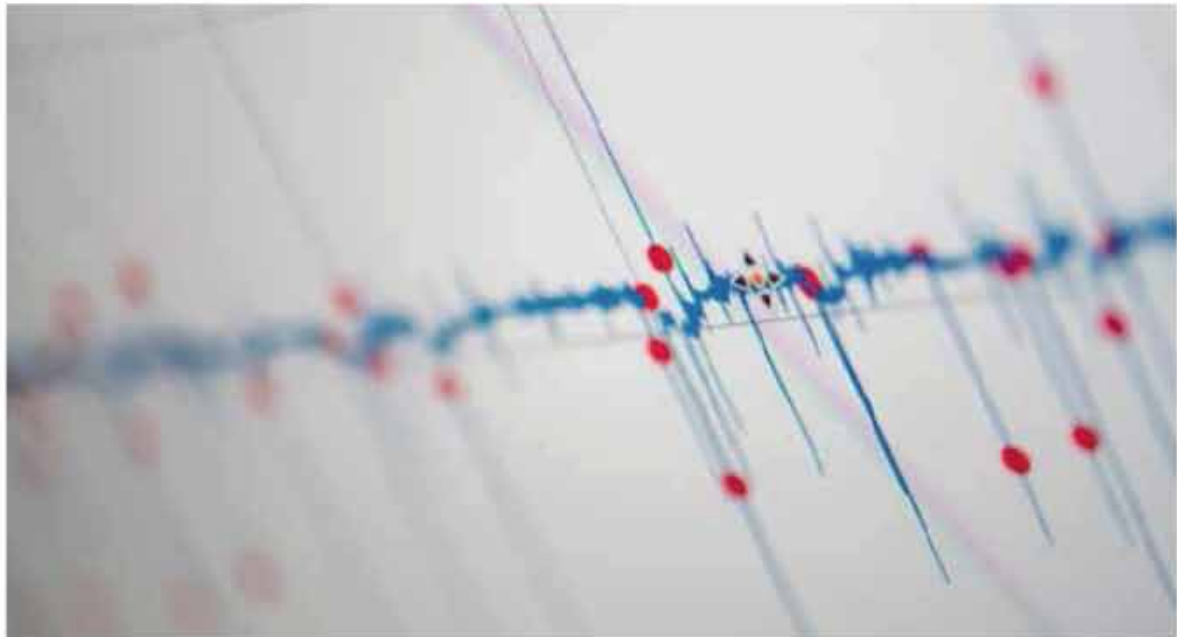




# The Pressure Seeker

**Robin Bell**  
is Chief Operating  
Officer of Inflowmatix.

Founded in 2015 as a spin  
out from Imperial College London,  
Inflowmatix has built on cutting edge research  
to develop patented technology that specifically  
addresses the ever-increasing challenges that the water  
sector faces. Here, he tells us more



**Robin, tell us about the problem that Inflowmatix is working to resolve.** Water network leakage is an endemic problem across the world. It costs operators within the water industry a great deal of time and money to resolve, it impacts customer service delivery and it interrupts the availability of clean safe water. As two thirds of the world's population faces water scarcity for at least one month each year, boosting resilience across the sector through tackling this significant leakage problem is incredibly important. Water is the world's most precious resource and we are wasting it.

**The water sector in the UK has never been under greater scrutiny from policy makers and regulators. Is this happening globally?** Yes, the UK regulator Ofwat has embarked on a big push for innovation and improved service delivery, holding water retailers and wholesalers to account like never before. The rest of the world is certainly waking up to the same needs and this drives us and other suppliers to find innovative solutions.

### it's a big social and political issue wherever you are

In the UK, 21% of our treated water is wasted as it does not reach the end consumer, thus demonstrating the level of network leakage. In Bulgaria this figure rises to 60% and there are countless other examples across the world... it's a big social and political issue wherever you are.

**How does your technology work and how does it differ from other solutions on the market?** Inflowmatix has created precision technology that helps operators control and calm water network pressures and optimise their services to keep customers supplied. We provide detailed insights into the network's behaviour – including events such as pressure surges, unusual usage patterns, negative pressures and asset misbehaviours – mapping these risks and giving infrastructure owners the opportunity to take corrective or pre-emptive action to implement pressure calming control strategies.

Our joined-up approach starts with high-speed, low-cost hydraulic pressure monitoring devices that can be deployed on existing network infrastructure in minutes. Using data sensed and edge-analysed from these sensors, we then use sophisticated mathematical, statistical and machine learning algorithms to characterise the network and provide customer insight via our cloud-based platforms.

