



Internationalisation of innovation in SMEs

Case Studies, Exemplary Support Practices and Policy Implications

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Case Study No. 7:

LifeTec, the Netherlands:

Customising innovative services in medical testing for international clients

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About the InterSME Study

The study on "internationalisation of innovation in SMEs" was based on a contract between the European Commission, Directorate General Research and Innovation, and empirica Gesellschaft für Kommunikations- und Technologieforschung mbH (coordinator, Bonn, Germany) as well as Dialogic (Utrecht, the Netherlands).

The study focuses on two subjects – innovation and internationalisation – which are deemed to be crucial for the European economy. It has two main parts: (1) Twelve case studies of small and medium-sized enterprises (SMEs) with insightful international innovation practice and (2) an analysis of strengths, weaknesses, opportunities and threats (SWOT) of European policy measures seeking to enhance such internationalisation. This publication presents one of the twelve cases selected.



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LifeTec's mode of internationalising innovation activities is to customise its testing methods to the customers' specific needs. LifeTec can recommend other SMEs to take part in foreign trade missions and in European research projects to develop international business activities.

Abstract**LifeTec
Group**

LifeTec Group is a contract R&D company doing compliance and efficacy studies of innovative healthcare products, interventions and therapies. The company has 14 employees and is based in Eindhoven, the Netherlands. Its clients are enterprises from the biomedical industry as well as clinics and research institutes. While most clients are from Europe, LifeTec has also customers and contacts in Israel, the US, Saudi-Arabia, Indonesia, and Brazil. LifeTec applies innovative testing methods and is continuously developing these methods further. In the vast majority of assignments, LifeTec customises its testing methods to the customers' specific needs. This can be considered LifeTec's mode of internationalising innovation activities. LifeTec does not co-operate with partners outside Europe for offering its services. LifeTec is on the brink of growing considerably and is thus seeking to establish more and deeper relationships with clients outside Europe. A barrier is that clients want to be present when tests take place, which requires long-distance travel, consuming considerable time, money and effort. In order to diminish such hurdles, LifeTec is planning to implement virtual presence tools and an online portal for participants. Foreign trade missions and participation in European research projects helped LifeTec develop its international networks and business.

Case study fact sheet

<i>Full name of company, headquarters location town, country:</i>	<i>LifeTec Group BV, Eindhoven, the Netherlands</i>
<i>Legal form:</i>	<i>Private company</i>
<i>Subsidiaries:</i>	<i>LifeTec Group BV is the subsidiary of LifeTec Group Holding BV</i>
<i>Year of foundation:</i>	<i>2004 (as "Hemolab"); renamed to LifeTec Group in 2012</i>
<i>Number of employees (year):</i>	<i>14 (2015)</i>
<i>Budget in most recent financial year:</i>	<i>n.a.</i>
<i>Industry sector:</i>	<i>Medical services</i>
<i>Business activity:</i>	<i>Contract R&D; carrying out compliance and efficacy studies of innovative healthcare products, interventions and therapies</i>
<i>Activities focused in this case study:</i>	<i>Customisation of services for international clients</i>
<i>Case gatekeeper:</i>	<i>Lars Mulder MSc PhD, Manager Orthopaedics</i>

Background

Business activity, competitive situation, and importance of innovation

Profile: LifeTec Group is a contract research and development (R&D) company doing compliance and efficacy studies of innovative healthcare products, interventions and therapies. The company has 14 employees and is based in Eindhoven, the Netherlands. It is a spin-off from Eindhoven University of Technology, founded in 2004 under the name "Hemolab". In 2012 it was renamed LifeTec Group.

The company's **clients** are enterprises from the biomedical industry – from small and medium-sized enterprises (SMEs) to large multinationals – as well as clinics and research institutes. The clients' fields of activity are medical devices, biomaterials, pharmaceuticals, and regenerative medicine. The clients are mostly in, but not limited to, the cardiovascular and orthopaedic field. While most clients are from Europe, LifeTec has also customers and contacts in Israel, the US, Saudi-Arabia, Indonesia, and Brazil. For LifeTec it does not matter where the clients are from.

LifeTec's principal **business objective** is to grow the company. The target is to double in size over the next five years. However, LifeTec does not only seek growth in terms of numbers of employees and turnover but also in terms of influence on standards for pre-clinical studies. Potential clients are meant to think of LifeTec when they require the kind of services LifeTec offers. Currently, LifeTec's market share is small.

There are two important **developments in LifeTec's market:** First, the customers toward whom LifeTec is oriented develop plenty of innovative products, which require consistently new innovative test methods. Second, societal pressure on animal experimentation has increased the demand for alternative experimental methods. Both trends make innovation very important in LifeTec's market. The company perceives its strengths in being innovative, fast, and flexible. LifeTec is continuously developing its **innovative testing methods** further, combining "the latest developments in tomographic imaging technology with morphometric and finite element algorithms".¹

For example, LifeTec uses an isolated beating heart platform (Physioheart®) based on slaughterhouse animal tissues. The platforms allow performing any cardiological, surgical or minimally invasive intervention on the heart during preparation, before reviving the heart and connecting to the mock fluid circulatory systems and during functioning (see Exhibit 1-1).

