



Business Innovation Observatory



Innovative Business Models for Global Competitiveness

New models for direct global market access in ICT

Case study 21

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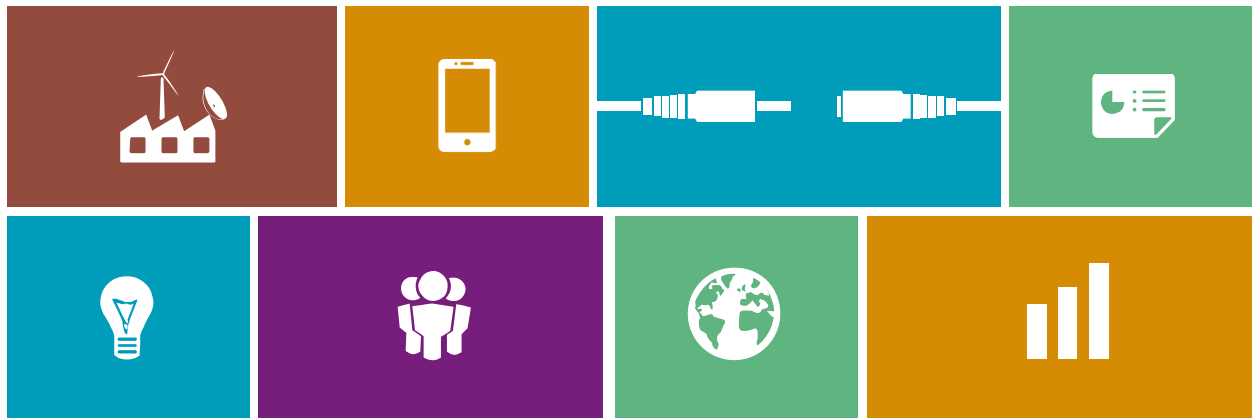
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1. Executive summary

Internationalisation has become increasingly important to enterprises of all sizes throughout Europe. In today’s environment, SMEs that start with a global strategy can move quickly to take advantage of cross-border activities. Internationalisation provides opportunities not only for revenue growth but also for the exchange of knowledge and the enhancement of capabilities. Hence, in the long term, the internationalising company will end up being more competitive.

SME internationalisation can take many different forms, including exporting, the creation of alliances across national borders and the establishment of operations or offices in other countries. In general, it can be examined under four main categories: export flows, foreign direct investment (FDI), outsourcing and international RD&I Collaboration

International trade (i.e. exporting and importing) belongs to the best known ways to integrate into the world economy. However, firms also invest into new or acquired foreign subsidiaries, i.e. engage in FDI. This kind of activity allows firm to reduce their time to market. These subsidiaries may substitute some activities formerly conducted domestically, or they may just expand the business. Another form of international activity is outsourcing, i.e. relocating former internal activities (such as accounting or parts of the production process) abroad to independent firms which then act as suppliers or service contractors. Other strategies include cooperation with independent foreign firms regarding different aspects, such as research and development and technology transfer or market development.

However, SMEs in the ICT sector are different from other technologies and sectors. Technology is evolving even faster in ICT; new technological opportunities are constantly rising, as the essence of the sector is to remain at the state of the art.¹ Hence, internationalisation is even more crucial for ICT.

It is possible for innovation and production in ICT to seize any opportunities around the world. Both can be segmented in different parts of the world without impeding the development of the products or services. The ICT sector offers internationalisation opportunities that many companies are ready to seize to expand their reach around the world.² The motives for the firms to internationalise usually include growth and profits, reducing dependence on a single or small number of markets, or previous international experience.

The internationalisation of the ICT follows one of two models: either product-driven or client-driven. Product-driven internationalisation occur when an ICT company introduces an innovation solution, which can significantly change the ways in which its end clients do business through increased efficiencies, enhanced reliability and security, and cost savings. These solutions by their very nature force the companies that develop them to internationalise as they have to compete with alternate solutions by global providers or because they need to develop a market niche for which there is insufficient critical mass in a local or national market.

In the case of client-driven internationalisation, companies that have already a proven track record of adoption of their innovative product/service in their home market(s) are driven to internationalise as they seek to meet demand from international clients. Their operations need to follow and adapt to meet international demand. Internationalisation can also be operations-led. Companies that have developed innovations that are immediately targeted at a global market require an international set-up from day one. They appoint a global board, locate in internationalised hubs, recruit international teams from the beginning, and seek out preferred partners in key strategic locations at the outset.



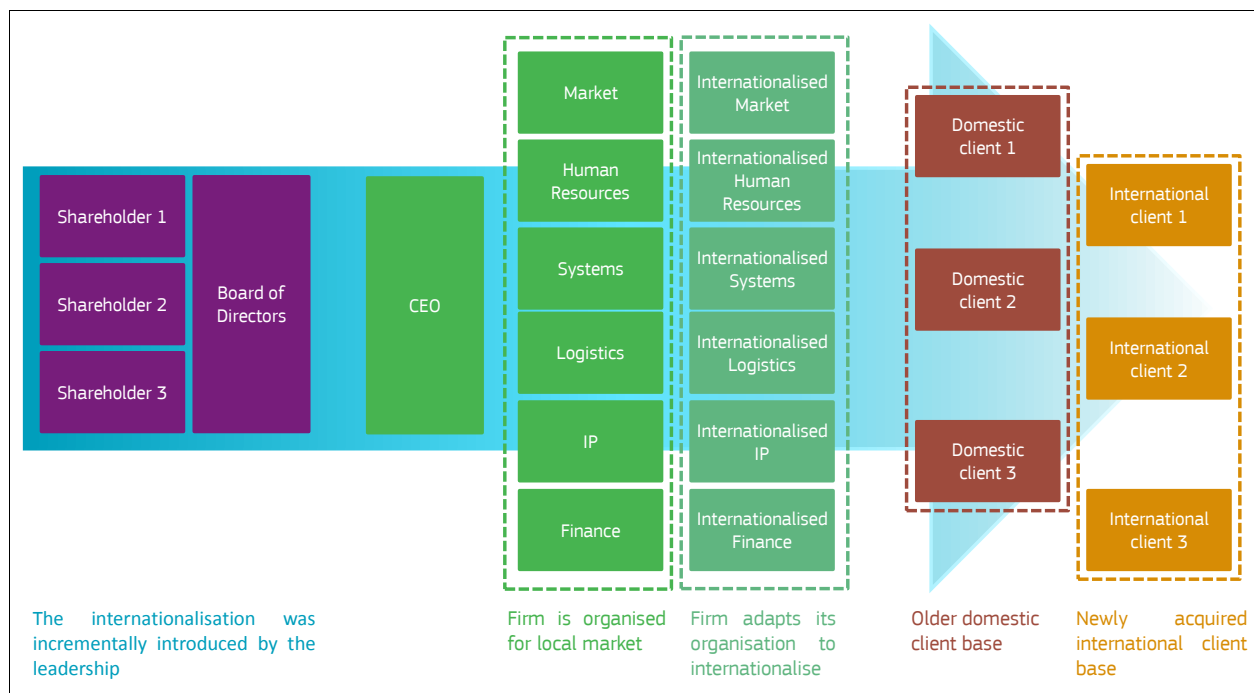
2. New models for direct global market access in ICT

