

WORSHIPFUL COMPANY OF WATER CONSERVATORS

RESPONSE TO THE OFWAT CONSULTATION ON ITS INNOVATION FUND APPROACHES 2025-2030

30th APRIL, 2024

PROLOGUE

1 The Worshipful Company of Water Conservators ('WCWC') is a City of London Livery Company focussed on the long-term health of our water resources and the broader environment. Our members include senior professionals from water, environmental and related industries and regulators, along with others who share our concern for water and the environment. Our experience and knowledge ranges from the complexities of environmental sciences, through the application of engineering to deliver the goals identified by those sciences, and the subsequent management of the assets created. The WCWC's purpose is *promoting a diverse and sustainable environment*.

2 The WCWC is responding to this consultation because of its professional roles in water and climate change policy, mitigation and adaptation. It is a member of the City of London Livery Climate Action Group.

3 The WCWC is pleased to have had the opportunity to respond to the consultation and looks forward to being able to make further inputs as requested in the future.

SOME VERY GENERAL THOUGHTS

4 McKinsey the global business consultancy defines innovation as the ability to conceive, develop, deliver, and scale new products, services, processes, and business models for customers. There is a tendency to think of innovation as technology based, whereas it should embrace everything which makes an organisation smarter and quicker. The WCWC suggest that the Innovation fund more focus on smarter management.

5 The WCWC suggests that whilst it is right that the allocation of the fund must be managed rigorously, this consultation sets out processes which appear to be overly complicated.

6 It would good to see a much stronger correlation with external policy drivers. For example, delivery of the DBT requirements for water to be a contributor to the post Brexit economy, the Defra Water Plan, catchment management, new monitoring requirements etc. In particular, as far as the technology focus is concerned, how the Innovation Fund can assist in the effective and efficient delivery of the forthcoming expanded capital programmes whilst keeping customers' bills as low as possible.

7 There have been several recent consultations on the future of water management and the WCWC responses can be found on its website. There were three in the Winter just past came from a newly surgent Department of Business and Trade. In responding to these the WCWC responded to its references to innovation. These are given in the following paragraphs.

8 Innovation is referred to in the Duty of Growth consultation, but it must form part of all smart regulation; and in its submission the WCWC has pointed to many examples of specific innovation in new investment models, by expanding the appellants functions of Ofwat, by the use of drones for inspections, the evolution of catchment management and so on. The WCWC supports any development of tariff innovation, which is balanced fairly.

9 The WCWC is very supportive of innovation and has pointed out that any technical innovation must always be accompanied by caution in application so that no risks to health and the environment occur. It is co-operating in producing a think piece on innovation since 1974. It is, however, essential that operational and technical innovation must produce a tangible and measurable benefit if it is successful and the regulators should insist that the benefits must be clearly stated before the innovation is adopted.

10 This provides some extra insight into the proposals by Ofwat. The WCWC now poses an additional question to Ofwat; how will it respond to the requirements of DBT?

ANSWERS TO THE QUESTIONS

Q1: Do you agree that the aims of the current Innovation Fund outlined above should continue into 2025-30?

Yes. It is too early to consider the effective impact of the projects funded to date. The scale of applications to the Fund do highlight that it has attracted significant interest.

Q2: Do you have any comments on the proposal to use the 2050 Water Innovation Strategy themes in place of the current Innovation Fund themes?

Yes. It makes sense to align the Innovation Fund more fully with the Government and Utility strategies, especially as they cover all water utilities in the United Kingdom. By having a common platform, this will assist in removing obstacles to co-operation and information.

Q3: How do we ensure enabling activities are given sufficient prominence in the fund if they are not specifically in the 2050 Water Innovation Strategy themes?

By explicitly referring to the statement in the 2050 Water Innovation Strategy (2050 WIS) that the classification of activities is flexible, so that if new and potentially relevant activities emerge during this time, they will be considered. The set of seven themes as they stand are pretty comprehensive.

