

EMPOWER MAGAZINE

—
S M E
 CLUSTER
 GROWTH
 EMPOWERED ENGINEERING
 —



**A PARTICIPANT'S
EXPERIENCE**
 of our **Mobility &
Training Programme**

**SME CLUSTER
GROWTH
TRAINING &
MOBILITY
PROGRAMME**

**CONNECTING
CLUSTERS**
FACILITY SHARING

**STUDENT
SME
CONSULTANCY
SCHEME**



WELCOME TO THE SME CLUSTER GROWTH PROJECT NEWSLETTER!

Welcome to the fourth edition of EMPOWER, the SME Cluster Growth project magazine. Throughout this issue, we will show you the latest activities and programmes developed within the framework of the SME Cluster Growth project, as well as some examples of business growth in which we analyse the keys to their success.

Among all the activities developed, we highlight the project meeting held at the Link by UMA-Atech, the entrepreneurship centre of the University of Malaga. Nine members of the consortium had the opportunity to discuss and plan the actions that will be developed throughout the final year of the project. In this issue, you will also have the opportunity to see a sample of the Case Studies carried out in Spain.

We also feature many different programmes that are currently underway. First of all, we look at the results of the [SME Cluster Growth Training and Mobility program](#) in which participants share their experiences. Another milestone achieved in this period is the launch of the [Student Consultancy & Change of Perspective Programmes](#). The first consists of a module designed to be integrated into an undergraduate or postgraduate course in which students have the opportunity to collaborate with



SMEs to help them on their growth path. The second aims to provide opportunities for academic and SME representatives to exchange workplaces for a day. Finally, through the [Connecting Clusters](#) initiative we offer interested SMEs the opportunity to reach out to the six clusters created in the framework of the SME Cluster Growth project.

In addition, you will learn about Delmic from our partner UIIN, a Dutch company that aims to create powerful and easy-to-use microscopy systems for researchers. Delmic is a very interesting example of fast and successful business growth.

Another example of growth, analysed by Istanbul Technical University, that you will have the opportunity to learn about is Lumnion, a Turkish technology and consultancy company offering solutions to insurance companies based on data analytics.

We hope you'll enjoy this issue and continue to follow our progress.

**SME Cluster Growth Project
Consortium Members**



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MTU
Ceol-Scoil Chorcaí
Cork School of Music



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Connecting Clusters

By Samantha Carty, Momentum

Samantha Carty



November 2022, saw nine SME CG project partners from across seven European countries celebrate a successful get together to review almost two years of collaboration between engineering SMEs and HEIs. The transnational partner meeting of the SME Cluster Growth Project was hosted by [University of Malaga](#) at [Link by UMA-Atech](#), a meeting point for the university and companies.

The focus of the meeting was [Connecting Clusters](#) through the project's mobility and training program. Over the next few months engineering SMEs across Europe are invited to explore ways of connecting within our cross-cluster network of six destinations either virtually or in-person. The program allows engineering SMEs to explore opportunities for growth and connect with areas of expertise with access to science parks, business organisation to use facilities, hot desks, and university access points.

Online attendees from [Istanbul Technical University](#) and [Alma Mater Studiorum - Università di Bologna](#) were represented as well as in-person visitors to the sunny city from [University Industry Innovation Network \(UIIN\)](#), [Momentum Educate + Innovate](#), [Institut Mines-Télécom Business School](#), [Crazy Town Oy](#), [Munster Technological University](#) and [Universidad de Alcalá](#). A special thank you to [Ana Muñoz Fernández](#) from Link and [Marina Nadales Luque](#), Researcher at Chair of Sustainable Entrepreneurship - [Universidad de Málaga](#), and the lead partners for their very professional hosting and generous hospitality.

momentum
[educate + innovate]

SME Cluster Growth training & mobility program: a good starting point to get engineering SMEs sustainable growth

First impressions of the pilot testing

By Elena Garcia Barriocanal and Miguel Ángel Sicilia, University of Alcalá, Spain.

As a general rule, engineering small and medium-sized enterprises can benefit from access to practical information and hands-on experience in order to enhance their growth. This can include things like best practices for engineering processes, information on the latest tools and technologies, and advice on how to manage and grow a successful engineering business. Access to case studies (see example), academic papers and research can also be helpful, but it's often the practical information and real-world experience that can have the most immediate impact on an engineering SME's growth. One of the best ways to get this kind of information is by attending meetings to share knowledge and experience with other SMEs.



