Digital skills for SMEs

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Grand Coalition for Digital Jobs

Grand Coalition
for Digital Jobs

About the Grand Coalition for Digital Jobs

The European Commission is leading a multi-stakeholder partnership to tackle the lack of digital skills in Europe and the thousands of unfilled ICT-related vacancies across all industry sectors.

The Secretariat of the Grand Coalition has been established to support the initiatives of the European Commission's Grand Coalition for Digital Jobs.

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Statement of Originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

Legal Notice

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1 Executive Summary

One of the objectives of the Grand Coalition for Digital Jobs is to contribute to raising the level of digital skills in the workforce and in particular in SMEs, in order to prepare them for the transformation of their businesses into the digital era.

The main drivers for SMEs wanting to embrace the digital economy are internal efficiencies, cost reductions, better collaboration and new product and service offerings. Investing in the digitalisation of their business is vital for SMEs; this ultimately generates higher returns than any other forms of capital investment. Europe therefore needs to ensure that SMEs are equipped with the necessary digital skills to enable them to transform.

This booklet aims to serve as a source of inspiration for SMEs that want to embrace digitalisation and acquire new skills. It contains a collection of case studies of SMEs that were able to transform their business with digital technologies as a result of gaining experience from a variety of development programmes and other external interventions. In order to present a sample that is representative of thousands of similar cases across Europe, several sectors and countries are covered.

SMEs share their stories and experience of their digital transformation journeys. Each story focuses not only on the benefits and the results achieved but also on the characteristics of the intervention that made the digitalisation possible. Such interventions typically involved participation in development programmes available to SMEs in the EU, such as training courses offered by universities and public agencies.

The authors looked at programmes managed by educational institutions and at market driven interventions. A key finding explained is the role played by small and medium sized digital technology providers in enabling the digital transformation of other SMEs. This typically occurs through a direct SME to SME interaction taking place, and without public support.

The main take away from this analysis is that European SME digital enablers are key enablers and assets to be exploited for the digitalisation of the larger community of SMEs in Europe.

2 Introduction

The booklet is structured as follows:

- **Background information** and overview of the existing literature on the topic.

- **Case studies** about SMEs who took advantage of digital technologies. This includes information gathered through interviews covering the following points:
    - The nature of the learning experience (intervention) for example innovation vouchers, training courses, mentoring, online training etc.);
    - An outline of the reasons why the SMEs decided to upskill through such interventions;
    - A review of what they would do differently having experienced the intervention and how such learning experience could be improved.

This booklet will be made available to the National and Local Coalitions for Digital Jobs to encourage them to duplicate similar programmes in their countries.

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3 Background

Small and medium enterprises (SMEs) are recognised as an important economic driver in Europe[1], providing economic and job stability[2] and employment to a significant proportion of the workforce in the EU[3].

The changing business environment presents particular challenges for SMEs in terms of their responsiveness to the market, globalisation, and keeping abreast of technological advances[4].

Defining digital skills

Digital skills are understood to be the skills and capabilities that enable businesses to exploit opportunities provided by ICT, to ensure more efficient and effective performance, to explore new ways of conducting business and to establishing new businesses[5].

The term 'digital skills' describes a wide range of high level professional capabilities that are not limited to merely technical skills. It also includes broader organisational competencies such as market and domain knowledge, both strategic and operational management skills and 'soft' management skills[6].

Digital skills have been a thematic focus for research and several EU backed initiatives in recent years arising from the need to ensure that the projected digital skills gap is addressed[7].

In line with their key role as a economic drivers, SMEs are encouraged to acquire digital skills in order to both foster entrepreneurship, innovation, and job creation and promote the competitiveness of SMEs in a global context[8].

Developing such capabilities within the SME sector however is not a trivial matter. There are many development programmes available to SMEs across the EU. There has been much effort to enumerate and describe the various initiatives and opportunities aimed at enhancing digital skills in each of the EU Member States[9].

These programmes address a breadth of skills requirements from basic computer literacy skills through to more specialised technical training. The need to assess equivalency between the expected levels of technical experience and qualifications achieved through such national level programmes is also addressed through frameworks such as the European e-Competence

[1] Schmiemann 2009.
[2] De Backer 2014.
[3] IVI & empirica 2014.
[4] IVI & empirica 2014.
[5] European eSkills Forum 2004, p.5.
[6] IVI & empirica 2014; empirica 2015.
[7] see, for example European Commission DG Enterprise & Industry et al. 2013; European Commission 2015; Digital Europe 2015.
[8] IVI & empirica 2014.
[9] European Commission DG Enterprise & Industry, empirica, et al. 2013a.

