



20 September 2019

To: Rachel Fletcher
Chief Executive Officer
Ofwat
1 Bloomsbury Street
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Ofwat's emerging strategy: Driving transformational innovation in the sector

Dear Rachel

On behalf of British Water and our members we would like to congratulate Ofwat on your wholehearted commitment to engage with and listen to the supply chain. This genuine desire to draw innovation and inspiration from SMEs into the regulated utilities is very welcome.

That it is backed up with participatory events where genuine dialogue can take place should certainly continue into the future and British Water is a very willing partner. The strengthening of this understanding and sharing of expertise will drive value for customers, help secure resilient infrastructure and supplies and support effective stewardship of future water resources.

At a collaborative event on 26 July, Ofwat asked British Water members for their opinions on a number of issues surrounding innovation and how it should be financed. Although each member has their own perspective, general themes did emerge, some of which are captured below.

The view of British Water is that the proposed funding should be invested in a water innovation centre of excellence that is remotely managed and operated. The centre would make best use of existing assets for trials to ensure successful innovations are rolled-out across multiple sites and best practise shared and incorporated.

While not having a physical locus, staff, partners and stakeholders would collaborate through virtual systems to ensure smooth delivery of outputs. We also believe that the centre should include a single accreditation centre for innovative technologies and approaches.

The centre would have formal links to the existing network of regional water resource groups and other similar clusters. Best practise in showcasing expertise from leading initiatives in the US, Netherlands, Germany, Singapore and Australia would also be utilised and collaborations with these networks sought.

A board would be established to set the strategic direction of the centre and an independent chair with entrepreneurial experience appointed. The board would oversee the allocation of funding to ensure a collaborative open innovation approach for the core benefit of streamlining pilot projects and reducing the total cost of UK water sector R&D.

We would recommend that the board be drawn from a number of independent parties including British Water, UKWIR, Water UK and others, along with the quality regulators – especially the Environment Agency and DWI - as well as representatives of the water companies.

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A proportion of funding should support a small but strong staff management team as well as specialist experts that can be called on as required. It should also support a marketing and events function to share the developments and successes widely within the UK and internationally.

This proposal is explored more fully in our detailed answers to Ofwat's questions below:

1. What are the main barriers to innovation in the sector and why?

To overcome barriers to innovation British Water members want to see innovation considered much more broadly, beyond technology development. In particular they want initiatives that will drive behaviour change within water companies.

Leaders need to think and act differently if they are to truly move on innovation, and that culture change needs to be embedded throughout the company and workforce. In our members' experience this may mean applying established technology differently and developing better procurement, design and delivery strategies for projects and programmes of work.

Here is a summary of barriers identified:

- Procurement, design and delivery
 - Procurement is detached from strategy and delivery
 - Design is client-led or consultant-led with failure to fully engage suppliers and at the earliest stage of project development
 - Procurement routes are costly and time-consuming
 - Client design and asset standards can be overbearing
 - Companies are looking for commoditised lowest price
 - Inflexible governance systems
 - Lack of supply chain understanding of projects coming through the pipeline, for example, the large-scale direct procurement schemes
- R&D, trials and testing
 - Budgets driven down by tighter regulation squeezing the supply chain
 - Multiple duplication of tests and trials with different client increases cost
 - Lack of transfer of best practise, learnings and failures
- Leadership
 - Risk-averse
 - Transformational leadership happening in pockets across the sector
 - Need for a shared vision with key messages and a 'national brand' across the water industry



- Finance and regulation
 - Lack of joint regulatory objectives and themes
 - Five-year business plans limit TOTEX commercial risk assessment
 - Lack of clear regulatory incentives/goals to do things differently
 - Lack of practical support for start-ups and SMEs
- Business models
 - Adversarial behaviours and commercial/benchmarking models reduce appetite for collaboration
- Operations
 - Lack of skills and expertise within operations teams
 - Lack of sharing of best practice /innovations and learning across sites, water companies and with other sectors

2. Do you think that the financial support cited in section three is required to stimulate innovation in the sector? If so, what do you believe is the appropriate amount of funding and why?

Financial support is vital to act as a catalyst for change. British Water proposes that the fund be applied to an independently run water innovation centre of excellence. To secure the depth of behavioural change required, funding needs to be guaranteed in advance and it would be advantageous for the fund to last at least two or three full asset management periods (AMPs). This would help build on the skills, ideas and innovation that currently lag as a result of embedded risk-aversion, which needs to be reversed.

While much can be achieved with £200m over five years (£1.50/bill/year), a huge difference could be made with £400m (£3.50/bill/year). This level of funding would place the UK alongside US (Milwaukee WI), Germany, Netherlands, Singapore and Australia as a nation developing and delivering excellence in water innovation. However, £200m is a good place to start.

3. Do you agree that our proposed draft principles for additional financial support will effectively safeguard the interests of customers?

The model needs to be truly independent and representative and accepted by the water companies as a central agency for innovation accreditation whilst inclusive of start-ups and SMEs. Governance will then ensure that there is a benefit for customers in terms of quality and resilience of service, upkeep of the environment and affordability.

The behaviours of water companies and top tier contractors and consultants need to be aligned with the initiative. Current procurement and delivery models may require reassessment, possibly to include a commitment within T&Cs to accept accreditations from the proposed agency. This will help avoid costly repetition and duplication of trials and pilot projects.

4. What are your views on the collectively funded innovation competition model which we describe in section three? What other key considerations not highlighted should we take into account in designing/ implementing the competition?

The collectively funded competition model described maintains a top-down approach, drafted around the regulated water companies. This is contrary to the widely accepted principle that true innovation travels from the bottom upwards, usually from smaller, agile supply chain entities.

