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Exec Chat: GE's Connecting The Dots To Stay On Top

by Tina Tan

Precision health is gathering momentum and this trend brings opportunities for companies to enable a more tailored approach to health care. GE Healthcare's chief strategy and commercial officer Tom McGuinness tells *Medtech Insight* how the health-tech giant has been working to "connect the dots" to make precision health a reality, and in doing so is allowing the company to sustain growth and stay on top in an evolving landscape.

Getting to the top is hard, but staying there is even harder. One can only imagine the weight of responsibility on the shoulders of that person charged with keeping a market leader ahead of the game while beating down potential competitors hungry to take more share. Tom McGuinness is that person who, as current chief strategy and commercial officer at [GE Healthcare](#), is responsible for ensuring the company stays as leader across the broad range of markets it operates in, not least diagnostic imaging, where GE Healthcare has been – and still is – the No. 1 player. (See *Medtech Insight's* [MTI100 league tables](#) to see where GE Healthcare sits in 2017's rankings.)

However, McGuinness does not seem too fazed by this task. He believes that GE Healthcare's established strengths have given him a good foundation to work with and help him fulfill his objectives. These strengths, he outlined, are GE's long legacy of technology firsts; its leadership position as the go-to B2B partner, not just for medtech but also for biopharma players. The "truly global" nature of the firm's operations – the US has accounted for the minority of GE Healthcare's total sales since at least 2014 – and its leadership in digital solutions, from health-care IT to data analytics, to digital applications.

This collection of competitive advantages puts the firm in a solid position to create real outcomes for its customers, said McGuinness, who joined GE Healthcare in August 2016. But there are always opportunities that remain untapped, and the main thrust of GE's strategy for growth is this irreversible trend toward precision health.

"What has been a priority, and where we've made a lot of progress in the last 12 to 18 months, is the way we view and the way we act around our role in enabling precision health – trying to help clinicians make the right decisions at the right time, for each and every patient," said McGuinness. "Precision health and precision medicine are terms that have been discussed often in the past 10-plus years, but I think in the last year or two, we've been looking at this as being at an inflection point for our customers."

Precision health and precision medicine are terms that have been discussed often in the past 10-plus years, but in the last year or two, GE Healthcare has seen this reach an inflection point for its customers.

For GE Healthcare, enabling precision health comes down to three things: precision diagnostics, precision therapeutics and precision monitoring. So how has the firm been working toward putting these three pieces of the puzzle together? How is it leveraging its existing strengths while identifying what gaps to fill to bring about these enabling technologies? In the edited Q&A below, McGuinness shared with *Medtech Insight* his perspectives on this trend and GE's strategy to capitalize on the opportunities that arise from it.

Q *Medtech Insight:* With precision health being one of the biggest priorities for GE Healthcare, or rather enabling your customers to deliver precision health to patients, where in GE's offering – at the time you joined the company – did you identify as areas of focus and what are the gaps that need filling to meet these new demands?

A Tom McGuinness: On the precision diagnostics front, we really do have the broadest and deepest portfolio as leader in *in vivo* diagnostic imaging globally. And we are focused on extending our leadership position. How do we develop and continue to develop the most intelligent devices that allows our customers to know when to use which diagnostic and embed analytics into them to support customers? For example, our critical-care ultrasound technology includes analytics that calculates complex things like cardiac output. This simplifies the technology and makes precision diagnostics more accessible to critical-care providers. In addition to when to use

which diagnostic, we also help clinicians and technicians ensure the diagnostics are completed in a way that are optimal for each patient – whether it's the protocol or positioning. A recent new release we had at [last year's RSNA] is the X-ray Quality Application with Reject Repeat Analysis. One of the problems our customers were telling us of is that as many as 25% of scans needed to be redone. So this app helps the customers identify the root causes of positioning or other challenges in advance. So we are taking the *in vivo* diagnostics piece and really pushing the intelligence forward, we're pushing the "how do you make sure it's optimized for each and every patient" aspect.

A As to where the gap is in precision diagnostics, *in vivo* is only half the patient picture from a diagnostics standpoint, which is why we recently established a strategic partnership with Roche Diagnostics. (Also see "[GE And Roche Join Forces In First-Of-Its-Kind Tech Pact](#)" - Medtech Insight, 8 Jan, 2018.)

Q **Yes, that was an interesting partnership in terms of the extent of the *in vivo* and *in vitro* data you would be pulling together from two market leaders and applying data analytics to.**

A TM: You're right. Because we are the respective leaders in *in vivo* and *in vitro* diagnostics, we are really establishing a complete 360-degree view of the patient that hasn't been done before. Those diagnostics are usually done in different parts of the hospital, at different points in time, with different datasets that are very difficult to pull and put together, and consider together. Once you've got that picture, the piece we are working on is how do we develop the clinical decision support tool, the application to help clinicians diagnose earlier, intervene earlier and ultimately improve outcomes. With this integrated decision diagnostics platform, we are taking on oncology and acute care to start, but we believe there are horizons of opportunity and we will go beyond that. We initiated the partnership in January but we acknowledge we've got to develop a tool and platform that is capable of ingesting that full set of data from the patient. We don't have the full product yet; we are targeting 2019. So in answer to your question about what gaps we are trying to fill, within precision diagnostics, it was the *in vitro* piece of the puzzle and this is

something we couldn't be more excited about. The partnership couldn't be more strategic for us.