Framework (eCF), the first sector-specific implementation of the European Qualifications Framework (EQF) aimed at ICT professionals[10].

In the context of a broadly defined set of business related digital skills, opportunities to acquire more general management skills have generally not been *specifically* included in these Country Reports[11] although they are sometimes present – either by implication or as a component – in the listed initiatives.

While technical skills remain a priority, a wider repertoire of skills and competences has since been explicitly identified under the banner of eSkills[12]. These include **strategic management skills** for information and communication technologies (ICTs), such as governance, security, architecture, and outsourcing; **operational management skills**, such as change management and project management; **softer skills**, like communication and management of interdisciplinary teams; as well as **business related skills**, such as business development, sales and marketing, and an understanding of the business and its market.

Challenges encountered by SMEs

Beyond broadening the types of skills considered relevant for improving an organisation's digital skills capability, the studies examined to prepare this booklet identified significant challenges faced by SMEs in engaging with these programmes[13].

The investment required by an SME to engage in any upskilling programme is significant, in terms of both time and money. Finding an initiative that offers an appropriately balanced blend of generally applicable learning with the SMEs' particular knowledge or skills requirements can also be problematic. Studies conducted by empirica found that there is a need for both formal educational qualifications (e.g. Masters or Doctoral level, or executive education programmes) and "shorter, targeted, affordable trainings, with flexible schedules"[14].

The extant research into digital skills and SMEs from the European perspective has tended to legitimately bypass the specific concerns relating to start-up and early-stage businesses on the grounds of scope. For example, empirica's in-depth exploration of eLeadership skills for SMEs deliberately (and appropriately) excluded such early stage SMEs on the grounds that the "critical success factors, and… key responsibilities of effective e-leadership" (empirica 2014, p.38) were significantly different depending on the 'age' of the business. While the exclusion of early stage SMEs was reasonable in the context of the eLeadership study, the need for such a tactic highlights the complexity of the SME landscape. An organisation's priority issues will naturally evolve as it matures over time, presenting an opportunity to further explore the path of digital skills awareness and development in start-up and early stage SMEs.

While the major focus of our literature review has remained within Europe, we are aware that the issues addressed have ramifications globally. A cursory search revealed that there are

[10] European e-Competence Framework 2015.
[11] European Commission DG Enterprise & Industry et al. 2013a.
[12] empirica 2014
[13] empirica 2014; empirica 2015
[14] empirica 2014, p.23

similar efforts to understand and improve digital skills and digital literacy capabilities for individuals and SMEs in the USA[15], Canada[16], Australia[17], South Africa[18], and Taiwan[19]. This serves to reinforce the importance of addressing the eSkills gap and enabling European SMEs to compete in a global marketplace.

Summary

SMEs are key drivers of economic and job stability. Efforts to understand and improve the digital skills and capabilities of SMEs are an important lever to foster entrepreneurship, enable innovation, create and sustain employment, and promote global competitiveness.

Business digital skills encompass a wide range of high level professional capabilities that enable an organisation to leverage ICTs. The skills and competences considered as part of a digital skills repertoire have been broadened to include strategic management skills, operational management skills, soft skills, and business related skills in addition to specialised and practical technical skills.

Participation by SMEs in digital skills training is substantially constrained by time, scheduling, cost and content. SMEs' priorities vary over time. The European research agenda's implicit focus on established SMEs should be expanded to explicitly include start-ups and early stage SMEs so as to explore the evolution of eSkills requirements.

The European digital skills research agenda and upskilling initiatives are well positioned internationally to continue promoting and supporting indigenous European SMEs to develop their digital skills repertoires, enabling them to compete in a global marketplace.

[15] US Digital Literacy 2015
[16] Roy & Raymond 2008
[17] IBSA 2011; IBSA 2013
[18] iNeSI 2015; Katunga & Mitrovic 2014
[19] Wu & Li 2012

4 SMEs using digital skills: European success stories

The transfer of digital knowledge in 8 cases to be presented in the following pages occurred through different learning experiences (interventions). Many of these took place outside of a formal learning context.

The cases demonstrate that SMEs active in non-native digital sectors acquire digital knowledge through their interaction with other SMEs specialised in offering IT services and solution (Europe has a large community of SME digital enablers), and who are able to bring skills and digitisation to other SMEs in traditional sectors.

