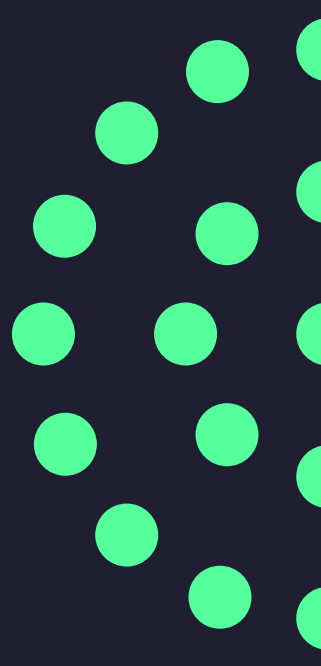


Annual Leakage Conference 2024

Spring Accelerator 5

December 2024



Natalie Lamb

Innovation Delivery Manager

nlamb@spring-innovation.co.uk

Agenda

- Who are Spring?
- Spring Accelerator 5 : A Call for Innovation around the challenge statement:
"How can we efficiently repair leaks in drinking water pipes while minimising excavation?"
 - What is the process?
 - Timelines
- How can we ensure that the innovations successful in the SA5 process are those that are the best for the sector's challenges?
 - 5 questions for you
- Next steps



For more information on SA5
please scan this QR code

What have we agreed for 24-25 strategy?

OUR VISION

To be global leaders in open innovation.

OUR MISSION

To attract, connect and support innovators across the industry to accelerate transformation.

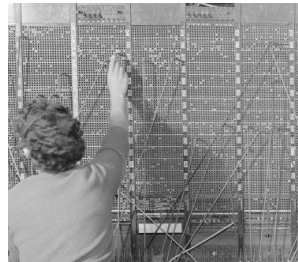
STRATEGIC THEMES



24/25 TOOLS & SERVICES



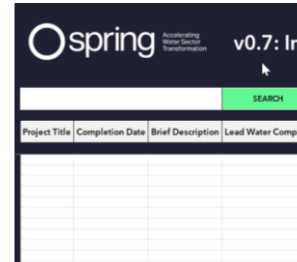
**THE SPRING
ACCELERATOR**



**THE INTEGRATOR
(BROKERAGE)**



**KNOWLEDGE
SHARING**



**THE INNOVATION
SNAPSHOT**



**WIS2050
REFRESH**



**TESTBED
REGISTER**

THE TEAM



FUNDING

Water Company investment £1m

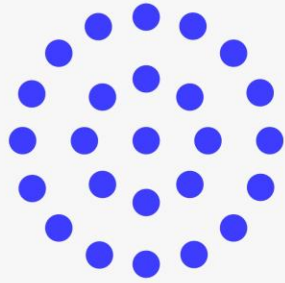
Supply chain revenue £250k

What has Spring delivered against the Water Innovation Strategy so far?



What has Spring delivered against the Water Innovation Strategy so far?





The Ambition Surgery

Our problem-definition and challenge-setting mechanism.



The Innovation Marketplace

Our directory of solutions submitted against the challenge for SME evaluation.



The Innovation Exchange

Events to deep-dive into chosen solutions and co-create collaborative trials.



Mobilisation

A facilitation service to mobilise projects with UK & Ireland water companies

Spring Accelerator 5 challenge statement

How can we efficiently repair leaks in drinking water pipes while minimising excavation?

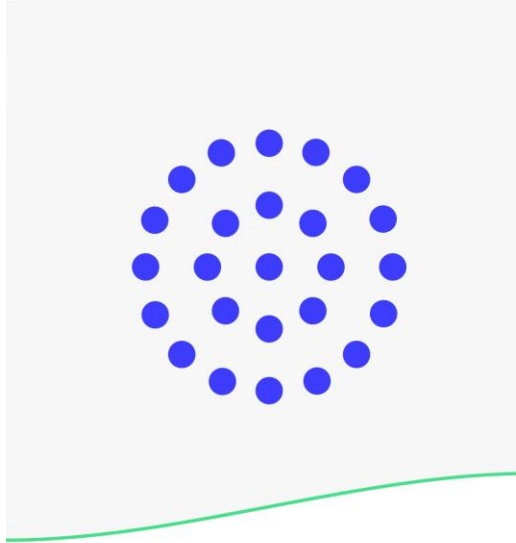


To apply to SA5
from 17 December 2024
please scan this QR code

How has the challenge statement been selected?

