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Start-ups: no pain, no gain?

There are many challenges facing start-up companies today. Commercial, financial and legal issues could mean big problems if they are not approached in the right way. How do companies address these issues? What's it like being part of a start-up and what factors do you need to succeed?

CIE spoke to three executives to compare and contrast the challenges faced by UK, US and European start-up companies. They also cite their tips for making a success of your start-up, from hiring the best people to being sensible about your IP.

Bob Nunn
Bob Nunn joined California-based Fulcrum Microsystems in 2001 as President and CEO. Fulcrum was founded in 2000, based on research conducted at Caltech. The company is applying a patented circuit technology and design methodology to deliver high-performance, standards-based interconnect devices for use in computing, storage, and networking applications.

Michel Beghin
Michel Beghin is co-founder and COO of Insight SiP. Insight SiP is a fabless design and manufacturing company that aims to provide optimal solutions for highly integrated systems based on a system in package (SiP) approach, targeting the wireless communications sector (Wireless LAN, Ultra-Wide Band, ISM). Insight SiP is based in Sophia-Antipolis, France.

Rick Clucas
Rick Clucas is CEO of Ignios. The Oxford-based company was established in 2003 to commercialise technology that addresses the software programming, debug and efficiency challenges presented by multicore chips. Ignios was selected as a "Cool Vendor in Semiconductors" by Gartner in their 2005 listing of innovative and intriguing vendors.

What difficulties has your company faced? How have they been overcome?

BN: Our first challenge was that of taking university research in asynchronous chip design and developing it into a commercial grade design flow. Solving this required capital, a good engineering team and the assistance of partners - Cadence, Intel and PMC-Sierra all worked with Fulcrum on this.

The second challenge was developing a product plan and roadmap to best utilise the advantages of our technology. We used a beachhead strategy, where we initially targeted a smaller, less competitive market to build credibility before then transitioning into large, competitive markets with higher complexity, more value added products.

Lastly, engaging with top-tier customers takes time and patience. We have to offer a compelling, sustainable advantage to the customer's design team to get beyond the supply management gatekeepers. The credibility of being a start-up that survived through the industry down turn has helped us. Having our first product successfully shipping with second-tier oems is essential.

MB: The first problem is time. We are in the seeding phase, the very first stage of the company. Insight SiP has already started work on its first contract, but the company is still in the incorporation process.

This means we have to do many things at the same time: financial, technical, legal issues.

The answer we've found is to be backed by an incubator. Our incubator is supported by the French local administration like the City Hall and the Chamber of Commerce in Sophia-Antipolis. This is very helpful, without this support it would be much more difficult for us. The incubator doesn't do the job for us, but they gave us good

contacts so things can move quicker.

In the same way, for the commercial and marketing aspect, we have been supported by The European Extended Enterprise for Innovation (TEEE-Inn).

For the Sophia Antipolis MicroElectronics (SAME) exhibition they prepared everything for us, we just had to make the technical show and the technical panel.

The second problem is regarding finance. It's very difficult to address the right venture capitalist or business angel - there are plenty, but the problem is they are all looking for something different. Some are looking for seeding business (very few), most are looking for a company that is already running and making some profit, so they can help the company to grow. Some specialise in fabless companies, some specialise in manufacturing companies.

It's also very difficult to understand exactly what they want. They are listening, but they don't give us much information about what they are looking for. These financial issues are still being overcome.

Our third problem was IP. We are now working with the French patent office (INPI) to make sure there is no violation of patents on what we do. It's related to the incubator because the incubator gave us the right contact at INPI.

RC: On the commercial side, getting commercial traction is a huge hurdle for any start-up - if it doesn't get the commercial traction it won't get the follow on money.

At the early stages, it's evangelism, it's not really sales. It's not like going out there selling from a component catalogue, because the customer won't have seen your technology before, so it does require a different kind of selling to an established company.

A problem we've come across is that projects we get deep into with customers get cancelled - it can be very frustrating because people can get really excited about it, but for whatever reason, the project gets cancelled or delayed. Not only are cancellations depressing but they can look negative when you are looking for further funding.

As an IP company, IP is a big issue for us. Start-ups have to strike a balance between protecting their IP and making it easy for their customers to use it. Your technology will have to go out into the outside world if you are going to sell it - I've seen companies get so protective of their technology they're actually preventing themselves from getting a customer.

Often, if someone's stolen your IP, they wouldn't have paid for it in the first place, so you haven't really lost anything.

Having said that, you'd never send source code to China! But we can't ignore China as a market. If we license to an American or Japanese or European company, the chip may well be made in China anyway - you can't stop that. Going in to China is an issue we are going to have to deal with, and we are looking into adapting our business model as a way of doing that.

