

Supporting SMEs in engineering to **innovate & grow**



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www.SMEclustergrowth.eu



Engineering remains a dominant knowledge sector in the EU. There is an important link between a **country's engineering capacity** and its **economic development**.

SME Cluster Growth is an ERASMUS+ Knowledge Alliance project to empower SMEs in the engineering sector to grow and compete. By focusing on cross-border engineering business cluster development, we enable synergies across regions, reach international markets, adopt new technologies, and support mutual learning.

Our SME Cluster Growth team, led by the University of Málaga, Spain, spans nine partners across seven European countries. It is an ambitious collaboration with higher education institutions (HEIs), future skills and business growth professionals and university-industry relationship experts to advance engineering SMEs' operational, attitudinal, and adaptive capacities.

Why SME Cluster Growth ?

SMEs constitute 99% of the European business arena and provide employment opportunities to around 94 million people. However, SMEs, face obstacles to growth, including finding customers, competition, shortage of skilled staff or experienced managers, limited access to information and intellectual property rights (IPRs)

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You cannot have an **economy** without **engineering...**

Professor Calestous Juma Hon FEngFRS,
Harvard Kennedy School

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TEAMWORK

COMMUNICATION

TEACHING

LEADERSHIP

ENTREPRENEURSHIP

INTERDISCIPLINARY

“T-shaped skills” is seen by many as the Future of Work. The vertical bar on the letter T represents the depth of your skills and expertise in a single field, whereas the horizontal bar is your breadth or ability to collaborate across disciplines with experts in other areas and apply knowledge to areas beyond your primary field.

A T-shaped scientist and engineer by Dr. Nirmala Kannankutty, Deputy Division Director of the Division Graduate Education at the U.S. National Science Foundation, presented at Vitae Researcher Development International Conference 2017

SPECIALITY

Localised clusters and networks are powerful drivers of SME innovation success. SME Cluster Growth is designed to align the interests of growth-oriented SMEs with an engineering focus together with the regional actors able to support that growth through research and talent provision and access to facilities and knowledge networks. We adopt a cross-regional and cross-cluster approach to business innovation and growth and contribute highly innovative and beneficiary-led deliverables.

YOU WILL BENEFIT THROUGH



MAPPING AND SPOTLIGHT ON ENGINEERING CLUSTER GROWTH NEEDS

- Deep dive into the needs of 60+ engineering SMEs across six regions (Malaga, Alcalá de Henares, Bologna, Cork, Istanbul, and Paris).
- Good Practice Collection of 65+ case studies of SME engineering growth experiences that focus on growth pathways will serve as a transferrable knowledge resource for SMEs.



GROWTH

Cluster Growth Councils

6 Engineering Cluster Growth Councils, based in consortium cities and surrounding regions (Malaga, Alcalá de Henares, Bologna, Cork, Istanbul, Paris), will each develop a collaboration network and culture for joint innovation in their partner regions. Each Council will include 15+ members from HEIs, SMEs, startups, local/ regional venture capital firms, entrepreneurship centres, and accelerators working for cluster growth through community-building events and facilitating the launch of cross-border and cross-sectoral network building mechanisms.



LEARNING

SME Cluster Growth Mobility & Training Programme

- Designed as an interactive resource to help European businesses assess their management practices, identify bottlenecks and plan actions towards growth, regardless of their sector areas.
- Training modules will span (i) change management, (ii) business model innovation, (iii) entrepreneurial mindset, (iv) capital and (v) internationalisation
- A group of 60 SMEs will benefit from capacity building workshops focusing on change management, business model innovation, entrepreneurial mindset, capital and internationalisation, peer learning and cross-border hot desk schemes.
- Online growth self-assessment tool for SMEs will be a crucial source for SME representatives across Europe to identify their particular challenges and refer to linked pathways for support for their growth challenges.
- Mobility and Training Programme Toolkit will assist HEIs and relevant agencies to run similar programmes in their regions.



CONSULTANCY & PRACTICE-BASED LEARNING

Student SME Consultancy

We will match 24 MA & PhD students with SMEs to conduct in-house research and 24 BA students to take up business challenge projects in the areas facilitating cluster growth.

Change of Perspective Programme

Exploring more strategic partnership opportunities between SMEs and academia, 6+ academics and 6+ business professionals will exchange their workplaces for a day to experience a different environment.



FACILITIES SHARING

Hot desk Exchange Scheme

Cross-border network support structures in science parks and business organisations in the form of hot desks, university access points, and facility sharing for SMEs to explore growth opportunities in Almacube (Bologna, Italy), SmartCityCluster (Málaga, Spain), Rubicon Innovation Centre (Cork, Ireland), Ari Teknokent (Istanbul, Turkey), IMT Starter Incubator (Paris, France) and The School of Entrepreneurship Incubator (Madrid, Spain) with input from the business partners and regional Cluster Growth Councils.

Guidelines for the hot desk exchange scheme will ensure a structured and quality programme to be offered to participants and replication of the model in other contexts.