- All the water companies in the UK and Ireland submitted their business plans and innovation priorities.
- The innovation priorities of the different water companies were collated and assessed to find the top innovation priorities in the water sector.
- From this shortlist, water companies then voted on which topics they would prefer a Spring Accelerator to focus on. A broad topic area of “Leakage and Bursts” was selected for SA5.
- Jeremy Heath (SES Water Innovation Manager and Leakage Programme Lead at UKWIR) engaged with the Leakage Manager SME Group to determine the key challenges in this space.
- Jez engaged with Innovation Managers of all the water companies in the UK and Ireland on which of the key SME challenges were the top 3 priorities for their wider businesses.
- These 3 key challenges were discussed in length at the SA5 Ambition Surgery event on 5th November 2024. This was a free open access event for anyone to attend. Attendees voted on which of the 3 areas was most important to focus on for SA5. They selected no-dig and low-dig solutions as the most important challenge area for SA5.
- Innovation Managers of all the water companies in the UK and Ireland were re-engaged to determine if their businesses were happy with this as the SA5 topic area (no-dig and low-dig) and to determine a specific challenge statement within this space.
- The draft Call for Innovation was written to outline this challenge statement. Water company Innovation Managers and SMEs are being invited to provide feedback on how we can ensure that the innovations successful in the SA5 process are those that are the best for the sector’s challenges. The Annual Leakage Conference 2024 is an opportunity for you to also voice your thoughts on this.

Spring Accelerator 5 Ambition Surgery



The Ambition Surgery

Our problem-definition and challenge-setting mechanism.

Understand the context

Outline the playing field

Learn from the past

We expected:

- To learn from our expert speakers.
- For attendees to share their knowledge & preferences.
- To better understand the potential of innovation in the challenge area.

We did not expect:

- To leave with a perfect challenge statement.

Spring Accelerator 5 Ambition Surgery

[Link to Context Setting Session Recording](#)
[Link to Deeper Exploration Session Recording](#)
[Link to Ambition Surgery Agenda and Slides](#)

- Understand the context
- Outline the playing field
- Learn from the past

Context-setting (morning session)

Introduction

10:00 – 10:15

Introduction
Thomas Walker – Spring

Leakage & Bursts, an overview

10:15 – 10:25

Introductory video
Bob Taylor – Portsmouth Water

10:25 – 10:40

Technical & business context
Jeremy Heath – SES Water

10:40 – 10:50

Regulatory context
Ian Pemberton – OFWAT

10:50 – 11:00

Q&A
Jeremy Heath & Ian Pemberton

Deeper Exploration (afternoon session)

Introduction

13:00 – 13:05

Introduction
Thomas Walker – Spring

Lessons learned

13:05 – 13:15

Lightning talk #1
Anna Taliana – DCWW

13:15 – 13:25

Lightning talk #2
James Hargrave – Anglian Water

13:25 – 13:35

Lightning talk #3
Andrew Blenkarn – NWG

The Art of the Possible

13:40 – 14:50

Panel + Q&A
Thomas Walker – Spring, Ian Pemberton – OFWAT,
Jeremy Heath – SES Water, Oluseyi Onifade –
UKWIR, Jo Parker – Watershed Associates

Click on the boxes to voice your views about a topic area

Which of the 3 key challenges do you think is the most important for SA4?	Why do you think the challenge of leakage and bursts has not yet been resolved in the UK?	How can we attract innovation that is different and new in SA4?
What shouldn't the focus of the call for innovation be on?	Do you think we should focus on one challenge or multiple challenges?	Do you think there is a challenge more important than the 3 key challenges?
		Any other thoughts or comments?

Leakage and Bursts:
3 key challenges identified by water companies:

1. Cost effective methods to find and fix trunk main leaks
2. Low-dig methods
3. Tackling increased pipe laying costs through avoided or improved reinstatement

 Accelerating Water Sector Transformation

"My priority would be "low-dig methods" (and I hope this also includes no-dig methods) because I think this is a theme with lots of opportunities"

"Low dig repairs we think are not being covered elsewhere as a challenge, and could really pay back for us in AMP9 (relatively soon in innovation terms), when we anticipate a increase to asset replacement rates."

"I liked the supporting wording for the challenge titled "low-dig methodologies"..."

"I do think it's worth considering whether we should add an explicit reference to no-dig leak repair methods in the title and definition of the challenge, because I think although low-dig is more achievable in the short-term, no-dig is what we should be aspiring for ultimately."

 Any other thoughts or comments? 6 

Type your answer ...