In the recent years, internationalisation models have evolved greatly and the ICT sector is leading this change. The traditional model was carrying the idea of an incremental change. In 1977, Johanson and Vahlne theorised it and called it the Uppsala model. They identified four steps in the internationalisation process of a firm³:

- Step 1: No regular export activities - sporadic export).
- Step 2: Export via independent representative
- Step 3: Establishment of a foreign sales subsidiary.
- Step 4: Foreign production/manufacturing.⁴

After asserting a strong position on its domestic market, the company was pushed by its leadership to gradually internationalise, as illustrated by Figure 1. The exerted push remained gentle and first aimed at neighbouring and culturally-close countries. Internationalisation then continued at a steady yet slow pace. But, this model is starting to fade away, particularly in ICT, leading to the emergence of new internationalisation trends. In a globalised world and in a sector where information spread easily, client-driven and product-driven internationalisation are establishing themselves as the new norms.

Figure 1: Traditional internationalisation model



Source: PwC analysis

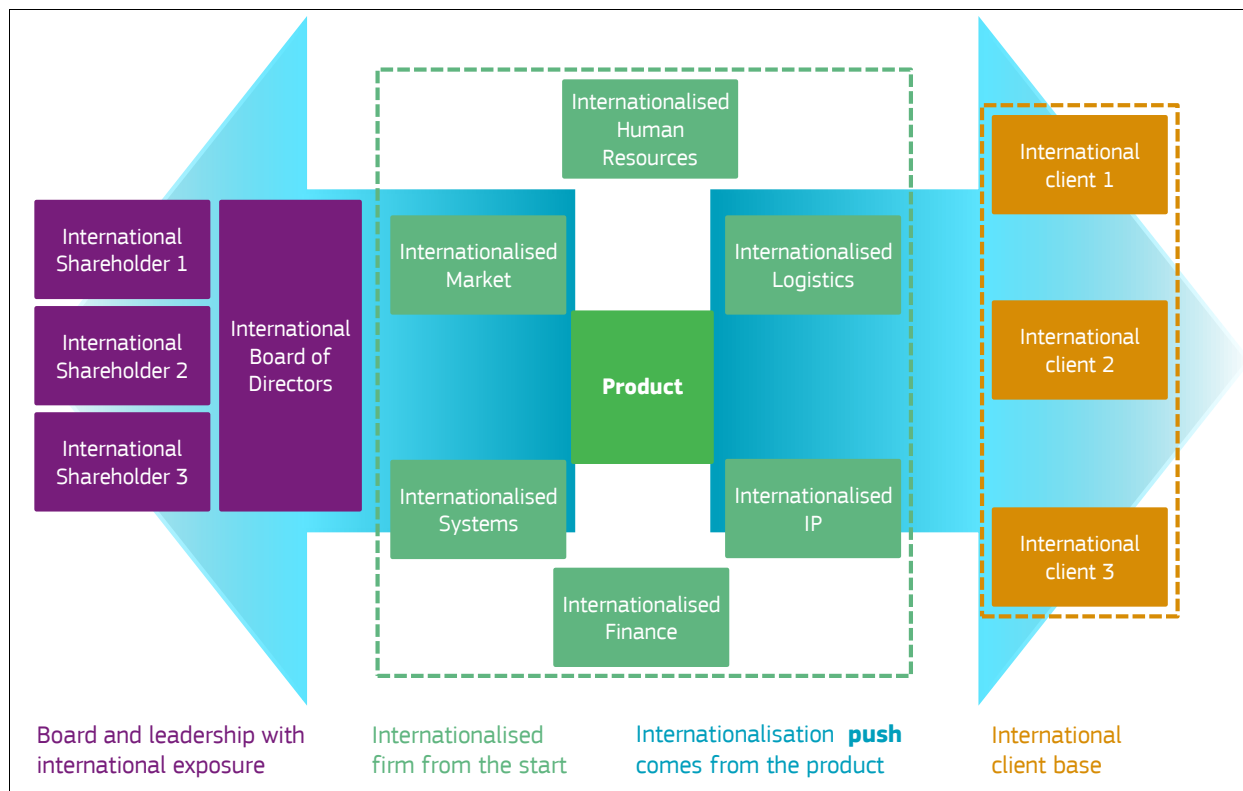
2.1. Product driven internationalisation

If some firms see their internationalisation pulled by their clients, others are pushed by their product. The case of product-driven internationalisation occurs when a company has a product that aims directly at a global market. The product transpires the international mind-set of the company: it must be scalable, easily transferrable in each

country, and available in multiple languages from the start. The clients adopting the product are scattered around the world. Since the shareholders and the leadership of such companies see the world as their playground, they structure the whole company as such. Every aspect of the firm reflects the challenges brought by an international frame. The human resources aim to attract talents with a similar international exposure, and to answer the needs of an international user-base.



Figure 2: Product-driven internationalisation flow-chart



Source: PwC analysis

The example of Mega

The case of Mega illustrates perfectly the example of a product-driven internationalisation. Mega is a file-sharing website, which offers an online cloud storage and file hosting service. Thinking globally is part of the company’s DNA from the get-go and is reflected in its organisation. From the shareholders to the client, the full scope of the firm is internationalised. The three main investors are located in Europe and Pacific: one in Australia, one in New-Zealand and one in Luxembourg. The CEO of Mega, Vikram Kumar, combines experience in the industry with international exposure, as he is based in New-Zealand with an Indian background. The team also includes a German CTO (Mathias Ortmann), and a Dutch programmer (Bram van der Kolk), both based in New-Zealand.

Mega is clearly aiming at a global market, as the services are multilingual (available in 44 languages). At the launch in January 2013, the founder reported reaching over 100,000 registered users within the first hour. In November 2013, the website claimed to have 5.5 million users worldwide and hosts more than 500 million files. The servers required to host these files are located in Germany and New-Zealand, and the company is currently adding server capacities in Luxembourg.