Our view is that the model should therefore incorporate the supply chain who are vital for the delivery of future AMP projects.



Suppliers would welcome a single point of initial accreditation assessment as this would reduce duplication of upfront pilot tests and eradicate the current wastage of funds. Existing testing facility assets, including those within academic institutions, would be connected and their use optimised through the centre.

The board of the proposed water innovation centre should be set up from a number of independent, well established parties including British Water, Water UK and UKWIR along with the quality regulators such as Environment Agency and DWI as representatives of the water companies. It will manage, monitor and drive the process and along with providing governance.

The board will define and communicate the criteria for measuring success and will ensure an end-to-end sector planning process is energised by the innovation strategy. A chair will be appointed with priorities agreed with and accountable to Ofwat.

A nominal percentage of the funding (approximately 4%) should support a staff management team with strategy, business change management and innovation delivery experience, as well as specialist experts that can be called on as required. The team will provide business support and coordination across all parts of the water sector and engagement across other sectors.

The budget should also support a marketing function to share the developments and successes widely within the UK and internationally.

There should be global outreach to learn excellence from other international water clusters in the USA, Netherlands, Germany, Singapore and Australia. Scotland's Hydro Nation model is a useful starting point and it already has metrics in place.

5. What are your views on the end-of-period innovation roll-out reward we describe in section three? What other key considerations not highlighted (e.g. whether it should be collectively funded or individually funded) should be taken into account in designing/ implementing the reward?

The reward model described continues to follow the privatised regulatory framework and is a top-down incentivised approach. It is likely that with this approach the fund might be used to pay for 'business as usual' which must be avoided.

We suggest the fund should be collectively managed and used to promote the English and Welsh water sector globally and not just within the regulatory framework.

6. What other potential alternative mechanisms for funding/ rewarding innovation not discussed do you think we should be considering? Which financial support mechanism or combination of mechanisms should we introduce and why? What would be an appropriate split of available funding/ reward?

- It is important that projects funded extend beyond the regulatory cycle to ensure that long-term benefits are captured.
- By working closely with the quality regulators (EA and DWI), it should be possible to ensure that where bold innovation is carried out, but does not eventually succeed, there will be no penalty.
- The entire funding model and rewards should be around defined KPIs based on unlocking the known blocks to innovation. These could include flexing of standards, accelerated procurement, early supplier engagement and non-adversarial behaviours and commercial models.
- Claw-back should only be used where funding is not utilised.
- It is important to use this opportunity to detach competitive regulation and create a central English and Welsh accreditation centre separate from water company funding. Otherwise the funding will still be risk-averse and will not spearhead innovation.



7. Do you think the potential industry activities discussed in section four could help drive innovation? Are there other activities not identified which you think the industry should be considering?

- Section 4 is our suggested way forward – a water centre of excellence making best use of existing assets and facilities and working in collaboration with established bodies and clusters with expertise
- The centre of excellence should also interact globally with other known innovation centres, so all the disparate UK initiatives are brought together at a central agency funded by the UK water sector through Ofwat

8. Do you think the proposals in section five will help drive innovation? Are there other activities not identified which you think Ofwat should be considering?

Ofwat's economic affordability regulatory framework is cited as a barrier to innovation, as well as the model of encouraging competition between the water companies through benchmarking. Innovation comes from an open marketplace, unafraid and supported through failure, that can be found operating closely with the supply chain.

The opportunity this funding would create in bridging gaps in the supply chain and presenting the UK's capabilities internationally should not be understated.

Closure statement

This statement is drawn from the joint letter to Ofwat (20 September) from British Water, WRc, UKWIR, Future Water Association, Cranfield University, Sheffield University and Isle Utilities. It builds on the concept of a centre for water excellence described in the British Water's answers above and channels the intent of organisations across the sector to work in partnership to that end.

Following publication of the Ofwat consultation a collective discussion was held with organisations including British Water, WRc, UKWIR, Future Water Association, Cranfield University, Sheffield University and Isle Utilities. All these organisations have now committed to progressing a more collaborative approach to maximising the opportunities associated with the innovation fund and supporting delivery of the chosen projects.

Together we consider there is an opportunity for a new independent, sector-based organisation to deliver this end-to-end process, which will not only drive collaboration across the water companies but also across the organisations that already work in this space.

A critical part of the development and delivery of this will be connecting the many organisations that contribute to different parts of the innovation process. This will require a central co-ordinating body that incentivises organisations to collaborate and creates greater synergies between them.

We suggest the following 11 key principles that such an organisation would work by:

- Independent
- Expert-led
- Addressing short, medium and long-term challenges
- Open innovation culture
- Collaborative

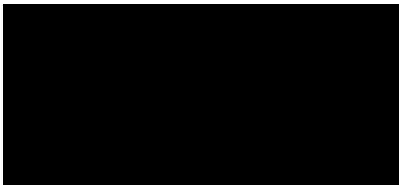


- Knowledge sharing
- Transformational
- Avoid duplication
- Outcome focussed
- Rewards innovation and collaboration
- Encourages risk and adventure

The proposed level of funding with a central focus will allow the sector to deliver transformational innovation, bringing greater benefits to customers.

We recognise that there are many bodies involved in innovation in the UK, and whilst this collective initiative supports the creation of an independent body, we do not support the creation of yet another entity but the creation of an amalgam from existing and future thinking participants. A copy of our joint letter is attached.

British Water would welcome the opportunity to be part of the board for the proposed independent body and looks forward to taking part in a meeting in the near future to scope out the potential of this initiative.



Lila Thompson

Chief Executive