Engineering SMEs will benefit by

- Using a cluster approach to growth through new knowledge and skills, while receiving mentorship and expanding networks through a SME Cluster Growth Mobility and Training Programme.
- Exploring new perspectives, business models and cooperation opportunities for growth.
- Tapping into regional and international business cluster resources to access strategies for growth.
- Gaining opportunity to exchange ideas and learn from best practices, multidisciplinary collaboration, and participation through international events.
- Cost-effective consultancy projects as students can help SMEs develop innovative solutions to existing problems.
- Exploring more strategic partnership opportunities with academia.



Higher Education Community will benefit by

- Having access to reliable resources to improve their teaching practices and expand their offerings to student entrepreneurs.
- Accessing new pathways for collaboration with businesses. Increased connectivity with SMEs from the engineering sector in partner locations will allow for new collaboration opportunities.
- Introducing additional work-based learning and project-based learning methodologies to their classrooms to increase entrepreneurial skills and employability by engaging them with the SMEs growth challenges within consultancy schemes.
- Gaining a better understanding of regional needs for growth scale-up ecosystem via close interactions with stakeholders during events and develop regional networks.
- Strengthening external engagement and their role as regional leaders in fostering regional innovation ecosystems, shape internal structures and open doors for future collaboration.



Students will benefit by

- Enhancing their employability and be better prepared for their entrepreneurial careers with improved competencies.
- Opportunities to develop solutions to a real problem for an SME and get exposure to the world of practice.
- Using training modules to develop their entrepreneurial mindset and necessary transversal skills and attitudes.



Regional government/ intermediary organisation/ venture capitalists/business consultants and investors will benefit by

- Better understanding the business ecosystem in their regions, to make informed decisions regarding the financial and infrastructure support they provide to growing businesses.
- Access to a replicable growth stimulus programme and innovation-driven, outward-looking engineering ecosystem

Who are we

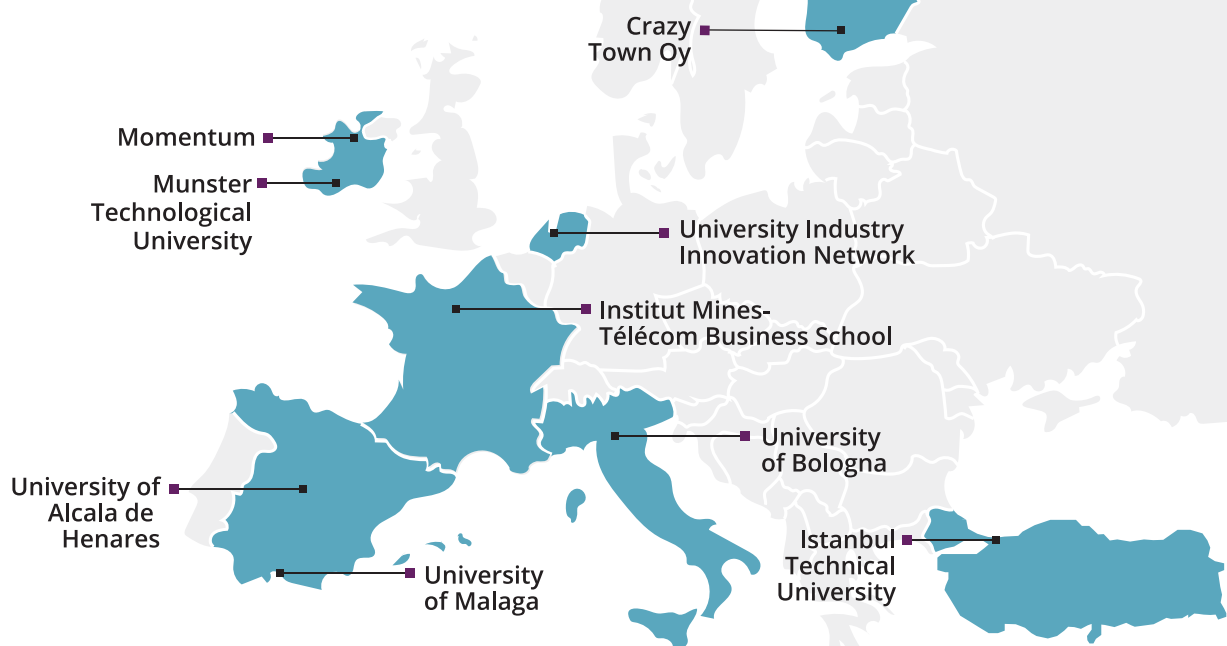
Consortium partners:

HEIs: Institut Mines-Télécom, Munster Technological University, University of Bologna, Istanbul Technical University, University of Malaga, University of Alcala,

Business Professionals: Crazy Town

A VET Service Provider: Momentum

A University Industry Network: University Industry Innovation Network



UNIVERSIDAD
DE MÁLAGA



Follow our journey here



www.SMEclustergrowth.eu

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