

Internationalisation in the Water Sector: Improving Accessibility for SMEs

**A new approach developed by the
INNOWATER Project**

Introduction

In the increasingly global economy, internationalisation has become a part of ‘business as usual’. Barriers and borders are gradually disappearing, exposing all companies (from multinationals to SMEs) to new markets and international competition. This is especially true of the domestic water market in Western Europe. Given its mature and conservative nature, accessing international markets is critical both for companies seeking to grow, and for developers of new innovative products and services seeking to access early revenue in less mature markets.

However, evidence from surveys carried out for the Observatory of European SMEs suggests that, overall, only around 8% of European SMEs export, with the UK and Germany at 9%, above France at 6% but below Netherlands at 13%. And only a small percentage of these are involved in internationalisation beyond the Internal Market (domestic market and EU)¹.

In recognition of the increasingly difficult global economic climate in which SMEs are severely constrained in terms of both availability of working capital and human resources, the INNOWATER² project sought to assist innovators through the development of appropriate business models that incorporate internationalisation activities.

Public sector support is commonly provided by national and regional export agencies across Europe, including for example the EVD in the Netherlands and the UKTI in the UK. Traditionally this assistance takes the form of accessing market intelligence, financial aid in attending international trade shows and conferences, and subsidised attendance on Trade Missions to target countries in order to network with potential clients. In addition, sector specific agencies such as the National Water Partnerships provide a variety of international networking opportunities and brokering events.

However, by their nature, these support services tend to be relatively broad and are not always aligned with the strategic priorities of SMEs, and as a result, the level of uptake by SMEs tends to be low.

INNOWATER therefore sought to design, develop and pilot a new approach that was more tailored to specific audiences of SMEs, more accessible than current support, more cost effective and would result in higher impact for the delivery agencies.

The Approach

INNOWATER developed a new *modus operandi* in which a small team of independent third party industry experts (no more than 3 individuals) build on existing market intelligence via focused in-country fact finding missions. These are undertaken on behalf of specific interested groups of SMEs, with subsequent feedback, dissemination and business planning support provided by way of follow up in the home country. This is a 3-step process (see Box 1). At the core is an International Technology Needs Assessment (ITNA™) which is developed and refined over the course of delivery, and which seeks to identify and characterise the specific innovation challenges being faced in the target market.

The ITNAs are developed on a thematic basis, targeting countries where there is initial evidence of a specific technological need and where there is sufficient scale of interest from the home market supply chains seeking to internationalise. INNOWATER worked closely with sector specific supply chain intermediaries, including the Netherlands Water Partnership and British Water, to identify three priority international market opportunities for the pilot. These were:

1. Acid Mine Drainage in South Africa;
2. The Food and Drink Sector in China;
3. Horticulture in Mexico.

Sample extracts from the ITNAs are provided in Boxes 2-4.

¹ Study on internationalization of European SMEs, EMI (2010).

² INNOWATER is a public private innovation partnership of innovation agencies, water associations, technology specialists, innovation experts and eco-innovative cluster organisations from Belgium, Cyprus, Denmark, the Netherlands, Spain and the UK, coordinated by the European Water Partnership (EWP). INNOWATER is supported by the EC Europe Innova Programme. The Project has been focussed on the dual task of supporting technology-based SMEs and first user industries in the water sector with the commercialisation and uptake of innovative technologies respectively. See www.innowater.eu for detailed information on all support tools produced by the Innowater project.

Box 1 - The ITNA process:

Step 1 A team of INNOWATER experts undertake a thorough collation and analysis of all existing market intelligence within the target market to ensure that the business trips are as focused and effective as possible, and do not replicate existing material. This is drawn together within the ITNA framework. Domestic SMEs with potentially relevant solutions are then contacted and asked to validate their interest in the market, as well as to submit specific questions/issues to be addressed by the relevant market actors.