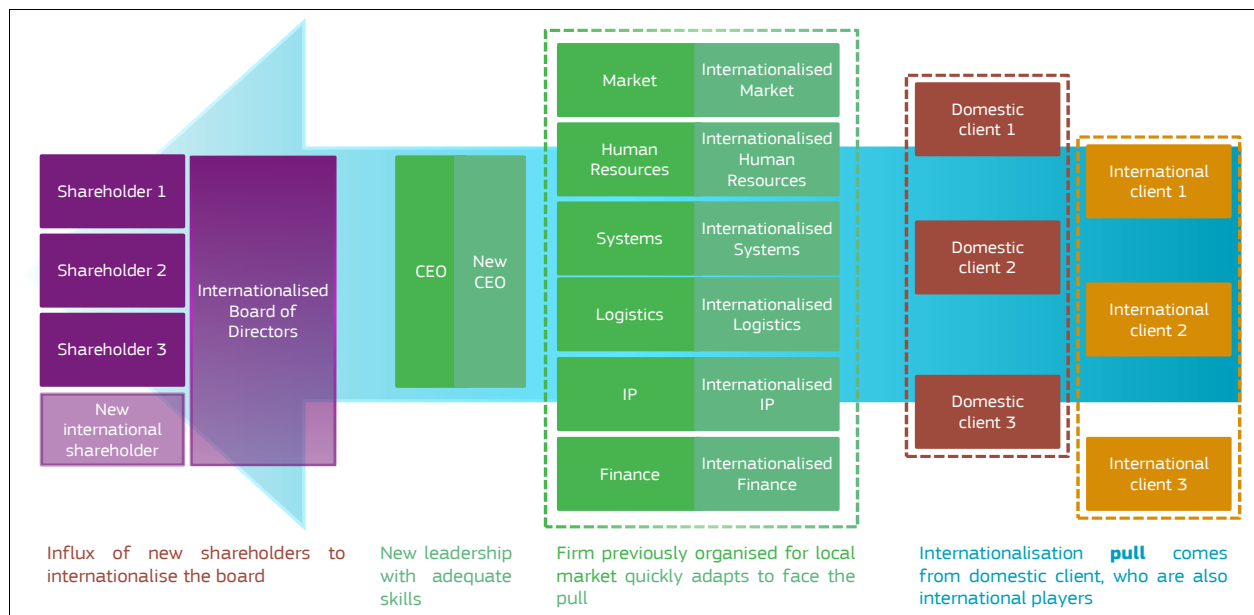
2.2. Client driven internationalisation

Client-driven internationalisation takes into account the pull-force exerted by the client (Figure 3). In this model, the company is not expected to have such an early internationalisation, and therefore the organisation doesn’t appear to be set for this purpose. The firm is trying to answer the growing demands of the market and especially its clients. The company is not necessarily matured in its domestic market, but it must accommodate its domestic clients, who are also globally established in this model.

The client-driven internationalisation is generally disruptive for the company, which has to re-think its whole organisation to adapt to the pull exerted by the client. Every dimension of the firm is impacted and changes abruptly, as the company must gain knowledge in various fields due to the fact it enters several markets mostly simultaneously. It is often not only a matter of organising abroad sales and marketing, since the changes are truly complete from top to bottom, and along different axes. Not only R&D, production, sales and marketing need to restructure, but also all support services are impacted: HR, supply chain, customer service, finance, and distribution. For example, opening an office abroad implies understanding human resources regulations, the protection of intellectual property or the mastering of the tax schemes. Company generally solve these challenges with the influx of additional workforce, who owns this knowledge.



Figure 3: Client-driven internationalisation flow-chart



Source: PwC analysis

The example of Store Electronic Systems

The case of Store Electronic Systems perfectly illustrates client driven internationalisation. Since retail was invented,

“Our clients are international retailers; they dragged our international expansion”

— Store Electronic Systems

France has been a leading country in the sector, and is the home of worldwide companies such as Carrefour, Leclerc, Auchan, Casino.

Even though the electronic shelf labelling originated in the US, France quickly took a major innovative position on the topic, due to its strong retail. Hence, Store Electronic Systems has initially been focusing on the domestic market. It was only under the insistent demands of Carrefour, one of its main clients that the firm decided to take the challenge of an international project in Belgium. The expansion continued in Spain, again with a long-term local client, Leclerc. Being pulled by its clients, Store Electronic Systems understood the potential of the international market for the growth of the company.

Therefore, Store Electronic Systems has implemented a plan called i3, which stands for Internationalisation, Innovation, and Industrialisation. To reflect this ongoing internationalisation, the firm has gradually adapted in multiple ways. The first evolution had focussed towards modifying its internal organisation and governance structure. The company created an international sales department to cope with the worldwide expansion of sales. The growth of the company lies now mostly in this department. International turnover, which accounts for nearly 50% of the overall turnover, has increased by 47% in the first semester of 2013. In this department, different methods are put in place to access the foreign markets with the highest efficiency. In countries that are close culturally and linguistically with a ready market, the company has a direct

presence through subsidiaries. There are currently around 10 such subsidiaries, which are supervised by the area managers. Moreover, the CEO insisted that the firm will pursue the introduction of subsidiaries in new countries. In other countries, Store Electronic Systems also maintain an indirect presence thanks to partnerships. A program called “Synergy” was put in place by the company to provide partners with marketing materials, sales and technical training courses and collaborative platforms. The firm now operates in nearly 50 countries across Europe, Asia and the American continent. Suppliers of Store Electronic Systems can be found globally as well. Like many other electronic components, many components of the SES solutions are manufactured in China. Yet, Near-Field Communication (NFC) components of the solutions are supplied by Identitive, a German-American company.

In a second step to face internationalisation, the board decided to implement changes in the human resources, included at the top level of the company. Other leadership, who owned the skillset required for internationalisation, was brought in. A new CEO was appointed in 2012 to “speed up the internationalisation of the company” according to the board. Thierry Gadou was chosen for the position because of his international exposure. Charles Jackson was also hired in order to strengthen the company’s position in the global electronic shelf labelling industry. Apart from being area-manager for North-America, Mr Jackson’s role is to identify and lead strategic business alliances and development opportunities, including potential acquisitions. Indeed, the company could consider FDI in the future, as it reduces the time to market. The whole staff experienced an evolution as the focus in recruitment became the languages skills. The workforce now regroups 20 nationalities, which cover the scope of languages spoken by the clients.



3. Socio-Economic Relevance

The ICT in Europe has a strong socio-economic relevance. In 2009, the sector was responsible for around 4.0% of the Gross Domestic Product of the EU. The number of persons employed in the sector was 6.1 million, which is equivalent to 2.7% EU's workforce. The ICT in Europe is leaning more toward services than manufacturing, as 90% of the value added by the ICT come from the services. ICT services are also employing around 85% of the ICT workforce.⁵