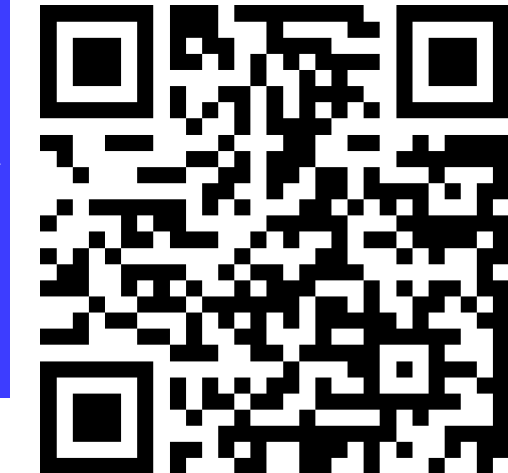


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How can we ensure that the innovations successful in the SA5 process are those that are the best for the sector's challenges?

- 5 questions for you:
 1. Is this an accurate reflection of the context?
 2. Is this an accurate reflection of the problems innovation in this area faces?
 3. Would solutions such as these have value to the water sector?
 4. What solutions have already been tried in this space?
 5. Is this the right challenge statement?
- BONUS question - Any other questions, thoughts, feedback?
- Participation in these surveys will be possible until 11 December



Practice question 1: How do you pronounce this?



Results

Low and no dig - why is this the SA5 challenge area?

- Water companies are increasingly interested in innovative solutions that can help them expedite repairs with minimal disruption and reduced costs.
- The recently published Leakage Innovation Heatmap showed that only 13% of live innovation is in mend, whilst 52% of the annual leakage spend is in this area.
- Water companies are interested in solutions that would allow them to carry out selected water leak repairs at depths of up to one metre*, without carrying out large excavations. Ideally, excavations would only be the size of an A4 piece of paper.
- In order to achieve this, innovation is required.

Q1 Is this an accurate reflection of the context?



Results

*Solutions capable of repairing pipes at deeper depths than one metre are not excluded from this Call for Innovation. The cost benefit of being able to repair deeper mains without major excavation is greatly compelling, however technology readiness level may be lower. In the UK, drinking water pipes should be laid at a minimum depth of 750 mm and a maximum depth of 1350 mm below ground level, although the majority of the DWDS is at depths of up to one metre, hence the focus on this depth for the Call for Innovation

What are common barriers to innovation in this topic area?

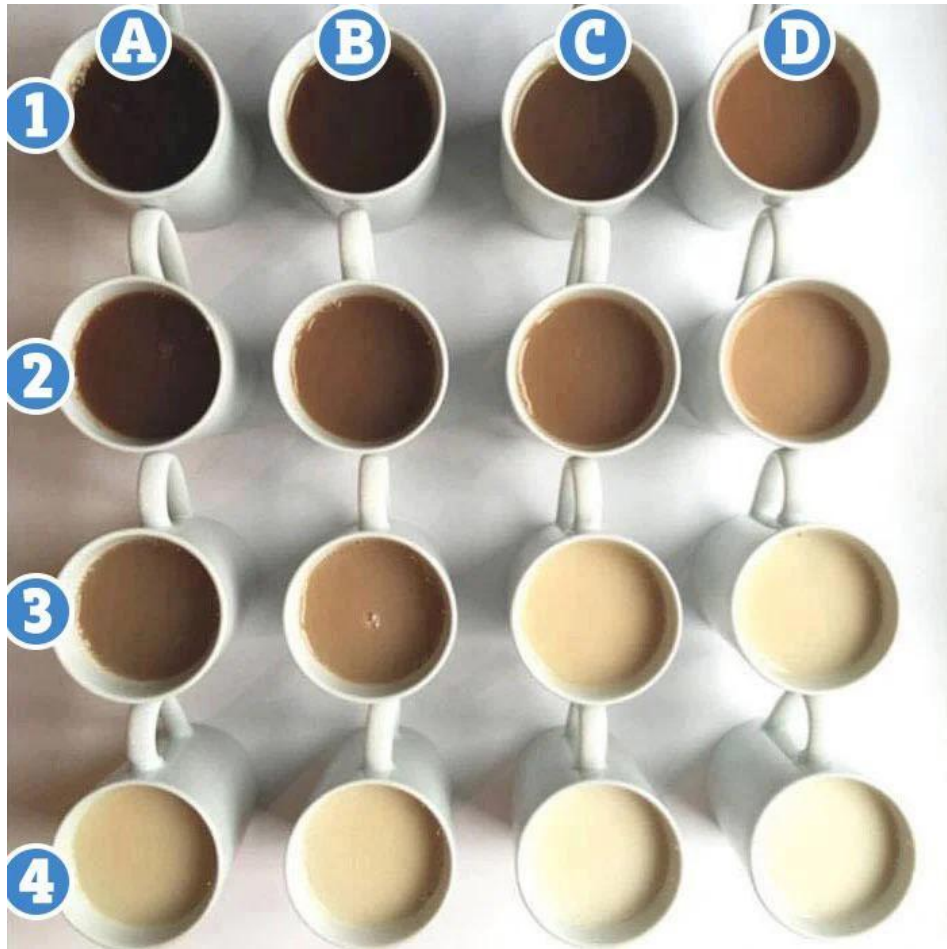
Q2 Is this an accurate reflection of the problems innovation in this area faces?



