

## IAP Response

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# Collaborative Research

1 April 2019

## Contents

<b>1. INTRODUCTION .....</b>	<b>3</b>
<b>2. RESPONSE.....</b>	<b>3</b>
<b>3. AMP7 INNOVATION STRATEGY .....</b>	<b>4</b>
<b>4. SUMMARY .....</b>	<b>5</b>

## 1. Introduction

In Ofwat’s IAP publication for Dŵr Cymru Welsh Water (DCWW), whilst our AMP7 innovation proposals overall scored a B, there is one action related to ‘innovation’.

“The company should consider how it can collaborate with other companies to maximise the opportunities for research to address common challenges (e.g. leakage detection, water efficiency and wastewater treatment processes) rather than companies progressing research independently.”

## 2. Response

We regularly collaborate with other companies to maximise the opportunities for research and other areas of innovation, such as on technological developments and to address common challenges (e.g. leakage detection, water efficiency and wastewater treatment process development). Indeed we measure the number of companies we partner with as part of our innovation KPIs:

- 467 ideas (the majority being from external companies) have been reviewed via our iLab (innovation process) so far in AMP6;
- We have worked with 123 partner organisations including a wide variety of companies including other water companies, on innovation projects so far in AMP6;
- 92 projects have been completed in AMP6 to date and are driving benefits in the business;
- We have collected 8 awards for innovation projects this AMP; and
- £5.9 million has been spent on innovation projects in 2017/18 (with an overall AMP6 Innovation budget of some £39m).

There are many specific examples of where we have been working with other companies and the value these bring the business:

- We are active members of UKWIR, our water industry research company, where DCWW are Board owners for wastewater research, the development of Natural Capital tools, anti-microbial resistance, and plastics research. We are also active on a wide range of UKWIR projects, with DCWW’s reps on individual project management teams, some of which also include Regulators and Academics.
- We are active supporters of the UK water sector’s Chemicals in the Environment (CIP2) AMP6 programme – and have successfully completed our work to support this in AMP6 – which we have shared with fellow companies and regulators alike.
- We are members of DOC2Cs - a collaboration between a number of UK and European Water Companies and academic institutions to investigate the fate of Dissolved Organic Carbon in raw waters and its effective treatment.

- We are collaborating with a number of water companies via the Pennine Water Group, looking at biofilm formation and control in pipes, the Material Destiny Project and a Project looking at the effect of climate change on biofilm formation.
- We have taken part in a number of WRc collaborative trials with other water companies and are members of the Instrument User Group and the Water Disinfection Forum.
- We are members of the Potable Water Network, run by Cranfield University, which brings together water companies and academic institutions to share best practice and increase the knowledge base within the water industry.
- We have founded the Taste and Odour Working Group looking at Algal activity and the formation of Geosmin and MIB. This group consists of a number of water companies and academic institutions along with the DWI.
- We are members of various groups (R&D managers group; European Technology Appraisal Group; Technical Working Groups (Treatment and Distribution) etc.), including those brought together by Isle Utilities that bring Companies together to share research and technology.
- We have a relationship with Wales and West Utilities where we share relevant best practice.
- In 2018 we launched and supported 5 overseas study awards – where innovation leads in the business are encouraged to travel overseas and engage with other companies and bring back ideas which we can pursue. This is to be supported going forward into AMP7.
- We have also supported overseas water company visits to Wales, such as from New York State to outline the manner and tools they use to manage catchments in the control of water quality and availability issues. We are to make a return visit in May 2019. We also have active partnerships with overseas water companies such as HOFOR, the Danish water company which serves Copenhagen. A number of specifically focused exchange visits have taken place in 2018 alone, to focus on sharing best practice and technological knowledge.
- We host an annual innovation conference to engage with partners. This attract up to 450 attendees each year, many of which come from other companies.
- Nationally, we have led and driven the 21st Century Drainage Programme until its closure in January 2019. This involved all the water companies in the UK and Ireland amongst some 45 stakeholders, all working with one purpose – to improve how our drainage investments are planned and services offered to customers. The work has led to a number of innovative sector leading developments including the development of Drainage and Wastewater Management Plans (DWMPs) which will be available in draft in December 2022.
- We also collaborate with third sector Companies, eNGOs and academics in Wales through our various environmental funding schemes. These have led to a number of innovative nature-based solutions to enhance biodiversity and improve river water quality/ecology (at a fraction of the cost of conventional solutions).

### 3. AMP7 Innovation Strategy

We are to publish a refreshed Innovation Strategy on 3<sup>rd</sup> April at our Innovation Conference (to which Ofwat have been invited), building on our AMP6 innovation portfolio and many

partnerships we support. It is underpinned by 18 'Journey Plans', one for each Strategic Response in Welsh Water 2050.

Our new Innovation Strategy reviews the main challenges and opportunities we face as set out in Welsh Water 2050. The strategy is supported by 4 'touchstones' – matters which will be reported on, including to our Board, each year – which include 'Partnerships', and 'Working with other Utilities, Regulators and Governments'. The Strategy itself sets out a twin track approach to innovation for the business.

Firstly it takes an external perspective, one targeted at ensuring the regulatory frameworks we work within can be developed, so as to support the innovative new catchment and nature-based ways of working we have committed to in AMP7.

Secondly, looking mainly internally, it examines how best to develop and apply new technologies and new ways of working to reduce costs, improve customer service and resilience, and environmental performance.

The new Strategy builds on the unique opportunities we have here in Wales to co-create and deliver solutions with our partners, including companies internationally, Welsh Government and NRW. It sets out the need to develop both new processes and technologies, and our culture and resources – all to deliver change and value for our customers and the environment alike.

## 4. Summary

We very much agree with Ofwat's view that companies should collaborate with each other in seeking innovative solutions to the challenges facing the sector, rather than working independently. Co-creation and co-delivery with other companies, governments and regulators to address common challenges is and will remain at the heart of our approach to innovation. This is made clear in both Welsh Water 2050 and our new Innovation Strategy. We very much look forward to continuing both to lead selected innovation areas for the sector, and support others, working with companies, governments, regulators, academics and other partners, in moving the water innovation agenda forward.