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ISSUE

EMPOWER MAGAZINE

|
SME
CLUSTER
GROWTH
EMPOWERED ENGINEERING
|



**THE SEVEN SME
GROWTH DIMENSIONS**

**CHALLENGES
AHEAD**
FOR A COMPETITIVE
ENGINEERING SECTOR

**HOW TO
SUPPORT
SME GROWTH**

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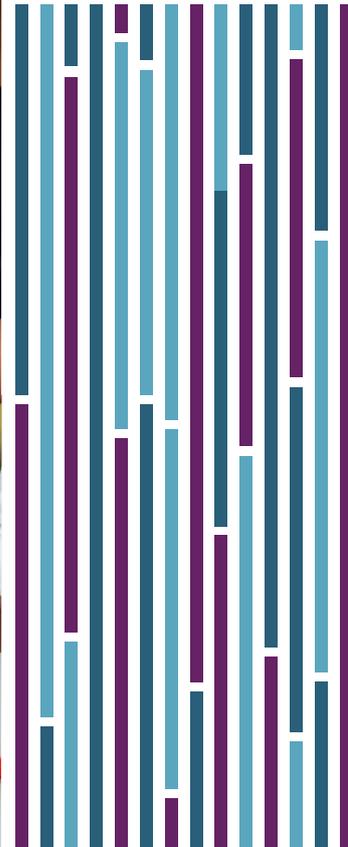


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www.SMEclustergrowth.eu

WHAT CAN YOU EXPECT TO FIND IN THIS ISSUE?

The second issue of the SME Cluster growth e-zine focuses on summarising the main findings of the research phase of the project (p. 4). Throughout its pages you will discover how engineering SMEs can be supported by looking at some inspiring initiatives developed in the regions involved in the project (p. 7).



In this e-zine, we are interested in sharing our experience with you. Thus, our partners have written a special article to share some tips and strategies that can support our readers in strengthening and creating sustainable university-business partnerships (p.11). Also, from a business perspective, we define some mechanisms to support the growth of SMEs (p.13). Finally, to build a vision of the future based on the analysis of the present situation, we explore the main challenges facing the engineering sector (p.15).

The last section of this publication focuses on learning more about the SME Cluster Growth project. In this way, we share with you a preview of the design of the training programme that we are preparing for engineering SMEs that will be available in mid-2022 (p.17). Finally, you can meet three of our project partners, the University of Bologna, Munster Technological University, and Istanbul Technological University (p.19).





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THE SEVEN SME GROWTH DIMENSIONS

LEARNINGS FROM THE SME CG PROJECT

INVESTIGATIVE STAGE

By Adeline Leroy, Todd Davey and Medisa Focic

Small and medium-sized enterprises (smes) are the backbone of the European economy and improving the competitiveness of SMEs has been a main objective of European cohesion, R&D, Industrial and ICT policies, among others. Despite globalization and increasingly international competition, SMEs in Europe remain a dominant employer contracting around 94 million people¹ and generating around 56.4% of the total added value (EUR 4.4 trillion).

However, **SMEs face obstacles to growth**, including a shortage of skilled staff and limited access to

information amongst others² whilst the WEF's³ Future of Jobs report states that 54% of employees will require significant re-/upskilling by 2022, particularly among SMEs. With human capital being the core of competitiveness and SMEs being the motor of the EU economy, SMEs need support to reach their full innovation potential.

With that background, the **SME Cluster Growth project** investigated the issues facing growth SMEs through a comprehensive set of expert and owner interviews, case studies and a major survey to establish **seven dimensions of SME Growth**,



1. SME OWNER



One of the most important factors in SME growth is the **attitude of the business owner** including their conception of growth and desire to embark on a growth path.

There are different sources of **decision-making**

and moral support for the owner who is on a SME growth path including the board of directors or investors, networks and associations, employees, governmental support, foreign business partners support, and support from regional agencies and think tanks.



2. GROWTH MANAGEMENT

The biggest challenges for growth management can be the **professional and personal shortcomings and challenges** that result from the changing business context of the growing company.

The owner needs to be aware of the likely **impact of growth on the existing assets and the core**

competencies of the company, as well as the likely changes to their own role in driving and supporting growth and the knowledge requirements to manage a growing firm to ensure that the organisation is ready to support a new phase of life.

¹ Clark, D. (2019) Number of small and medium-sized enterprises (SMEs) in the European Union in 2018, by size. Statista. <https://www.statista.com/statistics/878412/number-of-smes-in-europe-by-size/>

² European Parliament (2017). Helping European SMEs to grow. [http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/603967/EPRS_IDA\(2017\)603967_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2017/603967/EPRS_IDA(2017)603967_EN.pdf)

³ World Economic Forum (2018). The Future of Jobs Report 2018. <https://www.weforum.org/reports/the-future-of-jobs-report-2018>

Finding key **personnel and specific skills** can be a major challenge for the growing business as can timing the acquisition of these key staff with the growth path of the company and the available finances.

It is important for the owner and senior management to **closely manage the growth phase**

of the company as the structure evolves to drive the practical execution of the strategic plan, to address problems and manage risks as they arise and oversee how staff interpret and execute the strategic plan and directives. It is also important to ensure that the growing SME remains still solid from a financial, structural, and logistical perspective.



3. GO INTERNATIONAL

It is necessary for the entrepreneur / manager to understand the **importance of international business as a path to growth** as well as the likely challenges to international growth. International growth can have a large impact on the structure and organization of the company, the finance required, and the skills required within the growing firm.

To expand the business internationally, **information on support structures and resources that are available** through

governmental agencies, and to organize and participate in awareness campaigns/events can be highly useful. Partners and networks can also be an excellent source of knowledge for the growing SME, especially supply chain partners.

Finally, it is important to rely on and promote **digitalization** as a key tool for lowering barriers for going internationally.



4. FINANCING

Growing SMEs need to understand **how they plan to finance their growth**, whether through equity or debt financing as well as government support. Entrepreneurs need to be able to explain with precision the financing plan, the objective they wish to reach with the financing, the details of the plan to be financed, the points to which the financing will

be allocated and the expected return on investment for these financings.

The most **common forms of financing for SMEs** are own organic funding, bank credits, peer-to-peer (P2P) lending, crowdfunding and supply chain finance (SCF).



5. ECOSYSTEM AND CLUSTERS

In the context of a growing company, it is necessary for the entrepreneur / manager to understand that **building and maintaining contacts, networks, clusters, and an ecosystem** is vital, but requires foresight, trust, investment, and persistence to access that value.

To take full advantage of an ecosystem necessitates that the **owner or senior management need to develop a certain number of soft skills**, such as communication and sales skills, the ability to understand the ecosystem and its dynamics and to see opportunities for potential partnerships in a logic of co-construction and establishment of strong links.



6. INNOVATION AND KNOWLEDGE MANAGEMENT

The entrepreneur / manager of the growing SME should **understand that knowledge is the first asset of the company**. It is this knowledge that makes all the value and on which the innovation capacities of a company are based, whether for incremental or disruptive innovation, business model innovations or technological innovations.

Growth SMEs require a robust management structure for innovation management, external sourcing of (open) innovation and co-creation and to proliferate and disperse internal knowledge capital. The HR function needs to identify the gaps in knowledge and provide the training on knowledge capital for its management staff.



7. COLLABORATION WITH HEIS

Whilst not always obvious higher educational institutions (HEIs) have a role to **support SMEs in innovation, learning, knowledge transfer and knowledge acquisition**. Usually, HEIs provide support to SMEs through collaboration activities, networks, and direct knowledge provision that either come in the form of employee education, blue-sky and applied research, IP licensing, spin-out and start-up acquisition, network supports and talent recruitment. As a result of working with HEIs,

SMEs can increase their knowledge capital, absorptive capacity, and competitive advantage.