The 8 cases presented in this booklet are from the following companies:

1. CellPath UK, histology and cytology products
2. Techno-Matic Denmark, Hydraulic solutions
3. Litmus Ireland, eLearning
4. Luun The Netherlands, health-care provider
5. Paredes Spain, shoe manufacturer
6. Schielicke Bau Germany, construction company
7. Moodley Manor Ireland, vegetarian food manufacturer
8. GA-Import, Denmark, wholesaler in toy

The companies represent several sectors. They have all sought to improve their digital skills in order to foster digitisation as a means to either better their internal processes or strengthen their position in the market – and they all found that digitisation has provided them with positive business outcomes.

The type of intervention in the case studies are both market driven or driven by universities or agencies/actors acting on behalf of government. The most recurrent cases happen naturally as a market interaction among SMEs: on one side an SME that wants to gain knowledge and edge through digital technologies, and on the other side a tech-SME that delivers skills and digitisation. In all cases, the process required the transfer of competencies that were previously absent in the client company. The success of the interventions appears to stem from the fact that the transfer of digital knowledge was closely related to the companies' business strategies.

The 8 cases are presented below.

1. CellPath – UK

Instant digital profit

CellPath (www.cellpath.co.uk) is a UK based independent SME, 30 employees, specialising in the manufacture and supply of histology and cytology products.

As a result of its partnership with a local SME digital enabler, CellPath digitalised its archiving service of pathology samples. CellPath is now a UK leading company that offers its clients, hospitals and laboratories, an online toolbox for managing and tracing their archived materials. Its franchise is expanding to several countries in the EU.

In 2009 a feasibility study funded through the ERDF (European Regional Development Fund) highlighted that one of the company's key business processes, the off-site archive for Pathology samples was quite inefficient and hindered the company's growth. Thus, the management understood that investing in the digitisation their business processes was the key to release the company's potential.

Nature of the intervention: Training all new franchises.

The digitalised system for material archiving improved the productivity by 66% in the first month. Throughout 2010 and 2011, the archive service experienced exceptional growth. The company built two new warehouses in order to accommodate the demand. In 2012, the company started offering its digitalised archiving through Europe with franchises in the Netherlands and in Denmark. Digital skills are now embedded in the company, which is capable of training all new franchises without external interventions.

Outcome: Strong fit with the digital supplier

The intervention by the digital SME enabling company "Remote NEW MEDIA" (remotenewmedia.com) consisted in digitising one of the key business processes of CellPath, the off-site archive of Pathology samples offered to hospitals and laboratories. During 2.5 years the two companies worked closely together to obtain the above result. On one hand such cooperation allowed to digital SME enabler to develop a tailored software solution that would 100% fit the requirements of the company. On the other hand, an authentic cultural change in the company was made possible thanks to the transfer of knowledge from the digital SME.

Now CellPath offers to its customers an online toolbox that brings full control, easier management and complete traceability of their archived material. While this is a great benefit for its customers, the company is capable to saving considerable amount of time and resources while minimising mistakes thanks to this system.

Key success factor: Direct access to knowledge

CellPath believes that a key success factor of the intervention was the direct access to the knowledge of the IT SME digital enabler Remote NEW MEDIA, given by their cultural and physical proximity. Off-the-shelf software solutions were available as alternative, but the success of this intervention was the full adaptation of a bishop solution connected with intensive knowledge transfer.

Funding for feasibility study and initial development, made available through the European Regional Development Fund, was also an important incentive. Remarkably, even deducting the public support received by the company, the project delivered return on investment in less than one year.

Lesson learnt: Onboarding digital knowledge takes time

SMEs should understand the potential benefit of digitisation without underestimating the need for knowledge transfer and the difficulty of a cultural change due to substantial changes in the business processes.

Consider partnering with local IT companies that can develop tailored solutions and effectively transfer skills while supporting cultural changes in your company.

2. Techno-Matic – Denmark

Preparing for the Internet of Things

Techno-Matic is a Danish company with 20 employees offering Hydraulic solutions for Danish and international customers.

The management of Techno-Matic felt a pressing need for a change in its technological capability to be able to develop future products. The products needed to be ready for meeting customers need related to the Internet of Things (IoT), and big data. Management therefore approached Aalborg University for expertise and advice.

For a long time Techno-Matic had a competitive advantage due to its strong capabilities in hydraulic. They can be used on many sources including for example trucks, large vehicles in the forest industry or in agriculture. To secure its future long-term competitiveness, Techno-Matic decided to move its offerings and products into the IoT space. Using its network and existing contacts to Aalborg University, Techno-Matic came in touch with the MatchMaker at Institute for Computer Science.