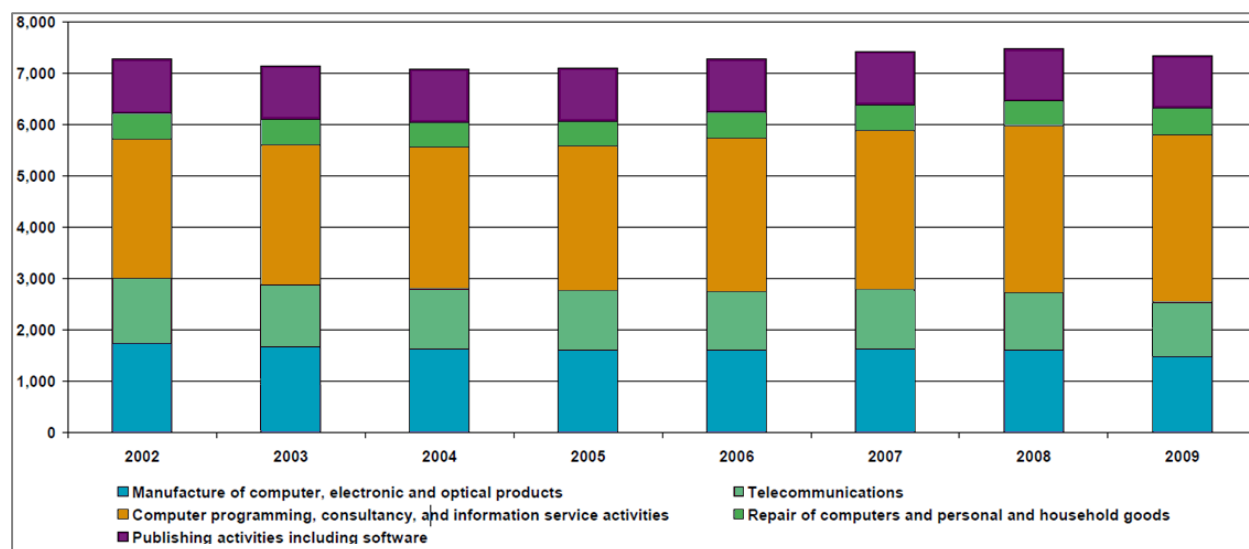
3.1. The market potential of ICT SMEs

According to Eurostat statistics, the economic situation has been proven particularly tough. In the midst of financial crisis, the European economy is hit by recession with an annual GDP expected to contract by 0.1% in 2013. Consequently, unemployment is rising at unacceptable levels from 7.1% in 2008 to 10.5% in 2012. The R&D expenditure is also stagnating with a percentage share of GDP at 2.01% decreasing by 0.01% between 2009 and 2010, failing to

reach the set objective of 3% for 2010. In this dismal environment, not many sectors have shown as resilient as the ICT. The ICT sector represents a supply of growth, employment and R&D financing.

According to Eurostat, the ICT in Europe is responsible for 7 million direct jobs in two categories. Services and manufacturing compose the ICT sector, with an ever increasing number of the workforce providing services (5.7 million jobs). The number of jobs in manufacturing tends to decrease due to international trade specialisation and to productivity improvements achieves thanks to technology advances (Figure 4). On top of the direct jobs, the impact of ICT encompasses a large scope of fields, generating a large number of ICT-related jobs. According to the OECD, jobs associated with ICT expertise reached a staggering 22% of the whole economy in 2009 for the EU15⁶. Moreover, the European Centre for the Development of Vocational Training has estimated that 85-90% of jobs will require ICT skills by 2020.

Figure 4: EU27 - Employment (1000 persons)



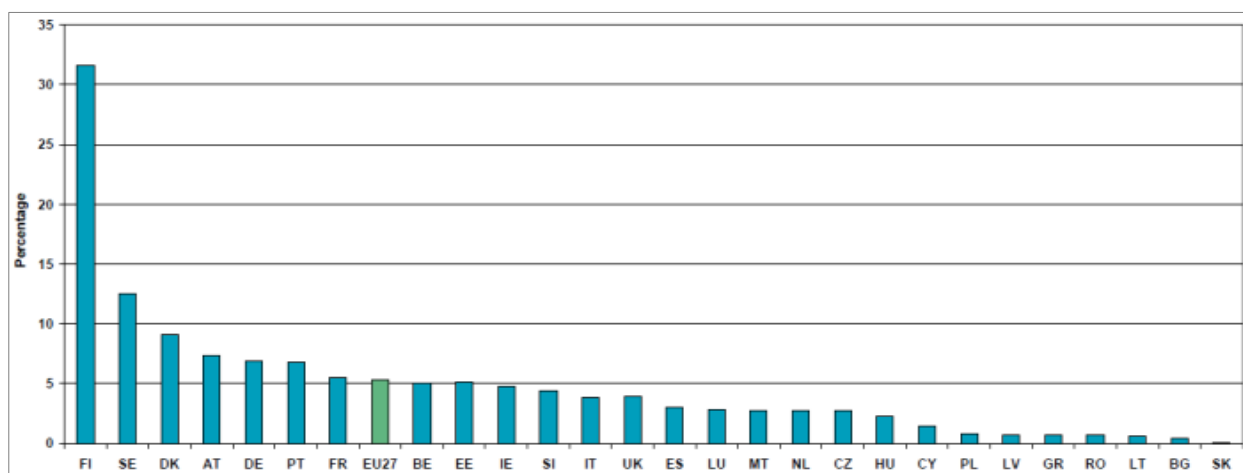
Source: Eurostat

According to Eurostat, the value added of the ICT sector in Europe reached € 470 billion in 2009. This corresponded to 4.0% of EU GDP, a percentage that proved unchanging in the last years. In 2009, ICT Services is largely responsible for the ICT value added share. With 91.9% or € 432 billion, it represented 3.7% of EU GDP. Meanwhile, the decrease of ICT manufacturing drove this category to amount to 8.1% of (€ 38 billion), which is only 0.3% of EU GDP.

The ICT sector also plays an important role in financing the R&D in Europe. According to Eurostat, with a value-added share in GDP around 5%, ICT drives as much as 17% of total business enterprise expenditure on research and development in 2009 (Figure 5). In R&D, the same pattern than with jobs creation is followed. There is a decrease in R&D spending in for ICT manufacturing (-17% in 2009)



Figure 5: ICT business expenditure on R&D in 2009

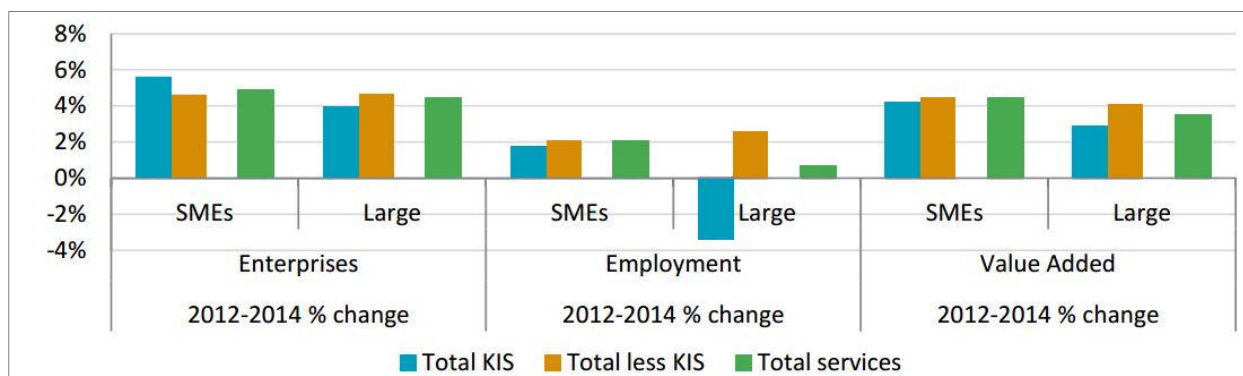


Source: Eurostat

Even if the ICT has shown resilient during the crisis, the years 2009 and onwards saw a decline in the EU27 employment in the sector (Figure 4), as some countries were facing a decline of their ICT. However, the 2012/2013 annual report on European SMEs provides an interesting outlook on the future, including for SMEs in the Knowledge Intensive Services (KIS), whose resources are largely employed by the ICT sector. According to it, KIS SMEs are expected to increase