SME Cluster Growth project partners have started activities in their clusters and are organising bootcamps, masterclasses and training sessions to share **best practices and experiences** and also to invite speakers who can provide companies with **practical and useful information** about:

1. How to build sustainable growth
2. How to finance growth,
3. How to work with clusters and ecosystems
4. How to collaborate with universities
5. How to internationalise
6. How to use the value of knowledge and talent.

The University of Alcalá has complemented the training approach with information on the financial instruments and tools that SMEs can access and that can enable them to achieve sustainable growth. Thus, members of the National Association of Science and Technology Parks of Spain, the Export and Investment Section of the Ministry of Industry, Trade and Tourism and the National Centre for Industrial Technological Development, among others, have provided SMEs with practical information on how to access national and European funds to internationalise or carry out innovation projects, alone or in collaboration. Some companies that accessed these instruments have also shared their success stories and what their experience was like.

From the **constructive debate and exchange of views**, some **practical tips** have emerged. Here are a few of them:



- To work with clusters and ecosystems, it can be helpful to identify local organisations and networks that support small businesses in your industry. These may include business associations, incubators, and accelerators as well as the ecosystems of startups and spinoffs around universities. Participating in these networks can provide access to resources, advice, and potential partners and customers.
- To engage with universities, it can be helpful to reach out to relevant departments and research centres at nearby universities. Many universities have programs and initiatives that support collaboration with local businesses and can provide access to research facilities, expertise, and talent.
- To go international, it can be helpful to research potential markets and partners and to develop a strategic plan for entering those markets. This can include things like identifying potential distributors and customers, understanding local regulations and cultural differences, and developing a marketing plan.
- To finance growth, it can be helpful to research and compare different financing options, such as loans, grants, and equity investment. It can also be helpful to work with a financial advisor or business mentor to develop a financial plan and budget for your business.
- To utilise the value of knowledge and talent, it can be helpful to invest in training and professional development for your employees and to create a supportive and collaborative work environment. This can help to retain and motivate your team, and to ensure that your business is making the most of its knowledge and expertise.

The SME Cluster Growth training framework and the Cluster Councils founded in the project can play a crucial role in achieving some of the ideas outlined in the previous points. The mobility program included in the project's training framework can make it easier for SMEs in the clusters to meet potential partners to go abroad and/or find partnerships to work together on funded innovation project proposals. The project has also made available to SMEs a pool of international mentors to help companies establish their action plans in order to achieve their growth objectives along the lines described above.

SME GROWTH CASE STUDIES SPAIN

The **Spanish collection** includes **22 individual case studies**. Here are some highlights from three companies featured. [Download the full collection here:](#) Resources - SME Cluster Growth

AERTEC

Aerospace technology

INTERVIEWEE

Antonio Gómez
Guillamón, Co-founder

CLIENT BASE

Projects in 40 countries

FOUNDED

1997

KEY SUCCESS FACTORS

Rapid organic growth

GROWTH FACTOR

Working with
multinationals

CHALLENGES

Financing
Skilled Staff

TWO MOTIVATIONS

- 01 Global sector
- 02 To offer employees professional development



AERTEC

The university complements the R&D that an SME cannot have, the company knows the market and the university does not; that can generate very interesting synergies.



AEORUM

Technology solutions provider

INTERVIEWEE

Jesús García, CEO

HQ

Malaga, Spain

FOUNDED

2009

KEY SUCCESS FACTORS

Early collaboration with
SMEs, developers &
academics

EMPLOYEES

20

CHALLENGES

Raising finance

TWO MOTIVATIONS

- 01 Personal satisfaction
- 02 Commercialisation of projects



aeorum
EMERGING TECHNOLOGIES

In the beginning, growth was about raising funds. Once they got the funding, they developed their own technologies. From there, growth was about getting those technologies in the market.



KOLOKIAM

Blockchain Technologies

INTERVIEWEE

José-María Azcárate, COO

HAQ

Madrid, Spain.

