Ireland Where Digital Health Thrives



An Ibec Campaign









Leading the way in respiratory diagnostic devices

Frank Keane, CEO of Vitalograph, speaks about the company's innovative devices which aid the diagnosis and management of respiratory conditions. Plus, how the company is helping pharmaceutical companies achieve greater accuracy in clinical drug trials



Based in Ennis in Co Clare since 1974, Vitalograph is a global leader in respiratory diagnostics. The company develops and manufactures innovative medical devices for all levels of the respiratory healthcare sector, and delivers full-service clinical trial solutions to pharmaceutical companies around the world.

"Vitalograph was set up in 1963 in Buckingham, UK, to originally develop medical devices for respiratory diseases including asthma, chronic obstructive pulmonary disease (COPD), and cystic fibrosis," says Frank Keane, who has been a part of Vitalograph for 18 years and took over as CEO in 2018.

"Today, we are still a 100% family-owned company and have grown organically. While our headquarters are in Buckingham and we have sites in Hamburg Germany, Kansas City USA and Tokyo Japan, the majority of our people are based in Ennis and Ireland is where our research and development (R&D) is carried out. We have also recently opened a new site in Limerick.

"So at the moment, we have more than 450 employees globally. We have hired 120 people this year so far, and hope to hire another 40 people by the end of the year."

Clinically-led solutions for better outcomes

Vitalograph provides a wide variety of precise, intuitive, Bluetooth-enabled devices that are used in respiratory healthcare settings worldwide. These include spirometers, lung and asthma monitors, COPD screeners, medical workstations, as well as software and consumables.

"Spirometry, which measures how much air someone inhales and exhales, has always been the number one method of diagnosing a respiratory disease. Whether that's asthma, COPD, or a crossover of both," says Frank.

Frank believes that when it comes to supporting and enhancing respiratory care, digital health has changed. "Before, digital health was all technology-led and about how technology can solve every problem in the world. But now, it's more clinically-led and that's key.

"You wouldn't do an X-ray at home without the support of a professional, just as it's best to perform spirometry when led by a technician. But if a respiratory monitoring device is properly coordinated and is clinically-led, it does work. Nobody is ever going to get a device that diagnoses a disease at home – it's all about monitoring.

"Take a cystic fibrosis patient, for example. For cystic fibrosis patients, FEV1 (the amount of air you can force from your lungs in one second) is the number they live by. If this is not within the normal range, it can indicate trouble and if they need to seek further professional help such as going to the hospital."

Frank adds, "Look at those with diabetes – glucose levels need to be monitored daily and this has been done for over 30 years. Every diabetic knows what their numbers should be. We need to have this method when dealing with asthma and COPD too. Because if you can monitor and prevent an exacerbation of the disease, it will save an immense amount of money in healthcare, as well as create a better outcome for the patient."

Decades of clinical trials experience

Vitalograph's clinical trial solutions, which have doubled in the last two years, are recognised among the best in the world for drug trials with a respiratory focus. The team is made up of dedicated project and data managers, clinical respiratory physiologists, software development engineers, in-house quality assurance and logistic specialists, plus site support staff.

"In clinical drug trials, we've been monitoring people at home for 21 years," says Frank. "We've completed over 200 trials in those 21 years and know the difficulties of monitoring people at home, in terms of adherence, compliance and effort. The challenges are immense because everyone's different. Now, pharmaceutical companies are very motivated to get this all right in a drug trial." Vitalograph are currently involved in one eight-year drug trial and have 65 live trials ongoing. "These are a mix of asthma trials, COPD trials and cystic fibrosis, Duchenne's muscular dystrophy, and cough analysis trials," says Frank.

The company also holds a unique position as being the only company in the world to offer objective cough monitoring to leading commercial pharmaceutical companies, biotech, and research organisations.

"We've got a niche in cough analysis. The cough analysis market is growing quite rapidly and there hasn't been a drug approved for cough since 1956. So there's a race on at the moment to develop the first new cough drug."

With services including project and data management, clinical over-reading, training and software configuration, Vitalograph can meet a wide range of respiratory clinical study needs for companies.

A sharper focus for strategic wins

According to Frank, the Covid-19 pandemic has shone a light on the need for digital health.

"A lot of clinicians that would have been sceptical to adopt it before, are willing to adopt it now. The COPD professionals see a huge need for digital health and we are working with a lot of telemedicine companies. The pandemic has definitely stepped it up, no doubt about it."

Frank says Ireland is a global hub for digital health activity. "There is a huge digital foundation in Ireland. We have many global medical device companies and ICT companies located in Ireland. Since the early 80s, some worldclass ICT companies have been investing in Ireland and have contributed to its strong ICT foundations." "Then we have the Silicon Docks in Dublin, plus a lot of research and development happening here in Limerick. We have good regulatory knowledge, ICT knowledge and digital skillset. There's great support here from organisations such as Ibec and Enterprise Ireland. The business supports in Ireland are second-to-none."

"We are just finishing up a new five-year strategic growth plan. We also decided to refocus our marketing plan. We were previously selling to 118 countries, which isn't manageable as regulatory guidelines are becoming an issue in many countries now. So we have brought this back to 21 countries, with a sharper focus.

"We decided to re-shore manufacturing of our consumables from China to Ennis which is exciting. As a result, we're reducing costs, lead times and reducing the carbon footprint, while we're also closer to the customer." Frank adds, "We have 65 live clinical trials ongoing and plan to reach 100 live trials within about three years. Not to mention, we have a new product range coming out; we're launching new products every month for five months.



9 Ibec Head Office

84/86 Lower Baggot Street, Dublin 2. T: + 353 1 605 1500 E: membership@lbec.ie www.lbec.ie/membership

Q Galway

Ross House, Victoria Place, Galway. T: + 353 91 561109 E: galway@lbec.ie www.lbec.ie/west

O Cork

2nd Floor, Penrose One, Penrose Dock, Cork. T: + 353 21 4295511 E: cork@ibec.ie www.ibec.ie/cork

Q Limerick

Gardner House Bank Place, Charlotte Quay, Limerick. T: + 353 61 410411 E: midwest@lbec.ie www.lbec.ie/midwest

Q Donegal

3rd Floor, Pier One Quay Street, Donegal Town, Donegal. T: + 353 74 9722474 E: northwest@lbec.ie www.lbec.ie/northwest

v Waterford

Waterford Business Park Cork Road Waterford T: + 353 51 331260 E: southeast@lbec.ie www.lbec.ie/southeast

9 Brussels

Avenue de Cortenbergh, 89, Box 2, B-1000 Brussels, Belgium. T: + 32 (0)2 512.33.33 E: europe@lbec.ie www.lbec.ie/europe