Various competitors offer hardware solutions that can do elements of this but, for us, it's less about the hardware and more about the analytical insights which give our customers the opportunity to intervene and create long-lasting impacts of change. We're addressing the 'data rich/information poor' conundrum by providing tangible value.





There are products on the market that measure and report pressures at 15 minute intervals whereas ours does so 128 times per second. It's these very high frequency measurements and unparalleled accuracy combined with our unique analytics that, for example, help us identify pressure spikes – signatures of something going on in the network – and drill down to the particular asset that is most likely to be the cause of the problem. Resolving these issues helps achieve a calmer network and can significantly extend asset life.

**As a start-up, it's tempting to grow too quickly**

Another key differentiator is cost. We've worked really hard to deliver a solution that's not only versatile and easy to deploy but also cost-effective. It's affordable at the outset with a relatively short payback time and longevity of service.

**Where is Inflowmatix technology in use?** In the UK, Western and Eastern Europe, South and North America and Australia. We're currently engaged in a large project working with Claval and Suez in Italy and another major roll-out in the UK will be announced soon.

Importantly, the results so far have been impressive. In a one month trial with Severn Trent Water in the UK, we helped them achieve a 70% reduction in pipe burst rate, equating to a saving of £60,000 per annum in repair costs. They now have in excess of 200 Inflowmatix devices and have been using them on a daily basis for two years to proactively address issues on their network.



**As a start-up, getting a foot in the door of corporate customers can be extremely difficult; yet you're working with some huge household names. What challenges do you face and how do you overcome these?** It's true. I think the key challenges are around applicability, credibility and scalability.

Firstly, our technology is applicable, relevant and timely for customers who face real problems with significant impacts if they are not addressed. Water mis-management is not only an operational, but also a political and societal issue.

Secondly, our ongoing links to Imperial College and the wealth of research that has fed into both our company and our intellectual property are critical in cementing our credibility with potential customers. We only have so many customers to approach (23 in the UK, for example) and it takes time to build a relationship and move to large scale deployment.

Finally, in terms of scalability, customers must be able to see how the solution can be installed and scaled effectively. Our agile approach to the market, starting with Minimum Viable Product methodologies, along with our starter kit concept, has helped us to achieve early engagement with customers. Deploying four or five devices in each district metered area in the UK can give incredible insights, thus enabling customers to get up and running quickly: seeing the benefits for themselves before rollout is imperative.

**It's clearly working as you have grown to 25 staff in under 4 years. How have you managed this significant and fast-paced growth internally?** Flexibility is key here. We've adapted our roles according to the changing demands of the business.

As a start-up, it's tempting to grow too quickly but, our wide experience has taught us to be very selective in building our team, mindful of getting the right skills on board. We work with a limited number of recruitment partners and online platforms. It's a strategy that's working – we have team members around the world with very little permanent staff turnover and we use contract staff when we need them.

Our agile development processes are a core feature of how we work. For example, we define 'sprints' with clear goals and have daily 'scrums' to drive progress with 'show and tells' and 'retrospectives' at the end of sprints. This helps us keep the team engaged wherever the work is being done and is a constant feedback for process and people improvement.



→ **Why did you choose the South coast as a base for the business?** Despite our roots at Imperial College, we never intended to locate in London. Neither do we need to, as our links to Imperial via founder Ivan Stolanov are so strong. London is not only very expensive for start-ups but we also knew that recruiting high quality engineers would be a problem: the South has a very rich seam of engineering talent. We've since partnered with a local manufacturer, Season Electronics in Havant, and proximity to them is important to us too.



Both our CEO Mike and I live locally and had prior knowledge of Southampton Science Park. We viewed several options but, although rents are a little higher here, the facilities and support offer so much more than if we were in the middle of nowhere. It's proved to be a good decision. Our base here at the Science Park provides us with both office and laboratory space and, with varying levels of staff in the office at any one time, we have the flexibility we need.



**How will you capitalise on your success to date?** Last year we tripled our revenue from the previous year. We're looking to do the same again this year through broadening our worldwide customer engagement and scaling with our UK customers. It's an achievable goal. Ultimately, we want to be known as the solution of choice for providing unprecedented insights into water networks for water utility businesses around the world.

**Robin, reflecting on your career to date, what advice would you give to other entrepreneurs?** At SPI Lasers, we took a small business to a turnover of \$50m in just short of a decade so I've been through the growth journey previously. Most of all, it's important to keep your feet firmly on the floor. It's easy to expand too quickly and run out of money faster than planned so careful spending is critical balanced against aggressive objectives.

Also, be flexible and agile. Mike and I both know that we can't do everything alone so we recognise the need to team up with strategic partners, to recruit high calibre individuals, and to modify our own roles to meet the needs of the business as they change.

In this way, we achieve what we set out to do.

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