FOUNDED

2017

KEY SUCCESS FACTORS

Skilled salespeople & co-
operation

TRAINING NEEDS

Lifelong learning

CHALLENGES

Funding

TWO MOTIVATIONS

- 01 Selling is crucial to have a position in the market
- 02 SMEs need significant time to acquire new competences and knowledge



Kolokium
Blockchain Technologies

The likely cash gap when an engineering SME starts to grow needs to be anticipated and funding mechanisms play a vital role here.



A Participant's Experience

Mohamed Dembele

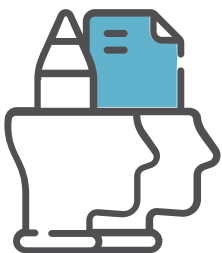


The SME Cluster Growth Mobility and Training Programme is currently underway with participants from six European partner regions taking part. Taking place over a 15-month period, the face-to-face workshop sessions are supplemented by online mentorship sessions offered by the facilitating partners that guide the SMEs towards identifying and taking action towards their growth strategies.

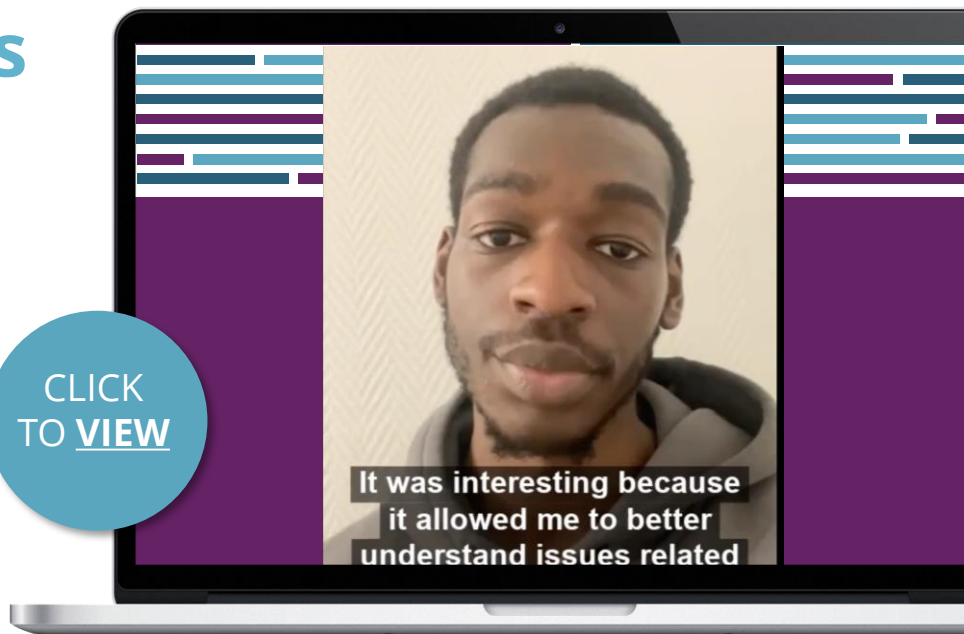
In this short video, one of the participants in France, [Mohamed Dembele](#), co-founder of WeMe shares his experience of pilot testing the programme, areas for growth and challenges that SMEs face.

Watch it here:

A Participant's Experience - SME Cluster Growth



CLICK
TO [VIEW](#)



Student Small and Medium Enterprises (SME) Consultancy Scheme

– An introduction

Laura O'Donovan



By Laura O'Donovan, Munster Technological University (MTU)

As part of the **SME Cluster Growth project**, we're implementing a *Student Small and Medium Enterprises (SME) Consultancy Scheme*.

The scheme is implemented by a unique international network of partners from France ([Institut Mines-Telecom Business School](#)), Ireland ([Munster Technological University](#)) and ([Momentum Consulting](#)), Italy ([Universita Di Bologna](#)), Spain ([University of Malaga](#)) and ([Universidad de Alcala](#)), Turkey ([Istanbul Teknik Universitesi](#)), Finland ([CrazyTown](#)), and the Netherlands ([University Industry Innovation Network](#)) and will be completed by August 2023. This activity is made possible through co-funding from the ERASMUS+ scheme of the European Union.

The Student SME Consultancy scheme takes the form of a module integrated into an undergraduate or postgraduate course, designed to be offered over one or two semesters, accredited or unaccredited. The main target groups of the consultancy scheme are established engineering SMEs with 50-250 staff, a €10 - €50 million turnover who are struggling with growth and of course undergraduate and postgraduate students.

