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Global Water Intelligence

Market-Leading Analysis of the International Water Industry

Tomorrow's De Nora **Severn Trent**
acquisition spurs future water growth

Antofagasta's new master EPM whips
up a frenzy in Chilean water market

Pull yourself together **Danaher joins**
membrane club with \$14bn takeover

A thoroughly Modon utility **Curtain**
rises on industrial OBOT concessions

Keeping an eye on Meiden **Does the**
membrane outfit have the X factor?

Market Profile: Beating the burn rate in water

Making the case for water investment

In a market serving conservative and risk-averse clients, how can water technology start-ups find finance? A recent workshop brought together inventors and investors to discuss ways to break through the funding gap.

In 2014, an estimated \$550 million of capital was invested into early and growth-stage water technologies. That accounted for just 1% of global venture capital funds deployed last year, proving that potentially disruptive water technologies are still struggling to find the funding to take them beyond the early stages of development, despite the skills on offer in the sector and a rising awareness of water management as an environmental issue.

Finding ways to beat the 'burn rate' experienced by many water technologies which need regular infusions of cash to sustain them through to commercialisation was the challenge at a workshop held in Athens on the fringes of the Global Water Summit last month. Sponsored and led by Amane Advisors, the event brought together a host of successful innovators and investors to discuss the best ways to bring water technology to market.

While the route to commercialisation needs to be well defined (see chart below), in practice water technology start-ups often find expansion a frustrating process, regardless of the quality and effectiveness of their products.

Along with the issue of finding willing funders, they also have to deal with a lack of



opportunities to test technology in genuine field conditions, and the fact that the majority of their customers – as monopoly utilities – are often underfunded and operating in conditions with no incentive to improve performance.

Jeff Green, the founder and former CEO of reverse osmosis membrane manufacturer NanoH₂O, was behind one of the most successful stories in water technology of recent years (he sold the company for \$200 million in April last year). Green told the workshop that the key to making a success of a start-up is all about the people involved. His method is to create a list of all the risks and problems facing the company in its plans to succeed and expand, and then recruiting people best suited to managing each risk, with compensation based on the

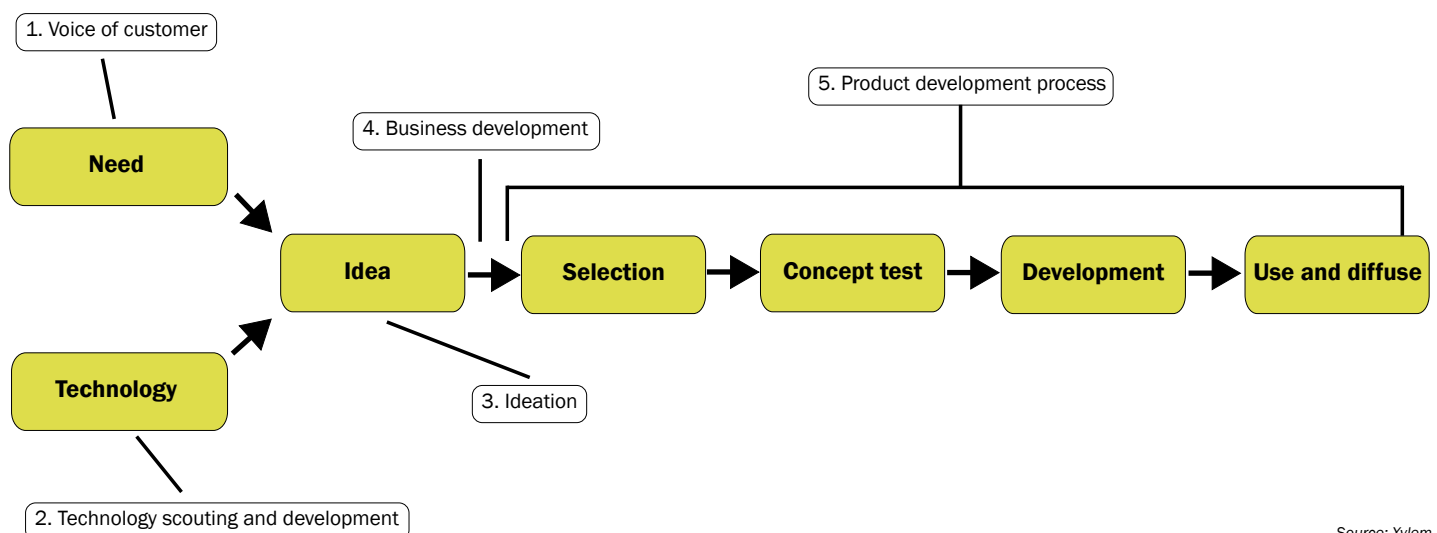
level of those risks to the business.

