Regional Innovation Partnerships

Mitchell Dixon
Head of Customer Delivery, Isle Utilities (Asia-Pacific)
Isle has developed a proven innovation framework that has been operational globally since 2005. We have the expertise to design and deliver an innovation program to achieve your desired outcomes.

Isle has an unparalleled track record when it comes to technology adoption. Around 30% of all technologies presented through our innovation forums have been implemented as BAU.

Isle’s global innovation ecosystem, which includes over 6,000 technology companies and 200 technology end users worldwide. We know who’s done what, and what works.

Isle is independent; we are not affiliated with any technology companies. We make recommendations in the best interests of the industry end users.
Isle’s purpose is to be your **trusted business partner** collaborating on **innovation: ideation, evaluation and adoption**

Regional Innovation Partnerships with Isle are about creating a systematic approach to bring your people together to generate opportunities, use industry knowledge to solve problems and deliver commercial solutions, in a way that creates value for your organisation.

- **Saving you time and money on in-house R&D and innovation**
- **Leveraging industry knowledge to know what works**
- **Build relationships and collaboration between LG utilities (and service providers)**
INNOVATION PARTNERSHIPS

To support performance through innovation and the adoption of new technology and scientific advances.

1. Innovation Funnel

2. National ecosystem: Innovation Partnership

3. International ecosystem: Knowledge sharing from Isle’s global innovation ecosystem
ENTERPRISE INNOVATION FUNNEL

• 3 stages separated by decision-making gateways: generate, evaluate and implement.
• Isle scopes out the outcomes, people, criteria, measures of success, partners, platforms, and knowledge sharing opportunities.

- **GENERATE**
  - Isle’s Innovation Partnership
  - Isle’s International Ecosystem
  - Other ecosystems and partnerships

- **EVALUATE**
  - Evaluation frameworks

- **IMPLEMENT**
  - Trials
  - Measuring success
  - Learning and knowledge sharing
# OVERVIEW OF THE METHODOLOGY

The design and delivery of the partnership will cover five key elements:

<table>
<thead>
<tr>
<th>1 - Defining the value proposition</th>
<th>2 - Innovation themes</th>
<th>3 - Technology horizon scan</th>
<th>4 - Innovation workshops</th>
<th>5 - Follow-up</th>
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<tr>
<td>• Meeting with stakeholders to define the value proposition.</td>
<td>• Three (3) innovation themes will be developed</td>
<td>• Tapping the global innovation ecosystem for solutions</td>
<td>• Three (3) themed innovation workshops per year</td>
<td>• Follow-through on workshop actions</td>
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<td>• Understanding needs and where value can be created through innovation.</td>
<td>• Technology selection criteria will be developed</td>
<td>• Evaluating and short-listing technologies according to selection criteria</td>
<td>• Four (4) technology companies will present per workshop (12 per year)</td>
<td>• Organising webinars of technology presentations</td>
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<td>• Champions will be identified</td>
<td>• Coaching each of the technology companies prior to presenting</td>
<td>• Generating actions on commercialising these solutions</td>
<td>• Facilitating knowledge sharing with other end users</td>
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<td>• Program of activities to be agreed</td>
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<td>• Introductions to partners</td>
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<td>• Other activities as needed by members</td>
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IDENTIFYING THE CHALLENGES

Following a Discovery Session, Isle identifies technical and corporate challenges and put forward a ‘long list’ of potential solutions. The diagram below shows the project steps for identifying challenges.

1.1. Discovery Session

Understand the strategic needs

Discovery Session with key stakeholders to define current and future state for water quality.

1.2 Identifying the challenges

What are the questions?

Synthesize workshop outcomes to produce a list of questions that need to be answered.

Break down the issues

Brainstorming to breaking down each question into components and potential solutions. A ‘long list’ of solutions are developed.

1.3 Develop scoring criteria

Validate and refine

Test (and refine) these solutions with key stakeholders. Prioritise solutions and develop final problem statements.

Define scoring criteria

Isle will define scoring criteria to allow for technological solutions to be evaluated and prioritised.
INNOVATION PROGRAMS AND PARTNERSHIPS

WSAA
Technology Approval Group (TAG)
Australia wide

TasWater
Innovation Partnership
TAS, Australia

WaterNSW
Innovation Partnership
NSW Australia

Various Industrial Manufacturers
Industrial Technology Approval Group (TAG), Various locations, central Europe

Green Industries SA
Trade Waste Initiative
Adelaide, Australia

Adelaide Airport
Waste-to-Energy Partnership
Adelaide, Australia

Dairy Australia
Innovation Consulting
Melbourne, Australia

Sunwater
Innovation Partnership
QLD Australia
TECHNOLOGY SHOWCASE
WATERBLADE™

Water efficiency device that reduces water use by ...