their employment and value added (Figure 6). This trend is forecasted to last well into 2014, whilst manufacturing SMEs are likely to resume positive growth in employment and value added. In particular, the rise in services is projected to increase in the period 2013-2014 to include SMEs in all service sectors, whilst in the period 2008 – 2012 this was limited only to knowledge intensive services.

Figure 6: SME enterprises, employment and value added in KIS by and size class, percentage change 2012 - 214, EU-27



Source: Annual Report on European SMEs 2012/2013⁷

Table 1: Overview of the company cases referred to in this case study

Company	Location	Model for global access	Business innovation	Signals of success
Woorank	Belgium	Product-driven internationalisation	Web-based service that helps owners of SMEs, online marketers and digital agencies to quickly analyse their websites and learn how they can optimised their search engine rankings	<ul style="list-style-type: none"> - 150.000 registered users - one of the leader in mobile web analysis - 800.000 pages views per month - More than 3.000 clients



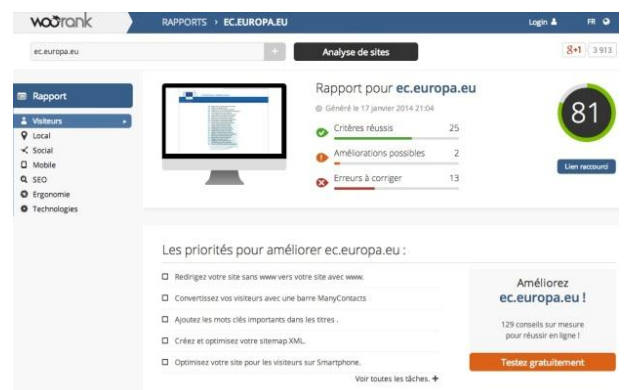
Revevol	France	Client-driven internationalisation	Helps in the deployment, migration and integration of Software as a Service(SaaS) solutions on the cloud	<ul style="list-style-type: none"> - Named “Cool Vendor” by Gartner in 2012 Cool Vendors report in Cloud Services Brokerage - Named “Partner of the Year 2012” by Google Enterprise EMEA - Customers include leading multinational and universities
Goalcontrol	Germany	Product-driven internationalisation	Goal line technology on the market that works with all balls, all goal frames, all goal net types and -colours.	<ul style="list-style-type: none"> - Extensive international media coverage - Licensed by the FIFA - Winner of the World Cup 2014 tender
Sygic	Slovakia	Product-driven internationalisation	Automotive navigation systems for mobile telephones	<ul style="list-style-type: none"> - First-ever navigation app for iPhone available on the App Store - Top Grossing application on the App Store in 10 countries - First real 3D navigation - Chosen by to the organizers of the 2012 Summer Olympic Games in London - Currently more 30 million unique users - Deloitte Fast 500 EMEA chart of the fastest growing IT companies every year since 2008
Store Electronic Systems	France	Client-driven internationalisation	In store electronic shelf labelling	<ul style="list-style-type: none"> - Pioneer and worldwide leader of electronic shelf labelling for retail - Products and systems have been installed in 5300 stores in 50 countries - Won the "store equipment" category at the 33rd LSA innovation awards
Mega	New-Zealand, Germany,	Product-driven internationalisation	Cloud storage and file hosting service	<ul style="list-style-type: none"> - Over 5 million users - Hosts more than 500 million files - Extensive media and viral coverage

3.2. New technologies drive toward new models for global market access in ICT

Problem 1 – Search engine optimisation (SEO) is a key success factors for website on the Internet. Every website must follow a set of processes to improve their ranking results on search engine. The positioning in search results directly impacts the visibility, accessibility and ROI of a website: the higher ranked a website is, the more traffic it will achieve. However, expert in SEO are too expensive for SMEs.

Innovative solution 1 – WooRank is a web-based fully automated software that monitors websites. It instantly turns valuable but fragmented data into a synthetic report. The target markets are SMEs and agencies with a “do it yourself” approach. Woorank provides clear actions to improve their websites, thanks the recommendations in the analysis. This tool allows online marketers and SMEs to reach and keep top rankings in search engines, to follow social and local traffic, to increase conversions, and adjust their online marketing campaigns.

Screenshot of a Woorank report for the Business Innovation Observatory website



Source: Woorank⁸



Problem 2 – The opportunity offered by the cloud is now well understood for most companies. However, making the big jump toward the cloud can be frightening. Many companies do not have the in-house know-how or experience for a successful transition. There is a need to help companies embracing the cloud computing.

Innovative solution 2 – Revevol is offering a service by accompanying companies in the ‘cloud’ process. Revevol partnered with international cloud champions such as Google to offer tailored cloud architectures to their clients. Revevol proposes to companies an end to end solution from advising to deploying and finally managing the cloud of their clients. The added-value for the end-users is a personalised solution that takes into account the specifics of their business.

Illustration of the circle of value from Revevol with its partners Google Apps and RunMyProcess



Source:Revevol⁹

Problem 3 – The stake involved in sport keeps increasing. In football, a single mistake from the referees may have disastrous financial and social consequences. Since the game Germany-England at the World Cup 2010, during which a valid goal was disallowed, a solution was needed in football to determine the validity of a goal. Tennis has also introduced the Hawk-eye systems.

Innovative solution 3 – GoalControl-4D system works with 14 high-speed cameras (7 per goal) around the pitch at the stadium roof/catwalk. The cameras are connected to an image processing computer system which tracks the movement of all objects on the pitch and filters out the players, referees and all disturbing objects. The remaining object is the ball and the system knows its three dimensional x-, y- and z-position with a precision of a few millimetres in the coordinate system of the pitch. When the ball passes the goal line, the system sends a vibration- and optical signal to the officials’ watches in real time. All cameras images of such goal event, and also of all near-goal events, are stored and can be replayed anytime.