Factors that foster university-business collaboration (UBC) include mutual commitment and trust, effective communication, and mutual goal setting, as well as the availability of resources. Conversely, the barriers are lack of absorptive capacity, confidentiality issues and a lack of resources.

Full reports on the investigative stage of our project are available to download here:





SMEs AS REGIONAL ENGINES OF GROWTH

By Adeline Leroy, Todd Davey and Medisa Focic

Small to Medium-sized Enterprises (SMEs) growth is a hot topic with various policy-driven initiatives to support 'scale-ups' having been initiated globally. This is also the inspiration for the SME Cluster Growth project, an Erasmus+ project funded by the European Commission, which sought to investigate the regional-growth needs within the partner's regions. The result of the intensive review highlighted both strengths and weaknesses that exists in the various regions for supporting SME growth.

DOWNLOAD the seven individual Regional Growth Needs Reports here: [Resources - SME Cluster Growth](#)
Highlights of the review are summarised below for each region.

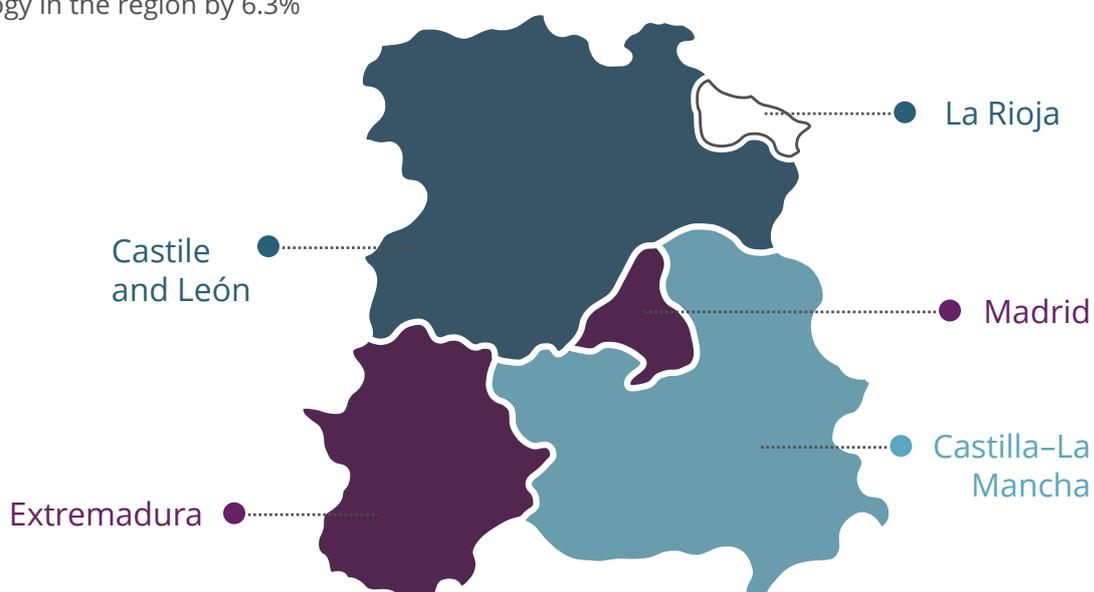
MADRID / HENARES-CORRIDOR, SPAIN

Industrial profile snapshot:

For ten-years, regional policy has been oriented towards growth, key skills, research, and innovation increasing the population employed in science and technology in the region by 6.3%

Examples of SME supporting programs:

CEPYME500, a program of the Association of SMEs in which 500 Spanish SME leaders in business growth mentor other SMEs to increase their size.



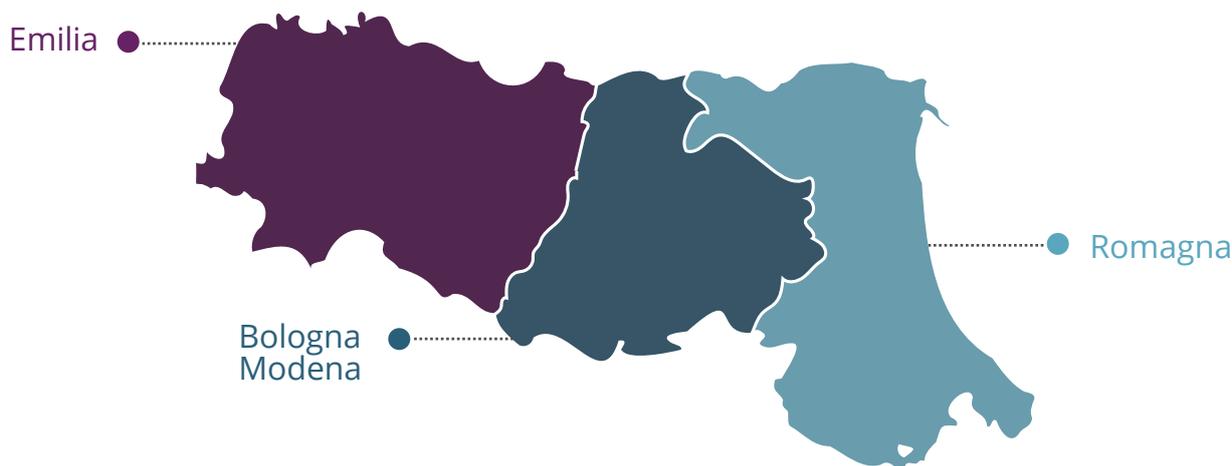
EMILIA ROMAGNA, ITALY

Industrial profile snapshot:

Over 25% of total regional employment is dedicated to manufacturing, whilst 51.6% of individuals with a higher education degree are employed in science and technology.

Examples of SME supporting programs:

A range of support programs are offered including European Research Projects; and National / Regional government calls.



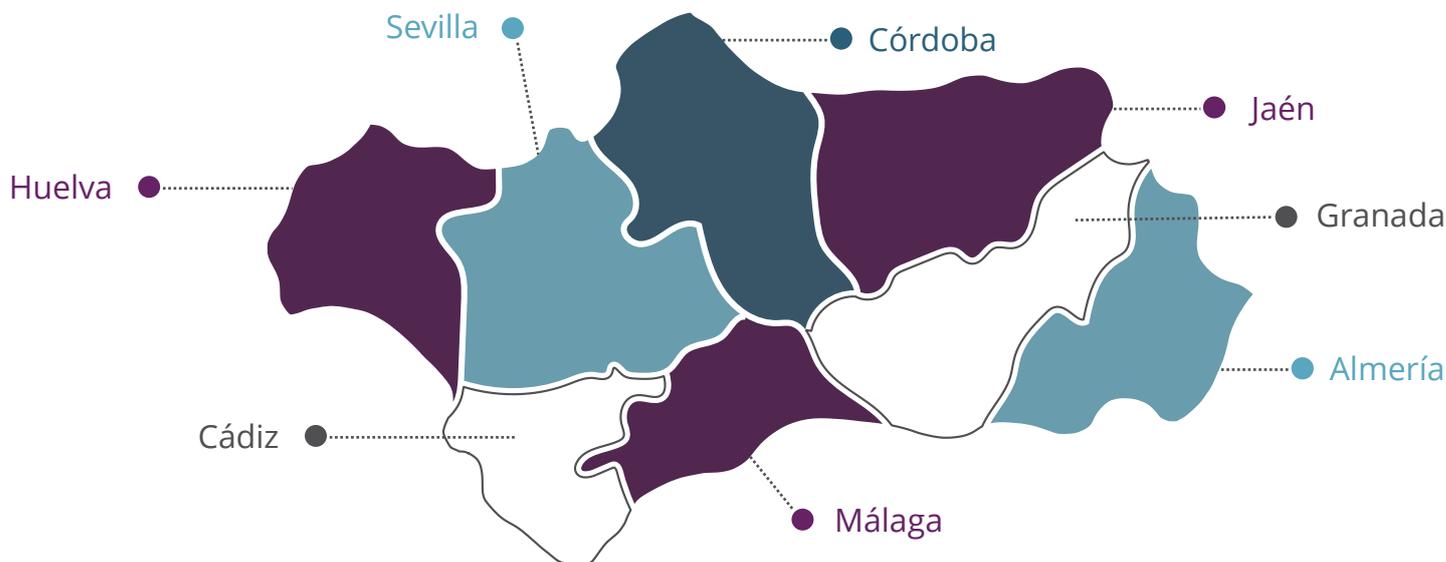
ANDALUSIA, SPAIN

Industrial profile snapshot:

Whilst the main branches of employment activity are wholesale and retail trade, hotels and restaurants, public administration, and health and service activities, the industrial sector represents 20.2% of GDP and is dominated by textiles, industrial food processing, iron and steel, naval machinery, and engineering.

Examples of SME supporting programs:

The region's structural resources are complemented by the National government's investment in research and development.



AMSTERDAM, THE NETHERLANDS

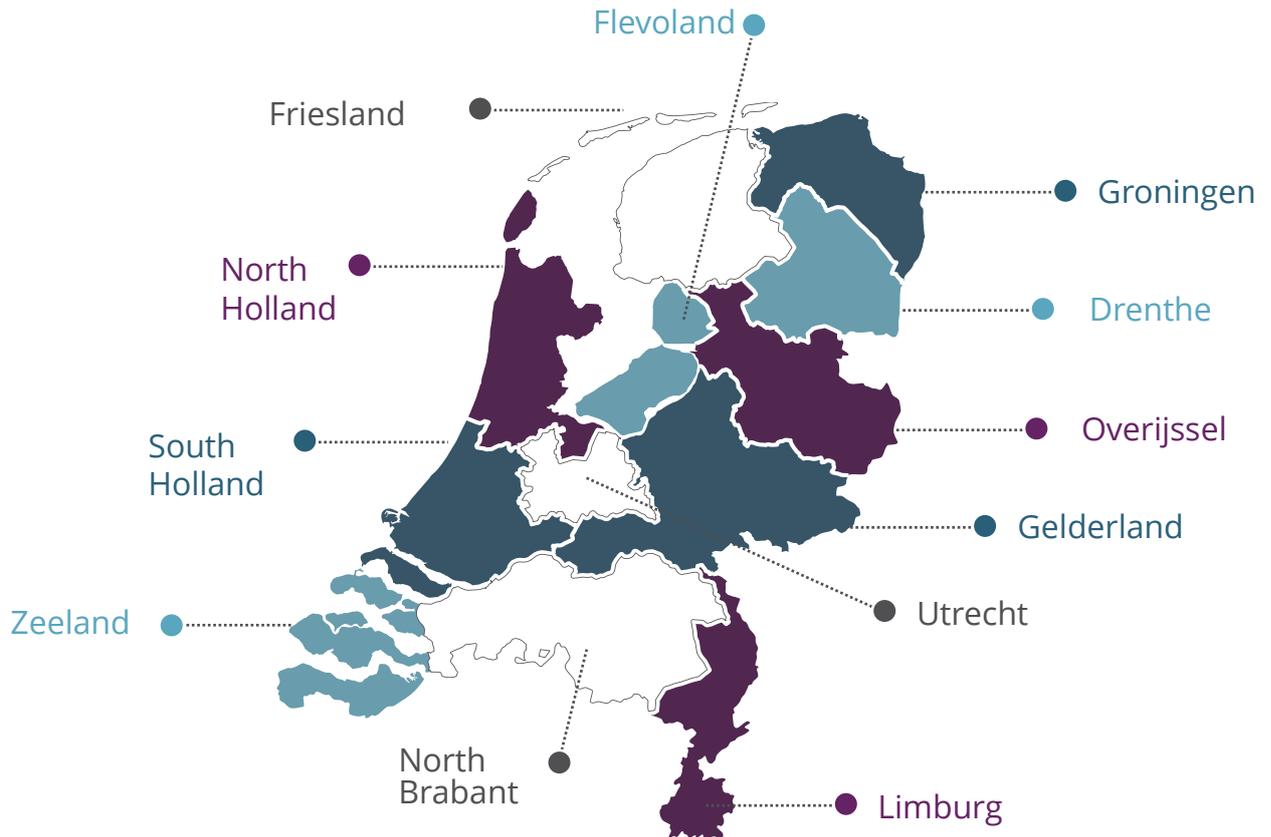
Industrial profile snapshot:

The region is divided into two economic areas:

1. 'North' - a focus on innovative agriculture and horticulture, maritime and offshore industries, energy, life science, health, and water.
2. 'South' (the metropolitan area of Amsterdam) - specialized in IT & media, creative industry, logistics, food and flowers, finance, and tourism.

Examples of SME supporting programs:

Supporting networks from which entrepreneurs and SME business owner can benefit including: Greenport North Holland, [Seed Valley](#), [Smart Industry Hub Northwest](#), [TechValley](#) and others.



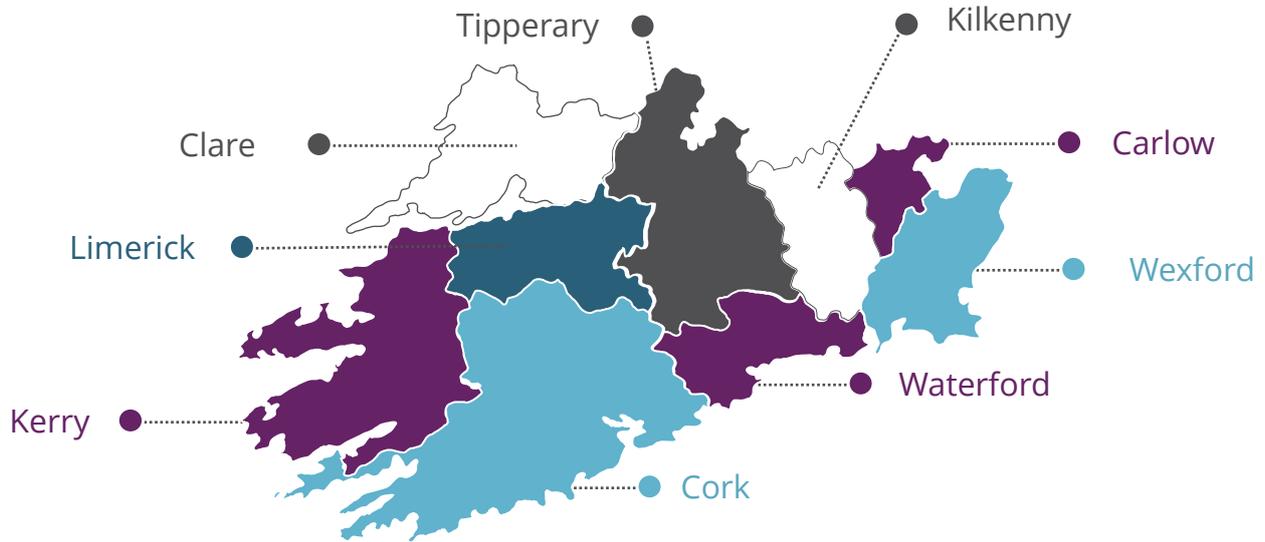
SOUTHERN IRELAND

Industrial profile snapshot:

The region is characterised by multi-nationals in a major pharmaceutical/ biopharmaceutical industry cluster as well as companies in Med-Tech, Information Technology, polymer technology/ plastics, building products and engineering manufacturing & robotics.