Q4: Do you support the continuation of annual competitions i.e. the Water Breakthrough Challenge led by water companies?

Yes. Holding annual competitions makes the process predictable for the duration of the fund. This allows innovators to plan ahead before submitting a bid.

Q5: Do we have the right approach on lead entrants, company contributions, IPR, and levels of funding?

Provisionally yes. It is probably too early to know how far these projects are going in terms of delivering working prototypes and scaling them up to working models.

The water companies are the ultimate beneficiaries and it is in their interests to ensure that innovations are applicable and pragmatic. They appreciate the need to deliver better services at a lower cost. For example, as an asset-intensive sector, innovations generally need to compliment the infrastructure that is already in place rather than to replace it.

A 10% contribution towards funding is useful as it ensures ownership and investment in the project. It is also likely that there has been significant prior investment in many of the projects, both in terms of money and time.

The levels of funding are in line with what is seen at early stage and venture capital funding in the water sector. If a project is to reach a commercial scale, further funding is likely to be needed, coming from external (VC (e.g., Rounds 2-4) and Growth Capital. To attract such funding, the IPR needs to reflect the interests of external funders in a proportionate manner.

Q6: Do you have any further ideas on how we can improve the Water Breakthrough Challenge?

Do the project companies developing the innovations have access to mentoring or where this may be available to ensure that they get the opportunity to present themselves and their offering to the best of their abilities? At events such as the Wet Network (Arup), it can be evident that some companies have not appreciated how to communicate their offerings to those not intimately involved in the project. A lot of potentially good ideas have not evolved simply due to an inability to get their message across to those who matter.

Inviting feedback from all of the water companies at the finalist stage may be of value. This would provide an indication of the potential interest in, and demand for, the various offerings.

Q7: Should we hold further rounds of the Water Discovery Challenge?

Yes. The level of interest shown in Round 1 justifies this. More importantly, there is a serious need for cross-collaboration throughout the UK water sector. A silo mentality can at times prevail and any attempts to encourage more wide-ranging partnerships and ideas-sharing ought to be encouraged.

Q8: Does our proposal to have two rounds of the Water Discovery Challenge get the balance right between ensuring water companies can provide effective support for finalists and winners and bringing new entrants into the sector?

The balance seems right. This is important, as the water companies have comparatively limited resources in terms of their mentoring capacity and it should not be spread thinly.

Q9: Are there any improvements we could make to the design and delivery of the Water Discovery Challenge to ensure greater impact e.g. the levels of non-financial support?

Data-sharing, ideas sharing, creating an environment that encourages collaboration. Many projects can benefit from outside inputs, so making a platform for companies, projects and mentors to know what is going on across all the projects may encourage further support and suggestions.

Q10: Should we introduce a funding stream for collaborative challenges to support all companies to work together on a strategically important area?

Since 1989, there has been a decline in collaboration between water utilities, often for the perhaps spurious reason of ‘commercial confidentiality’. There is considerable anecdotal evidence of the costs this has incurred, for example where engineers at one company could no longer discuss a problem that they were encountering with those from another company. Any mechanisms which enable companies to collaborate at a number of levels is to be encouraged.

Q11: How could the funding for collaborative challenges be allocated most effectively, e.g. stage gates?

Having funding awarded in regular phases is important as different collaborations may be performing more effectively or at a different pace than others. There needs to be a consistent appreciation about the potential of each collaboration to deliver tangible benefits and for these to be demonstrated in a broadly pre-determined manner.

Q12: What proportion of the fund should be allocated to this funding stream if it is introduced?

Such is the importance of supporting cross-company collaboration that a significant proportion of funds should be spent here. £50 million equates to two £25 million or three £17 million projects, which would be a step up on the funding awards to date. In terms of R&D spending, these are significant sums and so a robust system is needed to ensure that the anticipated innovation is necessary and fits in well with extant infrastructure and services.

