Eric Openshaw, global head of technology for Deloitte

IT'S ALL ABOUT THE IOT

The market value of the internet of things is rocketing, with projections of its value varying between $1 trillion and $2 trillion by 2020

While the overall value of the internet of things is hard to gauge, the sheer growth means it is an area Irish businesses need to adapt to. "A number of factors are driving the market. First off the cost of cloud computing is continuing to drop, making it more ubiquitous," Eric Openshaw, global head of technology for Deloitte, told Connected.

Openshaw was in Dublin for the Deloitte Fast 50, which recognised Ireland's fastest growing technology companies. "The access to all technology continues to go up as smartphone prices come down. There's a recognition that insights mean everything and insights come from data. Sensors can drive a lot of data and the cost of sensors is plummeting," said Openshaw.

"The cost is becoming so inexpensive that it suddenly becomes feasible to have sensors in every vending machine, in every package that's shipped, and we're getting better and understanding how to lower the power requirements," he said.

Openshaw said that with access becoming easier, the challenge now for businesses is to work out how to prioritise the behaviour they track and to manage data.

"You need to understand where your best bets are for victories and some level of payback. In the last year or two, we've seen a tremendous amount of effort pushed into asset efficiency. It's fairly easy for most accountants to wrap their heads around but that isn't a sustainable competitive advantage because it's easily replicated," said Openshaw.

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"You need to have a broader vision of where you are trying to get to with the technology. The real money comes when you can start mashing up data from multiple sources to create new and different business models."

While consumer facing products, such as Nest, have served a purpose in generating more awareness of the internet of things, Openshaw said the business to business side of the technology holds more value.

"Interestingly enough, while there are fascinating applications in the home coming online, the vast majority of the use in the next five or six years will be in industry and enterprise use," said Openshaw. Deloitte has identified six major industries that will do the bulk of the heavy lifting in terms of experimentation: utilities, manufacturing, retail, automotive, telematics, and local governments.

"Roughly speaking it's probably going to be 80 per cent in business use, 20 per cent on the consumer side over the next few years," said Openshaw. "If you look at the new GE engines, they have approximately 5,000 sensors each generating unique data capture many times per second. If you think of a plane flying across the US, with two of these engines, it's going to generate a petabyte of data by the time it lands."

That kind of volume, the equivalent of 1,000 terabytes, is going to give firms a tremendous amount of data to analyse. With so many sensors breaking down so much information, Openshaw said the concept is as much internet of everything as it is internet of things.

"At some point we will see sensors enter our body that will talk to our smartphone and contact our doctors to pay attention to our health. We have become accustomed to machine to machine interaction on our behalf," said Openshaw. "It is relatively easy to understand the applications for the healthcare market. People appreciate that phones can understand their pulse rate and the number of steps they take. Many of us wear a Fitbit or some similar device, the benefit of having that data available is being able to look at it over time for the anomalies."

With so much to get their heads around, businesses need to prioritise how and where they will engage with the internet of things. "Ask yourself what the disruptor will be and what new business models you might expect. We don't yet know all of the places thing technology will be interesting in terms of disruption but we do understand that, like other technologies before it, the early adopters will have an advantage," said Openshaw.

"There's a lot more press and awareness of the venture capital community's interest in the internet of things. Everyone understands that something big is happening here and nobody wants to be left behind," he said.

Industry estimates put the value of the internet of things at between $1 trillion and $2 trillion by 2020.

"Over the next year the biggest sign for businesses will be the competition for bandwidth. Whether it's at the smartphone level where you can't get on the network all the way down to the sensor level where they can't get online. We are going to see a lot of discussion about who deserves bandwidth and when, demand far outstrips supply in the current market."