A panel of investors put together for the workshop agreed, saying that ultimately investing in a start-up means investing in people first, rather than technology, with the strength of a management team making a key difference when it comes to decisions on funding.

John Tonner, COO of Consolidated Water, mentioned how important it is for technology firms to present potential clients such as his company with specific solutions to their problems, rather than just promises of increased performance efficiency. Technologies also need to be able to differentiate themselves from competitors, and show dramatic financial competitiveness when viewed alongside all the other solutions available to a client.

Pascal Gendrot, CEO of sludge treatment firm Orège, discussed the difficulties for start-ups looking to obtain financing, particularly in the early stages of development. He said that compared to other industries, attracting seed capital from independent investors at the initial stage of development is almost impossible. Despite the risks involved, lower capital burdens mean that industries such as IT and biotechnology can often find funding based on

The road to success? How water technology development works – in theory



Source: Xylem

initial technology ideas, while water struggles to attract the same level of interest. In his own case, early capital funding stages were entirely reliant on friends and family.

Interestingly, Orège was one of relatively few water technology firms to opt for an initial public offering as a capital-raising option, and Gendrot said that the demands of arranging an IPO and complying with subsequent regulatory requirements can be onerous for a relatively small technology company. He pointed out, however, that the process had paid dividends beyond the capital raised by increasing public awareness of Orège, and thus acted as a marketing tool.

Alexander Ritschel, of the government-funded Masdar renewable energy desalination programme in Abu Dhabi, talked about the importance governments can have in the technology development process.

Crucially, this goes beyond just providing another source of finance, with the key difference being the ‘playgrounds’ for development offered by programmes like Masdar and PUB’s water hub in Singapore. Creating a space for technology firms to test their offerings in surroundings which closely mimic field conditions allows developing technologies to bridge the gap between the lab and the field. This is a crucial step in the water sector, where field operating conditions may affect the performance of a new technology which has hitherto only been deployed at smaller scales and under lab conditions.

Workshop host Thierry Noel of Amane Advisors said: “The main lesson of the workshop was that a start-up has to bring answers to the problems of their clients, and not just think the technology is going

to sell itself. The panel of investors said they wanted to invest in people, so the strength of the management team is key to this. Secondly, they have to understand that it is unique and differentiated. Investors have to hear from the client that they are interested, this is why partnerships with potential clients are so important.

“Ultimately, I don’t think the water business is any more risky than others. I think the problem is that the water market is less sophisticated. If you look at biotech or some of the other science-based sectors, they are ready to value businesses before they have any revenue. In water that isn’t the case.”

● The workshop held in Athens on 26 April was anchored by NanoH2O founder Jeff Green and Amane Advisors managing partner Thierry Noel. For more information on Amane, visit www.amane.biz.

Selected early- and growth-stage investments in water technology (Jan-May 2015)

Company	Country	Line of business	Investor/s	Investment
Arvia Technology	UK	Destruction of organic pollutants in water	Undisclosed	£4m
Water Generating Systems LLC	USA	Atmospheric water harvesting	Orion Capital Management	-
MTI Environment Group Ltd.	China	Wastewater EPC contractor + sludge composting technology	International Finance Corporation/SIIC Environment	\$8m
Algal Scientific	USA	BOD removal/algal biomass production	Independence Equity/Evonik Venture Capital/Formation8 Partners/	\$6.75m
WaterSmart Software	USA	Water efficiency software	The Westly Group/Apsara Capital/Draper Fisher Jurvetson/Physic Ventures	\$7m
Superior Water Technologies	USA	In-tank mixers and chemical dosers	METRIX Capital Group	-
Phoslock Water Solutions	Australia	Phosphorus removal	Lind Partners	A\$1m
WatchFrog	France	In-vivo detection of endocrine disruptors	CapDecisif Management/Groupe Chevrillon	€1.5m
RayVio Corp.	USA	Solid-state UV LEDs for water purification	Applied Ventures/Augment Ventures/New Ground Ventures/Tolero Ventures/DCM Ventures/Capricorn Investment Group	\$9.3m
Nexus eWater	Australia	Point-of-use water recycling	Thomas Reeves Hitchner/ANU Connect Ventures/Sydney Angels/Sydney SideCar Fund	\$2.1m
Biomae	France	Biomarkers to detect micropollutants in water	Rhône-Alpes Création/Alpes Capital Innovation/Pertinence Invest	€0.85m
Aquaporin A/S	Denmark	Biomimetic membranes	Danica Pension	DKK100m
OxyMem	Ireland	Bubble-less wastewater aeration	Enterprise Ireland/Kellysan	€1.6m
Apateq	Luxembourg	Oil-water separation	Mosmart Int'l/Eurobéton	€5.8m
Bluetector AG	Switzerland	Sludge-to-energy conversion	Luzerner KB/Zürcher KB/StartAngels	CHF1.76m

Source: GWI



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