Step 2 An international business trip is undertaken in which a team of experts holds pre-arranged meetings with a range of key stakeholders (supply chain participants, end users and public sector bodies) on the ground in order to gain a complete understanding of the innovation challenges associated with the specific market. The primary aim is to:

- Understand the drivers and barriers to the uptake of new technologies;
- Identify specific innovation needs for which there is a benefit in sourcing solutions from international suppliers;
- Identify niche opportunities that can realistically be met by SMEs (alone or in consortia);
- Map practical next steps for establishing communication between innovators and end users.

Step 3 Following the business trips, the ITNA is updated, shared and disseminated to SMEs via workshops, webinars and other communication channels. One to one follow up support is also provided for those interested in further detail and in building a robust value propositions for the prequalified export market.

Conclusions

Feedback from SMEs and third party stakeholders involved in the pilot concluded that the approach adopted was highly effective and generated good quality market intelligence. Specific benefits of the approach include:

- Risk reduction on the part of the SMEs, delaying investment until the market opportunity had been initially validated by an experienced third party;
- Provision of tailored market intelligence, earlier and at lower overall cost than might otherwise have been the case with SME trade visits. This informed business planning and ensured that future investment was effectively targeted;
- Addressing institutional and financial barriers to entry through identifying key stakeholders and appropriate routes to market;
- Provision of specific and pre-qualified end user and stakeholder contacts in the target markets;
- Appropriate resource allocation by the delivery agency to follow-on business planning, ensuring that the SME develops a compelling value proposition before approaching the target market.

For more information or to receive the detailed TNAs please contact juliet.kauffmann@orioninnovations.co.uk or Selma Hilgersom at shilgersom@ewp.eu.

Box 2 - Acid Mine Drainage (AMD) in South Africa

AMD in South Africa is an internationally well-known problem that currently has no cost-effective technological solutions. AMD refers to polluted water that arises when exposed areas of sulphide minerals, particularly pyrite, come into contact with oxygenated water, primarily in abandoned mine voids or as a result of seepage through surface residues.



The drivers to identify and deploy cost effective innovative technologies are indeed strong, and solutions are welcomed from international players.

However, there are also significant barriers to addressing this market, in particular the political controversy over liability for disused mines, the conservative nature of many end users, and competing factors for finance and innovation. Consultation with stakeholders identified potential opportunities for European SMEs in the following areas:

- Real time measuring, monitoring and interpretation of the geo-hydrological environment;
- Mine closure planning and implementation;
- Improved (cost effective) treatment of AMD polluted water (neutralisation and desalination);
- Waste disposal and product recovery from sludge and other waste streams;
- In-stream remediation, including impacts of previous discharges of raw AMD.

Box 3 Food and Beverage Sector in China

According to information from the China National Food Industry Association (CNFIA) there are an estimated 500,000 industries in the Food and Beverage sector in China.

The sector is composed of large state-owned enterprises, large international industries (often organized in Joint Ventures with Chinese companies) and a large number of medium and small privately owned and operated companies.

Stronger regulation and a growing economy combined with water scarcity drives the need for better water saving, cleaning and reuse technologies. However, there are also significant barriers to the uptake of new technology including a high focus on capital acquisition costs rather than life-time costs; low protection of IP rights and a culture of copying technology; absence of funding support from private or public sources; and difficulty in finding reliable local partners.



Box 4 Water for Horticulture in Mexico

Horticulture is an emerging market in Mexico, and protected horticulture, in particular, has increased rapidly in the last 20 years, due to demand side requirements for lower cost, high quality produce to serve the North American market. Although there is no structural water shortage in many growing regions, concerns are being raised about the need to conserve water in the future.



This is a result of a high consumption of water caused by over irrigation and outdated, inefficient irrigation systems; over abstraction of the aquifers causing environmental damage; increasing soil salinity; and high energy costs for water technologies (for example pumps and water treatment plants) within the production chain.

Today, however, water remains relatively cheap, or even free, and the implementation of innovative technologies in the protected horticulture sector in Mexico has been low, and confined mainly to producers serving export markets.

Nevertheless the number of businesses interested in innovation is increasing, driven principally by factors other than reducing water consumption, such as decreasing electricity costs; recovering nutrients; product differentiation; and increasing production/yield per m².