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Ofwat: Innovation funding and competition

ABB response – mail to innovationconsultation@ofwat.gov.uk

Introduction

ABB is a leading global engineering company that energises the transformation of society and industry to achieve a more productive, sustainable future. By connecting software to its electrification, robotics, automation and motion portfolio, ABB pushes the boundaries of technology to drive performance to new levels. 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 global water and wastewater application expertise and knowledge, ABB serves customers throughout the entire water cycle with hundreds of projects around the world. From abstraction to treatment, distribution and the management of the wastewater process, we supply an extensive range of reliable measurement and analytical products, services and solutions. 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 our 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 response submission

Q1: Do you agree with our proposed default arrangements for managing IPR and royalties? Do you think these arrangements work for different types of projects and activities (e.g. new technology vs. process innovation, roll-out activities etc.)?

We generally agree with the proposed default arrangements and believe it is right to have separate approaches to pre-existing and new IPR. However, there needs to be a mechanism for resolving any IPR disagreements, which could otherwise stifle the innovation process.

In situations where a participant's Background IPR is required for the purposes of using Foreground IPR, the consultation states that a limited appropriate form of licence would be expected to be granted by the participant. We believe an independent authority would be required here to manage the dispute and make the judgements on what is and is not Background and Foreground IPR.

Geographic limits will also be important. This should have a strictly country specific element to it, given that many water companies are multinationals. We would not be comfortable with allowing water companies to take ideas to use overseas.

Finally, a patent is for 10-20 years and there are legal fees to generate the patent, filing costs, and on-going maintenance costs annually for the life of the patent. This could pose difficulties in the scenario where there is a collective patent with multiple inventors from different organisations. If one organisation decides it no longer wants to retain that patent, then the ownership rights should be transferred

to the other party if they wish to proceed. No party with a stake in a patent should be able to unreasonably withhold the rights of other parties.

Q2: What alternative arrangements should we be considering for IPR/ royalties?

Potential alternatives could include:

- any ideas generated become trade secrets
- new ideas are published in a pre-agreed manner to avoid IP-related issues.

Q3: Do you agree with the principle that data generated through the innovation competition should be open by default?

We support the principle of data being open by default, which allows companies like ours to innovate, for example, by developing predictive solutions. The danger of having a system where data is not open by default is that every transaction becomes a negotiation, which would act to stymie such innovation and ultimately slow down overall progress.

We believe that the only exception to the open by default principle should be where data would allow someone to reverse engineer a solution that infringes upon Background IPR. In this instance there should be a provision to protect such data.

Q4: Do you agree with our proposed approach and that we should consider alternative arrangements beyond company contributions?

Yes, we agree in principle.

Q5: Do you agree that a guideline minimum company contribution of 10% is appropriate in this context?

No comment.

Q6: Do you agree with the overarching approach we set out here?

We support the overarching approach and in particular putting roll-out at the heart of the innovation competition. As stated in our previous consultation submission, funding should reward roll-out 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. We support the idea of rewarding "fast followers" to encourage roll-out.

We believe that repeatability is an important parameter: i.e. the depth and breadth of where a solution can be applied. If it is a niche solution without wide-reaching applications, it will be less valuable. However, if there is a high degree of repeatability across different applications and geographies, the solution needs to be rewarded accordingly.

Q7: What are your views on introducing separate, proportionate, arrangements for small-scale projects? How might we define small-scale projects for the purposes of the innovation competition?

We see great value in small-scale projects and believe there should be a separate mechanism to de-risk them and make it easier for them to work. Typically, smaller scale projects usually concern methodologies rather than new technologies. They therefore have the potential to follow a “fail fast” model, i.e. to be tested on a live system and be proven/disproven quickly. This model would also be applicable to process innovation projects where there is no new technology per se, rather questions of how we use the existing technology to control the process. Companies tend to be unwilling to undertake these projects within live systems where there are penalties and risks for breaching operating limits. A mechanism to offset any potential issues from tests failing and re-risking operational performance standards would ensure that the risk is mitigated, which allows for ideas to be trialled and tested for viability quickly and easily.

In terms of defining small scale projects, as mentioned above they typically fall more on the process side than the product side (although this is not always the case). Ofwat might think about defining them in terms of timings as well, for example, projects with a results window of between 3-6 months.

Q8: Do you agree with our proposal for ensuring roll-out is at the heart of the innovation competition? How might we reward both leaders and fast followers in this space?

We wholeheartedly agree with Ofwat’s proposal (see our answer to Q6 above).

In terms of rewards, to incentivise roll-out, there should be highly weighted criteria that afford fast followers priority for funding. Ofwat should also consider rewarding leaders not merely for their innovations but also for helping to encourage and develop solutions for fast followers.

Ofwat might also consider a mechanism that gives companies formal recognition as an innovative leader, which can then be used for marketing purposes. Having the endorsement of Ofwat alongside publishable case studies would provide beneficial marketing value.

Q9: What practical arrangements should we introduce to ensure adequate ring-fencing of the innovation funding?

No comment.

Q10: Do you think the proposed innovation challenge approach will help better enable partnerships and collaboration between companies and third parties, in particular smaller innovators? Are there alternative approaches we should be considering? How can we make sure this approach works in practice?

Some water companies hold similar innovation schemes and events to the Innovation in Water Challenge idea: third parties, particularly smaller innovators, are given the opportunity to present their ideas to a small body from the water company, sometimes for as little as 15 minutes. From our perspective, without careful and nuanced judging, such events often risk good ideas slipping through the cracks, with the quality of the pitch often being given disproportionate weighting over the quality of the idea.

Ofwat should encourage the widest support and representation possible across water companies for such events, while retaining independent moderators. Having a narrow selection of water companies results in innovation managers only looking for the sorts of ideas that tend to find favour within their

specific company, whereas a wider experience base creates broader understanding and acceptance of new ideas.

Q11: Do you agree with our proposed approach to returning funds to customers? Are there any other circumstances, not considered here, under which we might consider returning funding to customers?

No comment.

Q12: Do you agree with our proposed approach for managing interactions with the price review?

No comment.

Q13: Do you agree with our proposed amendments to the principles? Are any further amendments to the principles required to reflect our approach to outstanding policy issues outlined in this document?

We support these amendments.

Q14: Do you agree with our proposed focus, major strategic themes and overall approach for the competition?

We agree with the focus, themes and overall approach and believe they are sensible.

We would note that some underpinning technologies cut across these themes and are equally important, such as Water 4.0, which involves the digitalisation and networking of automation and monitoring systems and the introduction of smart technologies in water and wastewater treatment.

Q15: What is the appropriate split of available funding between the Innovation in Water Challenge, the main competition and enabling activities?

No comment.

Q16: What are your views on the feasibility of running all three types of activities in the pilot year, and on the proposed timings in Annex 3?

We believe there should be a gap or at least minimal overlap between the Innovation Challenge and the main competition to provide time for lessons to be learned. This would allow for some reflection on issues such as auditing, traceability and IPR, thorough testing of mechanisms and consideration of feedback ahead of the main competition.

Q17: Do you agree with our proposed approach to key implementation considerations outlined here?

Yes. We would add that a clear idea of what is aiming to be achieved is vital from the outset. A robust KPI framework with clear and measurable targets needs to be set at the beginning, covering the overall programme and individual projects.