

BUSINESSES THAT CHANGE LIVES

Finnish health tech innovations are in demand: Exports account for 96 per cent of sector output. What makes them so successful?

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If there's one industry fuelled by global megatrends, it's health technology. Population growth and ageing are driving demand for innovative healthcare solutions. Increased accessibility and usability of smart technology makes these innovations available to a growing number of people and healthcare providers across the globe.

According to the European trade association representing the medical imaging, health ICT and electromedical industries (COCIR), the global market for medical equipment is worth 80 billion euros with Europe accounting for some 28 billion euros of this figure. The sector has an annual growth rate of five per cent and R&D investments represent up to eight per cent of sales volume. This makes it one of the most dynamic industries in the world.

BIGGER THAN TELECOMS

Steady growth, impressive export figures and an expanding mix of both startups and well-established global players: Not many sectors in Finland can boast such results in these challenging times.

"It seems this industry has taken everyone by surprise," says **Tom Ståhlberg**, head of the Finnish health technology association (FiHTA). In Finland, the health tech sector has already exceeded telecommunications in size, not to mention an annual growth rate which has averaged 8.5 per cent from 2009 to 2014 (figures for 2015 are yet to be published, but they are expected to correspond to or surpass previous levels).

"Finland's particularity in the health tech industry is that more than 96 per cent of manufacturing output is exported; one-third to the rest of the EU and the

US each, with a growing expansion to the rest of the world. Much less is imported, pushing the trade balance surplus to a total of 829 million euros in 2014. This has a noteworthy impact on the rather sluggish, export-weak national economy," says Ståhlberg.

He believes the sector's success stems from the right combination of know-how.

"We have chemical and biochemical expertise, which is vital for developing diagnostics solutions. Engineering skills are necessary for designing and manufacturing devices, and proficiency in software is needed for making any innovation usable," he says.

MARKETING MATTERS

Ståhlberg notes that the common bottleneck in commercialising products has been the lack – or delayed timing – of adequate marketing. Complex medical innovations are difficult to market.

The same challenge applies to consumer goods that feature a novel technology or user interface. Examples from the health tech sector include mobile applications or smart watches and other wearables that allow monitoring one's body functions and keep tabs on stress levels, recovery and sleep.

Michaela Lipkin from the Hanken School of Economics is writing her doctoral thesis on customer experiences and the optimal marketing of wearables.

"The challenge is that even though wearables can measure and produce a lot of data, it is not necessarily easy to interpret this information and make it useful. The company that comes up with a way to make this data smart – as well as simple and fun to use – will emerge as the winner," she says.

Lipkin recounts that activity bracelets and sports

watches have already broken through to the mainstream market, replacing regular watches on the wrists of many average consumers.

"Other wearables, such as smart glasses or smart clothes are harder to adopt. We are still waiting for a wearable 'killer app' that would make it truly indispensable to consumers – as the mobile phone has done in just one decade," says Lipkin.

HEALTH IN OUR OWN HANDS

Our eagerness to take on these new applications is part of a larger trend: reclaiming ownership of our own wellbeing. Whereas tests and treatments were once prescribed only by doctors, an increasing number of consumers now wish to make these decisions themselves. This has created a booming business for consultative laboratories and private companies offering various kinds of hi-tech medical services.

Helsinki-based Nemo is an example of this new generation. It offers selected treatments for conditions ranging from stress and insomnia to severe Attention Deficit Disorder (ADD), trauma and autism.

"We are constantly on the lookout for efficient and safe methods," says **Marja Vihervaara**, psychiatrist and founder of the company. Before starting Nemo, Vihervaara worked in both the public and private sectors. She discovered a clear gap on the market after finding that neurotherapeutic methods were not used in Finland, despite their proven results. According to the Vihervaara, neurotherapy has benefited patients who have "already tried everything else." At the moment, most customers contact Nemo directly and pay for the therapy themselves. Vihervaara is committed to making these services accessible to more patients, and at an earlier stage of illness.

NORDIC HEALTH HUB

Whether in hardware, software, or services, Finland aims to establish itself as the Nordic health tech hub. Helsinki is busily attracting new investors and growth companies with events such as Slush, Europe's largest startup happening. Luring investors is also the goal of Helsinki Business Hub and various accelerator programs for health tech startups.

But Helsinki is not alone: other regions such as Turku, Kuopio and Oulu have created their own hubs, and local companies are clocking up impressive growth rates. Team Finland, a government-initiated network for boosting the internationalisation of Finnish companies, has taken an important role in assisting companies with the challenges of international marketing.

Like any growth sector, the Finnish health tech field is brimming with new innovations and solutions. But it is not just startups getting in on the action.

"Many Finnish companies have been relentlessly

marketing their solutions for 40, even 60 years, and have gained global leader positions in chosen niche markets in the medical sector," says Tom Ståhlberg.

Wallac, established in the 1950s and now part of the global PerkinElmer group, has developed cutting-edge solutions for medical neonatal screening and in many parts of the world every newborn is tested with their products. A second example is hi-tech health technology developer Planmeca whose dental units combine exceptional design with digital dimensions.

FINNISH HEALTH TECH NAMES TO WATCH

NEUROSONIC A Finnish innovation that uses low frequency vibration to reduce muscular tension and pain. The method has been patented for treating stress-related insomnia.

neurosonic.fi/en

MEGA ELECTRONICS Biosignal monitoring for neurology, rehabilitation, occupational health and sports medicine.

megaemg.com

KORULAB Hardware-friendly, customisable software for wearables and the Internet of Things.

korulab.com

BEDDIT An app that monitors sleep quality via mobile phone.

beddit.com

NEXSTIM A Leader in Navigated Transcranial Magnetic Simulation (TMS).

Nexstim.com

NEWICON Medical automation solutions.

newicon.fi

FIHTA WEBSITE Glossary and links to Finnish health tech companies.

finnishhealthtech.fi