Nature of the intervention: Brand new platform for IoT

Through several meetings with the matchmaker, Techno-Matic defined a new value proposition for its future business that would be based on IoT. This led to the upgrading of the company's products with a new platform of software and hardware. Further, the company needed to equip the products with a digital communication platform and to develop the company staff's digital qualifications. This would ensure that Techno-Matic was able to deal with big data analysis. This led to a dialogue on the way forward involving both the R&D group as well as the management of the board.

Techno-Matic has now developed a prototype of the communication module which is tested with customers. The company has received grants from the Innovation Fund Denmark – InnoBooster programme to further its project by up qualifying its organisation in collaboration with the Aalborg University. Steps are also taken to start exporting Techno-Matic's new solution.

Innovation Fund Denmark, IFD, is a state-financed investment fund that invests in new initiatives. The InnoBooster program, targeted at small enterprises and entrepreneurs invests in ideas for a new product, a new service or improvements of processes to increase competitiveness. InnoBooster invests in the range from 7.000 euro to 70.000 euro, and does not require equity nor annuity payments upon investing.

Outcome: A new mindset

The main intervention from the matchmaker was to develop the company's products and services with embedded systems for IoT and Big Data.

Key success factor: Knowledge transfer from university

The transfer of knowledge from the university was made through a professional matchmaker with knowledge and experience about how companies can innovate and build on the experience of academia.

The matchmaker holds a Master's degree in Electronics and Information Engineering and has a practical background in product development and project management from industry. Aalborg University's AAU Matchmaking is a network of matchmakers – knowledge brokers - who can guide companies to the right researchers and test facilities. The university offers collaboration that applies equally to small and medium businesses and to large - from working with students on projects or internships, to networking of researchers and practitioners (around specific subject areas), to opportunities to make use of university laboratory facilities. Common to these options is the scientific focus and an approach that in most cases benefits both the company and the researcher.

Lesson learnt: Small step method

A main learning is that the technological change can be accomplished with the small steps method even though the task up front seem overwhelming. This applies both internally and in the involvement of customers, who also has a learning curve ahead of them when it comes to IoT. Another important learning is to deliberately seek for outside input to help you to break out of your present mindset and changes in your technological path.

3. Litmus – Ireland

Accelerated learning by doing

Litmus Educational Company Ltd., is an Irish company within the eLearning/Tech sector.

Litmus started with a good product idea and are now preparing for a full product launch through their engagement with a tech start-up accelerator programme in the UK. They are now developing more robust business models and strategies, creating a more engaging product, building networks, and securing investment for the future.

Litmus is an app development company that aims to help children figure out how to learn maths using a "magical copybook". After 18 months of product development, they developed an app that was in private beta testing. The two founders knew that they then needed to commercialise the product. As such they would need to identify concrete business opportunities, develop their business model, identify revenue streams, enhance their credibility in the maths education field, and establish a potential customer base in schools and with parents. In order to achieve these aims, they joined a Tech Start-up Accelerator programme (DotForge, www.dotforge.com), based in Manchester (UK) in September 2015.

"You can develop a product on your own, in your bedroom, but in order to get it out there, get it in front of people, you do need the connections, the mentoring…"

Digestable step-by-step

The DotForge programme sets specific, achievable, realistic goals for each week. Instead of the overwhelming task of 'Getting a Product to Market', participants engage in a series of easy to digest, manageable steps that aims towards having investors on board at the end of the 3-month period. Litmus are confident that they are capable of keeping up with the programme deadlines and obtaining investors.

The networks arising from participating on this programme have been highly influential, helping to guide the development of the business strategy, getting introductions to potential investors, accessing prospective customers/user groups, and identifying areas for potential further development of the app itself.

Nature of the intervention: The Accelerator programme

The Accelerator programme involves a full-time three-month residency at DotForge, with access to numerous on-site/in-house mentors, potential investors and external developers/service providers. Two days per week are free for product development with the remaining days are devoted to scheduled courses/lectures, mentoring sessions with experts in various domains, mock pitching to investors with instant feedback, ongoing advice and availability from on-site mentors

and investors, introductions to various external networks and social engagements. At the end of the three months the product is pitched to investors. If successful, an additional 3 months' access to office space at DotForge is offered.

