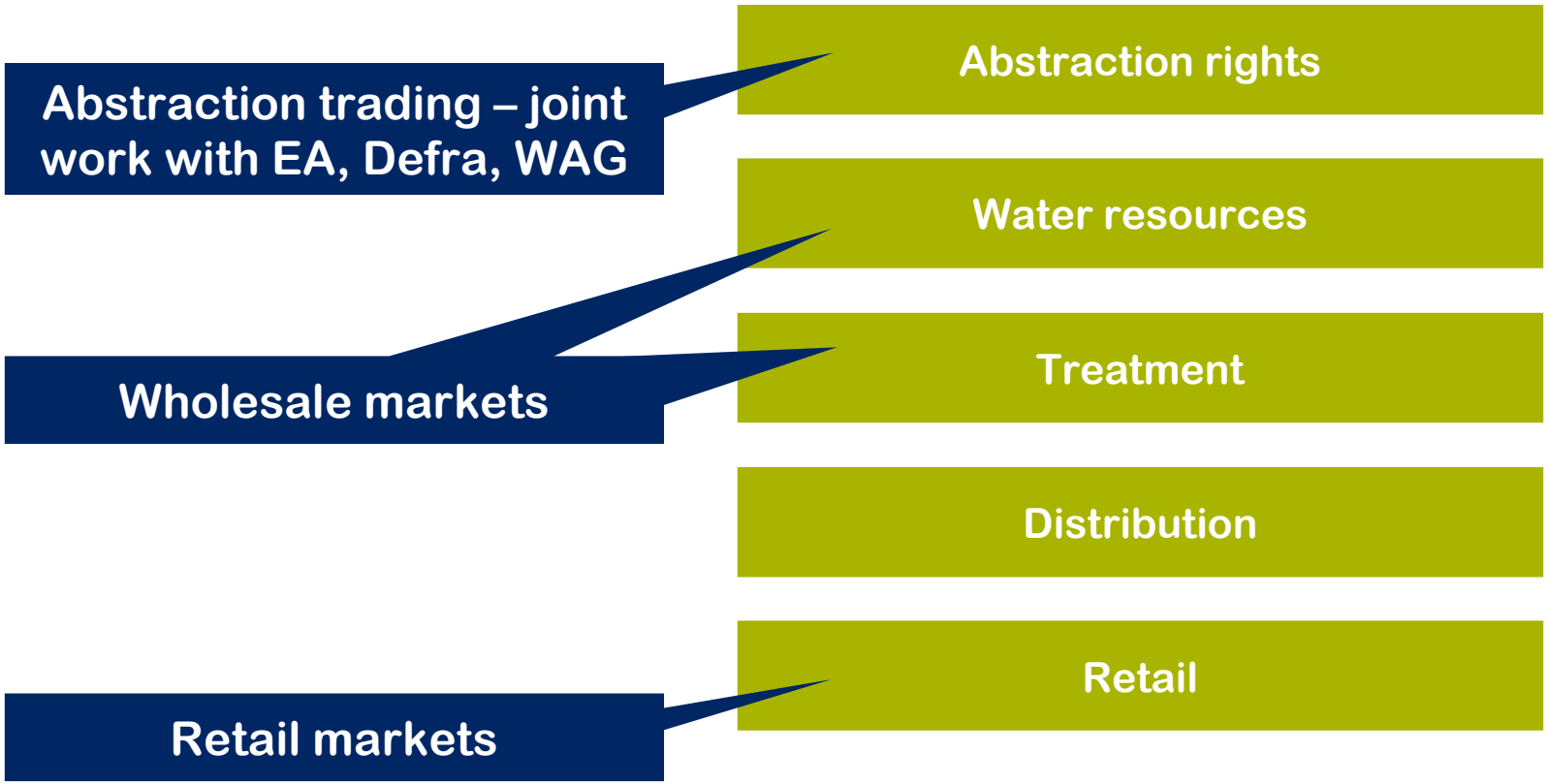
At present no value is attached to scarcity

Going further, we need to consider the future value

Valuing water drives environmental investment



Markets can help reveal the value of water



Deregulation and local decision-making

Markets are also important for:

Deregulation

Opens up retail and wholesale markets to new players

Price caps replaced by market pressure on prices

Devolving decision-making to the local level

Replaces centralised decisions by regulators with commercial decisions by a variety of market players