Q13: Who should be involved in collaborative challenges? Should it be all water and wastewater companies working together or could it be for specific groups such as wastewater companies, water only companies, retailers, NAVs?

All of these companies should be invited to collaborate in each challenge at the outset as a principle. It could be up to them to take part in each project. In some cases (for example, retailers and sewage operators) interest will be limited to specific groups while for others (e.g., smart metering and monitoring) there may well be a broader interest.

Q14: Would you support allocating up to £40m of the Innovation Fund for funding cross-sector projects?

The CReDo projects in their current form are about risk management and disaster prevention. They would appear to offer significant potential benefits for the longer-term. In this sense, they do fit in well with the 25-year plans.

Satellite monitoring has a significant potential to add another layer for monitoring asset performance such as water and sewer leaks. In addition, satellite monitoring in areas such as river water quality and flow (GRACE-FO by NASA and DLR) monitoring is evolving rapidly and there are a number of examples of beneficial applications worldwide.

Q15: Do you have any suggestions for which sectors to work with or cross-sector problems that the fund could support?

Looking at the savings (both in terms of revenues and water consumption) being achieved by DEWA (Dubai Electricity and Water Authority) through its integrated smart utility metering platform (along with other trials), there is evidence that integrated real-time water and electricity metering can materially influence customer behaviour for reducing water demand. In England and Wales, the separation of energy and water companies and the free market for electricity provision would be an obvious challenge. Even so, it may merit consideration, if, for example, common customer interaction platforms could be developed.

Q16: We welcome views on what other ways Ofwat can help enable knowledge sharing in the water sector.

How effective is the knowledge sharing? The importance of improved collaboration and knowledge sharing is a consistent theme through the innovation fund. As stated, it is up to the water companies and their supply chain to revive a culture where knowledge sharing can become the norm where it is materially beneficial to the water companies) rather than the exception. The most important contribution Ofwat can make here is to ensure that the information it holds which needs to be shared is done so in a swift and transparent manner, and the Spring service is a key element here. Ofwat's website needs to have comprehensive links between the projects and external sites (Spring for example) which are updated as soon as possible.

Q17: Beyond running competitions, requiring knowledge sharing and hosting information on our website, what further actions could Ofwat take to ensure successful innovations are adopted across the sector?

Companies cannot be obliged to adopt innovations. They will do so if it is evidently in their interest. Ofwat needs to ensure that its regulatory model incentivises companies to adopt innovation where it is beneficial for them to do so.

The central project database can be enhanced, emphasising each project's applications, stage of development, costs and benefits and providing practical data such as systems communications and compatibility. As projects evolve, it would be useful for water companies to host open days where all water companies are invited to meet the development teams of the projects they are involved with.

Perhaps there could be a process whereby all the applicable companies are advised about successful and beneficial innovations and are in turn invited to

Q18: Would you support the introduction of an implementation fund? Could you explain your answer.

The Gartner Hype Cycle for technological innovation refers to the 'valley of despair' where all of the expectations are confronted with practical realities. The greatest challenge in innovation after pilot testing and accreditation is scaling-up and commercialising a product or service. This could be useful where evidently beneficial innovations are being held back due to funding constraints, such as a project being held back while external funding is sought or a water company postponing implementation due to funding shortages.

The difficulty with diverting funding to speed up implementation is that this could become an end into itself. There should be no sense of obligation towards using funding this way. Such funding ought to be restricted to assisting the deployment of exceptional projects in terms of the benefits they deliver in terms of doing something materially better at a significantly lower cost than before.

Q19: Do you have any comments on the size of the fund or the allocation across proposed funding streams?

Other than the reservations about the implementation fund concept, the broad size and scoping of the Innovation Fund appears to be right. The interest the fund has generated and the number of entries for all of its offerings does suggest that the Fund is at least to some degree acting as a catalyst for potential innovators to develop their offerings with water companies with a focus on their commercialisation and adoption.