TOM MCGUINNESS, CHIEF STRATEGY AND COMMERCIAL OFFICER, GE HEALTHCARE

Q What about the therapeutics piece within precision health?

A TM: We play a very critical enabling role in therapeutics. We have a strong portfolio in image-guided surgery, and we believe this is an area that will only increase in terms of the need and the opportunity for impacting that space, and we are investing strongly behind that. Also in the life-sciences business, we enable the biologic therapeutics by acting as a key provider in biopharma's supply chain. Our bioprocessing business has solutions that help support the processing and manufacture of large molecule biologics. We're reducing the cost and the time of those processes by 50%. As someone who previously led the biologics business at Medtronic, which was a joint venture between Medtronic and Pfizer, I know how beneficial it is if you speed the times to market to commercialization by 50% – it's a huge benefit for biopharma, and the customers and patients who can benefit from these therapies. In terms of where we would like to plug gaps, we believe we are positioned well to do similar things in cell therapy that we are doing already in biologics. Last month, we announced an agreement with Chinese biopharmaceutical company Cellular Biomedicine Group for our *FlexFactory* platform [to scale up and semi-automate the production of cell therapy]. The partnership is focused on how do we support CBG? How do we industrialize the manufacturing and processing of cell therapies like CAR-T for clinical trials then for commercialization? That's another area where we are closing customer need gaps.

Q At any point, do you think GE will itself be a supplier of these cell therapies and biologics?

A TM: The short answer is no. GE Healthcare is never going to move into the biopharma game, we are never going into the researching and developing and commercializing of biologics or cell therapy agents. It's not where we believe we add our unique value. So we see our skill set and capabilities as helping to accelerate and enable our partners in this space.

Q You referred earlier to your previous experience leading Medtronic's biologics business, and just before joining GE Healthcare, you worked for [physician-patient engagement specialist] PatientPoint. What would you say you've taken from your experiences at these organizations and applied to your role at GE Healthcare?

A TM: GE Healthcare believes that the next chapter of health-care success is one that requires successful partnership. And that successful partnership is not just between the manufacturers of medical devices and biologic therapies and their customers, but also across the players in the health ecosystem. The example here would be that increasingly, our customers are asking us to solve their horizontal problems. For example, one customer is a large health-care system that is one of the leaders in transcatheter aortic valve replacement procedures. We enjoy a terrific partnership with them, as do other medtech manufacturers. In a lot of ways, they are not just looking for us to bring specific solutions, but to work with them and work with other medtech companies, and create solutions that help solve the horizontal-care pathway. And it's not just to do with the diagnosis. Our customers are often concerned that they have two patients, with very similar clinical profiles; one of whom will be successfully be diagnosed and treated, one of whom will be missed. They want us to help them look at the aggregated data, apply the intelligence and analytics to help clinicians diagnose every patient accurately. So, in addition to diagnosis, there is therapy. We'd be thinking about how can we optimize the workflow of a TAVR procedure and ways in which that technology and solutions can work better. Prior to Medtronic, I was a partner at management consulting firm McKinsey & Co. and worked with a variety of health-care stakeholders – pharma, biotech, medtech, provider systems, academic centers – and I think the multi-stakeholder view of these problems is where the next solutions lie in health care. It's about how we connect the dots. Not just with data but also with pieces of the puzzle across disease states and care pathways.

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Q With all the focus on having a more holistic approach, how is it going to impact GE's acquisition strategy? Is it about finding the next disruptive medical technology or buying into services to help you fill those gaps?

A TM: We think of this pretty broadly. We focus heavily on organic innovation and we invest well over \$1bn each year on R&D as we continue to listen to the customer, understand their problem, figure out the root cause of their problem and come up with an innovation that will solve their problem. That has been a thrust of GE Healthcare for a hundred-plus years and it will continue to be a thrust. Ultimately, we will try and work through what is the right relationship [with various innovators across the industry]. Sometimes it makes sense to bring those innovators into the GE family, as we did with *Biosafe* to augment our cell therapy offering and *Monica Healthcare* to bring the *Novii* wireless patient monitoring patch to our customers in maternal and infant care; sometimes it could be sustained partnerships, like we've done with *Roche Diagnostics* – which is on a big level – and all the way down to the more focused, smaller innovation companies like [cardiac imaging specialist] *Arterys*, where we will create value together over time.

From the editors of Clinica