Exhibit 5-Fehler! Kein Text mit angegebener Formatvorlage im Dokument.-1: **LifeTec's beating heart platform for medical testing**



Source: <http://lifetecgroup.com/technology/rd-models/physioheart>

How and why LifeTec internationalised its business activities

LifeTec found its clients outside Europe because they learned about LifeTec's services and established contacts with LifeTec. LifeTec has so far not applied specific marketing activities. Contacts developed through international research and development projects with partners all over Europe. "Step by step, the network grows", says Lars Mulder, Manager Orthopaedics at LifeTec, "and leads to business assignments also beyond Europe."

¹ Quotation from <http://lifetecgroup.com/technology/imaging-facilities/microct-and-nanoct/>.

Internationalisation of innovation in LifeTec

Practice

In approximately three quarters of assignments, whether they are inside or outside Europe, LifeTec **customises its testing methods** to the customers' specific needs. This can be considered LifeTec's mode of internationalising innovation activities. LifeTec co-operates with partners outside Europe in research projects and also with sales agents. Within Europe LifeTec has a major innovation partner in Paris, France. Successfully completing assignments with customers outside Europe were important milestones for LifeTec – particularly when these customers returned.

Drivers, barriers and solutions

LifeTec began to develop business contacts outside Europe upon founding in 2004 as HemoLab. The **motivation** was that it was important to grow the company through gaining more clients and influence in the market. It was an obvious step to go beyond European borders: While Europe is home to some large enterprises who are potential clients for LifeTec, many relevant enterprises are based outside Europe or have their R&D departments located outside Europe.

The most important **barrier** to internationalising innovation activities is distance. LifeTec does its experiments in-house but clients want to supervise the process. Hence they need to send personnel to LifeTec's laboratories in the Netherlands, implying long-distance travel. This requires considerable time, money and effort on the part of the clients. In order to alleviate this issue, LifeTec plans to implement a virtual presence, allowing the client to virtually join the tests and comment on the process. Furthermore, LifeTec plans to implement a protected online portal for participants to facilitate sharing information with them.

A further challenge, also related to distance, is to **maintain relationships** with partners in non-European countries. Opportunities to meet personally in labs, at conferences or trade exhibitions or to carry out joint projects are weaker when partners are outside Europe. Hence it is more difficult to keep clients informed and up to date with developments in the company. LifeTec considers the planned online portal to be part of the solution. Furthermore, the company plans to introduce a newsletter.

A further barrier is **cultural differences**. For example, dealing with potential clients in Saudi-Arabia initially for LifeTec meant dealing with intermediate agents, not directly with the client. This makes the business relationship more complex and somewhat uncertain. At first one does not know how serious the potential client is. Another example is Israel, where considerable innovation in the field of medical technology is taking place. Hence there are many potential clients for LifeTec. However, interlocutors are very restrictive with unveiling information about their technology until they eventually return with a concrete inquiry for an assignment. This makes it difficult to figure out and offer customised solutions at an early stage of communication. In both these exemplary cases, Saudi-Arabia and Israel, the solution is just holding on and always behaving like serious business partners.

Public support

LifeTec's most remarkable participation in a public support measure to internationalise its business was joining a **trade mission** to Indonesia. "This got many things rolling", says Lars Mulder. "It brought us good contacts we would not have accessed otherwise." The trade mission was organised by the Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland, RVO) commissioned by the Ministry of Economic Affairs. According to Mulder, RVO is very active in helping Dutch enterprises internationalise their business, and they have many good contacts abroad. LifeTec was invited to take part in this mission because clinical partners with good contacts to the government recommended LifeTec. Hence, LifeTec did not search for this opportunity – it came to them.

Furthermore, LifeTec participated in several **Framework Programme** projects co-funded by the European Commission. For LifeTec, such projects are very important to establish and expand international contacts. Lars Mulder says that LifeTec would certainly take part in trade missions and international R&D projects again and can recommend other innovative SMEs to do so, too.

Impact of internationalising innovation on LifeTec and lessons learned

Impact

Internationalising its innovation activities contributed decisively to LifeTec's business objectives: It enhanced customer relationships, supported the company's growth, and helped reach the standard-setting level that LifeTec is seeking. So far the company had no failures in its business assignments beyond Europe. Lars Mulder adds that such international activities definitely also imply more work.

Lessons learned

- **Use governmental agencies for finding contacts abroad**

Lars Mulder from LifeTec recommends other SMEs to actively search for and contact governmental agencies that have agents and networks abroad. These agencies may facilitate getting in touch with valuable business contacts in countries outside Europe.

- **SMEs should actively seek participating in trade missions**

Specifically, SMEs may need to consider that governmental agencies actively search for the right partners to take on trade missions. It may thus be worthwhile for SMEs which seek to take part in trade missions to make themselves known at such agencies.

- **EU research projects can help build up international networks**

Furthermore, innovative SMEs that have not yet been involved in European research projects should consider the benefits of such projects for expanding and deepening their international networks. Participating in such projects may also act as a springboard towards outside Europe.

References

Research for this case study was conducted by Dr. Stefan Lilischkis, senior consultant at empirica GmbH, Bonn, Germany, on behalf of the study about internationalisation of innovation in SMEs. Sources and references used include desk research plus the following:

Interview

- Lars Mulder, MSc PhD, Manager Orthopaedics, LifeTec Group (on the phone, 1st September 2015).

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