Vitamin D. In order to be able to produce this amount of cod liver oil, Up-John paid for the product in advance of delivery, enabling the Olafsson brothers to build a processing plant large enough to fulfil the contract. After 1950, when Up-John lost interest in Icelandic cod liver oil, the firm shifted to consumer products. Steadily, Lýsi has become the biggest producer of cod liver oil in the world, (Is this true?) fulfilling the demands of the large U.S. market. The grand-daughter and graduate of one of the founding brothers, Katrin Olafsdottir, is now the firm's owner and Managing Director.

WHAT

Cod liver oil has a long history in Iceland. It has been used for centuries to protect clothing, as a source of light and also for consumption. However, it was not until the 20th century that it was discovered to be a powerful source of both Vitamin A and Vitamin D. Lýsi could exploit this tradition, while taking it further into an export direction.

Lýsi is the brand name used for marketing a range of health products with some very unique features. They include cod liver oil, halibut liver oil, shark liver oil and other fish oil suitable for human consumption. The shark, in particular, is one known species which does not develop cancer, making its liver oil especially appealing. All these products are rich in vitamins and omega-3 polyunsaturated fatty acids which are likely to reduce cholesterol levels in human blood and somewhat improve the condition of the heart. Years of experience in producing these products have led to an improvement in quality and usage: the firm enjoys an ISO-9002 international quality standard rating.

Moreover, a unique production process based on steam, first introduced by the Olafsson duo in the 1940s, guarantees the quality of the products. Continuous research and development of new technology and production methods improve productivity, product quality

WHO

Lýsi Ltd. was set up in 1938 by the Olafsson brothers, Tryggvi and Thordur, along with several other Icelandic entrepreneurs, after a sales agreement was reached with U.S.-based pharmathe ceutical giant Up-John Ltd, when this firm was looking for a suitable replacement to Norwegian cod liver oil which was not as vitaminrich as the Icelandic equivalent. According to the agreement, Lýsi was expected every year to produce 1,000 tons of cod liver oil in bulk: this was a by-product of the Icelandic fishery industry and which contained high amounts of



40 of which are regular clients. These include the U.S.A., Canada, the U.K., France, Finland, Denmark, Poland, Japan and China. The exported products are the same as those sold on the home market, although the design of the packaging may be different, in accordance with consumer culture and nuances. It can be argued that Lýsi does not have any direct competitors in their export markets since they are the only firm in the world that manufacturers processed oil from the raw material. Other firms produce similar health products from processed material. Its location in Iceland allows the firm to associate itself with that country's widespread reputation for pureness and high health standards, while maintaining access to raw material. Liver oil capsules can also be bought from Lýsi in bulk, and marketed under different names. The firm has also developed high-trust relations with its key distributors.

INTERNAL SUPPORTS

Lýsi remained a family business until 1998 when Icelandic bank investors bought shares in the firm. In so doing, Lýsi became a stock company. Today, Olafsson's granddaughter both owns and manages the firm and its 45 employees. The firm's production team requires speciallyskilled workers, such as bio-chemists, nutritionists, quality managers and marine specialists, who enjoy well-paid jobs. The firm collaborates with the University of Iceland and the Icelandic Fisheries Laboratories, all based in Reykjavik, and this provides useful contacts with a local pool of rare, specialist human capital. In addition, the company provides some in-house training supervised by company specialists. The employee turnover at Lýsi is around 7% annually.

EXTERNAL SUPPORTS

and operational efficiency. Contemporary equipment has been designed to minimize oxidation of the oils and to remove any taste and smell residues in the final product by natural means. The Icelandic government has provided the firm with some institutional support, for example, by including them in state support programmes for small enterprises. However, it is difficult to evaluate precisely the extent to which Lýsi has benefited directly from these programmes. The Icelandic state has also been very supportive of their

WHERE

Lýsi has exported its products to over 100 countries worldwide, 30 to the Icelandic Fisheries Laboratories facilitates research and development. This has given Lýsi the opportunity to recruit highly skilled workers who are motivated in pursuing research and innovation. The firm has partaken of the reputation of Iceland as a nation that has a great deal of experience in the fishing industry and for the quality products that firms in this industry produce.

Company Contact Details: Name: Lýsi hf. Address: Grandavegur 42 P.O. Box 625 121 Reykjavík, Iceland Phone: (+354) 525-8100 Fax: (+354) 562-3828 E-mail: <u>Iysi@lysi.is</u> Web-site: <u>www.lysi.is</u> Product: Marine Lipids for the Health Industry Employees: 45 Established: 1938 Contact: Katrin Olafsdottir (Managing Director) Lýsi's origins and success can be traced to a crucial sales agreement involving a large and supportive U.S.-based multinational, along with a symbiotic relationship with Iceland's most successful export industry – the fishery. The firm's health products also benefit from a strong association with Icelanders' reputation as a healthy nation. Now in the hands of 3rdgeneration family ownership, Lýsi benefits from institutional support and cooperation provided by the Icelandic Government, the University of Iceland and the Icelandic Fisheries Laboratories. The firm has succesfully transformed itself from a bulk crude manufacturer to a 'Research & Development' driven health company.

export drive, including its managers amongst business delegations led by Icelandic diplomats. Such activities 'open doors' for business, and may be much more costeffective than pumping money. Co-operation with the University of Iceland and