Examples of SME supporting programs:

The National government adopted a range of strategic plans and initiatives to support engineering manufacturing (e.g., Project Ireland 2040, Enterprise 2025, Future Jobs Ireland etc.)



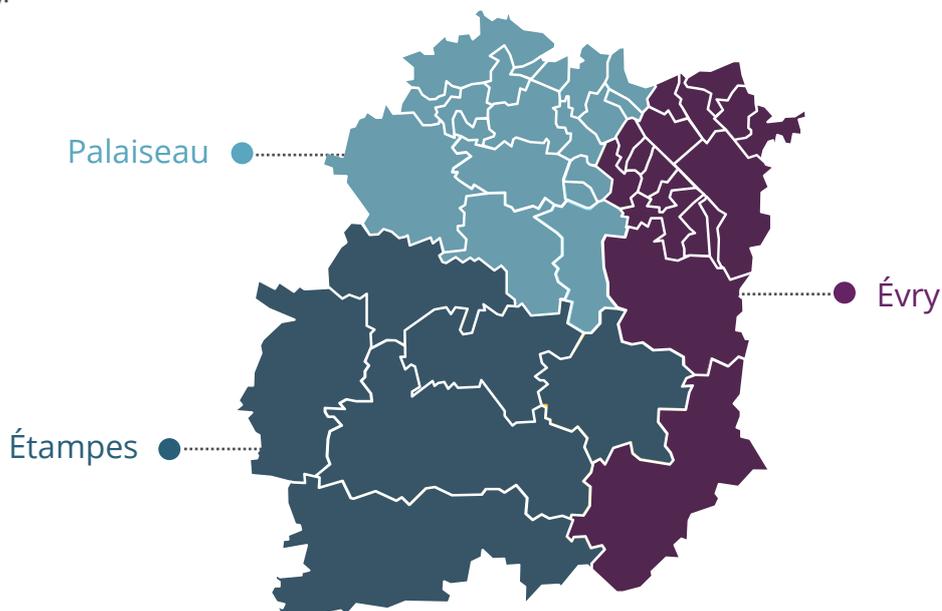
ESSONNE & ILLE DE FRANCE

Industrial profile snapshot:

The local economy is varied from manufacturing of navigation aid equipment, electronics components, and aeronautics, to agriculture and including logistics, construction, freight, and new technologies (robotics, virtual or augmented reality, sensor and software networks, data processing and other digital technologies).

Examples of SME supporting programs:

Ile de France (greater Paris region) will invest 2 trillion euros throughout 2021 to 2027 on education, healthcare, green growth, housing to permit job access and growth.



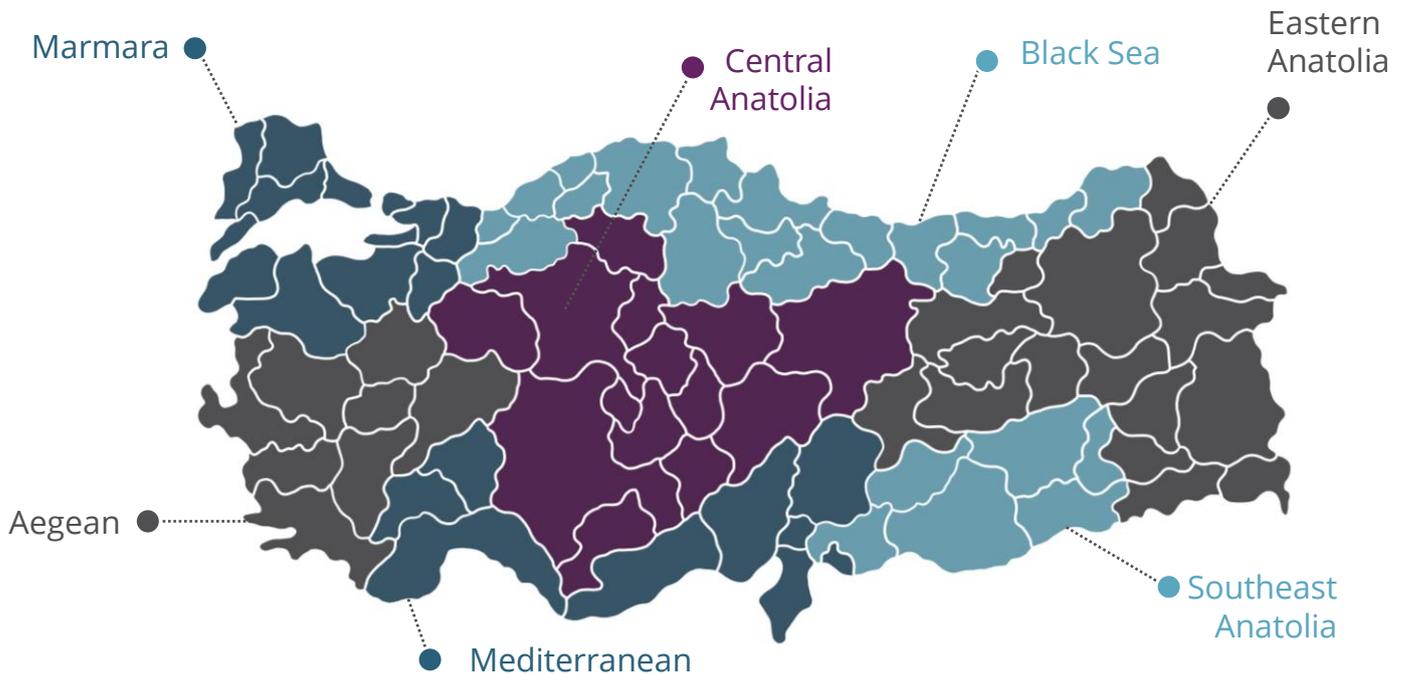
TURKEY

Industrial profile snapshot:

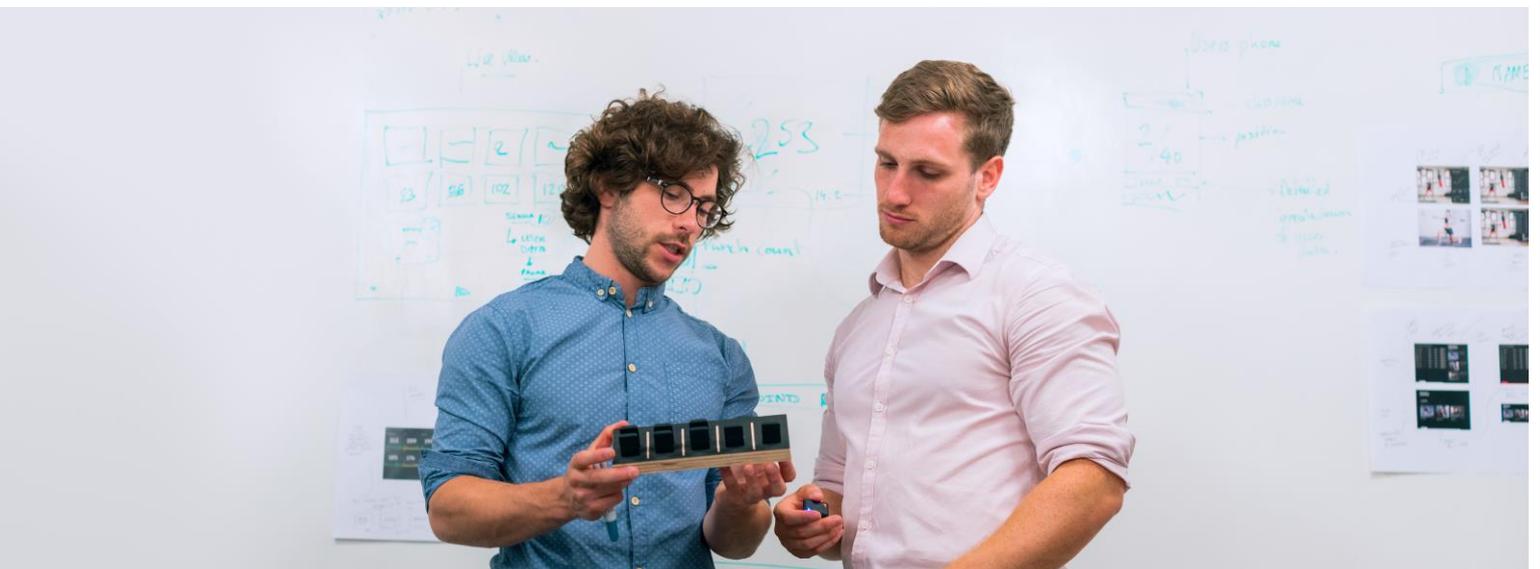
Turkish business context is dominated by SMEs. Turkish SMEs account for 40% of total output, comparable to other countries, with manufacturing accounting for 13% and construction accounting for 5%.

Examples of SME supporting programs:

Numerous organizations are established to promote innovation, including the Directorship for Small and Medium-Sized Enterprises (KOSGEB), the Directorship for Technology and Innovation Assessment (TEYDEB), and the Technology Development Foundation of Turkey (TTGV). The Turkish government's KOSGEB has established numerous policies to help SMEs improve their competitiveness by allowing them to expand their research and development and innovation capabilities.



DOWNLOAD the seven individual Regional Growth Needs Reports here: [Resources - SME Cluster Growth](#)





UNIVERSITY BUSINESS ENGAGEMENT THROUGH THE LENS OF A LARGE UNIVERSITY – THE UNIVERSITY OF BOLOGNA

By **Silvia Vecchi**

Head of University-Business Collaboration Unit
University of Bologna



UNIVERSITY BUSINESS COLLABORATION & READINESS TO ENGAGE

For a large university such as the University of Bologna (UNIBO), readiness means having the essential operational tools and the crucial human resources. There has to be a structured interface that enables engagement between university and businesses, a legal framework and collaboration models that suit business needs. Moreover, human resources within the university itself, both professionals and faculty, have to be educated for collaboration.

Nowadays, a culture of co-operation within the university is necessary to guarantee good University-Business Collaboration (UBC) engagement rates with external stakeholders. A new mindset that goes beyond the simple idea that UBC is necessary, but still not always relevant from an academic point of view, and therefore perceived as a waste of time. Sometimes, within faculty, there is an underlying belief that collaborating with business means that academics subjugate themselves to market needs. This, on the contrary, does not happen with other societal actors, that are seen as nearer to the university mission because of their not-for-profit nature. Part of our role, as UBC officers, is to make things easier and encourage a culture of open collaboration.

MOTIVATION FOR COLLABORATION

Motivation for engagement for a university is still driven by impact of the first and second missions of the university, which are research and education. For this reason, universities look at businesses mainly for opportunities to collaborate in education, research, and corporate training (a sector where we see a large increase, that often turns into other types of collaboration too)

The most common ways universities and businesses collaborate for educational purposes are internships and seminars. However, there is a clear tendency towards new paths, that are still not fully exploited or are not explored yet., These include business challenges as part of a teaching class, including external actors into co-designed education program planning and inviting business professionals to contribute as teachers themselves. Universities, in our context, are not fully ready or able to quickly adapt to such a “deep contamination” in education but, part of our job is to support the university as a whole to improve and reach these new goals.

Most of our professors are, and have always been, strongly motivated to collaborate for research both to attract external financial resources from industry, or through joint participation in competitive funding programmes and to validate their research outcomes through real-world application environments. A university such as UNIBO is ready for national and international research and innovation calls (EU funds) or to provide research consultancies.



However, we are still missing many opportunities in the career development path for PhD students, because high profile companies are still not fully aware of what is available to them.

From the business perspective, companies are interested in engaging with universities for these main reasons: they seek to hire new talent, and (advanced) solutions to their technical issues. Therefore there is a focus on student involvement and recruitment, but they still tend to ask for sponsored research projects.

It is important to consider that engagement does not occur easily. Universities and businesses must be aware of the possible inhibitors to engagement. Often there is a misalignment in timing and expectations: the amount of time required for a university to reach the goal or just to organise the project is different from the business one; the technology readiness level of the university research/solutions is not always up to business needs. Sometimes companies ask universities to develop "research" projects when they just need a good engineering consultancy. From experience, collaboration could also fail early on if a business gets in touch with the wrong intermediary within the university, and the university fails to redirect industry to the correct partner agent. This is the main reason why spanning agents such as UBC officers are crucial to forming good relationships.

UNIVERSITY RESOURCES AND STRATEGIES TO BETTER ENGAGE WITH BUSINESSES

Universities need collaboration models that are flexible enough to suit the different scenarios and the different business types (large companies, medium and small enterprises). They have to pursue strategies that push long-term relationships (strategic partnerships) through shared goals, defined leadership and flexible contractual models that suit different collaboration needs. Particularly with some types of businesses, the contractual frameworks should consider the trade-off between public universities' restrictions and the business' needs.

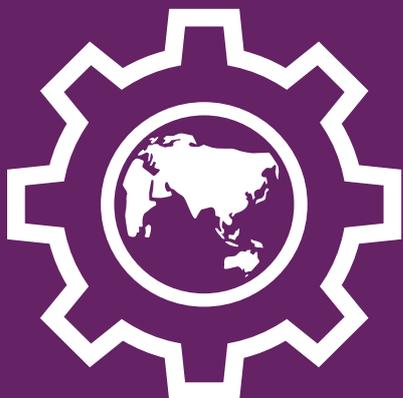
There are many activities that a university can promote to enhance engagement at different levels: student involvement through open innovation initiatives; support to academics' entrepreneurial interest with a broader focus than just business engagement; definition of institutional incentives for UBC, definition of IP policies able to fit both university and business needs; definition of tailor-made corporate training models, especially in technical and technological fields.

The availability of physical spaces in which universities and businesses can work together, share activities, and get to know each other, is a resource that is often underestimated. These spaces always allow interaction and cross-fertilisation. Last, but not least, a good communication strategy is essential. Some European universities are setting targeted communication channels and content that boosts UBC activities and are getting back good results in terms of impact.

HOW TO SUPPORT SME GROWTH

By Katerina Salmi, Crazy Town

What if your company had at its disposal several external experts offering their insights on how the company can achieve its planned growth for free? This unique Runway to Growth method, developed at **University of Jyväskylä** by **Marko Seppä**, a **Professor of Business Growth**, has been used by the leading Finnish SMEs development and growth ecosystem platform and a nationwide business sparring programme, Kasvu Open to accelerate companies' growth for over 10 years.





