Leading Innovation within the Water and Environmental Industries

Developing an organisational innovation plan



Advancing the Competence of the Water industry through Virtual Learning

Learning & Development Associates

Advancing the Competence of the Water Industry

Making the most of your best resource – your staff

Why is innovation important to any organisation?

Most enlightened businesses recognise the significance of innovation to their organisation and particularly in ensuring that the organisation is making positive progress. Any business is on a journey and faces challenges. For water service providers these lie principally in society and the environment. Challenges include facing issues such as climate change, future-proofing the business and ensuring resilience against a range of risks, meeting growth needs, ensuring energy and water resource efficiency and at the same time meeting environmental regulations and standards and doing all this whilst meeting customer needs.

How can an organisation make the most of innovation?

All organisations are full of great people who come to work wanting to make a difference. Water personnel are no exception and there are examples of innovation across the range of water activities. Modern networks benefit from significant advances in technology and for treatment the picture is the same with ever increasing scientific breakthroughs in understanding. Innovation is therefore about capturing the ideas and the talent within the organisation and then applying the innovation to deliver business benefit. Investment in innovation is no different to buying a new piece of plant and must be based on sound business principles to implement the ideas whilst managing the risk involved and always to deliver tangible benefit.

Innovation must therefore be recognised as a core competence for any member of staff, be they leaders or other team members and this is where innovation training and development can be used as an intervention.

What is innovation?

Put most simply innovation is about doing things better and about doing better things.

i) Doing things better may involve considering how activities have traditionally been carried out in an organisation and then considering whether this could be improved. An example of this is where a strip-down of a filter assembly for a treatment plant was done on a bench and took a full day. The operative saw that by adapting a domestic vacuum cleaner this could be done in a few minutes, more effectively and more safely and with reduced risk of the filter housing being damaged. So sure was he, the operator bought a vacuum cleaner and used it to demonstrate his idea. This was adopted and rolled out across the organisation making significant operational savings, enabling staff to use their time on more important matters and reducing safety risk.

ii) Doing better things may come from opportunities arising from technological advances. An example of this could be the use of telemetry to monitor water networks and to enable real time simulation. Availability of reliable sensors coupled with advances in communications has meant that this has become not only a possibility but a reality.

In practice innovation can encompass a range of improvements from radical to incremental. Scientific breakthroughs enable radical changes but equally small changes on a wide scale can have equal positive impact. Organisations may have their own in-house innovation capability but may also work with suppliers as well as with universities to address challenges and seek solutions.

Developing innovation training and development for an organisation

The starting point for any organisation to develop a training and development intervention is to look at what already exists. There is invariably more going on in any organisation than is often seen with great people striving to improve things and address the essential challenges, often on top of their day job. There are frequently informal groups of problem solvers with technical specialists whom others can refer to for guidance.

For any organisation the main things needed to drive innovation are:

i). Clarity of direction; it is vital that everyone in the organisation understands the issues being faced and that they also know what the priorities attached to each are,

ii). Providing robust business processes that everyone knows how to access and use. This will include things like ideas schemes as well as advising what is needed to make a business case for innovation investment; the costs and potential benefits,

iii). Fostering a positive innovation culture which encourages people to develop and put forward their individual ideas. Positively encouraging creative thinking and celebrating openly when it happens.



Developing an innovation intervention to increase effectiveness in an organisation

Organisations that are very successful at innovating adopt number of basic principles, the building blocks for innovation that apply to any organisation:

- Get everyone involved; everyone in the company is expected and encouraged to innovate, even administrative and finance staff. The source of the innovation matters less than the innovation itself. Innovation is seen as a core competence.
- Promote creative time; employees are given "x percent time" to pursue "pet" projects, unrelated to their core work, that they find interesting. A significant proportion on business improvement has been demonstrated to emerge from this sanctioned time for innovation.
- Encourage volume, speed, and iteration; new products are trialled early and often, in small beta-tests. This allows people to test out ideas with others, and to iterate and refine the ideas, before launching them more broadly.
- Embrace failure; staff are encouraged not to worry if an "experiment in innovation" fails. There is often something that can be learned or salvaged from any attempt.

