

Out of the lab and into the marketplace

Canada has a good system, but start-ups need support before strong ideas can stand on their own

Taking a good idea out of university laboratories requires entrepreneurs who talk to customers at the earliest opportunity, says Phillip Abrary, chief executive officer of Ostara Nutrient Recovery Technologies Inc. of Vancouver. But start-ups need support before those good ideas can stand on their own.



Phillip Abrary, chief executive officer of Ostara Nutrient Recovery Technologies Inc.

Abrary, 47, trained as both a microbiologist and chartered accountant before becoming a technology consultant for manufacturers, and then decided he wanted a business challenge that could make the world a better place. Abrary designs, builds and sells water treatment systems. Ostara's patented technology, developed at the University of British Columbia, recovers phosphorus and ammonia from municipal and industrial wastewaters and transforms them into Crystal Green, an environmentally responsible fertilizer.

The company was named a 2011 Technology Pioneer by the World Economic Forum, the only Canadian company so honoured this year.

How big are the opportunities for a small company like yours?

The opportunity's really global. Where there is waste water and there are nutrients in that water, we can tap into that water and recover the nutrients in a valuable form. So long as people consume food, there's a market for the fertilizer. Pretty much everywhere and pretty much on a perpetual basis.

What does your experience tell others about commercializing an idea from university laboratories?

Get it out of the laboratory as soon as it's ready.

Why?

Because you need to find customers. There's no point in trying to develop something without engaging customers. The customers, in our case, are the utilities. We had the City of Edmonton signed up to do the demo project with us. That was extremely significant because that customer told us what it wanted this thing to do. We may have invented the greatest mousetrap, but if nobody wants to buy it, it's not very interesting.

How well are we doing in Canada at commercializing university research?

I've seen some great successes. UBC has had a number of successful spin-off companies, as have other universities, not only in Canada but around the world. Canada is quite unique in that not only is there a great university system in place to create the initial research but there's a tremendous support network in place for the early stage commercialization. Without funds like SDTC [Sustainable Development Technology Canada] and the NRC [National Research Council], it would have been very difficult for us to get all that early high-risk development money from shareholders.

That's when companies really need help. Canada's done a great job in nurturing the development of these technologies. They [the funding agencies] make you go through a rigorous process of validating your assumptions and markets before you go ahead. Once that technology reaches commercial stage, it stands on its own legs.

Do you have any policy advice to make things better?

The Investment Tax Credit available to B.C. companies for B.C. residents who make investments in private companies that are developing a technology and need that seed money to attract angel investors, is hugely helpful. That is when companies have a difficult time raising equity because there are so many risks on the table and they need to get out of the university R&D world. They need to get into the real world and build something the market will accept.

How did you find the technology?

Through the industry liaison office at UBC. They have a group that specializes in finding promising technologies at the university, applying for IP protection and then working with companies and entrepreneurial groups that are prepared to put the money and the time behind commercializing these opportunities.

What was a key hurdle when you began to try to commercialize?

Making the technology of a size and at a scale where it could be commercially viable. We had to do a 100x scale-up before it could be commercially viable. We spent a year doing background work and studies on whether it would be viable on the world stage.

What went into scaling it up?

We tried to convince different cities to acquire the larger unit, but there was too much technology risk on the table. The Canadian government, through the SDTC and the NRC, and our shareholders, through equity investments in the company, provided funds so we could actually fund the construction of this scale of unit, which was designed in a collaboration between our technical people, UBC and outside engineering firms.

What is your vision of the company's future?

We want to go everywhere, but carefully. [The firm now employs 35 people.] We want to focus on the European expansion over the next couple of years. We have plans to move the business more aggressively into the Asian markets. There's a tremendous amount of activity over there now. Well, it gets as big as it gets, as quickly as we can get it there without stumbling.

What sorts of stumbles worry you?

One of the things that can happen is that you take on too many responsibilities and make too many promises and you don't deliver. Making mistakes where you get a bad reputation in some way can really be detrimental to a young company. We want to grow aggressively in markets where we're confident we can deliver, where we have all the necessary infrastructure to do so. We need to make sure that we have all the right people in place in each market and the right partners.

This interview has been edited and condensed