Results

- Water companies are increasingly interested in innovative solutions that can help them expedite repairs with minimal disruption and reduced costs.
- Some specific challenges of this working environment are:
 - For low-dig solutions, water leaks will need to be accurately located to within centimetres, so that unnecessary excavations are avoided.
 - Excavations may need to be carried out in a wet environment, which potentially will additionally cause problems with reinstatement.
 - For low-dig solutions, the repair may need to be carried from the surface in a potentially water filled and low visibility environment.
 - A significant proportion of disruption water mains are 100mm and lower. Inserting repair devices into such pipes is extremely challenging.
 - There are significant regulatory requirements for working with potable water. For example, Regulation 31 requires that all materials, products, and processes that come into contact with drinking water must be approved by the Drinking Water Inspectorate.

Practice question 2: What is the proper way to make a cup of tea?



What solutions we are looking for in Spring Accelerator 5?

- Solutions that can expedite repairs with minimal disruption and reduced costs
- Solutions may include:
 - Highly accurate methods of locating water leaks without excavation
 - Methods of excavating in wet environments
 - Long handled tools adapted or developed for repairing water leaks
 - Methods of carrying out repair work in water filled low visibility environments
 - No-dig repair solutions that can be easily and safely inserted into the water network
 - Holistic solutions that combine two or more of these methods

What solutions we are not looking for in Spring Accelerator 5?

- Solutions that have been tried and have not worked previously.
- Not learning from lessons learned in the leakage and bursts space.
- Solutions that do not help water companies.
- Solutions that do not accurately operate in the working environment.

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- Q3 Would solutions such as these have value to the water sector?
- Q4 What solutions have already been tried in this space?



[Results 1](#)



[Results 2](#)

The Spring Accelerator 5 challenge statement

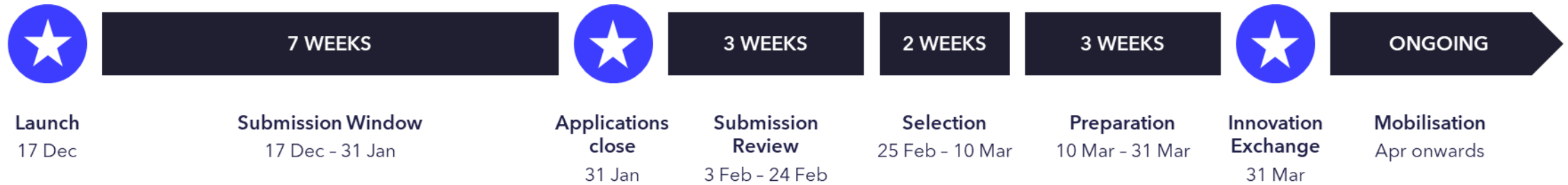
Q5 Is this the right challenge statement?



Results

How can we efficiently repair leaks in drinking water pipes while minimising excavation?

Next steps

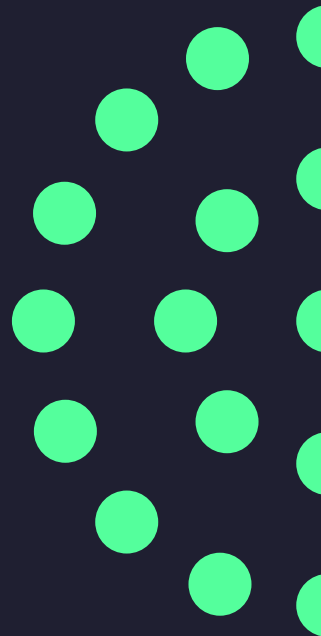


*Dates are indicative and subject to change over the duration of this challenge period



For more information on SA5
please scan this QR code

Thank you for listening!



Natalie Lamb

Innovation Delivery Manager

nlamb@spring-innovation.co.uk