Each project partner will match 2+ pairs (or larger groups) of PhD/master's degree students to conduct in-house research and 2+ pairs (or larger groups) of bachelor students to take up a growth-related business challenge project conducted in the workplace or in the university. The project aims to engage up to 48 students with engineering SMEs challenge to growth projects.

The facilitator (lecturer, trainer etc.) works with the students and SME to define the existing challenge to growth and then the students research and work on delivering recommendations and findings to help the SMEs grow. The challenge to growth can include human resources, marketing, internationalisation,

engineering or interdisciplinary. The scheme requires the involvement of the SMEs in student progress at certain intervals, as well as hosting the final session on their premises where the students pitch or present their results and findings.

There are manifold benefits for engineering SMEs including gaining access to current postgraduate and undergraduate students, informing future graduates of their business for potential employees, gaining expertise in research and strategy regarding their business challenge to growth and beginning or developing their engagement with higher education institutions (HEIs).

In MTU we are finding most SME challenges are Human Resources or marketing related which the SMEs have limited resources to research and expand. The SMEs we are engaging with are very busy but also eager to meet the students and share their small company perspective as opposed to the large multinational usually used for student projects. We are also finding very passionate and engaged students to work on live SME cases for a project.

Project partners are currently delivering the [SME Cluster Growth Mobility and Training Programme](#) to ten engineering SMEs in each of the six regions. Each of these will be offered access to the consultancy scheme which will be evaluated, adapted, and validated with the aim of becoming widely used as a means of engaging more SMEs in HEIs and more students with SME business challenges.

In addition to the Student Consultancy Scheme, the SME Cluster Growth project is delivering a *Change of Perspective programme*. This programme aims to provide opportunities for academic and SME

representatives to exchange workplaces for a day. Research often finds that SMEs and higher educational institutions struggle to collaborate due to differing perspectives and language and this programme aims to increase understanding between the two worlds and increase exchange of expertise, resources and activities.

If you are an engineering SME interested in taking part in either of these activities, please [contact the partner in your country](#).

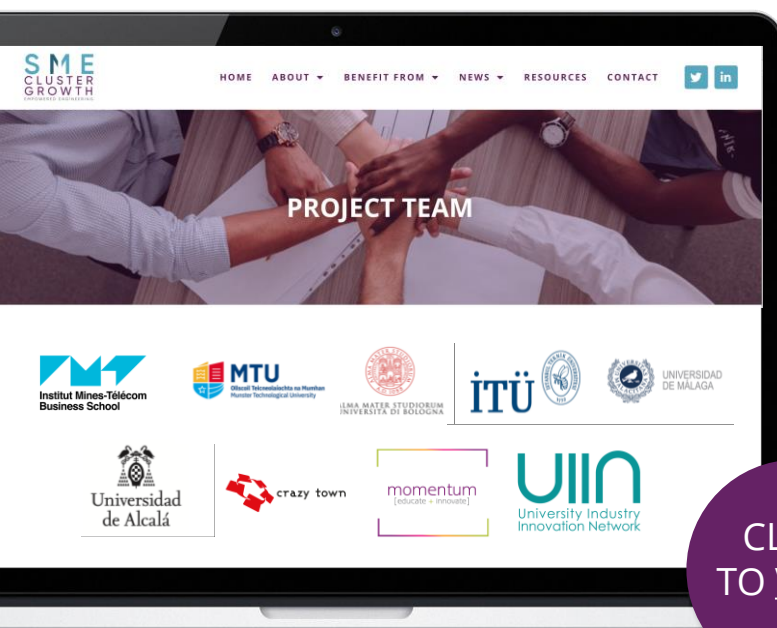
Project partners are currently delivering the SME Cluster Growth Mobility and Training Programme to ten engineering SMEs in each of the six regions

CLICK TO [VIEW](#)



Nine partners from seven European countries work together on the SME Cluster Growth Project.

CLICK TO [VIEW](#)





OPTION
01

SME GROWTH STUDENT CONSULTANCY

The Student Consultancy Scheme is a semester-long programme that gives postgraduate and undergraduate students the opportunity to address an existing problem or challenge within an SME.