The technology of the Goalcontrol 4D involves cameras calculating the position of the ball



Goalcontrol 4D also communicates decisions advices to referees through the use of a connected watch



Source:Goalcontrol¹⁰

Problem 4 – In a globalised world where people can easily travel, having a GPS on the phone can become very costly when driving abroad. Indeed, most GPS navigation systems on mobile phones need data to work. There is a need of an app that can store the maps and still operate without using data.

Innovative solution 4 – Unlike most GPS navigation apps, Sygic downloads its maps to the phone so the user can enjoy its navigation features even without a cellular connection (in those cases, it just relies on the phone’s GPS). The company also differs from many of its competitors by taking a ‘freemium’ approach: Basic navigation is free, only voice guidance and other premium features must be purchased.

A screenshot of the Sygic GPS navigation system.





Sygic introduced the Head-Up Display (HUD)



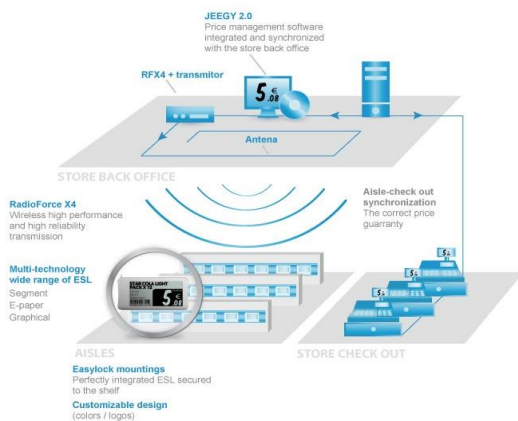
Source: Sygic¹¹

Problem 5 – Retailers are struggling with a tough competition in their market. They need to be reactive, flexible. They need a solution to enhance prices agility, ensure price accuracy, and improve their in-store marketing.

Innovative solution 5 – Store Electronic Systems delivers a comprehensive solution (electronic labels, mounting systems, transmission, software and interfaces, training and support), which is scalable and adaptable to every retailers. It provides practical solutions to the operational problems that every retailer is facing in its daily business. Thousands of labels are laid out in the aisles by a unique mounting system. They are updated remotely using very-low-frequency radio wave transmission technology and a PC connected to the store's back-office system. Instantaneously, automated and error-free prices and management data updates are synchronized with the prices scanned at the cash register. Moreover, the solution does not require staff intervention.

The clever labels allow then the retailer to draw a “digital maquette” of the shop and modify their retails to comply with the customers interests. The labels can also be connected with the Internet and help the physical in their battle with the digital competition.

Figure detailing how the in-store electronic shelf labelling operates



Example of electronic shelf labels (format G-tag 6, G-tag 11 and G-tag 18)

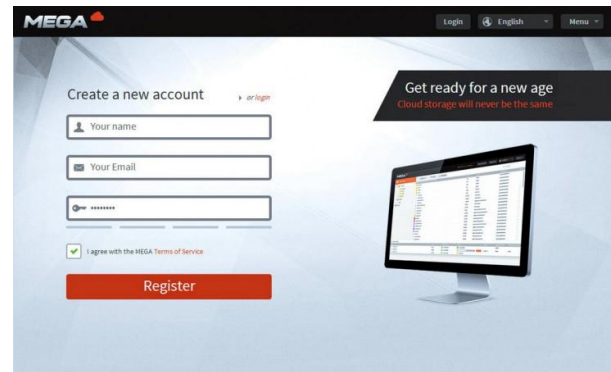


Source: Store Electronic Systems¹²

Problem 6 – There is a rising demand for online cloud storage. Private individuals and companies need cloud storage to share, collaborate and secure their files on the web. However, security and encryption is not always the primary concern of the cloud solutions.

Innovative solution 5 – Mega claims to allow its users to upload files anonymously and securely. The main difference with the other cloud storage solutions is that the users are the only one to possess the unique encryption key. Except for the users, no one else can access the files without being provided with the key. The files are locally encrypted before being sent to Mega's servers. In the near future, Mega aims at diversifying toward a platform for music and films streaming.

Homepage of the Mega website launch in January 2013



Source: Mega¹³



4. Drivers and obstacles

The drivers to internationalise are multiple for the companies: among those, the will to increase sales and profits by engaging a bigger market has always been one of the main¹⁴. During our interviews with the showcased companies, it appeared that the drivers were falling into three categories: shareholders, clients and products. Furthermore, despite all the existing support mechanisms in-place both at national and EU levels aiming to help SMEs on their internationalisation, many barriers still exist - both internal to the companies, and external.

4.1. Shareholders drivers

Sales growth

The most common driver is the will of the companies to increase their sales. Growth opportunities are available abroad and they can be very profitable. For example, Store Electronic Systems already has a leading position in France with nearly two third of the market share. The market still presents a lot of possibilities, as with a penetration rate around 50%, it is far from saturated. However, the worldwide market is largely untapped, with only 5% of the potential clients equipped. This is one of the reasons why Store Electronic Systems decided to leverage on its strong domestic position to set up abroad. Last year alone, the company realised more than 50% of its turnover internationally and plans to reach 80% within the next two to three years.

Increase of company value

For the shareholders, internationalisation is often a major objective as it increases the value of the company. In the current globalised age we live in, the world became a small village. Innovation can be followed or even copied very quickly, and new competitors can arise from anywhere in the world. A company coming up with an innovative solution can hardly afford to remain in its own country, or it will risk losing big market share and even sink its business. A foot in multiple markets will lower the risks (market, operational, profit or even systemic risks). It will also provide a larger market potential for the company thus improving the business valuation.

“There is no point in ending in the pioneers cemetery”
— **Store Electronic Systems**

Innovation can be followed or even copied very quickly, and new competitors can arise from anywhere in the world.

Talent acquisition

Talent acquisition also explains why shareholders push for internationalising their firms. Attracting and retaining talents are constants challenges of the recruiters. Yet, promoting a company with international growth opportunities is more likely to draw talents.

A skilled workforce is among the key success factor of an innovative start-up. Since shareholders want to maximize their chances of a successful company, they often are willing to invest in talent acquisition.

4.2. Product drivers

Local market is insufficient

For some companies, the local market may simply just be insufficient. In ICT, companies can easily reproduce a solution to other markets.

Moreover, reaching a critical mass is a key success factors, as it allows achieving economies of scale. For Sygic,

“Our apps are ranking Top 20 in the Navigation category in more than 40 countries”
— **Sygic**

the local market is Slovakia and its 5 million inhabitants, which would not be able to sustain a high-tech GPS company. So, limiting itself to the local market has never been a possibility, whilst internalisation a prerequisite for the company to survive. It therefore achieved a strong growth to reach with more than 30 million unique users worldwide, as the Slovenian based firm proposes its GPS solution in no less than 30 languages, including Chinese, Arabic, Russian and European languages.

In the case of Goalcontrol, the initial local market would be limited to a couple players. So, the product forced the German firm to internationalise from the get go. The first contract signed by the company was a household name, the FIFA (International Federation of Association Football). A client with such specifications and quality standards bring a strong stamp of approval. The system become then recognized on a worldwide scale, drawing attention from potential clients.