Outcomes: Getting the big picture and exposure

The exposure to new and broader perspectives in terms of running a successful business were seen as they key benefits. As the CEO said 'Litmus had been very focused on… building the product… when we got here we were forced to think about the bigger picture in terms of the company… it needs to make you money otherwise you'll go out of business… getting down to what really matters, the root of it all'.

'We have got very good insights in terms of what could be a very large potential revenue stream for our product… they've given us a real change, a real new perspective', said their CEO.

Key success factor: Hands-on and informal learning important

The whole intervention is based on hands-on, practical learning experience. The content of the courses/lectures is delivered to all participants on the programme (6-10 different groups) and as a result tends to be more general, geared towards 'everyone' and covering a broad range of topics. . The 1:1 feedback from mentors is much more specific and targeted to their own experience and requirements.

One interesting issue in terms of the context of trying to promote cross-national mobility of digital workforce in Europe was the logistics of moving across national borders (from Ireland to UK) which were stressful and difficult to manage.

4. Luun – The Netherlands

Becoming a digital health-care company

Thanks to the partnership with the innovative start-up gocietysolutions.com, the Dutch SME Luun was transformed from a traditional 24h assistance call-center to a digital health-care provider.

Luun was a small call-center providing 24h emergency assistance to elderly people. Due to the need of installing equipment in patients' homes (the "emergency red botton"), the services of Luun were contracted by third party professional health care companies, which offer their patients a service package inclusive of 24h emergency assistance. Luun was unable to offer its services directly to people, thus limiting the scope of clients.

During a networking event in Silicon Valley Luun a partnership with the Dutch startup Gociety was established. The Gociety Solution provides a mobile app for remote continuous care, early indication and prevention of acute incidents. That was just the perfect match with Luun.

Nature of the intervention: Disrupting its own business

The innovation brought by the digital start-up Gociety to Luun disrupted the traditional way of working of the call centre. While the emergency services, made expensive by the need to install and maintain dedicated equipment in the patients' homes, and was heavily relying on government subsidies to be commercially viable, the new solution was now directly accessible from everyone's Smartphone. This had also had the effect of lowering the company's cost base.

Not only Luun was able to avoid its dependence on public subsidies, but the new digital solution also allowed to company to bypass professional healthcare givers and offer its services directly to patients. This has hugely increased the opportunities for the Company. Luun is now a market leader in emergency healthcare services in the Netherlands.

At the same time the use of a digital app, allowed the company to offer a wider range of services and collect patients data in order to provide a better Service. Early indicators collected on the patients' devices, such as hearth and breath rate or blood pressure, generate alerts for early preventative intervention opportunities.

Outcomes: Way of working transformed

The innovative start-up Gociety worked closely with the IT team of Luun in order to integrate the features of its mobile app to the back-end system of the call center. The intervention required a real digital transformation of the company's way of working. People were trained and acquired new skills necessary to use the new system and to provide helpdesk support to customers in need.

Key success factor: Start-up innovative gen

The key success factor was the disruptive innovation. In this case the small disruptive start-up brought the necessary level of innovation.

Lesson learnt: Different skills and mindsets

Look for opportunities to exchange ideas with IT entrepreneurs, start-ups and SMEs in the digital economy. Innovative ideas need people with different mind-sets and skills to meet and work together.

5. Paredes – Spain

Digitise and stay ahead

Paredes is a well-known Spanish shoe brand. The company is a good example of continuous innovation and progressive digitisation of all business areas.

The success factor of Paredes is underpinned by a 20 year collaboration with a local IT SME provider Clave Informatica which has introduced a wide range of technologies that render Paredes a future proof company.

Founded in 1954 in the Valencia region (Spain), Paredes is a small family owned company selling sports and safety shoes to well-known brands on the Spanish market. Despite the competition of global brands and the high pressure on prices, the company was capable of exploiting the potential of digital technologies in order to remain solidly in the market. The key factor consists in the 20 plus years collaboration that Paredes established with a local IT SME called Clave Informatica. Since 1995, the latter takes care of the progressive digitisation of all processes in Paredes, which truly was truly transformed from a tradition craft manufacturer to an automated digital leader.

Nature of the intervention: Progressive digitisation

The collaboration with the IT SME Clave Informatica that has the full trust of the company's management, allowed Paredes to progressively exploit a large number of digital features.

Today, Paredes benefits from a completely automatised process of order management: from the order, to the production and storage until the delivery, the company digitally controls the entire process. Alongside with the decision made in the '90s to externalise the shoe production, the progressive introduction of digital technologies allowed the company to reduce costs and time and manage a larger number of product types and clients. Despite the great market pressure, the company managed to stay competitive and maintain significant shares in the shoe sector.

