

Strategic Center for Science, Technology and Innovation in Health and Wellbeing

SalWe has been taking a dual approach to a healthy and prosperous society in Finland. Saara Hassinen, Managing Director, tells *International Innovation* more about their strategy, and success to date

To begin, could you explain the mission of SalWe and what it seeks to offer Finnish health?

The mission of SalWe is to improve the health and wellbeing of an individual, and to foster related Finnish business. The goal is to pursue research which leads to the development of products, services and practices that prevent and treat diseases with a major public health and economic impact, and comprehensively maintain and improve the functional capabilities of an individual.

What strategies are you employing to develop expertise and international business related to health?

SalWe being one of the six Strategic Centres for Science, Technology and Innovation (SHOK) in Finland, we employ strategies that are implemented in the Strategic Centre framework. These Strategic Centres

were established to strengthen key areas of research and innovation in terms of strategic competencies required by the business sectors, while significantly increasing the dialogue between cutting-edge research and the testing and piloting necessary for capitalising on findings. The implementation of the Centres will be based on partnerships between businesses and the public sector, and on long-term commitments by shareholders. The long-term public funding has been ensured for selected areas.

The Centres in operation at the start of 2011 include Forestcluster Ltd (forest), Tivit Ltd (ICT), Fimecc Ltd (metal products and mechanical engineering), Cleen Ltd (energy and environment), SalWe Ltd (health and wellbeing) and RYM Ltd (built environment).

These non-profit limited companies are responsible for coordination of the research carried out in the Centres. The shareholders of

the companies are outstanding, innovative businesses or research organisations that represent the cutting-edge competence in their own specific branch.

Since your appointment in June 2009, what have you brought to the role of Managing Director? Could you outline the journey that led you to this position and what becoming MD has meant for you?

Before my appointment as Managing Director for SalWe Ltd I served as Managing Director of Finnish Bioindustries FIB for several years. FIB is Finland's biotechnology industry association – a private, non-profit organisation that has about 60 member companies that represent all life science areas.

During those years I learned how to facilitate cooperation between different businesses, as well as between businesses and research organisations. I can honestly say that this experience has proved very beneficial in my current position.

When I was still holding the post at FIB, I was appointed as a coordinator for the preparation work concerning the Strategic Centre in health and wellbeing. Later, it was a natural step forward to accept the assignment of the Managing Director of SalWe. Being Managing Director is a personal challenge, since we are dealing with activities that create something totally new. That is why the work is very interesting and rewarding – and also thanks to the fact that the partners active in SalWe are very committed to the cooperation. Moreover, the Programme Directors Jouko Haapalahti and Katja Hatakka are excellent colleagues; I have been lucky.

Does SalWe conduct research directly, or is its role in facilitation and coordination?

SalWe is neither a funding body nor a research institution – it is an enabler. The actual research coordinated by the Strategic Centres is performed at universities and research institutes, as well as within companies. This kind of a structure requires a lot of coordination and that is why a non-profit limited company is needed to coordinate the research and operational activities.

The most important functional base of each Strategic Centre is joint strategy, called Strategic Research Agenda (SRA) accomplished by the shareholders. The Centres strive to achieve a world class science and knowledge level, and also aim at international breakthrough innovations.

According to the strategy, the shareholders are responsible for planning precommercial research programmes that are executed together. However, companies or research organisations that are not shareholders in SalWe, can nevertheless participate in the research programmes.

In recent months, SalWe has launched following two research programmes:

- Intelligent Monitoring of Health and Wellbeing
- Mind and Body

The shared goal of these programmes is to create high level scientific know-how and to apply this know-how in the development of new solutions and innovative, intelligent, cost-effective tools.

What are the products, services and methods that will be developed through your research programmes? Could you give us a sense of the scope of your research programmes, their aims and objectives? How many scientists are involved in projects related to SalWe and how broad is their potential reach in the Finnish populace?

The goal of the 'Intelligent Monitoring of Health and Wellbeing' programme is to develop tools that enable individuals or healthcare professionals to promote wellbeing and health on an individual or national level. The three-year programme (1 June, 2010 – 31 December, 2013) was launched in 2010, and it has been estimated that the total volume will be about 26 million euros. The research consortium consists

of 13 companies and seven universities or research institutes. The programme Director is Dr Jouko Haapalahti, of Orion Diagnostica Ltd.

