Talking with Flexible Technology's Liam Lynch

Liam: The company was formed by three ex-IBM employees, one of whom lives on the Island of Bute. IBM previously had a large plant close by on the mainland and was, for some time, one of our largest customers. There was some additional investment from what was known then as 'Highlands and Islands Development Board' who were interested to create employment opportunities for the local community. As you can imagine, this is very important for the economy of a remote community such as ours.

Dan: So, you do a lot of innovative technologies. Especially when it comes to flex and rigid flex products; will you describe briefly some of your specialties?

Liam: Our core technology is from single and double sided flex PCBs to high complexity flex rigid multilayers up to 32 layers. Over the years we have had many enquiries for unusual boards which we've always tried to find ways to produce, by working with the customer and drawing on the skills of our engineers and manufacturing staff. Some of our projects have been developed over long periods, up to three or four years in some cases. One of our strengths lies in the fact that most of our employees have been with the company for many years so we've held onto the skills that we've developed through working on these projects.

We have created some unique processes which allow us to produce some very challenging boards, for example, exceptionally long multilayer flexis, up to 10M in length. We also offer sculptured flex with copper thicknesses from 70 micron in the flex area to 250 micron in the rigid area. We also offer heater flexis which we are seeing a lot of enquiries for, dual access flexibles, conductive silver and circuits sealed for use in wet environments. We've just recently moved a project from development into production after four years of prototyping and field trials and we know that we are the only company out of a number of others on both sides of the Atlantic to successfully make this PCB.

Dan: Fascinating. Is your market regional or national?

Liam: It's actually global. Whilst our biggest market is in Europe with the bulk of that being concentrated in the UK, we have customers in North America, South America, West Asia, Southern Asia, Africa and Australia. Since I joined the company I've been concentrating on the UK because it's our biggest market and it's easiest to service, but through time, when I've got on top of our domestic market, I'll be hoping to develop more business overseas.

Dan: People are always asking us, so I will ask you…what do you perceive are the differences between the U.S. Market and yours?

Liam: I travelled to the US a number of years ago to meet with Taiyo and we visited a number of board shops on that trip. As you'd expect, the size of the factories in the states are much larger and for that reason, I think that the level of automation is greater, which often results in an increase in technology capabilities. So we are probably lagging a bit in Europe in some areas. As far as demand goes, we are probably both in very similar situations. As volume production has gone offshore, the companies who remain have to concentrate on certain markets like defense, aerospace, medical, etc… and we have to be pushing the boundaries of technology to stay in the game. Although we still have a lot of production work, we also produce a lot of prototype boards for new technology products. Designers can benefit from sitting down with PCB fabricators to discuss prototype designs before they commit to having them produced. As long as we continue to offer new processes, new materials, and new ideas, we will add value to the locally produced boards and customers will see the value in having a local supply chain. This must be the challenge for PCB producers in Europe and in the USA because we all know, for a lot of electronics projects, we can't prevent the production from going offshore when it goes beyond a certain volume, so we need to try and retain the development work.

Dan: Liam, let me ask you. Do you think companies like yours will be able to survive doing development work?

Liam: It's possible, and I've no doubt there are companies who are in that situation right now. Many of them will boost their turnover by importing boards and shipping on but the problem with that is that somewhere down the line there may be no reason for them to continue to develop new manufacturing. The longer that continues, the less able the PCB companies will be to support OEMs and design companies with emerging technologies. Ultimately, this will make Europe and America less competitive across a wide range of technologies, so we need the OEMs to support the PCB and other EMS companies if they want that development support to continue.

Dan: Let me ask you about Taiyo? How long have you guys been using Taiyo products? And why do you prefer them?

Liam: We've only been using Taiyo flexible soldermask for a couple of years but the main attraction for us is the fact that it's flexible from tack dry and we can get it in a variety of colours including amber.

I've known Taiyo as an organisation for many years now and I know the products well. You don't get the market share that Taiyo has without having good products, but where I think Taiyo really excels is in their technical support. These guys can engineer your process to the optimum and because they have such a big market share, if you have a problem, you can be sure they've seen it before and they'll know how to fix it.

I also feel that Taiyo is the company most likely to release a new product ahead of its competitors. For example, the white, flexible LED soldermask that we're going to be using on a job soon is, as far as I know, only available from Taiyo.

Dan: Are there any products that you would like to see Taiyo working on to develop?

Liam: I know it might be a bit ambitious of me to ask this but a high temp flex soldermask would be nice. We currently have a couple of projects for high temperature applications which would be ideal for such a product and I think we're going to see more of this in the future.

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