Who can join? The consultancy is open to **engineering-focused SMEs** who will be paired with postgraduate and undergraduate students from six project partner universities in Spain, Italy, Ireland, Turkey, and France.

OPTION
02

CHANGE OF PERSPECTIVE PROGRAMME

The Change of Perspective programme brings academics in the six partner universities together with SME professionals to exchange workplaces for a working day to experience a different environment.

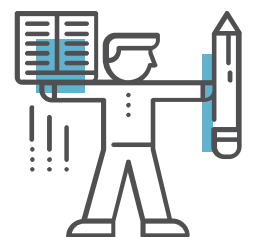
Who can join? Academics from six partner universities and business professionals from partner SMEs in Spain, Italy, Ireland, Turkey and France.

How SMEs can benefit:

- Access to postgraduate and undergraduate student expertise
- Help to address existing problems or challenges to growth within their business
- Opportunity to establish a partnership with a university
- Access to a future talent pool
- Gain insight into how universities operate to inform collaboration

How universities can benefit:

- Gives students access to real-world business challenges to problem solve
- Offers students from multiple disciplines exposure to an SME environment
- Develops relationships between universities and SMEs
- Can be integrated into graduate and undergraduate study programmes
- Gain deeper insights into the working systems of an SME



CONTACT DETAILS

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Connecting clusters / Facility sharing



Connecting SMEs

Engineering SMEs are invited to explore ways of connecting within our cross-cluster network. Our unique European network of high-trust partners is your launchpad. Scale your operations with access to locations across Europe. Find out more here: [Connecting Clusters - SME Cluster Growth](#)

Process from SME point of view:

How to access European clusters in six steps?



1. Participate in the mobility event OR contact your local SME Cluster Growth partner

Your local project partner can help you access the offering



2. Select the destination that suits your need

We connect you to a partner network of seven unique destinations across Europe, each focusing on a certain theme.



3. Arrange a visit with the host

Contact the host organization 4 weeks in advance. Your host helps you make the most of your visit with introductions to the right contacts.



4. Access the location physically or virtually

You have access to facilities* at the host destination for working, meetings, events and other activities. It's a temporary homebase for your business. We also help with online matchmaking, if you wish to visit the location virtually first.



5. Expand your network with high-trust connections

You have an opportunity to connect and collaborate with the destination's cluster organisations, universities and companies. Being affiliated with SME Cluster Growth builds trust.



6. Scale your business

After your visit, the host and your local SME Cluster Growth representative help you to plan the next steps.

** Services vary depending on the location*

Thriving in adversity – The case of Delmic



Jose Villagran

By Jose Villagran, Project Officer at UIIN

As part of the SME Cluster Growth project, UIIN undertook interviews with representatives of different Small- and Medium-sized Enterprises to understand their needs, challenges and factors driving their success. One of those representatives was **Sander den Hoedt, CEO at Delmic.**

Officially founded in 2011, Delmic is a Dutch company whose goal is to create powerful and easy-to-use microscopy systems for researchers. In the beginning, the young founding team was still working on a variety of side projects as a source of financial income, since they were coming straight out of university. By 2012, the team was working at Delmic full time and managed to hire their first employee, through a small grant now known as the takeoff grant (previously known as the valorization grant in the Netherlands).

From there, Delmic grew steadily until 2014 where a shareholder came on board. The team grew to about 15 people until about 2016 where the company faced some difficulties and had let go of a large number of their R&D personnel, which made the company scale down to about eight people. In 2018, Delmic pivoted and expanded after pitching again to their existing shareholders and today the team counts on 40+ employees.

We wanted to learn more about Delmic's growth strategies and Sander explained that when the company started out, their experience and understanding of market perspectives and growth were scarce, which made them think they should aim at selling around 10 products per year. Selling their products somewhere was their initial mindset. However, a few years after that, they came to the realization that they could think more strategically and attempt to break into a larger market.

According to Sander, it was when the new shareholder came on board, in 2014, that the company planned a growth strategy and shifted the mindset towards being more creative, ambitious and towards expanding, making use grants and other funding instruments that were at their disposal.

However, when growth strategies are put on the table, the management team faces new and bigger challenges. These relate to supply chain, production volume and capacity, product quality, but there also challenges at the personal level and the managers, as well as the board of directors, need to think about every single step and about flowing with the changing needs of a small organization.