„We were not expecting to be so inundated by the number of responses” — **Goalcontrol**



Marginal investment required to tailor solution

For some solutions, tailoring for multiple markets induces a marginal cost, if any. The complexity of many innovative ICT solutions lay in the software development, especially to obtain an efficient code. Yet, once it is ready, software are often easily replicable, scalable and adaptable to adjust the needs of particular clients or markets.

The example of Goalcontrol is particularly relevant. The company needed a solution that would fit under all conditions. This prerequisite, which was valid to convert the first client, meant that their solution would need few to no adjustments for gain other client. Goalcontrol successfully passed tests that included “all football types, different pitch grounds, various types of goal nets and game situations”.

“Our innovation is that we can use standard goals, balls and nets. There is no modification necessary” — Goalcontrol

Hence, the firm’s first client is the FIFA since the product is designed to be compatible in every continent; the solution is a perfect match for a worldwide sport. The same applies with Mega or Woorank. Once their

solutions were coded, developed and ready for the users to access online, they could easily make it available in every country. In ICT, a high initial investment in software and servers is often needed to enable the management of large quantity of data, but the marginal cost remains low.

Less regulatory barriers

The ICT is a fast-evolving sector that is nearly not subjected to regulatory barriers. For example, before entering a new market, car manufacturers must clear heavy safety tests. The same applies with sanitary measures in the food industry or drugs trials in pharmacology. In ICT, the regulations mostly deal with securing data, but they can be overall quickly overcome. So internationalising a product is relatively simple for ICT companies compared to other sectors.

4.3. Client drivers

Client request for solutions abroad

The main driver of a client-driven internationalisation is obviously the client pull for the solutions. In the current global market, a company coming up with an innovative solution cannot afford to remain in its own country. It will risk losing big market share or even sink its

“A company has to secure its local market to be strong on the international level” — Store Electronic Systems

business. Hence, if a local client asks for the company’s solutions abroad, delivering to the client will become a matter of survival in the long-term. The state of mind of innovative companies must be to evangelise the world. They have to prevent competition from blossoming by seizing what should be theirs.

Local market saturated

In the ICT sector, product life cycle is generally shorter, as innovations arise at a much quicker pace. Some firms might be forced to export in case of a saturated domestic market, whether quantified in sales volume or market share. So, they have to seek for opportunities in new market and the only possibilities to secure more growth are to be found abroad. When a client provides such a growth opportunity abroad, a firm facing a saturated local market is more likely to welcome and seize it.

Another dimension of market saturation helps to comprehend why companies want to grow abroad. A saturated local market implies that some resources (such as unengaged production and workforce) remain unexploited in the company. Hence, aiming for full production is an incentive to capture new market opportunities as well as to meet clients’ requests. Similarly, human resources in surplus could also be dedicated for the research of the market intelligence.

4.4. Obstacles

Ineffectiveness of Single Market

A recurring complain from the interviewed companies is that the Single Market is not fully developed yet. Even though it is clear that many barriers have been removed, the companies were eager to talk about the Value Added Tax (VAT). VAT is particularly an issue as it prevents business opportunities. The Internet is a global platform, where clients can come from all over the world. The ICT sector is therefore strongly hit by this phenomenon. For example, the founder of Woorank explained that he had identified an opportunity for a service sold for less than \$10 (the company sells in dollar since most of its clients are located in the US). However, even if he had the resources to start it, he was reluctant, mainly because of the problems posed by VAT. He estimated that it costs his business around 4 euros to process an invoice due to VAT and paperwork. He claimed that proposing such an offer would be possible in the US, which shows that Europe is still lagging in on this issue.

“To deal with VAT is an unbelievable mess for us” — Woorank

Lack of European state of mind and business culture

Store Electronic Systems also expected more from the Single Market and particularly from the implementation of the Small Business Act by policy makers with regards to breaking business trade borders. According to him, Europe is still not a continent for SME, and the result is that SME’s CEOs do not “think European”. This cultural inadequacy and general SME mind-set acts on its turn as a negative feedback loop, being a strong barrier towards the



development of an EU Single Market. All the companies underlined that Europe is flooded with talent and that Europe is an innovating region. Yet, they regretted that many companies still have not identified the existing opportunity to leverage on the Single Market. In ICT, the high pace of innovation means that speed of actions and reactivity are critical success factors.

In Europe, the lack of a successful digital single market impairs the speed at which companies go international and penetrate markets. For example, the e-commerce is a part of ICT when Europe has its local champions. But, privacy and consumer protection laws differ so much that firms engaged in cross-border e-commerce are very limited. For the CEO of Store Electronic Systems, European SME might be too cautious and lack a daring spirit that is more prevalent in other business cultures worldwide. It prevents Europe from enjoying the full impact of its flourishing innovation environment.

High labour costs for skilled IT professionals

One of the key aspects for a successful internationalisation lies in competitiveness. Yet, in Europe, companies cope with high labour costs, especially for high skilled workers. ICT is a sector where most of the workforce has a strong academic background and is highly skilled. Hence, this aspect represents a shared struggle among our showcased companies. Stricter labour costs obviously higher the costs for the company, which then hinder its capability to expand internationally. However, Revelol stressed the positive impact of the French initiative called International Enterprise Volunteering (Volontariat International en Entreprise - VIE). This program allows young

“The cost of laying off dries the out European economy”
— **Revelol**

professionals to volunteer for a job abroad for a limited time. It gives a relevant experience to the worker and it provides a cheap qualified labour for the company. In addition, it may even play a role in changing the business culture, by allowing young professional to better understand the potential of internationalising.

Lack of financing for internationalisation

The reasons for the lack of financing are multiple, but some emerge: high costs, country-related risks and the general attitude of the shareholders. Internationalisation of a company is cash consuming effort as well as a risky endeavour. Going global requires a company to rethink its organisation. As explained earlier, this shift necessitates an investment in all the aspects of the company. Moreover, new resources are also needed to fill the cultural and linguistic gaps of the firm. The induced costs of internationalisation are therefore often extremely high.

Risks related to entering a country are also highly relevant to understand financing of internationalisation. It starts with assessing the country-risks, associated with the target markets. Political stability along with economic risks are both needed to be thoroughly analysed to compute the risks. When faced with high risks, some shareholders and management would rather stand on their ground than conquer new markets, even if the rewards could be large. A risk-averse attitude may lead to many opportunities being missed. Not only does it require heavy investment before hoping to receive any payoff, but the risks of failure are rather high. So, many companies, which would like to go international, face a lack of financing.