RUNWAY TO GROWTH

Every year any company, regardless of their turnover or field, yet interested in growth can apply for the Runway to Growth Sparring Programme (Kasvupolku®). If selected, the company undertakes a series of sparring sessions with external experts in areas such as marketing, financing, internationalisation, and foreign business over a period of six

months. The Runway to Growth Sparring Programme culminates in a nationwide open event for participating companies called Kasvu Open Karnevaali where the growth companies of the year are selected. Engineering and manufacturing SMEs are represented in the programme every year.



MANUFACTURING SMES' CHALLENGES OF GROWTH

When it comes to the manufacturing sector in Finland there are few specific challenges to growth. Manufacturing is not a very popular field of study, therefore very few people apply to study it. Raising the profile of the sector would be beneficial, especially since one industrial workplace produces an average 2.5 workplaces elsewhere (such as in various service and maintenance companies). Also, engineering SMEs

experience a considerable gap between export know-how on one hand and export need on the other hand. This is caused by the fact that in Finland large, strong flag ship companies use engineering SMEs as their subcontractors. Consequently, these SMEs did not have to think about international growth because the flagship company is a reliable partner that provides a safe way to grow.

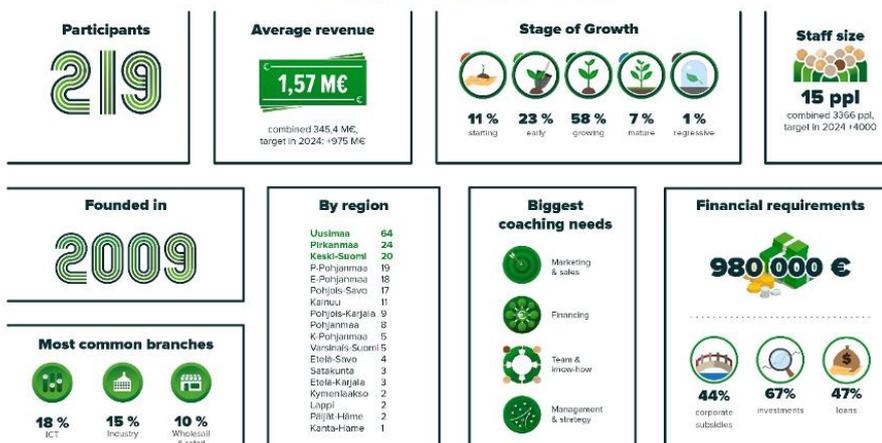


KEY SUCCESS FACTORS FOR SME GROWTH

According to the CEO of Kasvu Open, Jaana Seppälä in the Finnish context SMEs usually grow organically - moderately and using cash flow, at least up to the turning point such as the change of key personnel begins or other external factors (such as pandemics). Based on Kasvu Open's poll conducted among 219 Finnish companies in spring 2021, companies aim to grow by acquiring new customers, recruitment, investing in sales and marketing or by undertaking various development

measures to find new business partners. Seppälä pinpoints that the key success factors are listening to the customer's needs instead of product development solely, being open to feedback and assistance and using networks actively. Also, if a company creates added value from adapting their business model to global megatrends (such as digital business, circular economy, energy saving, or environmental issues), it has a strong opportunity to grow.

Kasvu Open participants 2021



Jaana Seppälä
CEO at Kasvu Open

MANY CHALLENGES AHEAD FOR A COMPETITIVE ENGINEERING SECTOR



By Kevin Fitzgibbon

Munster Technological University

Kevin Fitzgibbon, the Science and Engineering faculty representative with Munster [Technological Universities' \(MTU\) Extended Campus](#) in Ireland, spoke with several experts from the Irish engineering SME sector to inform the [SME Cluster Growth](#) research project. MTU are working with eight European partners on this project aimed at empowering SMEs in the engineering sector to ensure their development and growth. These expert interviews provided deep insights into factors affecting growth, growth strategies, transformations, main motivations and challenges, key success factors, cooperation for growth, cooperation with universities and training needs. Below is a brief snapshot of some of the main challenges facing this sector in Ireland today.

The Irish manufacturing engineering sector like many sectors struggles with recruitment and retention of skilled staff, especially given the allure of large multinational companies. Most companies saw University graduates as potential employees, with many having accessed Masters students and PhD candidates for placements leading to successful employment. The majority of companies interviewed feel constrained in their growth potential due to difficulty accessing high quality people in areas such as management, marketing or IT. Due to the fast-paced technological development within this sector upskilling staff is a continuous challenge, with only a few accessing Universities for training, instead choosing to train inhouse.

Changing the company's management structure was viewed as an essential but expensive experience, with most companies accessing external support to undertake this process. Many found advice on team management, communication, IT systems and marketing extremely beneficial for the growth of the company. Most had accessed one or many of the

supports available from [Enterprise Ireland](#); [funding supports](#), [exporter development advice](#), [research, development and innovation supports](#), [management development and strategy advice](#) or [events](#). While many praised the support, guidance and funding provided by the organization they also identified paperwork, inspections, and time commitment as distinct obstacles to accessing further supports.

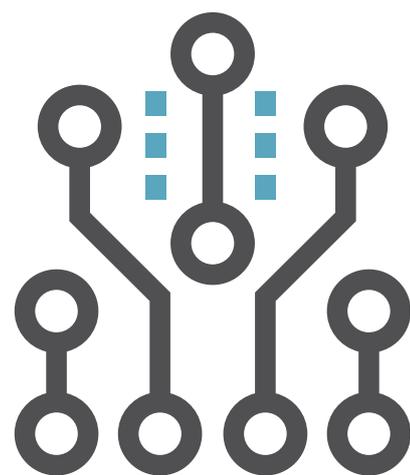
Each company interviewed has diversified their product and service range over the years, many due to customer requests, export opportunities or lessons learned from the global recession. The recession significantly affected all companies leaving behind a legacy of caution and fear of long-term planning which could constrain potential growth. Another dramatic shock to the system, Covid 19 has negatively impacted the majority of companies although most praised the government subsidies as crucial to retaining staff and being able to bounce back quickly. Brexit has affected each company in different ways, but many are seeing potential opportunities in new markets and increased domestic demand.





This sector is very capital intensive with companies making significant annual investments on machinery to stay current, hence accessing finance was viewed as labour and time intensive. Collaboration and Clusters are limited within this sector, but each person interviewed could see the potential benefits, commenting that 'unfortunately everyone was seen as competition' but that they would like to collaborate more. Those collaborating and in Clusters were extremely positive about the comradery, support, access to expertise and the accumulative benefits to tendering for large projects.

Most companies interviewed had not invested in digitalization or automation yet due to fears around upskilling staff, access to finance and awareness of the potential applications for their business. This is the largest challenge going forward for this sector; at present Ireland has the second lowest density of robots in the EU15 (behind Greece) and as one expert said, "if you're not investing in automation, you're not going to be supplying a multinational in ten years' time as they can't afford to have you in their chain".



SME CLUSTER GROWTH TRAINING AND MOBILITY PROGRAMME

By Katerina Salmi, Crazy Town

With the support of all consortium partners, **Crazy Town** has been working on the framework of the **Training and Mobility Programme** since autumn 2021. Although the programme design is in progress and will be ready in a couple of months, we can offer you a sneak peek at what's to come.

