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# Ofwat's emerging strategy: Driving transformational innovation in the sector

## ABB response

### Introduction

ABB is a pioneering technology leader in electrification products, automation, analytics, robotics and power grids serving customers in utilities, industry, transport and infrastructure globally. We innovate and produce technologies from electric vehicle chargers, to power grids and digital solutions which both enhance energy efficiency and user experience. ABB provides products, systems and service solutions that not only enhance our customers' businesses, but also lessen their environmental impacts, through improved energy efficiency and increased industrial productivity. We operate in 22 sites across the UK, from Aberdeen to Andover, where products are manufactured, sold, serviced or engineered.

With around 50 years of expertise in all segments – from water intake to water transfer and distribution, from desalination to water and wastewater treatment in municipal, industrial and irrigation sectors - ABB delivers hundreds of water projects around the world. In the UK, we provide integrated automation and electrical solutions for the entire water sector, as well as critical field and plant components that deliver high-quality data to its bespoke ABB Ability™ control system for water. With our commitment to delivering innovation for the sector, ABB welcomes Ofwat's consultation and is pleased to submit the following response.

### Consultation questions

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

The internal structure of water companies can, in some instances, make innovation difficult. Certain roles are measured by KPIs that do not place sufficient emphasis on innovation, whilst the relevant budgets are often split across departments in regional structures with differing priorities. This means that whilst innovation might be successful in one part of the business, there are significant barriers to wider rollout.

This is compounded by an industry-wide tendency to be risk averse. Whilst this is understandable to a degree, due to the critical nature of its product, this attitude often obstructs innovation. For example, there are no incentives for the manager of a site to innovate, but the threat of fines for incidents that affect supply is significant. This means that different technologies or ways of working that could improve operation often fail to be taken up widely.

There is also a culture of isolation in the water industry, with companies operating in siloes stressing their differences rather than their commonalities. This means opportunities to spread successful innovation from one water company to another are missed. With little direction or offered incentives to collaborate, the water industry is falling behind other utilities. Electricity companies, for example, have a better-established system of incentives via funding from Ofgem.

#### **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 essential because existing methods of encouraging innovation are not working, but the funding must be accessible and cost-efficient. If the process of applying for funding is too complicated, Ofwat risks companies not taking the time required to apply. Equally, the terms and conditions attached to the funding should be as simple as possible, so they do not hinder innovation.

Funding should reward rollout and ongoing innovation and not just short-term changes. If new technologies or processes are developed but face financial or behavioural barriers to rollout, the funding will be wasted, and the industry will make only superficial improvements to its operations.

However, it is difficult to comment on the precise level of funding; its effectiveness will depend on the precise method of deployment.

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

ABB agrees that the proposed principles for additional funding, so long as the funding is accessible (as mentioned in Q2), because customers will benefit from long-term innovation that improves resilience and reduces water bills.

**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?**

ABB supports introducing a competition mechanism as part of the framework for driving innovation. We see that Ofgem's NIC mechanism is effective in delivering 'first of a kind' innovations, that normally provide significant benefit where they are piloted. However, we believe that competition based mechanisms are less successful in driving wider adoption and their effectiveness in delivering first of a kind innovation depends on implementation.

The risk of the competition model is that it can serve as a distraction to R&D programmes, if too much resource is required to administer involvement in the competition. Furthermore, organisations that fail to win funding may be put off applying to participate in the competition in future due to the work required to enter for potentially no reward. Additionally, if significant numbers of those who do enter fail to meet the criteria, Ofwat may find it has not been able to release as much funding as intended. Criteria for entry, therefore, must be designed to be as practically achievable as possible.

**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 we take into account in designing/ implementing the reward?**

ABB believes that the end-of-period innovation is also a very valuable mechanism to encourage both short and long-term innovation and industry collaboration, all of which are required for the industry and customers to genuinely benefit. The approach suggested by Ofwat means there is reward at the point at which the innovation has been successfully rolled out to customers and shared with other organisations, as well as at the point of development.

**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?**

ABB supports the combination of schemes suggested by Ofwat. However, successfully incentivising companies to be the 'first mover' in innovation is difficult, so adequate funding should be devoted to the competition aspect to encourage initial uptake.

Additionally, while technological or process innovation is important, changes in behaviour are needed to accommodate and capitalise on this change. This should be reflected in the criteria for accessing financial support.

An example of alternative mechanisms for rewarding innovation can be found in the pharmaceuticals industry. The cost of taking the germ of an idea through development to compliance is significant. The industry's answer to this is known as open innovation, whereby innovation is essentially put out to tender. Such a model could work in the water industry.

However, there are some potential pitfalls in this approach of which to be aware. The final results can diverge significantly from the initial brief and appropriate results are not guaranteed. In order to mitigate against these risks, the scope of projects must be clearly defined.

**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?**

ABB believes that these industry activities represent the right approach because they are aimed at reducing the barriers that currently prevent collaboration across the industry. We are particularly supportive of Ofwat's suggestion of a 'centre of excellence', which could foster better cross-industry problem solving. We have seen good results when involved with one water company, using a large-scale part of the network as an 'innovation hub' to test not only technical and process innovations but how those work with heart and minds programs to drive customer behaviours.

Despite leakages being an issue that affects the entire industry, it is a prime example of where the industry is failing to collaborate. A piece of technology might be successfully trialled at one water company that could be relatively easily deployed at another, yet barriers are erected based on exaggerated perceptions of differences in ways of working. Improvements could also be made in the supply chain, where the providers of devices should be more willing to make them compatible with other manufacturers' technology.

Furthermore, water companies should be encouraged to engage more fully with the likes of the Water Research Centre and British Water. In our experience, this engagement does not have the right space in which to take place. We suggest a new forum in which they can readily engage with these organisations, the other water companies and the supply chain, in order to take these conversations outside the pressures of day to day operations. A model that could be applicable to the water industry is the Energy Networks Association (ENA), the industry body for operators in the gas and electricity markets, which provides such a forum.

**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?**

ABB supports Ofwat's proposals to drive innovation. However, on the subject of engagement with Defra and the Welsh Government, it must be ensured that the issue is not politicised. The value of this engagement should be taken from open discussions, the setting of shared goals, and the ability of departments to apply pressure on a non-political level.

Additional activities could include more engagement between the regulator and supply chain so there is more understanding between the two, which does not occur enough at present. Again, this could take place in purpose-made forums so discussions can take place outside day to day operations.