5. Policy recommendations

5.1. Adapt the EU support to the specificity of ICT sector

It is largely recognised that the European Commission is largely engaged in the support of SMEs throughout Europe. While these efforts are acknowledged, yet they still remain hard to identify. Companies have troubles to detect and understand the mechanism leading to the allocation of the EU aids, which is perceived to be too complex and extremely long and time consuming. This situation often leads to a misalignment between the expectations of the private sector and the means the EU has to effectively fund SMEs. It is therefore vital for the Commission to put efforts to address three main points. The first one is the

“The biggest issue with EU is that nothing is simple”
— **Woorank**

communication that must be proactive towards SMEs. The SMEs CEOs are focusing on developing their businesses. Time spent on resources for looking for information for funding schemes is still perceived to be a luxury. Hence, tailored tools should enable the right news to reach the targeted recipients.

The second point is more related to the efficiency of the support. Some companies did not feel that the support was fairly distributed among companies, and complained about lack of transparency of mechanisms allowing obtaining EU help. Therefore, all communication on the EU schemes’ transparency could be made clearer, and critical success factors of success for EU

“More clearness on parameters necessary for funding schemes should be a pillar of European Union communication” — **Store Electronic Systems**



funding highlighted. For example, the introduction of a monitoring system to analyse the most promising companies could explain why they were chosen. It would underline the aids are directed towards the firms that deserve them the most, and that hence, more could be achieved with the same amount of money allocated.

The third and probably most important point is about related to the ICT business specifics. It is arguably the fastest evolving sector. The EU supports schemes are often asking for specific requirements and information, which are simply not available or suited to the sector. The founder of Woorank explained that he had no information about how his field will be in a year. For example, a support scheme requires drawing precise business plan on a long term. Yet, companies and their leadership are much more reacting to real-time events than planning a long-term future, which is anyway almost impossible to foresee.

5.2. Push for an European business culture

As established in the previous chapter, Europe lacks of a positive and engaging business culture, which to some extent prevents the companies from taking risks and blossoming. Yet, the potential of a fully effective Single Market is tremendous. For example, American start-ups can leverage on a powerful domestic market, which provides them with enough strength to internationally expand. European SMEs would have the same chance if they grow with a European mind. The role of the Commission is to encourage the start-ups in modifying their way of seeing the market. According to the Global Entrepreneurship Monitoring survey¹⁵, more than 75% of EU28 early-stage entrepreneurs have less than 25% of their customers living outside the origin country. For example, incentives for early international expansion could provide a boost and a cultural drift for these SMEs.

The European Commission could take a more active role in helping firms transforming from national champions to international leaders. For example, the ICT represents a big part of Europe's future economy and a promise for growth. Hence, policy makers must be able to comprehend all the challenges of ICT, many of which are specific to the industry. It is therefore important to integrate among their structures and workforce, peoples with the proper experience and

knowledge, who are capable to understand the business, the market speed and growth opportunities.

5.3. Further develop the Single Market

The impact of a Single Market on the ICT sector would be tremendous. The Internet knows no borders, which explain why many actors of the sector are born global and think worldwide. Yet, they still face major differences between Member States law, which hinder the ability of businesses to flourish. Two main issues were identified during our interviews: the VAT and the regulations of the web. Both need more harmonisation across Europe.

The VAT is becoming a major issue due to difference in administration and heavy bureaucracy. Standardising the processes among all the EU countries, as well as simplifying the tax schemes would have a quick and positive impact on the ICT. It would represent a fresh breath for companies like Woorank. Initiatives focusing with lightening bureaucracy are one part of the solutions. But, reducing the costs of administrating VAT supported by companies can also be achieved by providing better online services. The ICT sector is composed of a tech-savvy workforce and such solutions would be quickly adopted. It would also reduce the costs related to the processing of invoices. Hence, an improvement of the VAT across Europe must be a key priority especially for dematerialised services, which are by nature borderless.

Data security and privacy regulations are also bringing headaches in the ICT sector. Even though the Directive 2009/136/EC of the European Parliament improved the situation, companies must constantly be careful to respect the laws. Indeed, if the directive is currently being applied in the member states, each country implements in different ways. The result is that regulations still differ between different countries. Standardisation of these rules across Europe, and then even the world, should become a key priority to relieve the pressure on the ICT sector. Woorank explained the hardships to face all these rules. For example, some member states explicitly impose that the company must ask the user for permission to have cookies. Hence, it becomes difficult to understand the strong differences of practices. Companies must keep up to date to apply the various data security and privacy regulations, which drains their resources.



6. Appendix

6.1. Interviews

Company	Interviewee	Position
Woorank	Jean Derely	Co-founder & CEO
Revevol	Emmanuel Coste Louis Naugès	Majority owner of the company Co-founder & Chief Cloud Evangelist
Store Electronic Systems	Thierry Gadou	CEO

6.2. Websites

Woorank	www.woorank.com
Revevol	www.revevol.eu
Goalcontrol	www.goalcontrol.de
Sygiç	www.sygiç.com
Store Electronic Systems	www.ses-esl.com
Mega	www.mega.co.nz

6.3. References

- ¹ Institute for prospective technological studies, 2007, The internationalisation of European ICT activities
- ² Ecorys, 2009, FWC Sector Competitiveness Studies - Competitiveness of the EU SMEs in the ICT services industry
- ³ Johanson J., Vahlne J.E., 1977. Internationalization process of firm - model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8, 23-32.
- ⁴ Hollensen S., 2007, *Global marketing*, 4th edition, Pearson Education Limited, pp 63
- ⁵ Stančik J. & Desruelle P., 2012, The 2012 predict report - An analysis of ICT R&D in the EU and beyond
- ⁶ OECD, 2010, *Information Technology Outlook*
- ⁷ European Commission, 2013, *Annual Report on European SMEs 2012/2013*, Available at: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2013/annual-report-smes-2013_en.pdf [Accessed on 21 January 2014]
- ⁸ Woorank, 2014, Website review – SEO tool, Available at: www.woorank.com [Accessed on 15 January 2014]
- ⁹ Revevol, 2013, The game changer in cloud business, Available at: <http://www.revevol.eu> [Accessed on 24 December 2013]
- ¹⁰ Goalcontrol, 2013, About GoalControl 4D, Available at: www.goalcontrol.de [Accessed on 24 December 2013]
- ¹¹ Sygiç, 2013, Sygiç Navigation GPS, Available at: <http://www.sygiç.com> [Accessed on 24 December 2013]
- ¹² Store Electronic Systems, 2013, The SES solution, Available at: <http://www.store-electronic-systems.com> [Accessed on 24 December 2013]
- ¹³ Mega, 2013, The privacy company, Available at: <http://www.mega.co.nz> [Accessed on 07 January 2014]
- ¹⁴ OECD, 2009, Top barriers and drivers to SME internationalisation, Report by the OECD working party on SMEs and Entrepreneurship
- ¹⁵ GEM Consortium, 2013, *Global Entrepreneurship Monitoring – 2013 Global report*, Available at: <http://www.gemconsortium.org/docs/download/3106> [Accessed on 21 January 2014]