Allows more scope for innovation

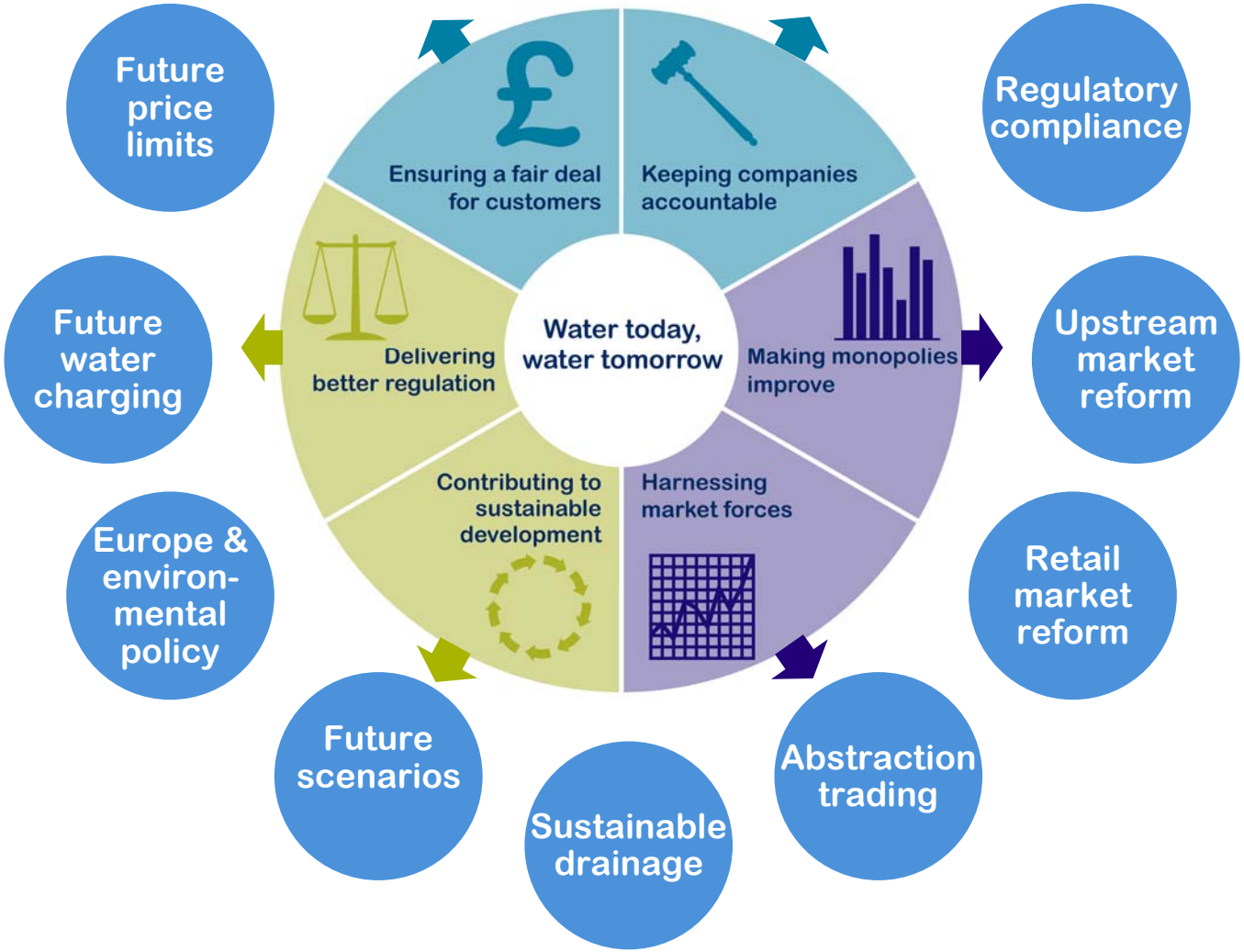
Ofwat's Vision – 'Sustainable Water'

In March 2010, we published our refreshed strategy for delivering our sustainable water vision

We want to achieve
"A sustainable water cycle in which we are able to meet our needs for water and sewerage services while enabling future generations to meet their own needs"

Sustainable water means:
Economically sustainable
Environmentally sustainable
Socially sustainable

Wider programme of work



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