Taking these principles are a good starting point to understand how best practice can be encouraged in any organisation. The review of current practice will have shown where intervention is needed but for every member of staff innovation development will be different in meeting their own needs.

A key aspect for any organisation is to recognise the role of leadership in innovation. It may be that senior managers can strongly influence innovation activity by the messages they convey, and the direction provided but equally there are always people in organisations who provide other types of leadership or enabling roles. At the heart of this lies the need for inspiration where people want to do things better.

In a poll of 2000 senior managers in the UK, 55% responded that they wanted to see innovation inspiration in their organisations. In their responses however only 11% thought they actually saw inspiration, with knowledge and ambition often being mistakenly seen as innovation. Only true inspiration will make a difference.

Developing a training and development intervention for any organisation will involve providing individual staff with the key messages about the importance and relevance of innovation and the role they can and need to play. Training can include the use of best practice examples but needs to make sure it addresses and supports the corporate goals of the organisation.

For any individual the application of innovation needs to be relevant to the workplace and for this reason a modular approach has been taken addressing water and wastewater networks and treatment as four separate sectors. This allows specific examples and challenges to be provided which increases the relevance to any trainee.

As well as delivered training there is great advantage of allowing trainees to consider what they are hearing and to undertake group or individual exercises and assignments that allow the application of what they have learnt to their own day-to-day experience. This has been shown to increase relevance and effectiveness in the intervention.

At a personal level innovation training and development is reflected in behaviour such as encouraging people to be more courageous, committed, focussed, confident, demanding, open, honest and respectful. At the same time, they will be humble, vulnerable, energised and relentless. In less jargon terms they will be more curious, passionate and reflective in their outlook.

Using the principle of "what gets measured gets done" it is essential to set up measures to record and monitor innovation success in an organisation. Things like staff ideas schemes that capture innovation record the numbers of ideas and the benefits and saving arising. Innovation is self-perpetuating and great ideas should be widely communicated and celebrated around the business. Reward mechanisms to may be relevant, and the processes should capture best practice and lessons learnt into the organisations systems. A great source for monitoring innovation is from staff surveys which may be undertaken formally or less so, but which will typically result in staff saying they are proud of their company, proud to work in it, proud of their colleagues and proud of what they do.



Aligning innovation training with a national qualification

As stated above the innovation interventions were developed separately for water networks, wastewater networks, water treatment and wastewater treatment. This allowed for relevance and specialisation of the individuals to be recognised as well as their level of understanding and achievement. The Level 5 Award for any area is aimed at candidates who wish to demonstrate their knowledge and understanding of regulatory compliance requirements and best practice in that area.

The Regulated Qualifications Framework (RQF) is the single framework for regulated qualifications, the regulatory body for this qualification is the Office of Qualifications and Examinations Regulation (Ofqual). This qualification is accredited onto the RQF.

The innovation training for each area sets out the profile and requirements for each demonstrating alignment to the qualification. Importantly, a series of learning outcomes are defined and for each of these assessment criteria are provided. These set out what the trainee / learner will understand as a result of the training as well as the things they will be able to do. Assessment is by trained and qualified assessors and by review of set assignments that trainees / learners are required to submit.

Upon successful completion of their qualification, learners can progress to further learning within the suite of Water Level 5 Qualifications – i.e. completing an Award or Certificate and topping up to Foundation Degree and on to Honours Degree. Learners may also wish to further their ongoing personal and professional development by accessing other qualifications.

Level 5 Award in Leading Innovation within the Water and Environmental Industries

Overview of the qualification – Main Themes

- Innovation and business performance and using innovation to improve operational processes throughout the business
- Financial and social benefits; efficiency, customer service, safety, resilience
- Radical and incremental innovation
- Innovation to gain competitive advantage
- Creativity and innovation – what conditions and processes are required to encourage them?

Upon successful completion of their qualification, learners will:

- Understand Innovation and its purpose within the organisation
- Understand the innovation process and its purpose within the organisation
- Understand how personal skills and behaviours can promote innovation
- Apply the principles and processes of innovation within their own role

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