How do you see your company developing in the next two years?

BN: Fulcrum is now in a significant expansion stage. Our one key milestone is revenue growth. Our product roadmap is now set for the next 2+ years in our low-latency interconnects product line. In 2006 we will begin development of our second product line based on the same 'clockless' technology. In this way we intend to build a broad-base semiconductor company leveraging the unique advantages of our proprietary technology.

MB: We see the company developing in three steps: in the next two years we will complete the first and second steps.

The first step is to quickly finish the design for our first customer.

The difference between us and some other companies is that we don't think we can ask for big money and then make the developments while waiting for business. So we are focusing on the commercial side - my goal is to get three contracts in the next 18 months, and to self-finance the company with these contracts - I don't want to be tied to one customer. So we try to be guided by the market. Our first milestone is to complete our first R&D contract for our first customer.

The second step will be to start manufacturing. We are fabless, so the manufacturing will be done by a subcontractor in the Far East. The second milestone will be to make sure that our customers agree with our manufacturing program.

The third step, after three years, will be to start developing for the market in general, not just under contract - to expand the customer base from specific customers to the general market.

RC: Our next key milestones are short term ones - we need to sign our first customers, and then have a second round of financing. We'd like to get these completed by the end of 2005, and then we're looking to do six to ten licenses in 2006.

From there we can start to build up the company from its current nine people. There's not much point in having hundreds of sales people out there if they haven't worked out how to sell the product yet.

Once we've got the first customers in, we'll get some proper feedback and we'll have a better idea of what to put in our next generation of products.

We should be a profitable company by 2007, then we can either do a trade sale or an IPO.

Given the choice, would you want to be involved with a start-up again?

BN: Absolutely! Start-ups are all about people and their individual personalities.

Systems and structures, or corporate bureaucracy, have little or nothing to do with our day-to-day actions. We get to build infrastructure as appropriate to match our growth, but we never feel overwhelmed by forces outside of our immediate control. I personally enjoy the task of gradually bringing order to chaos.

MB: Yes! I have started companies in the past and I really enjoy it - the company I started 10 years ago was purchased by its customer. I may even start another company in the future; I would love to start something because it's very exciting. However, it's difficult in the EC and especially in France, for many difficulties related to administration and so on - I say it's like rain and wind, you have to put up with it.

RC: This is my third, so yes! The thing I like about start-ups is the challenge - how do we make it work, how do we make it a reality - that's what I enjoy, be it in a large company or a start-up. However, the reality is that you don't see a lot of innovation from large companies, particularly in this industry. The way they bring out new products is to buy a start-up; a lot of them fund staff to go out and set up start-ups, then buy the company if it succeeds.

I don't think there would be many high-up people who wouldn't work for a start-up again, but I think there is still the perception amongst engineers that start-ups are risky. They are perhaps slightly more risky than an established company, but look how many established companies have got rid of staff or even failed.

People who are part of start-ups, if they've done it once, they'll do it again - it's addictive! There's nothing like the high you get when you close your first deal...

Top tips for budding entrepreneurs

BN: Always focus on building long-term value. Avoid sub-optimal

decision making, assuming you will have an 'exit' at some point to save the day.

- Hire only the best people you can. Do not compromise on the team - people are everything.

- Work with people in the financial community that you trust and admire.

Not all sources of money are equal and taking money from someone that you don't enjoy working with can be worse than not have any money in the first place.

MB: Be a hard worker. If you are someone that won't be involved in doing long hours for the sake of the business - then forget it.

- Be optimistic. When you start a company, people will tell you: 'it's too difficult, forget it - start-ups were a good game before 2000-01, now you will never get any money or any customers'.

- Build on people. You can't do everything alone, so a good team is critical to speed up the job. If you want to succeed, you must be sure that you can trust your colleagues. That's very important.

RC: Believe in your technology - if you don't, people will be able to tell. Be realistic about your market potential - if you think it's a wonderful idea, but no-one else will ever see why, then it isn't really a wonderful idea.

- Don't be too protective of your IP. As a start-up you could end up spending all your money on IP and protection, which would be a complete waste of time if you haven't got the money to sue anyone anyway. You can't ignore patents, it's worth patenting, but be sensible.

- Use a corporate finance house when raising money. They understand the rules of the game, and they can also play the 'bad guy' when doing a deal, helping preserve your relationship with the VC with whom you'll be working if the deal goes through. If a VC says they prefer the direct approach, it's because they think they can get a better deal that way.

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