

Embracing Innovation: Driving Progress, Empowering Change

Innovation is no longer optional, it's essential. For organizations to thrive in today's fast-paced world, bold ideas and transformative practices are critical to success. Outdated practices are increasingly challenging to maintain, and the risks of standing still in a rapidly evolving industry are too great to ignore. By building a culture of innovation, you can empower your organization to face challenges head-on, unlock new opportunities for operational excellence and create a resilient future for your employees, customers and community.

“The application of new ideas resulting in increased value to our customers and/or increased productivity.”

WRF Project 4642 Definition of Innovation



Current Landscape & Trends



Globally, over 90% of utility executives believe that innovation is critical to the future of the organization.

Water Research Foundation (WRF) Project 4642
Fostering Innovation within Water Utilities

Water and wastewater utilities operate in an increasingly complex world that requires constant attention to shifting near-term priorities as well as long-term organizational sustainability. The water sector has responded with an explosion of new solutions including novel services, practices, and technologies that promise optimized operations, better product quality, and improved customer satisfaction. A key task for utilities is sorting through these offerings to find solutions aligned with their needs. Some utilities have joined the ranks of entrepreneurs by engaging their staff to develop their own solutions for the industry. To better leverage both internal and water sector innovation, utilities are adopting innovation management as a business practice.

What Happens When Innovation Takes a Back Seat?

When innovation is deprioritized, your organization risks:

- Persistent **inefficiencies**, driving up costs and wasting valuable resources
- **Disengaged employees** with low morale, contributing to loss of top talent
- Increased **vulnerability to disruptions**, threatening stability
- **Failing to adapt** to changing customer expectations, jeopardizing satisfaction
- **Falling behind** competitors in an evolving industry
- **Missed opportunities** for growth and improvement

Changing Culture is Hard

Building a culture of innovation requires deliberate effort. The path forward isn't always easy, and many organizations struggle to make meaningful progress:

- Only **31% of utilities** have established innovation goals.
- Only **20% of utility employees** feel empowered to pursue new ideas.
- Only **26% of external innovation partnerships** deliver on expectations
- Only **35% of utilities** effectively measure and communicate the impact of their innovation efforts.

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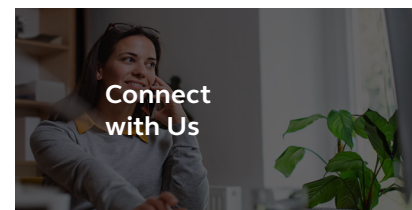
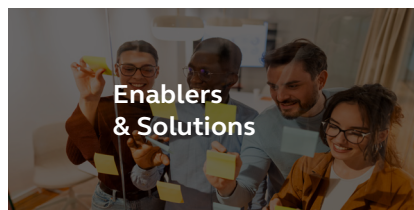
For over a decade, Arcadis has led research efforts to develop resources that help utilities manage innovation effectively. We led the development of key industry resources in innovation management, including the WRF Project 4642 Fostering Innovation within Water Utilities, WRF Project 4907 Leading Water and Wastewater Utility Innovation, and The Water Tower's Building an Innovation Narrative.



Facilitating a Global Network of Utility Leaders

Our Utility Innovation Network (UIN) brings together more than 130 utilities worldwide, fostering collaboration to solve the industry's toughest challenges. The UIN is a coalition of over 130 water and wastewater utilities from around the globe focused on fueling innovation through the development of industry resources and case studies.

Interested to join the UIN? See 'Connect With Us' to join the network.



Enablers & Solutions

Innovation isn't just about ideas. It's about creating a workplace where people feel empowered to bring their creativity and their unique perspectives to work. Integrating innovation as a core business practice creates lasting value for your organization and the communities you serve.

Creating an innovation-focused organization starts with three key need areas (WRF Project 4642):

Leadership: Defining the motive for and expected impact of innovation. The research is clear: innovation does not sustain itself organically in utilities - it requires visible, consistent, executive-level sponsorship. Utilities with innovation leaders who report to executive management demonstrate stronger cultural impact than those without. Organizations that lead innovation effectively deploy a consistent set of practices, including establishing an Executive Innovation Champion, aligning innovation with organizational strategy, and setting and tracking meaningful measures of change.

Executive Innovation Champions clarify expectations, remove organizational barriers, and reinforce priorities through active, visible participation. Effective champions embed innovation into strategic plans, performance expectations, and Board-level discussions. Innovation is most sustainable when it is explicitly linked to strategic business plans, critical success factors, and enterprise performance measures.