The main goal of the Training and Mobility Programme is **to support engineering SMEs** in innovation and growth by



equipping them with the skills and knowledge they need for growth



assisting them in developing a growth strategy to implement in their organisations



providing them with tools and a network platform to expand their reach

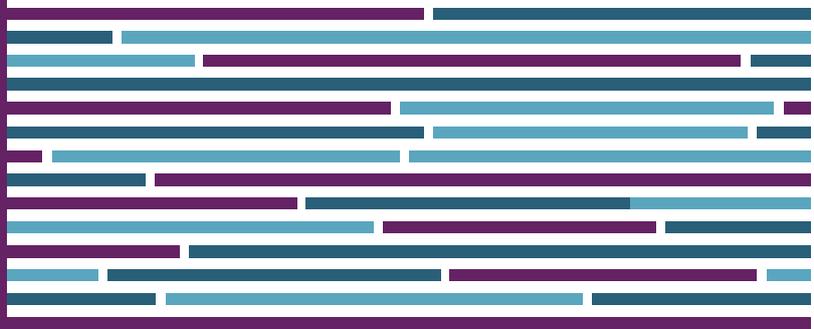
“

It might not come as a surprise that soft skills such as strategic thinking, emotional intelligence, communication, collaboration, and creativity were highlighted as some of the main ones.

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Katerina Salmi
Crazy Town



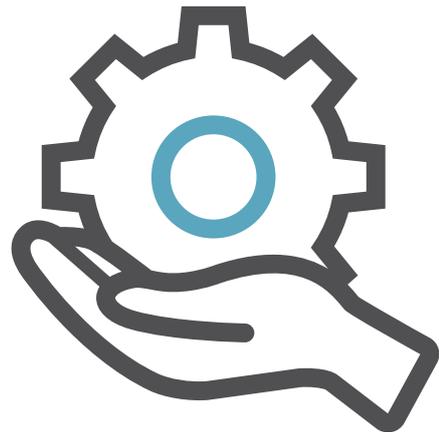
The programme combines different forms of learning - traditional (top-down learning), peer-learning and applied learning (learning by doing). It includes various learning formats such as masterclasses, boot camps, training sessions, mentoring and digital platform interaction, all designed to fit engineering SMEs' needs and time resources.

The training scheme has been developed drawing from the findings of the previous extensive investigation that revealed - among others - what future skills are crucial for engineering companies to obtain in order to initiate and accelerate innovation and growth. It might not come as a surprise that soft skills such as strategic thinking, emotional intelligence, communication, collaboration, and creativity were highlighted as some of the main ones.

All the skills and themes were carefully analysed and starting in autumn 2022, over a period of six months, the programme will offer engineering SMEs training modules in sustainable growth, collaboration with ecosystems and clusters, going international, engaging with universities, financing growth, and understanding the value of knowledge and talent.

The programme has several unique features. With leading universities from five different European countries involved, the programme provides

engineering SMEs a comprehensive insight into engaging and collaborating with universities and ecosystems to foster growth. Moreover, networking and collaboration with other businesses go beyond the country borders. Participating SMEs are encouraged to take part in the virtual mobility and get to know their counterparts from Spain, Italy, Ireland, France, and Turkey.



MEET THE PARTNERS

The University of Bologna is based in Bologna (UNIBO), the main city of the Emilia Romagna region, one of the richest economic and research and innovation led areas in Italy. The university is based on five campus areas and has an international presence in Buenos Aires, strong connections with China, SICES Centre at Tongji University, and in New York with the Tata Innovation Center - Cornell TECH.



Founded in 1088, the university is the first home of free teaching, independent from ecclesiastic schools. Irnerio's law school marks the birth of Western universities. Through the centuries the institution and its main activities have developed and spread from the very first scientific areas, to become the second largest university in Italy, highly internationalised and strongly linked with the regional and national research and innovation ecosystem.

With over 88,000 students, the University of Bologna has the highest number of exchange students in Europe and in Italy it ranks highest in terms of the number of students studying abroad and of study grants awarded in the Erasmus+ programme. Over 2,800 teaching staff and around 3,000 administrative staff, support the deployment of all teaching/education, research based and third mission activities.

UNIBO coordinates or participates in over 70 education and training projects funded by the EU under the Erasmus+ Programme. The university invested a lot in supporting participation in European programmes at both a strategy and implementation level. The strong and highly specialised administrative support, the high-quality research outputs, and expertise as well as the multidisciplinary profile of the institution, allows high rates of participation in international projects.

UNIBO are among the first universities at national level having a structured University Business

Collaboration Unit, supporting the university strategic vision towards business relations, and facilitating cooperation with industrial partners across disciplines. The university itself has invested in planning and delivering support to external partners, as well as internal actors, during the last six years. Within the project partnership UNIBO are strongly positioned to engage with regional relevant stakeholders, leverage SMEs and develop training, exchange, and networking activities to support them.

Thanks to the partnership with UIIN and other project partners, UNIBO were involved from the proposal stage of the SME Cluster Growth project. UNIBO scientific coordinator, Prof. Rosa Grimaldi, supported by Dr. Herica Righi, was involved from the start as expert in the management area. She suggested University Industry Collaboration Unit join the team, given the relevance of engagement with industry: Silvia Vecchi, Valeria A. Carpenè and Elisabetta Marano, are focusing on translating strategy into action. Within the project, UNIBO are leading the pilot testing of the Student SME Consultancy Programme and the Change of Perspective Programme. Piloting of the two programmes will involve decisions taken by the University of Bologna in coordination with the other partners concerning planning, implementation, and assessment of both programmes. UNIBO look forward to planning this strategy and implementing it into the project with student and staff members in 2022.



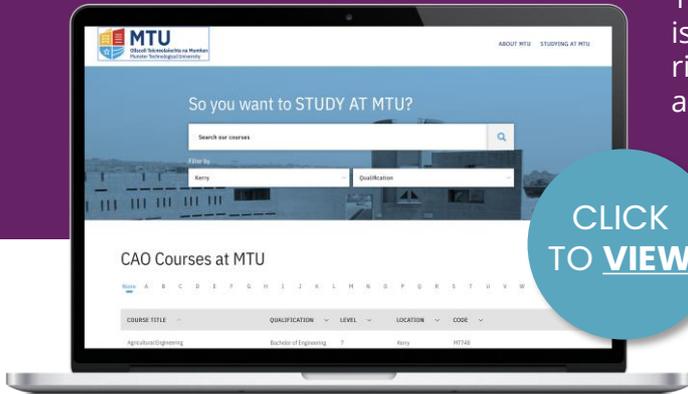
UNIBO science building, photo by Salvatore Mirabella



ALMA MATER STUDIORUM  UNIVERSITÀ DI BOLOGNA

MEET THE PARTNERS

We are **Munster Technological University** (MTU), a new university established in 2021 combining Cork Institute of Technology (CIT) and Institute of Technology Tralee (ITT). We're a vibrant, multi-campus technological university located in the scenic Southwest of Ireland with an extensive regional footprint across Cork and Kerry, a student body of 18,000 and employing over 2,000 staff. MTU is situated in a region of Ireland particularly rich in Irish culture, language, music, and the arts in a uniquely beautiful environment.



MTU boasts one of the largest [engineering schools](#) in Ireland and our [Mechanical, Manufacturing and Biomedical Engineering](#) students have a rich history of success in national and international competitions. Leading and partnering in EU projects is an important part of MTU's work, increasing our network of international contacts, funding new research and opening up new horizons and development opportunities for staff and students.

The [Extended Campus](#) at Bishopstown in Cork is leading the [SME Cluster Growth](#) project for MTU. Launched in November 2011, the Extended Campus (EC) was established as an interface or facilitator, to create and support links between CIT, enterprise, and community groups. The EC aims to make it easy for external organisations to connect with the University, in many different ways, for the benefit of the organisations, students, and society. EC acts as the Front Door for organisations to the university, collating business intelligence on existing and new engagements, driving strategy and good practice in interactions, and contributing to scholarship on engagement both nationally and internationally.