As **Delmic's CEO** puts it, there are two factors that are **critical to the success of SMEs** when they experience fast-paced growth:

- First, it is of the utmost importance to have a **team that's adaptable, flexible and willing to constantly challenge** the status quo and seek for improvement
- Secondly, it is essential to have clear structures and processes in place in order to perform with the maximum efficiency

When talking about the main needs for SMEs in terms of growth, Sander mentioned several points and alluded to an important issue that SMEs in the Netherlands experience. Thus, SME employees in general, and managers in particular, could benefit from training that's tailored to engineering and product SMEs and that help them broaden their perspective in terms of scaling up and growing their companies. Furthermore, courses on finance and support in terms of access to funding are another critical point that should be addressed.

Another widely-acknowledged variable for growth is the ability to partner strategically and to collaborate with others. Delmic collaborates locally with AMOLF, an academic institute for fundamental physics in Amsterdam, the Delft University of Technology and, internationally, with partners in Germany, the US and China. Sander says that cooperation with partners is in the DNA of the company. He adds that it is harder nowadays to nurture and maintain those

partnerships as there is a lack of time to coordinate them and, on the other hand, academia moves at a different pace, tending to have a longer view, making such collaborations a long-term objective that not always can be maintained.

In regard to their collaboration with universities, Delmic's CEO points out the issue of funding again, stating that since the company is not a small start-up anymore, it receives less funding. In addition, in the Dutch system companies are normally asked to put tens of thousands of euros in their collaboration projects with academia, which generates an in-between phase where SMEs are either too big or too small to cooperate effectively.

Credit for the image – Picture retrieved from blog.delmic.com

Read this and other cases [here](#).

How did this small enterprise succeed to grow?

The case of Lumnion

Cenk Tabakoğlu



“

It is not possible to grow just based on consultancy, you have to pass from ideation to product

”

This was the initial proposition of Cenk Tabakoğlu when he joined Lumnion as CEO in 2020. When the Istanbul Technical University GİNOVA team interviewed him in the context of the SME Cluster Growth project, we realised that this was just one of the pillars of his global growth vision.

Lumnion was built in 2017 by two engineers as a technology and consultancy company offering solutions to insurance companies based on data analytics. According to Tabakoğlu, the company was not growing when he started to work for Lumnion. The first challenge was to slow down the work on the consultancy side and accelerate product development. Thanks to the introduction of new AI-based pricing platforms, the company's growth phase has begun. Although “technology is our soul” is the motto of Lumnion, it was not the sole factor underlying the growth. Mr. Tabakoğlu asserts the importance of market knowledge by stating that his previous experience in the banking and insurance sectors inspired him a lot in delivering appropriate solutions at Lumnion:

“

I was at the other side of the table through all those years, and I saw the needs of the market as well as sectoral deficiencies. I was in search of innovative solutions with new technologies especially about insurance pricing.

”

This is how they were successful in applying algorithms focusing on better estimation of risk and more suitable pricing along with customisation. Analyzing the market needs was the guiding force behind the company's organic growth. Mr. Tabakoğlu does not believe that income is the driving factor in growing, but the ambition to succeed by outperforming the market leader.

It was clear that this could be achieved by meeting the specific needs of customers in the insurance market through creating differentiated technological innovations. Another important pillar of growth is building strategic collaborations, according to Mr. Tabakoğlu. He claims that

“

In order to ensure rapid growth, you have to multiply distribution channels and since it would not be easy for the company to do this in an organic way on its own, strategic collaborations are required.

”

Such collaborations include companies, universities, even employees. The support of Istanbul Technical University Incubation Center (ITU Cekirdek) was exemplary in terms of promoting them, creating a reliable network, and receiving investment. Sabanci University has been their partner since the beginning of the journey; they cooperate especially on the machine learning side. Their close relationships with several insurance companies in joint product development and tracking operations as well as their collaboration with SAS in Turkey show their willingness and ability to cooperate.

