

Innovation Funding Consultation

A response from Wheatley Solutions, software developer and service provider to the water industry. Actively pursuing collaboration opportunities with water companies to develop new innovative solutions that benefit the whole industry.

<https://www.ofwat.gov.uk/consultation/innovation-funding-and-competition-further-consultation-on-design-and-implementation/>

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.)?

Wheatley agree that there should be a distinction between 'Background' and 'Foreground' IPR, as many innovations are conceptual and the feasibility / early prototyping is undertaken by the supply chain prior to any interest from a water company. There should also be a further recognition between the different types of innovation. Factors relating to hard technologies and soft technologies differ e.g. speed to market, associated risks and the need for approval / certification. Plus, consideration must be given towards the size of the supplier / innovator collaborating with the industry. SME's rely strongly on retaining IP to ensure there is an opportunity to adapt the innovation to offer it into other markets.

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

Consideration should be given to the type of innovation e.g. hard or soft technology and if a project involves one or multiple suppliers delivering an end to end solution. Software can be expensive to develop and the operating / support costs (subscription the supplier receives) is often significantly less than the value water companies and their customers gain from it. Software developers need to be protected in terms of their required revenues and any obligations on water companies to pass on royalties to customers should not be passed onto the supply chain.

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

Wheatley fully support the principle for open data, subject to any legal / legislative requirement. However, there is cost to providing access to open data; hosting, validating, maintaining and supporting, that must be considered. To often it is considered to be 'free'.

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

Wheatley agree to the proposal for a contribution. It is unclear as to whether Ofwat are expecting the suppliers / 3rd parties to 'match fund'. SME's and research bodies such as universities are likely to be discouraged if their contribution is considered too high. Usually a significant investment has already been made in exploring feasibility or even prototyping prior to a bid being submitted. Plus, on innovation projects, suppliers often have to apply discounted rates simply to attract and secure the involvement of a water company.

For example, in a current innovation project to pilot Wheatley Watersource (to develop a fully working prototype and operate the service for a year), funding has been secured from two water companies through Innovate East and Wheatley's own investment equates to three times the total fund received from the water companies.

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

If the minimum company contribution is set too high it will discourage projects being put forward, but 10% seems reasonable. Providing consideration is given as detailed in Q4.

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

Wheatley have concerns over the suggestion that projects most likely to secure funding are to be those focussed on rollout or mass deployment of a new technology. For the supply chain, in particular SME's, the biggest struggle is getting a vision for a new product or service in front of a water company. Most water companies are only interested in hearing about products that are TRL 6 or above. Even when this is achieved, the request for a contribution to develop and prove the concept is often a blocker to progression. Many great ideas fall at this hurdle, either never getting delivered or suffering a significant delay and therefore costing the supplier for continued promotion and engagement activities.

Truly innovative ideas need to be tested in terms of their feasibility with pilots and this can be expensive. However, such projects can have a significant value to the industry and its customers. Part of the fund should be set aside for such projects and as suggested, projects that receive funding should be linked directly to industry challenges and published themes.

Wheatley Watersource is a good example, a concept with huge support from water companies, Water Resources East, the Environment Agency and other stakeholders. However, as a truly ground breaking idea it comes with a degree of uncertainty and without funding through Innovate East to develop a small pilot it is likely the project would have stalled. It is worth highlighting it is a pilot focused on a small geographic area in the UK - to deploy across the UK will require additional funding.

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?

Wheatley agree that there should be arrangements for small-scale projects and as mentioned in Q6 this should include consideration of feasibility projects that have industry wide value.

In addition, localised high value projects which are driven by a clear need e.g. environmental challenge should be considered.

It is unclear as to how software development projects are to be assessed, as they are not generally considered 'mass deployment' even if the goal is to deliver a nationwide solution e.g. could be a single cloud platform. An example of this being Wheatley Watersource again, as this solution is a cloud hosted data and water trade brokering service currently in development for a proof of concept with funding from Anglian Water and Essex & Suffolk Water and in collaboration with Water Resource East plus the Environment Agency. Due to limited funding only a small part of the solutions vision is being delivered for a 12 month pilot.

Another factor to be considered is the effect of the method of delivery, for example, with an Agile approach to software development, features / development goals can be prioritised and elements of a solution delivered independently and over time (this is the approach adopted for Wheatley Watersource).

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?

No, as true innovation happens before roll-out. Usually, starting small to grow fast. Vision, feasibility, pilot and then deployment.

Please refer to responses in Q6 and Q7.

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

Innovation funding should be independently administered and awarded.

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?

Yes, but should not be limited to an annual event. Also, similar 'dragon den style' exercises have resulted in frustration for suppliers and innovators taking part, as very few concepts have been pursued, even after receiving positive feedback (green light). Both Future Water and British Water run innovation events with mixed results.

There needs to be clear guidance as to what TRL stage ideas should be put forward e.g. conceptual ideas or must the concept be at least prototype ready? An option would be to operate separate competitions, one for concepts and the other for products close to being market ready.

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?

In principle yes.

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

Yes, although the risk of negatively impacting ODI's may encourage some companies to be less receptive to unproven innovations / concepts. Keeping the onus on the supply chain to fund feasibility / development of proof of concepts will be no different to how industry has operated in the past.

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?

Yes

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

Yes. Communicating the acceptance criteria clearly will be essential, to avoid any wasted effort for the water companies bidding in the Main Competition and 3rd parties putting ideas forward in the Innovation in Water Challenge. The acceptance criteria will need to consider differences in size / scale of projects (cost / speed to market etc). And include a TOTEX evaluation rather than the historic short term “cost vs return?”. It is essential to allow the calculation of a projects value to extend passed the current AMP period.

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

Determining any split should be an outcome for the pilot. Setting boundaries now may result in valuable projects not going ahead as the allocated ‘bucket’ has been spent. The water challenge may highlight an extremely valuable project, truly innovative and something not previously considered. Participating water companies may even be willing to increase their contribution.

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?

Timescales are aggressive, but as the first pilot year, then should try or risk valuable projects being delayed. A concern would be over how much time is allowed to prepare a bid, especially as the acceptance criteria have yet to be defined.

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

Yes