Outcomes: Paredes history of digitisation

The intervention started in 1995 and it is still ongoing. The major steps of technological development were:

1995: warehouse automatisation;
2000: digitisation of orders;
2005: warehouse management; bar-coding;
2010: e-commerce;
2015: auditing system.

The tech team of Clave works closely with the staff of Paredes in providing continuous training and support.

Key success factor: Culturally and physically close

A key success factor of the intervention is the cultural and physical proximity of the companies involved in the business transaction.

The new competences acquired by Paredes, both at the levels of workers and management, allow them to master new ranges of digital technologies and be prepared for future technological developments.

Lesson learnt: Long-term partnership counts

Long-term partnership with a trusted IT SME digital enabler ensures continuous transfer of knowledge and readiness for new technological developments.

6. Schielicke Bau - Germany

Digital resource planning in the construction business

Schielicke Bau is a family owned construction SME based in Beelitz near Berlin (GE), employing 100 people.

As a result of its partnership with a local SME digital enabler, the company evolved from a traditional SME in a traditional industry (construction||) into a digital forerunner.

As is the case with many SMEs in the construction sector, Schielicke Bau was considered a very much traditional company. With some 100 employees, it was active in several projects and facing a growing demand for the construction of new supermarkets' buildings. Charmed by new digital technologies and aiming at better organising the company's resources across a growing number of projects, the owner decided in 2012 to collaborate with an SME digital enabler. As a result, and three years later, he is now an e-leader in his industry and his company is making more and more use of innovative digital media.

Nature of the intervention: a business and cultural transformation

The intervention by the digital SME enabling company "CCVOSSEL" (ccvossel.de) consisted in digitising the company's traditional system for assignment of resources to the different projects. The magnetic board, where workers and machines were positioned in the various building sites, was replaced with a new digital board, whose data were stored on the cloud and available on mobile devices by all workers. The introduction of this new digital media went side by side with a real cultural transformation of the company. All levels of the company were addressed: from the workers who acquired the basic skills to use tablets in their work, to the management who acquired the knowledge of technologies for their application to the building industry.

Thanks to this intervention, Schielicke Bau is now progressively introducing more and more digital features in its work. Recently, it digitised the process for reporting of damages and non-conformities of the machines, which is now done by workers on tablets and in real time available on the company's central database. This new system substantially improved the efficiency of the machines' maintenance and repair interventions by reducing time of unavailability and minimising costs.

Outcome: Immediate benefit

Following the collaboration with an IT SME, Schielicke Bau replaced its old-fashion magnetic board, used for assigning people and machines to the different building sites, introducing a new digital board which is now available to all staffs on mobile devices. The shift brought to the company immediate benefits and they measured a return on investment only after one year.

Better management of resources, optimisation of their usage, reduction of transportation costs for machines from one site to another are examples of concrete benefits experiences by the company.

Key success factor: Close access to knowledge

A key success factor of the intervention was the direct access by Schielicke Bau to the knowledge of the IT SME digital enabler CCVOSSEL. The new competences acquired by Schielicke Bau, both at the levels of workers and management, allowed them to introduce new ranges of digital technologies.

Lesson learnt: Local collaboration

Establishing collaboration with a trusted IT SME digital enabler is a successful vehicle to digitisation. On one hand it allows the company's management to understand the technological options and formulate solutions. On the other hand, it enhances the knowledge transfer to all companies' levels, which have access to direct support from the local IT SME.

7. Moodley Manor – Ireland

Digital Food for Thoughts

Moodley Manor is a start-up company within the manufacturing vegetarian food sector. It has 2 direct full-time employees, employing an additional 4 food production technicians through an outsourcing agency.

Being part of SuperValu's Food Academy has improved the efficacy and efficiency of their business from production through to marketing. A previous, less effective engagement with a government sponsored entrepreneur Development and incubator programme had value in so far as it introduced them to the Food Academcy and taught them some lessons about the difficult nature of 'real life' business.

As a start-up, Moodley Manor was seeking funding and skills to develop their products, prove a market, and build an interactive online community platform. They were involved in two interventions, firstly a government funded business incubator programme and secondly an initiative run by a large Irish supermarket Supervalu called the Food Academy providing specific guidance to small food companies.

