

Steve Davies, Oxford Asymmetry International and VASTox

The development of Professor Steve Davies's businesses was strongly influenced by his fundamental view. "My model was that you do not seek large investments from the capital market at the beginning but that you set up the service part of the business to generate cash for the discovery part. I was never going to set up a business which burned cash, whereas most people were ready to do so. If you burn cash you burn value at the same time, so when you come out at the other end, even if you're successful - which most companies are not - there's no value left in the company for the people who started it."

Preparations

He continues: "Having graduated in chemistry from Oxford, I remained here - apart from a brief stay in Paris - to become a Professor of Chemistry in 1996. However, during 1987-88, I began to wonder what I was doing - certainly not much organic chemistry. Though supposed to be thinking about chemistry, I spent my time teaching and raising research money. I had the ideas, but others did the work. Yet the chemistry was exciting, useable and, I believed, therefore commercially valuable.

"So I decided to set up Oxford Chirality, jointly with BP Chemicals, who were interested enough to pay £55,000 to finance a survey to discover whether my view of the potential of the market was correct. However, by the time we had shown that the idea of commercialisation had possibilities, events in the petrochemical and financial markets drove BP back to its core business."

"So I went ahead by myself, setting up Oxford Asymmetry Ltd (OAI) as its sole investor. I had thought of using ISIS Innovation, but in the 1980s they were not attractive to me. I also thought of using VCs and banks, but they wanted to finance companies they could sell in three to five years. What made the difference was the arrival of the BES scheme because, provided you were not employed by the company and held your shares for over for five years, there was no tax on capital gains from the company. So we set up OAI ourselves, with me as sole founder. I did so independently of the university, which one could in those days. I had to get the agreement of the Research Services Office, and the secretary to the University Chest, but they let me do it at my own risk."

"I had to put my own house on the line and for the first nine months I had to pay the salaries of colleagues myself, while still doing all the academic and administrative work required by the university."

Setting up

"So I went looking for more money and the right set of partners to run the company well, while still ruling out help from VCs and banks. After several fruitless months, I was at a Christmas party at Harwell and met someone from the Oxford Trust. He knew I was looking for funding, and introduced me to Ian Laing, Nick Cross and Tim Cook (later the managing director of ISIS Innovation). At this stage, Tim was employed by Nick and Ian to find companies in which to invest, but had had little success."

"So we held meetings, after about a month decided to go ahead together, and in 1992 Oxford Asymmetry became the first spin-off company in which Ian and Nick invested. A central element in the scheme was that 5% of profits of OAI were to go my own research group until 2000 - a total of £500,000 - and this we achieved. Following normal practice, the university also took 10% of the shares, but did not pay for them."

"We thought of moving to the Oxford Science Park, but it was too expensive, in our view. The facilities were 'too good'. So we went to property managed by Ian Laing and Nick Cross at Milton Park near Didcot, where we could use ex-ordinance depot sheds. We also put in Tim Cook as the first managing director, to get the company up, running and properly functioning - in a business sense - while we went out and looked for an appropriate CEO."

"Tim set OAI up successfully and we were 'cash neutral' by the end of Tim's period - not losing money. Given we were doing no marketing but relying on word of mouth, that was very good. Tim ran OAI for about eighteen months, by which time we could appoint Ed Moses as CEO, and he remained until OAI was taken over."

Asymmetry and Diversity

"The name Oxford Asymmetry derives from the fact that most drugs have left hand or right hand properties, with the company offering methodology to produce pure left or pure right handed compounds rather than the usual random 1:1 mix. Single handed drug compounds are often more efficacious and have fewer side effects than the left/right mix. We later established Oxford Diversity to handle and make huge numbers of novel compounds for drug discovery. A human researcher could perhaps make up to 20 compounds a year, whereas a robot can make thousands. Diversity used robots, to produce about 50mg of each of hundreds and thousands of new compounds. That may not sound much of each, but it is ample when you need only nanograms for initial drug discovery testing. There were therefore now two companies Oxford Asymmetry Ltd. and Oxford Diversity Ltd. Asymmetry did the relatively larger-scale stuff and handled the development and scaling-up of processes. Oxford Diversity Ltd made a library of a million or so compounds on a 50 mg scale instead of a few compounds on a multi-kilogram scale. Later we combined the two divisions to form Oxford Asymmetry International plc offering a complete and sophisticated chemistry service to industry."

"From 1993 with Ed Moses, a graduate in physical chemistry, as CEO, OAI developed quickly and I think we were in profit from about year four onwards - in real profit. By 1999 we employed 240 people, of whom 90% were graduates, many with Ph Ds. The average age was only 27, which made group discussions much less inhibited than with older people. About 20% of our employees were from overseas and a total of 17 languages were spoken!"

"Because the company's activities are knowledge based, it became very interested in knowledge handling. For example, it worked with Cap Gemini on an electronic lab notebook. This provides an archive of information and is useful because about 20% of the experiments have been done before.

To codify information, OAI is working on ways of standardising it so that it can be scanned into the notebook. This is very useful internally, because it means that no-one in a company needs to remember the detail of experiments. Customers can also buy into the notebook, using a confidential entry system - and size of customer is an advantage. Big clients then find it much easier to keep track of information."

"Ed was the only person interested in knowledge management at first, but others in OAI became interested too. And this was not knowledge as power, but world-class chemistry. The key to continuing success for OAI lay in the collection, management and dissemination of data."