The goal of the 'Mind and Body' programme is to improve management of obesity and brain disorders. The three-year programme (1 July, 2010 - 31 December, 2013) was also launched in 2010, and it has been estimated that the total volume will be about 32 million euros. The research consortium consists of 12 companies and nine universities or research institutes. The programme Director is Dr Katja Hatakka, of Valio Ltd.

As for the impacts on population, our ultimate goal is to develop simple and easy-to-use solutions that independently support health and wellbeing of an individual. Our focus is on prevention of diseases and promoting wellbeing, instead of concentrating on nursing and treatments.

Historically, Finnish males over the age of 20 were one third more likely to die by their 65th birthday than their Swedish neighbours, with cardiovascular diseases striking Finnish men twice as often as Swedish men. Health authorities have attributed the high mortality rates of the Finnish male to diet, excessive use of tobacco and alcohol, disruption of communities through migration, and a tradition of high-risk behaviour, particularly marked in working class men in eastern Finland. How is SalWe considering these factors in its research and tailoring it specifically to Finnish needs?

We are focusing on the following diseases and conditions:

- Metabolic syndrome, including overweight, Type 2 diabetes, vascular health and stroke
- Neurodegenerative and psychiatric diseases as well as healthy brains under stress
- Microbial infections and inflammation
- Malignant diseases, especially solid tumours

Overweight and associated health problems, as well as stress-related disorders and progressive brain diseases, constitute a major health challenge in modern society. In Finland, it is estimated that these diseases in the coming years account for some 50 per cent of the total healthcare costs. The case is about the same in all Western industrialised countries.

The target group of our research is mainly the working population; people who are expected to keep up their functional capabilities while ageing. Moreover, families with children are an essential part of the working population, and lifestyle changes usually have an influence also on children.

We are constantly following the future global trends regarding diseases with a major public health and economic impact, and we are ready to update priorities when needed.

How important is a collaborative approach to the mission of SalWe? What role does a multidisciplinary approach play in its programmes?

As for the mission of SalWe, our collaborative and multidisciplinary approach is one of the most important issues and the key to our success.

The Intelligent Monitoring programme combines following three strong areas of the Finnish expertise: *in vitro* diagnostic measurements; *in vivo* measurements/imaging, and processing of health/medical data. The Mind and Body programme accordingly combines nutrition, physical, biomedical, neuro, behavioural and consumer sciences as well as information and medical technologies.

What challenges does SalWe face and how do you plan to overcome them? Conversely, are there any particularly exciting new facets of SalWe's work you are looking forward to engaging with?

The versatile group of participants is a challenge, but at the same time it is an advantage. You learn to collaborate only by doing things together.

Another challenge is the open innovation environment where we learn to work together. In these conditions, confidence is emphasised, alongside with cooperation. I have to say that already now we have been able to deepen the cooperation between companies and universities – and it can be considered as a very positive achievement.

To what extent are you in communication with research organisations and policy makers? Do you think connectedness and strong channels of communication between public bodies, commercial organisations and other organisations associated with research have a direct bearing on progress made?

Among the shareholders of SalWe, there are several universities and research institutes. As shareholders they have a chance to participate in the planning and defining the future research.

The role of policy and decision makers is to take care of creating good preconditions for innovation and development. In Finland, this has been understood well and you can see it both in the Finnish innovation strategy, and in its implementation. On the other hand, the public healthcare system is an important partner of SalWe. Thus broad cooperation is beneficial to everybody.

What results and benefits can be yielded through working with companies, or other partners? By what criteria do you select research partners or collaborators and how do you ensure their values and objectives are akin to SalWe's own?

SalWe's strategy (SRA) is a joint strategy generated by the shareholders that is comprised of companies and research organisations. The research programmes are planned according to the guidelines given in the strategy and during the planning process the shareholder companies are expected to define what they are looking to create in the future. The role of the research organisations is to search for the alternative processes and procedures that help in achieving the goals. Competence is one of the strongest tools to get the results – that is why the cooperation between businesses and universities is so significant.

The businesses also have a last word when selecting the research partners for the consortium. When assessing the partners, the quality of research results and ability to cooperate get the highest ranking.

The research outlines and contents have been agreed before the consortium makes a funding application. The primary financing for the research programmes is supplied by Tekes, the Finnish Funding Agency for Technology and Innovation. The private financing sources are responsible for about 30-40 per cent of the budget.

Is there any other area of SalWe that you would like to highlight?

Although SalWe is the Finnish Strategic Centre in Health and Wellbeing, we are not a national network. International partners are welcome to participate in the research programmes.