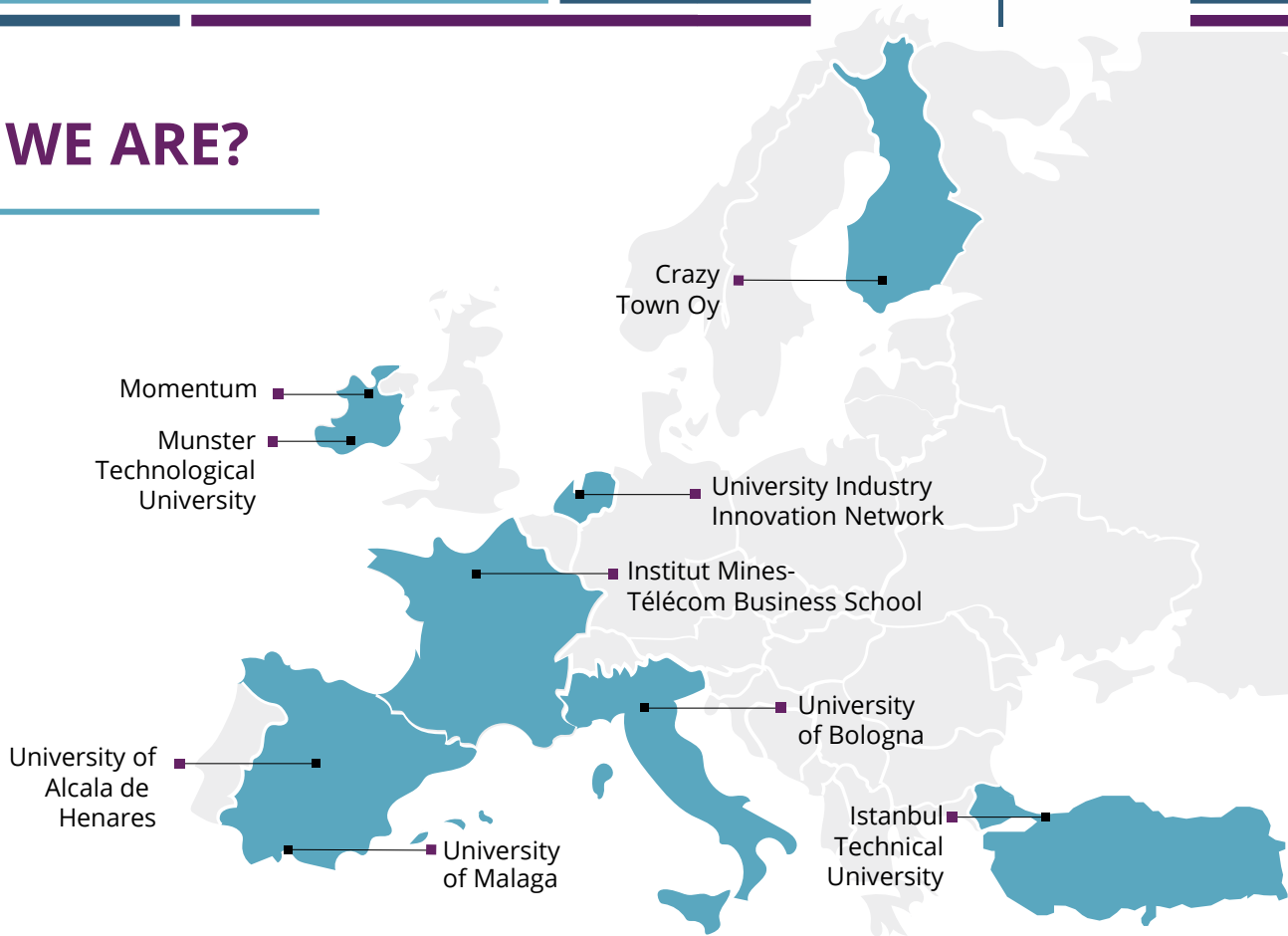
Lumnion's next phase in growth is to be a global player. Their achievements present good evidence of their future target. They were the first company from Turkey to be accepted to DIA in Amsterdam, Europe's largest digital insurance organization. Currently, they are the only company from Turkey that has been accepted to a program supported by the German government in Munich, where they were accepted among 20 companies from over 250. Mr. Tabakoğlu has decided that it is the right moment to move the office to Munich, Germany while they feel ready to develop markets next to product development in their growth target.

“

In only two years, Lumnion has grown to challenge its multinational competitors in insurance pricing.

”

WHO WE ARE?



Follow our
journey here



www.SMEclustergrowth.eu



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