



INNOVATION METRICS PROPOSAL

Ofwat Future Ideas Lab

Abstract

The innovation funding via the Ofwat innovation fund is driving increased activity by all England and Wales water companies. It is important that Ofwat and innovators know objectively which companies are effectively testing and deploying innovation for the benefit of customers. This paper introduces two approaches, innovation accounting and innovation maturity that should be deployed in AMP8. Using these metrics will improve the return on investment made with customer money.

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Introduction

Open collaboration... engagement... integration of ideas: The launch in 2020 of Water Innovation 2050 strategy [1] potentially heralded a sea change for the delivery of water services across the UK.

Since its launch, the programme has delivered some vital initiatives. Part of its success has been due to the programme's authors understanding that an innovation programme is not a fixed and finite process. One participant commented, *"the value of the strategy is it remains a living document."*

However, as with any long-term change programme, maintaining the initial momentum is the challenge. As personnel change and real-world demands impact energies and resources, it can be easy for initiatives to be side-lined or collaborations to break apart. In a multi-organisational industry strategy such as Water Innovation 2050, part of the problem can be a misalignment of individual company ambitions against current innovation maturity levels.

This paper explores the challenge of retaining innovation impetus in the water sector. It examines how an emphasis on innovation maturity, effectiveness and accounting can help to deliver solid cross-sector outcomes. In doing so, it aims to inform Ofwat's planning for PR24 whilst providing support to the following question raised in the Future Ideas Lab:

"How can we encourage companies to innovate and to take advantage of technological change to increase productivity, reduce costs and improve resilience, service and the environment?"

Background

Since the inception of the Ofwat innovation fund, the sector has undergone a step change in how it considers, manages, and delivers innovation. The fund has moved innovation higher up the agenda of many water companies, as seen by the creation of new roles and increased capacity in their innovation teams.

As initial consultation documents [2] correctly identified, innovation is as much about the deployment of innovation at scale as it is the invention and testing of the initial idea. *"Effective roll-out and adoption of proven technologies, methods or approaches at scale"* This means that innovation is no longer the preserve of a few employees in an innovation team but needs to be an organisation-wide capability within an integrated culture of innovation. And when the innovation ambition encompasses an entire sector, that capability must extend across organisational boundaries.

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Innovation Theatre

In any innovation programme, it is vital to understand what is real and what is just smoke and mirrors. Innovation theatre is the appearance of innovation, which fails to create any meaningful business impact, for example, a call for ideas with no structured support to deliver those ideas, or significant investment in ideas without any strategic alignment, thus delivering limited return on the investment.

In their book [Innovation Accounting](#) [3], Dan Toma and Esther Gons describe how at one organisation, in a bid to incentivise teams to perform more experiments, they decided to measure the number of experiments performed each week. That led to a surge in experiment numbers but only because every action was suddenly described as an experiment. It is an excellent example of innovation theatre, with lots of activity but no tangible outcomes. Created by measuring and incentivising the wrong things.

Most companies can demonstrate a few high-profile innovation projects and significant investment in innovation teams and/or projects. However, this does not show how efficiently the organisation sifts through ideas or generates value. With ideas being funded across the water cycle and technology stack, Ofwat needs to be able to distinguish between innovation game-changers and innovation theatre.

Challenge: How can Ofwat assess the innovation effectiveness of each water company and the sector?

Investors and customers alike need to have confidence that funds are being effectively invested in delivering a return, not simply in monetary terms but also in terms of water quality and availability. In an environment that should be highly innovation-led and where organisations should feel free to experiment, that confidence comes from having a robust suite of metrics and measurements supporting the innovation agenda.

Ofwat also needs to be assured that each company optimises its resources to pursue innovation as effectively as possible. Deploying a standard measurement tool enables cross-sector comparisons whilst opening pathways for sharing knowledge and best practices. With that in mind, this paper outlines how innovation measurement best practices can be deployed within the water sector to assess and compare the effectiveness of innovation efforts.

Innovation Best Practice

We believe that Ofwat should adopt two approaches to measuring innovation for PR24:

- **Innovation Accounting** - to measure the effectiveness of companies to efficiently test, refine and progress (or kill) innovation projects.
- **Innovation Maturity** - to measure and benchmark how capable a company is and how embedded that capability is into organisational culture.

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Innovation Accounting

Innovation accounting is typically used when all traditional methods of assessing a business performance are zero, e.g., revenue, ROI, no. of customers etc. It provides a series of leading indicators that provide flags for intervention when outside of normal ranges.

An innovation accounting approach provides metrics as a portfolio of ideas passes through the innovation funnel. We recommend that each water company apply an innovation accounting approach to their portfolio of ideas. It would also provide a powerful set of metrics for Ofwat and its delivery partners to assess the effectiveness of the innovation fund. Currently, the management of the delivery of funded innovation is delegated to the companies which limits the effectiveness of any innovation oversight.