While only 35 percent of utilities have established innovation performance measures, those that do report greater program clarity and long-term sustainability. Leading utilities recognize that metrics must evolve over time—progressing from participation and idea flow toward measuring return on innovation, operational efficiency, and resiliency outcomes.



Process: Investing resources and growing ideas for adoption. In utilities, innovation most often fails not because of a lack of ideas, but because of the absence of clear, repeatable pathways to move ideas from concept to implementation. Only 44 percent of utilities have defined processes or dedicated resources to support innovation, underscoring a critical gap between ideation and execution.

Utilities that strengthen innovation processes do so by intentionally dedicating resources, establishing structured idea management systems, defining clear evaluation criteria, and creating pilot or test environments. Utilities with formal innovation programs invest approximately 1.5 percent of operating expenditures in innovation, compared to just 0.69 percent for informal programs. Early-stage “catalyst funds” (typically under \$100,000) are commonly used to demonstrate leadership commitment, enable experimentation, and manage financial risk.

Leading utilities adopt stage-gate or funnel-based approaches to differentiate quick wins from higher-risk or more complex ideas. These approaches typically include five core stages: capture, screen, develop, evaluate, and implement. Objective evaluation criteria—aligned with strategic priorities such as risk reduction, customer impact, return on investment, and regulatory improvement—help ensure transparency, consistency, and strategic alignment.

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To reduce fear of failure and accelerate learning, utilities frequently leverage treatment pilots, sandbox trials, and controlled demonstrations. Research programs and technology testbeds consistently rank among the most effective innovation catalysts, providing safe environments to test, refine, and validate ideas before full-scale adoption.

Culture: Engaging people to discover opportunities, develop ideas and implement new solutions. Across all studies, culture - not technology - emerges as the single greatest inhibitor and enabler of innovation. Yet only 20 percent of utility staff report feeling empowered to participate, highlighting a significant gap between aspiration and lived experience.

Utilities that successfully shape an innovative culture apply a consistent set of practices, including broad workforce engagement, psychological safety, recognition and rewards, storytelling, and thoughtfully designed external partnerships. High-engagement utilities intentionally involve staff at all levels through surveys, listening sessions, workshops, and design sprints. These approaches are associated with improved morale, stronger workforce retention, and more effective adoption of new practices.

Effective innovation programs explicitly normalize experimentation and learning from failure. Leaders reinforce that failure without learning is unacceptable, while thoughtful risk-taking in service of improvement is expected. Despite recognition being one of the strongest cultural reinforcements, only 17 percent of utilities have innovation-specific recognition programs. More mature utilities embed innovation into performance reviews, onboarding, and awards programs to reinforce desired behaviors over time.

Communication is repeatedly cited as the lifeblood of sustainable innovation. Utilities that consistently capture and share innovation stories both successes and failures strengthen organizational identity and reinforce cultural norms. External partnerships further influence culture: while 87 percent of innovation programs engage external partners, only 26 percent of partnerships meet expectations, often due to cultural misalignment rather than technical challenges. When values, behaviors, and expectations are aligned, partners amplify not only capability, but also mindset.

Innovation succeeds when Leadership sets direction, Process creates pathways, and Culture empowers people. Weakness in any one area undermines the others. Utilities achieving sustained innovation maturity treat these three need areas as interdependent system investments, not isolated initiatives.



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Implementation Strategies

Innovation doesn't happen overnight - it's a journey.

Here are simple steps to help you get started:

Build Connections

Join our network of industry innovation leaders to share insights, and collaborate on innovative solutions and resources.

Assess Your Current Innovation Environment

Evaluate your organization's innovation strengths and identify opportunities for improvement. Understanding where you stand is the first step in charting a path forward.

Set Leadership Expectations

Define what innovation means for your organization and establish clear goals that align with your vision for the future.

Launch Tailored Programs

Every organization is unique. Implement programs that meet your specific needs, helping you drive meaningful change and achieve measurable results.



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Innovation is not just about technology. It's about people, culture and vision. At Arcadis, we help organizations embrace the power of innovation to overcome challenges, seize opportunities, and create a brighter tomorrow.

Ready to get started? Contact us today to learn more about how we can help your organization thrive.



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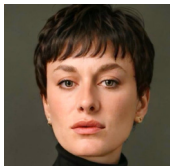
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