- Fan-shaped flow of water, 2.4 L/min
- Half the consumption of normal taps
- Trials at Central Coast Water, Sydney Water, Central Highlands Water, Hunter Water.
FILTRALITE®

Filter media made of expanded clay with exceptionally high porosity

- Ghana, Nigeria, Central African Republic, Cameroon, Uganda
- Reduction in OpEx and CapEx
- Longer filter runs, throughput, >25% backwash reduction
- 70% footprint
- Product lifetime > 25 years, ROI < 3 years

- Denver Water, Sydney Water, Melbourne Water, Barwon Water

AWA State Conference, Orange NSW – 8 August 2019
SMARTVALVE™

Innovative app that manages valve operations and reduces transient pressure waves

- Attached to valve key, audio and visual controls
- Cloud-based, near-field communications
- Calmer networks
- More efficient incident management
- Enhanced network understanding
- Better customer service
- Increased operational efficiency.
Trial Pits App

Simple app for sharing and reporting site information securely

- Automatically assigns the time, date, GPS coordinates, site ID and any comments
- Interactive secure online map platform
- Enhancing Contractor and Client relationships and limiting service strikes
- Preventing any unauthorised distribution of rogue emails throughout the business and public display
- Successful trial and implementation with Irish Water
Earthlok

Permanent erosion prevention alternative to riprap and poured concrete

• Packaged and delivered in rolls for ease of installation.
• Where erosion is an ongoing issue (waterways, drains, bank stabilisation, shorelines, boat ramps, etc)
• Promotes natural vegetation growth which enhances anchoring
• Several council projects including Geelong City Council
• $65 per square metre
Cyanolakes

Online service for monitoring and mapping of cyanobacteria

- Real-time warnings for rapid response and monitoring of large and remote waterbodies
- Using satellite remote sensing data
- Early warning information service for utilities and the general public
- Reduce the need for in situ sampling, and by sampling more strategically.
- Available online
QualitEye and Information Engine

Online multi-parameter water quality monitoring with data analytics

- Understand quality at critical defined points
- Provides real time information about water quality events
- Free chlorine residual, ORP, conductivity, pH, turbidity, temperature, pressure
- Predictive analytics
- SMS / email alerts
- Tailor package to varying budgets and needs
Water & Carbon Group

Innovative solutions, integrated with ecology for sustainable treatment

- Technologies: Tickling filters, wetlands, sludge treatment reed beds
- Visual appeal: creating a microclimate and wildlife haven
- Very flexible systems that can be designed to fit the situation
- Low whole life costs
- Multiple projects in wetland and effluent disposal
KOIOS

AI platform that assists water treatment plant operators

- Developed by operators, for operators with site specific information
- Decision-making guidance based on historical operations and best-practices
- Reduction in OpEx due to reduced chemical usage and downtime, and increased energy efficiency
- Fewer water quality incidents
Blue Spot

Robust, solar-powered IoT water quality sensor

- Conductivity, Height/Level, Turbidity, Temperature and Nitrates (more parameters in development)
- IP 65/68
- Plug and play rapid deployment
- Solar powered (negates the need for battery replacement)
- Telstra NB-IoT network
- Prototype stage
VAPAR

Cloud-based platform that analyses the CCTV pipe inspection footage

• Computer vision and machine learning to automate asset defect identification
• Automates the secondary review process by automating the defect identification
• Using your existing raw CCTV footage
• Early stage Australian start-up
See the latest TAG technologies from around the world

TAGonline

What
A technology webinar **every fortnight**. 15 minute technology **presentation and Q&A**.

**On-demand**: Watch recorded webinars from the comfort of your office.

Why
- Find new technologies to **reduce your operating costs**.
- Use it to **upskill your staff** in the latest water tech.
- **Reduce travel costs** to TAG events.

How
Check out the [website](#) for details on upcoming webinars and to watch recordings.

Or email us at [tagonline@isleutilities.com](mailto:tagonline@isleutilities.com)
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