Nature of the intervention: incubator programme

The initial business incubator programme helped make connections with people who were not immediately relevant to their business needs. The Food Academy experience, however, was excellent. It was more retail-oriented based on getting their products stocked in shops, targeting customers and interfacing with large back end systems (rather than the front-facing customer platform systems that they would have liked to develop through the earlier business incubator programme).

There were issues with the quality of training provided by the initial business incubator provider. The 'experts' providing the training often lacked the necessary experience and were not able to teach anything useful. Also, the programme was supposed to have provided funding for the following services: conducting a feasibility study; free office space; a stipend; skills development workshops; an 'Amazon voucher'. Few of these, however, were ever actually provided. The monthly stipend was invariably late, which caused difficulties for the business's cash flow and the participants' meeting their living expenses.

The training at the Food Academy was excellent. It was a shining example of what an incubator programme should be like and it felt like a Masters in Retail. It gave them an understanding of how to manage their data and control systems (production, temperature control, data protection, etc.).

Outcomes: more efficient processes

Through the Food Academy, they have built an extensive network of other food producers and their production practices have been improved. Their accounting and storage processes are now much more efficient and their marketing efforts became targeted.

Lesson learnt: Find the right business incubator

Finding the right business incubator is key. Not all incubators or accelerators offer the same types of services and their levels of expertise varies considerable form one to another

8. GA Import- Denmark

Face-to-face SME digitisation

GA Import is a Danish wholesales company in toys who decided to establish an eBusiness portal to better serve their distant customers in for instance Greenland.

GA Import set up the portal in collaboration with a small web-coding company and their long time ERP supplier. GA Import has 16 employees.

GA Import is a leading Danish wholesales company in toys for the Danish market, Greenland, Iceland and the Faroe Islands. GA Import has outsourced all of its IT and is working 100% cloud based.

Dedicated for eBusiness

Management generally had a desire to use IT in its business, and therefore decided to make eBusiness a part of its sales strategy. GA Import sought suppliers that could have helped them to develop eBusiness.

Nature of the intervention: digital mentoring

Drawing on its network and business contacts GA Import started working together with a new supplier in web design named HTML24, and at the same time involving their supplier of its ERP system.

Outcome: Pay back in 18 month

The expectation was that the eBusiness platform would have paid back in 3 years and cover 10% of the sales. However, it went much faster, as GA Import had an 18-month pay back, and today eBusiness cover more than 15% of the turnover. GA import have been able to skip producing its time consuming printed product-catalogue and now communicate instantly to customers about their new products or for example change in prices. GA import is also able to service their customers, who is geographically very wide spread.

Key success factor: collaboration with HTML24

Collaboration with the HTML24 gave GA Import a head start. Together with the ERP supplier they have been a key factor to the success. HTML24 has come up with a large number of possibilities and are still helping to develop GA Import's eBusiness. They have now been working together for four years and they are still learning from each other.

Lesson learnt: Connect with mentors is key

Digitisation is in the eyes of GA Import not an overwhelming task for SMEs, but it should be well prepared. There are a lot of other business people, who are willing to spend time and share their own experiences on what and how to do it. But these mentors are often not visible and easy to find, for those who would benefit from their knowledge. Facilitating the contact between the SMEs and such mentors would therefore be very valuable.

5 Key learnings

One learning point from some of the cases studied is that SMEs wanting to improve their digital skills through a learning intervention will often find it useful to use other SMEs to provide them the needed skills.

Examples in this booklet are SMEs that have digitalised their business processes and their internal systems.They have done so, in some cases, not through traditional formal education, but through services provided by other SMEs. In other cases, for example Moodley Manor in Ireland, the support from a large supermarket training initiative was seen as vastly more useful than a government sponsored start up progamme.

Four of the SMEs, that have been successful in acquiring new digital skills, i.e. improving their competitiveness and growth, relied on specialised assistance from 'digital enablers' companies dedicated to the "digital enablement" (Cellpath, Luun, Paredes and Schielicke Bau).

"Digital enablers" are a large community of micro, small and medium sized firms providing specialised digital solutions for SMEs. Included in 'digital enablers' are small IT consultancies, independent bespoke software developers or social media specialists etc., that develop specialised solutions for SMEs and transfer to the digital skills.

One of the SMEs obtained improved digital skills through a peer-to-peer programme ran by a business confederation. In this case, the confederation of Danish Industries (DI Commercial) provided a platform for GA Import to learn about how to digital technology could transform its business, through networking with like-minded SMEs and through mentoring.