Without an overarching assessment, companies have little incentive to kill poorly performing ideas, or even know when they are performing poorly. Especially as the ideas funded in each round of the competition are almost always unrelated. Equally, without a robust innovation accounting approach, companies may not be able to realise the value of their innovation efforts. Traditional accounting systems look toward profit and loss statements, balance sheets and cash flow statements. Innovation accounting systems typically sit alongside these conventional measures but deliver *"a holistic viewpoint that will look at how teams are performing and reveal insights about strategy, portfolio, capability and culture."* [3] As such, they also fulfil one of the critical annual reporting requirements in that they provide investors (venture boards) and regulators with a realistic analysis of current and future projects.

Adopting a common-ground innovation accounting system could help Ofwat assess the relative merits of innovation initiatives better and identify which companies are more successful in targeting their innovation efforts.

Innovation Maturity

The level of innovation maturity within an organisation indicates where it is on its innovation journey. It is not enough to say that *"we run x innovation projects"* or *"we have y in the pipeline"*, so we must be an innovative organisation. This in many ways is another example of innovation theatre. From Ofwat's perspective, the number of, or amount of, funding requested from the innovation fund is also no indicator of innovation capability. In fact, the fund's existence may subliminally lead companies to quantify initiatives as 'innovation projects' rather than more correctly see them as technology upgrades or projects in the ordinary course of business.

A way of benchmarking innovation maturity levels is required, which, used in tandem with innovation accounting, will enable Ofwat to build a clearer picture of where funding is being most effectively deployed. Ofwat and the water sector have deployed a collaborative [Asset Management maturity assessment](#) [7] which reported at the sector level the strengths and areas for improvement. This is a similar approach for an alternate category and reporting without company level data.

Measuring innovation maturity and maturity benchmarking helps organisations to understand how ready they are to deliver innovation and where their efforts might best be targeted. For example, novice innovators may even need to put all thoughts of innovation out of their minds until they have addressed fundamental innovation culture challenges such as resetting risk appetites, creating an innovation thesis

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or setting an innovation culture firmly within the leadership team. Conversely, companies identified as being innovation leaders will have well established innovation capability with fully integrated metrics and goals embedded into organisational culture.

Benchmarking can be carried out at the industry, company, team, or even individual level, helping to provide a baseline from which companies can design interventions to improve innovation effectiveness and build a culture of innovation.

Therefore, Ofwat could adopt a standardised approach such as [The Assessment for Innovation Maturity](#) [4] or 'AIM' for short to measure the innovation maturity level of all companies in the sector. Once companies have been measured, it would then be possible to benchmark companies across the sector. Ofwat could replicate something similar to [The Global Innovation Maturity Index](#) [5] which uses AIM to gather corporate maturity assessments allowing companies in any sector to be compared against each other. If AIM was deployed by Ofwat, companies across the sector could also be compared and benchmarked against companies in all other sectors listed on The Global Innovation Maturity Index.

Each company will undoubtedly have taken a different approach to innovation delivery, so they will perform differently across the maturity curve. Using the data gathered through AIM, companies would have the chance to improve their performance in weak areas by observing and learning from the companies that are stronger in the same areas. This has been identified as a key finding in the [innovation baseline in the water sector report](#). [6]

Innovation maturity is different to innovation management. Innovation Accounting (or management) is about understanding how a company delivers innovation projects. Innovation Maturity measures how capable an organisation is and how embedded that capability is in organisational culture.

Water Company Innovation

Each water company has taken a different approach to innovation, both in how they surface ideas and manage them. Some companies have built relatively large internal teams (e.g., Severn Trent), while others have smaller units (e.g., Water Only Companies). Some have focussed on internal ideas, and others have worked primarily with the supply chain. Some have been very proactive in submitting entries to the Ofwat competition, while others have been more cautious.

These are all valid approaches and can be effective in their own way. They are, however, not comparable when using simple innovation metrics, e.g., the number of ideas generated (or entered into the Ofwat competition) or direct investment into innovation.

It is worth noting that a [2021 innovation maturity benchmarking exercise](#) carried out across the energy and utilities sector revealed that the average maturity level was 'novice.' Despite the exercise primarily focusing on energy and renewables companies, it is concerning that the average innovation maturity score was 1.82 out of 4, with leadership and management being the least developed pillar of the innovation ecosystem.

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Also worth noting is the finding that energy and utility companies seem to focus primarily on short-term objectives and concentrate their investment in innovation more toward the incremental side of the spectrum. Delivering lots of short-term activity may be exciting, but it will not deliver the long-term outcomes which can fundamentally change an industry. The water sector is in the early stages of a thirty-year programme. Admittedly, some initial 'quick' innovations will be long overdue. But it will require higher innovation maturity levels to deliver the change necessary to meet climate, drought, energy, and other crises yet to manifest.