Selling OAI

"We chose to get out of OAI early in 2000. It was best for the company. We were growing so fast, we had either to merge with somebody, buy somebody, or sell ourselves. It was one of those three. OAI was unsustainable on its own."

"We took the view that we had to protect the employees and the business we were building up, so that we would never do anything new if we didn't believe that at any stage we could shut growth down, with, say, six months notice, and then run OAI as a self-sustained business."

"That means we didn't borrow huge amounts of money from venture capitalists. We only brought in venture capital very late on., in order to build a pilot plant - one which made good business sense. We were cash-generating and nearly all available cash was ploughed back into the business. None of the original investors took any money out until we became a public company in 1998."

The total initial funding was £100,000, of which £40,000 each came from Laing and Cross but, by 1999, more seed money had come from a VCT - £7.5 million from 3i, only half of which had been drawn down by 1999. In the year to December 1998, sales were about £15 million, 80% of which

were exports. Profit before tax was about £3.7 million, the second half profit being 60% up on the first half. By mid-1999 OAI was worth around £250 million."

"So, in late 1999, we had several banks go round and do a world-wide survey, to discover who was in the same league as us, and with a complementary business. We interviewed three or four companies and it turned out that the best option was effectively to merge/sell to Evotec and become Evotec/OAI, which it is today.

"So in October 2000, OAI was sold for £316 million, when it had a turnover of around £40 million and profit of about £4 million. The university gave 15% of its own gain to the Department of Chemistry but, of course, intervening transactions had 'diluted' the university's shareholding in OAI - to less than 10% of the total."

VASTox

Between them, Asymmetry and Diversity covered "the whole of chemistry" and Steve Davies saw a new challenge, which was "to do the same for biology." Again, the key factor would be a database. "And my business model was still the one I used with OAI. My businesses do not burn cash."

"VASTox stands for Value Added Screening Technology, Oxford. It is a chemistry and biology combination that provides a novel way to do drug discovery. It is chemical genetics. We use information in the genome to identify biological pathways and targets and, to do that, we have to combine it with chemistry."

"It's a drug discovery platform. We provide a service to generate income, and our customers are big and small pharma companies. They pay us to do drug discovery for them, identifying the targets, or areas they're interested in. In addition, though, we do drug discovery with our own targets, using the same technology. As I always intended, this enables the service-based part of the company to provide the cash for the drug-discovery part."

Financial Structure

"VASTox has five or six individual shareholders, all of whom are scientists, plus the University, and a company called IP2IPO. It's the same deal as before for the academics. Nobody gets any free equity, everybody has to pay their share. The University again had 10% of the equity."

"But no intellectual property from university research has gone into this company and if in future any intellectual property is acquired out of the university, we would do a separate licencing deal. We are six academics, all of whose experience is being drawn on to form the Company. The fact that VASTox doesn't have University IP probably means that the University does not have any strict right to any percentage of the company, but my view is that since I work here, and I want to stay doing fundamental research here, they should have something. Ten per cent last time made them a lot of money, and 10% this time will hopefully make them more. The crucial point, though, is that it takes somebody to spot the opportunity. I did that"

"Concerning Chemistry at Oxford, the University had done a deal with a London bank, Beeson Gregory. The bank gave the chemistry department £20 million towards building a new research building. In return, Beeson gets, for fifteen years, half of the University's equity in Chemistry spin-outs." Beeson Gregory through its own spin-out IP2IPO has done similar deals with other Universities, such as Kings, London and Southampton."

"IP2IPO – that is "Intellectual Property to Initial Public Offering" –is now a plc. I know the people there, and I thought they could help me. As the name of the company implies, they provide help to companies from the stage of developing IP to the floating the company via an Initial Public Offering – an IPO. So I allowed them to acquire 20% of the VASTox equity, which they bought like the rest of us, at the same rate. For that, they provided some of the initial management for free."

The business's structure

"The service part of the business - the main part - is in Oxford, where we rent space within the chemistry department. These are highly sophisticated, value-added services: we don't make lorry loads of stuff. We also have a biology facility in an incubator in Mill Hill, North London. So the biology is done in London and the chemistry here and, in total, we employ just eight people.

I suggest to Steve that while I'm not saying he should go to a VCT he is doing roughly what they would want him to do, but he replies, "Well, watch this space. I don't believe I'll ever do what they want or expect me to do."

He adds: "VASTox is good fun - a good hobby. I enjoy the chemistry and nobody would claim I've ever not done everything I'm supposed to do in my University job. I've got one of the largest research groups in the UK, but I don't have to write so many research proposals because we now have our own slush fund I can use, to do the chemistry I want. It has come from the profits of Oxford Asymmetry.

Steve's take-home message is that you don't have to build companies on a standard paradigm. "You can do it other ways, and they can be very successful. Oxford Asymmetry is a case study used in the London Business School. They use real case studies there, so LBS gives them the history - with the name of the company changed - and says; 'What would you do next?' And these chaps always go down some standard, conventional textbook route: 'Now we get money in for this, now we get money in for that....' "

"I'm not going on a textbook route. With VASTox I'm going to do the same again as at OAI, but faster and better." When I suggest to Steve that he may well do it better, but he couldn't do it much faster, he replies "You watch!"

Douglas Hague, August 2004

Addendum November 2004.

Vastox Ltd was formed in March 2003 with £100K share capital and became Vastox plc on AIM at the beginning of October 2004 having raised £15M on a pre-money valuation of £30M. By late November 2004, its share price had risen to value the Company at £55M.