Ireland Where Digital Health Thrives



An Ibec Campaign







Creating the next generation of disruptive healthcare technologies

We speak to OneProjects on their future vision for healthcare and how they treat patients in a new era for data-driven solutions

Founded by Fionn Lahart and Christoph Hennersperger in 2017, OneProjects is a medical device company based in Dublin and Munich. It originated from an idea the founders had while in Bioinnovate Ireland in Galway in 2016, a global centre for medical technology innovation. This Fellowship Programme enables professionals from a network of academic, clinical and industry settings to collaborate and enhance the future of healthcare.

"It is essentially a medtech entrepreneur training programme," says Fionn Lahart, CEO of OneProjects. "While on the programme, we worked with doctors looking for problems to solve. Because that question is always where you need to start – what are the biggest clinical needs?"

It was while on this programme, that Fionn, who has an engineering background and was a member of the Cardiothoracics Team while in BioInnovate, met his cofounder Christoph who was also on the programme. Together they started their business, OneProjects, which specialises in cardiac imaging innovations.

After discussing different unmet clinical needs that needed solutions, they realised that a disease called atrial fibrillation (AFib) was a massive issue on a global scale. This is a heart rhythm disorder, or irregular heartbeat, which can lead to blood clots, stroke, and heart failure. Caused by abnormal electrical activity in the heart, patients are highly symptomatic with a dramatically increased risk to develop other diseases.

There are more than 38.8 million people suffering from AFib globally, with 4.5 million new cases every year. Approximately 2% of people younger than 65 have AFib, while about 9% of people aged 65 and older have it, making the disease especially critical for ageing populations. This is why OneProjects developed the idea of VERAFEYE, a novel breakthrough technology in the field of medical imaging.

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Our hope for the future is to continue raising investments and growing our staff and our cardiology platform. We have so many plans for expansion into other medical areas too, so the future is busy and very bright.

"One of the principal treatments for AFib is catheter ablation, which despite technological advances is only successful in about half of the procedures performed," says Fionn. "Many patients go on to require repeat procedures, and usually need continued medical management. We started wondering why this procedure only worked about half the time for such a common disease. And we found that one of the main problems was that doctors don't have the data they need from inside the heart to really know what is going on in order to plan the patients' treatment. They are essentially working blind.

"That is when we figured that a device which could provide live data to doctors while the procedure was taking place, could help create a more successful management of the disease."

Real-time analysis

VERAFEYE is a digitally connected medical device that enables clinicians to precisely monitor, verify and improve inprocedural efficiency and efficacy. It reduces re-intervention rates and produces significant patient and economic benefits within the AFib space. It uses advanced imaging and data analytics in conjunction with its catheter-based sensor system, to provide 4D data from within the heart.

"The standard care of catheter ablation takes place but using VERAFEYE provides data from within the heart, so doctors get a high-quality picture of the heart," says Fionn. "This enables them to analyse the tissue they are looking at in real-time. They can verify right there during the procedure whether they have successfully completed the ablation. That's why we named it VERAFEYE – it verifies for the clinicians, while having the AF in the middle which stands for Atrial Fibrillation."

Fionn says VERAFEYE is not just a classic medical device, but it also incorporates digital aspects and data, so it is also a digital medtech device. He says the true value of what they do is in the data the device collects from the heart.

As it is used with more and more patients and procedures, it will build up an extensive dataset and digital patient profile which could be used to help even more patients in the future. Along with patient information, this data could be able to predict what might happen with a patient's heart and the likelihood of success of a catheter ablation procedure.

"It has the potential to find things in a patient which might not have been able to be detected before. That's why we decided to focus on atrial fibrillation in the first place. The population who has the disease is actually much bigger than we used to think. It is an irregular heartbeat and actually very hard to detect as it comes and goes over days or weeks. But doctors can't treat the disease properly if they can't see what they're doing, they can only treat the symptoms.

"There are many different types of heart rhythm disorders too such as ventricular tachycardia and atrial flutter. We have an application in all these areas. It also has a lot of potential in surgery where doctors replace a valve in a beating heart. They must know where to place it correctly, so the VERAFEYE technology can give them that live 4D imaging they need. There are so many areas within cardiology where the device could be applied, so it's an exciting area to be involved in."

Digital health in Ireland

OneProjects' VERAFEYE is not on the market just yet, but they hope to provide their innovative device globally, in the US, Europe, Japan, and of course Ireland. Fionn says as a disease, atrial fibrillation costs healthcare systems around the world between 1% and 5% of all healthcare expenditure. This is due to the continuing procedures, hospital care and medication that patients require.

Fionn says setting up in Ireland gave them great advantages. There are so many benefits to doing digital health activities in Ireland and it has helped OneProjects get off the ground.

"Ireland has a thriving medical device sector, particularly over the last few decades. And there's a strong start-up ecosystem within Ireland. Originally, it was focused in Galway, where all the large multinationals are. I mean Bioinnovate in Galway opened the doors to a commercial network for OneProjects and gave us the platform to approach commercial development of our idea. But Dublin, Cork and Limerick have also started developing and now there are start-ups popping up all over!

"The medtech ecosystem is brilliant here in Ireland. We have access to great talent, as the associated educational programmes that are built up around the start-up, medtech sectors now create a very qualified, very experienced population. The start-up sector is also so giving in Ireland, people give time to help each other. There are also a lot of investment opportunities in Ireland."

The founders have been successful in receiving funding, including in 2020 when they closed an €11m Series A funding round led by LSP, investing from its LSP Health Economics Fund 2. It was co-led by Ireland-based Atlantic Bridge University Fund, with participation from Enterprise Ireland and a number of medtech entrepreneurs. Subsequently, the founders were also successful in winning support through the EIC Accelerator program funded by the European Union to develop and scaleup game-changing innovations as well as the Disruptive Technology Innovation Fund (DTIF) awarded by the Irish Government. Most recently in October 2021, OneProjects raised a further €7M in an A2 round led by imec.xpand and The European Innovation Coucil.

"We have received support from the EU and in Ireland from organisations like Enterprise Ireland and the Irish Medtech Association, which gives people a real platform to start on their journey and really champions companies like ours. Ireland is a wonderful place for start-ups like ours.



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