Following the launch of the Ofwat innovation fund and the Water Innovation 2050 strategy [1], we would typically expect that benchmark innovation maturity figures for water companies would be higher. However, there is also a concern that the initiative may have led some companies to adopt initiatives not supported by innovation maturity levels. If that is the case, there is a real danger that funds may not be targeted in an effective way. Cross-sector benchmarking could indicate areas where interventions may be required to safeguard customer money and to provide the best value for the money spent by the fund.

Ofwat Innovation Fund

The innovation fund has effectively supported ideas so they can be tested. We are yet to see how effectively the fund generates value from its investments, and the delays in funding the ideas mean it is impossible to see how ideas are performing.

From the information provided on the competition winners to date, it appears that most of them are early-stage ideas, with the funding allowing trials and pilots to be completed. The value of innovation is only generated when returns are generated from the invention, i.e., it switches from an invention to an innovation. Using innovation maturity and accounting approaches to assess the effectiveness of innovation delivery will provide insights into how well each company is turning innovation investment into value.

Innovation measurement in the regulatory model

Outcome Delivery Incentives (ODIs) provide Ofwat with a powerful tool to reward outperformance or penalise underperformance on behalf of customers. The model is well understood and provides a robust way to assess the water companies with their regional monopolies. The significant increase in innovation funding that Ofwat and the companies have allocated from customers must be more effectively measured and tracked to increase the ROI of the innovation fund.

We believe that a new common innovation ODI should be put in place. The recent [innovation baseline in the water sector report](#) [6] found that there is no single approach to innovation common to all the companies, or one that should be adopted. Using a standard innovation maturity model across all companies, it will be possible to compare the effectiveness of the different approaches to innovation. Each company could then be allocated a performance commitment related to improving their innovation maturity and their efficacy in generating ROI from money spent in the name of innovation, either through the fund or other projects.

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Each company's score on the two metrics (innovation accounting and maturity) could be factored into the assessment of future innovation competition funding rounds. The companies that are more mature and with a more efficient innovation process should be more likely to win funding for their ideas. *A great team can make a success of an average idea; a poor team will kill a great idea.* Demonstrating higher levels of innovation maturity will also help innovators to understand which companies are more likely to successfully deploy their innovations.

Conclusion

The innovation fund has been very effective to date in accelerating industry commitment to innovation. Initiating standardised innovation accounting and maturity measurement will help to ensure that the sector builds the capability required to deliver lasting change whilst maintaining enthusiasm and momentum. And with a targeted focus on measurement and outcomes, Ofwat can ensure that funds are better targeted, thereby delivering greater confidence in achieving value for customers money.

About the Authors

Ian is the lead innovation consultant at Expedition Engineering, an innovative SME that uses human centred design to bring innovative engineering solutions. He has worked in the water sector for two decades in a variety of roles for engineering consultancies. After cutting his teeth building sewer network models to remove internal property flooding (DG5) risks he has led modelling and engineering design teams on projects around the world including the Jeddah stormwater drainage programme. For the last five years Ian has focussed on innovation management and delivery across all civil infrastructure disciplines. He is currently working with organisations that are transforming their culture to accelerate the adoption of innovative low carbon technologies to achieve net zero goals.

Cris has spent over two decades as a successful entrepreneur in the consulting industry and is recognised globally as a thought leader on innovation strategy, leadership and culture and a pioneer in the field of measuring innovation maturity. Cris is the co-author of 'Building a Culture of Innovation', an Amazon bestseller, and voted one of the CMI's top books on innovation in 2017. He is the co-founder of innovation thought leadership platform The Future Shapers, a business school adjunct faculty member and board advisor at The Innovators CoLab and The Global Innovation Institute. He is also the co-founder of the boutique innovation advisory firm OUTCOME where he's helped some of the world's most ambitious CEOs, visionary leaders, Fortune 500 companies and Governments solve their most complex innovation challenges, develop game-changing innovation capability and build a culture of innovation.

Links

- [1] <https://spring-innovation.co.uk/2050-water-innovation-strategy/>
- [2] [Ofwat's-emerging-strategy-driving-transformational-innovation-in-the-sector-1.pdf](#)
- [3] <https://innovationaccountingbook.com/>
- [4] <https://the-aim.co/>
- [5] <https://innovationmaturityindex.info/>
- [6] <https://www.ofwat.gov.uk/wp-content/uploads/2022/07/Innovation-baseline-report-CSES-6-July-2022-1.pdf>
- [7] https://www.ofwat.gov.uk/wp-content/uploads/2021/10/AMMA_Insights_And_Reccomendations_Report.pdf