Working with external partners on research and innovation projects has helped MTU have a real economic and societal impact, particularly in our

local regions. In addition to the [Rubicon](#) our successful incubation centre, we have several impactful research groups including [NIMBUS](#) focused on embedded systems and the Internet of things, as well as [CAPPA](#) which is a centre for photonics research; both of whom work closely with industry.

As part of the SME Cluster Growth project, we have conducted Case Study interviews of experts from the engineering manufacturing sector, and an industry survey into companies' growth in our region. We have established a new Cluster Growth Council to assist us. MTU's role in the project also includes leading the design of a student-industry exchange programme to increase cross-sectoral awareness of the benefits of collaboration.

MTU is currently working on several projects aiming to positively impact the rapidly transforming manufacturing sector in Ireland, including the SME Cluster Growth project, and we are delighted to be a partner in this important endeavor.



Munster Technological University

MEET THE PARTNERS

The name **Istanbul Technical University (İTÜ)**, one of the oldest technical universities in the world, has become closely associated with engineering and architecture education. İTÜ provides undergraduate education with 67 programs in five different campuses, 13 faculties, one conservatory, and graduate education in seven institutes located in the centre of Istanbul. The university has more than 400 laboratories and 17 research centres. İTÜ is a world leader in accreditation, with 25 accredited engineering programs from ABET.



İTÜ is home to science-industry-technology with more than 2,500 research and development projects carried out in its science park, ARI Teknokent. It can boast many firsts. The first cube satellite, the first electric minibus, the first hydrogen-powered boat, the first self-driving automobile, and the first domestic computer were manufactured at İTÜ. Turkey's first television broadcast was aired from İTÜ, and the first university radio was founded by İTÜ.

İTÜ Centre for Entrepreneurship and Innovation (İTÜ GİNOVA)

İTÜ GİNOVA was founded in 2014 to inspire entrepreneurship and innovation culture in the campus; it aims to enhance multidisciplinary working habits and expand university-industry collaboration.

The centre has been offering entrepreneurship and innovation training programs, where the focus is on improving the entrepreneurial skills and diffusing the entrepreneurship mindset. These programs have been co-created and conducted in collaboration with external partners, such as Workinlot (a platform for open innovation); KoçSis (a large IT company); String Ventures (a seed fund); Gooinn (a consulting firm for innovation) and Organik Kimya (a leading chemistry company). In addition to these training programs, İTÜ GİNOVA hosts inspiring events such as Startup Huddle-Istanbul and Tuesday Talks. Partnering with İTÜ Student Entrepreneurship Club, Failure Week is

another event organised to inspire students towards entrepreneurship.

İTÜ is leading the SME Cluster Growth project Evaluation, co-ordinating the activities of all other partners, creating the Impact Evaluation Strategy, building evaluation, monitoring the quality of results and outputs of relevant project work, giving feedback and comments on the proposed evaluation methods, and creating a final evaluation report. Under the assessment strategy created by Istanbul Technical University (İTÜ) it will detail indicators for evaluation of the four major parts:

- Evaluation of the impact of the SME Cluster Mobility and Training Programme
- Evaluation of the impact of the Student SME Consultancy and Change of Perspective Programme
- Evaluation of the impact of the Valorisation and Capacity Building activities
- Assessment of dissemination and exploitation activities.

In addition to the SME Cluster Growth Project, İTÜ GİNOVA is the coordinator of STEM Valorisation Programme and a partner in two other Erasmus+ projects: Spanning Boundaries and WeRIn (Women Entrepreneurs in Regional Inclusive Entrepreneurial Ecosystems).



Alper Yurttaş
İTÜ



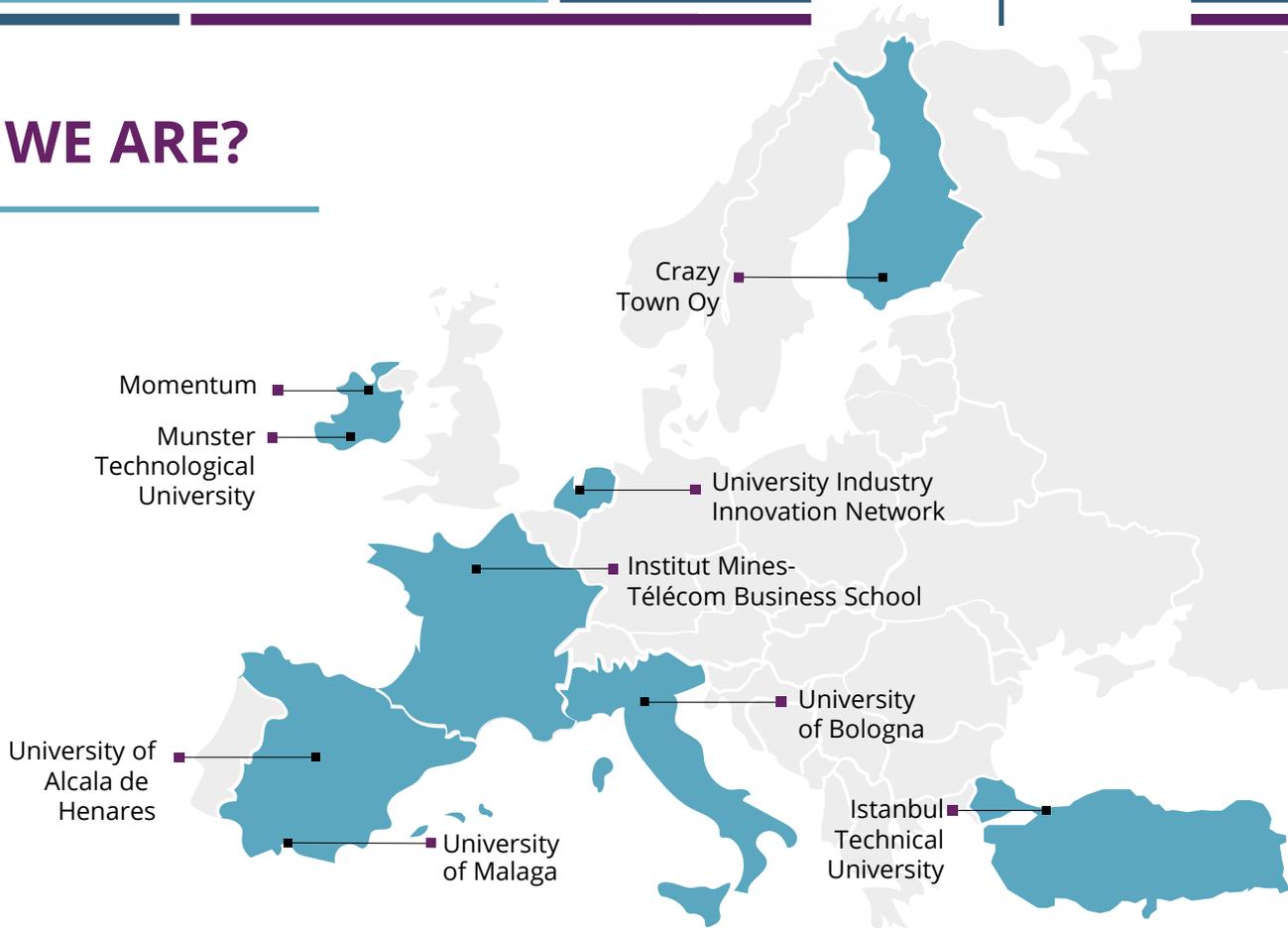
Şebnem Burnaz
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Zeynep Erden Bayazit
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WHO WE ARE?



Follow our journey here



www.SMEclustergrowth.eu



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