Three other SMEs aquired new skills through government and university schemes (Techno-Matic, Moodley Manor and Litmus). Such schemes are designed to respond to challenges faced by SMEs in becoming more ICT savvy and ultimately transforming their businesses to fit to the digital age. In the case of Moodley Manor, their staff found that any learning from the government sponsored programme was of limited value, while the learning from directly relevant experts in food industry was useful.

All in all, external networking to acquire new or missing knowledge is thus an important activity in SMEs to gain digital competences. Peer collaboration is a good mechanism to acquire new skills and competence. It is important that employees have direct contact and exposure to the staff and systems as well as the management culture of the partnering organization.[1]

Important factors of success for SME's digital programmes that can be learned from the eight cases in this booklet are:

- *Peer-to-peer contact is key to inspire SMEs to undertake digitisation of their business, also peer to larger organisations or experts.*

[1] In line with Tidd and Bessant: "Managing Innovation, Integrating Technological, Market and Organizational Change, 2013 and
V. van de Vrande et al, "Open innovation in SMEs: Trends, motives and management challenges", Technovation 29, 2009.

- *Knowledge transfer should be very concrete and driven by the company's particular business need. General business subjects should only be taught for learning to solve general business challenges.*
- *The whole organisation should be trained and the purpose of the training should be to be able command the actual technology for its practical purpose.*
- *Interventions should be designed as a step-by-step process with the pace set by the business project in question and specifically tailored for the SME.*

Recommendations for SMEs who want to implement similar programmes

- *Talk to your peers in other SMEs, and collaborate with someone who can transfer and share with you both the particular technology and the digital skills you need to apply to the technology to your business.*
- *Exploit the collaboration with IT specialised SMEs in your community. Acquire skills and customised services through companies that are near to you. Build a strong network of business partners to exchange skills and resources.*
- *Take one step at the time! Focus either on technology that will help you upscale your business or on what technology that will give your product new value to your customer.*
- *Train all staff in your organisation to use the particular technology they are going to use in their daily job.*

Learning for future SME's digital programme

- *With regard to digital upskilling, SMEs seem less oriented towards traditional instruments such as university courses, as well as dedicated schemes like Vocational Education and Training (VET).*
- *What leads to success is close collaboration with trusted partners often SMEs members of the same local communities, in a step by step process.*
- *Any knowledge transfer needs to be driven by the current need in the business project.*

About DI Digital, IVI (MU), and PIN SME

DI Digital, IVI (MU) and PIN SMEs are members of the Secretariat of the Grand Coalition for Digital Jobs.

DI Digital
DI Digital is the Danish ICT and Electronics Federation, representing companies in the IT, communications, telecoms, and electronics sectors.

PIN-SME
PIN-SME is an association formed in 2007 to represent the interests of Europe's ICT SME sector. Currently ten national and regional associations are members, representing tens of thousands ICT SME companies in Europe. PIN-SME aims to ensure that ICT SMEs get talked to rather than just talked about. It provides a voice for ICT SMEs in the policy and business arenas and is already represented in several EU expert groups and taskforces.

Innovation Value Institute at Maynooth University, IVI (MU)
The Innovation Value Institute (IVI) was co-founded in 2006 by Maynooth University (MU) and Intel to help drive the transformation of IT management. Its goal is to creat a global gold standard for IT management. To achieve this goal, IVI researches, develops, and disseminates empirically proven and industry validated IT best practice through a unique open collaboration between leading academic and industry practitioners. Through its consortium, IVI facilitates a collaborative community of like-minded peers committed to investigating, advancing, and disseminating the frameworks, tools, and best practices associated with managing IT Value and IT-enabled Innovation. IVI is current focused on extending the development and dissemination of the IT Capability Maturity Framework (IT-CMF).

About the Secretariat of the Grand Coalition

The Secretariat of the Grand Coalition has been established by DIGITALEUROPE together with other 13 partners to support the initiatives of the European Commission's Grand Coalition for Digital Jobs. Specific initiatives of the Secretariat of the Grand Coalition include:

- Establishment of Student Placement Programmes (SPPs) across Europe to create temporary job placements
- Promotion of valuable industry and stakeholder-led initiatives to improve the level of e-skills in the labour force, specifically ICT practitioners
- Identification of concrete, short-term solutions to increase the mobility of skilled EU workers across Member States to address the shortage of ICT practitioners
- Dissemination of the activities of the Grand Coalition through a dedicated awareness raising campaign
- Creation of a toolkit to support the establishment of National and Local Coalitions to facilitate action towards enhanced digital skills at national, regional or local level

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