



# **Start-Up Community**

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## **Best Practice Report-Sofia**

**University –SMEs and Start-Ups Cooperation Ecosystem**



## 1. Introduction

Nowadays a world without interactions between universities and business is inconceivable, and discussions on cooperation with business no longer being about whether university – business cooperation is necessary, but rather how best to interact for the benefit of all stakeholders.

As part of the process of management improvement, well-run universities are appointing more professionally qualified and accredited staff, often from the private sector. Businesses can significantly benefit by taking on PhD students to undertake R&D projects, not only because they obtain highly skilled people but also because they gain access to academic contacts and knowledge. The students benefit from higher stipends and improved employability skills as a result of their experience in industry.

University-SMEs cooperation is defined as all types of direct and indirect, personal and non-personal interactions between universities and business for reciprocal and mutual benefit including: collaboration in R&D, personnel mobility (academics, students and business professionals), commercialisation of R&D results, curriculum development and delivery, LLL, entrepreneurship and governance<sup>1</sup>.

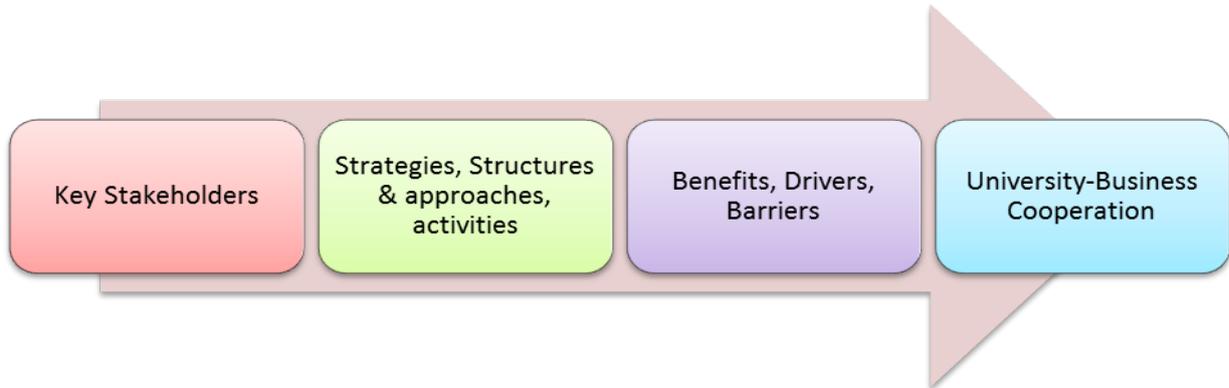
Over the last few decades there has been a dramatic shift in the focus of universities and policy makers towards the universities so-called 'third mission'. Through this, universities have had their roles focused to a greater extent on the need to contribute to society in a more meaningful way through knowledge and technology creation, transfer and exchange<sup>2</sup>. In recent years, the focus has been extended to recognise all the ways in which universities can contribute to society including LLL, entrepreneurship or exchanges of workers with business as means to reach the third mission.

Cooperation between university and SMEs in Europe is still in the early stages of development and is influenced by a large number of factors (benefits, barriers and drivers), strategies, structures and approaches. The model depicted below outline the relationships among these different elements within university and SMEs ecosystem:

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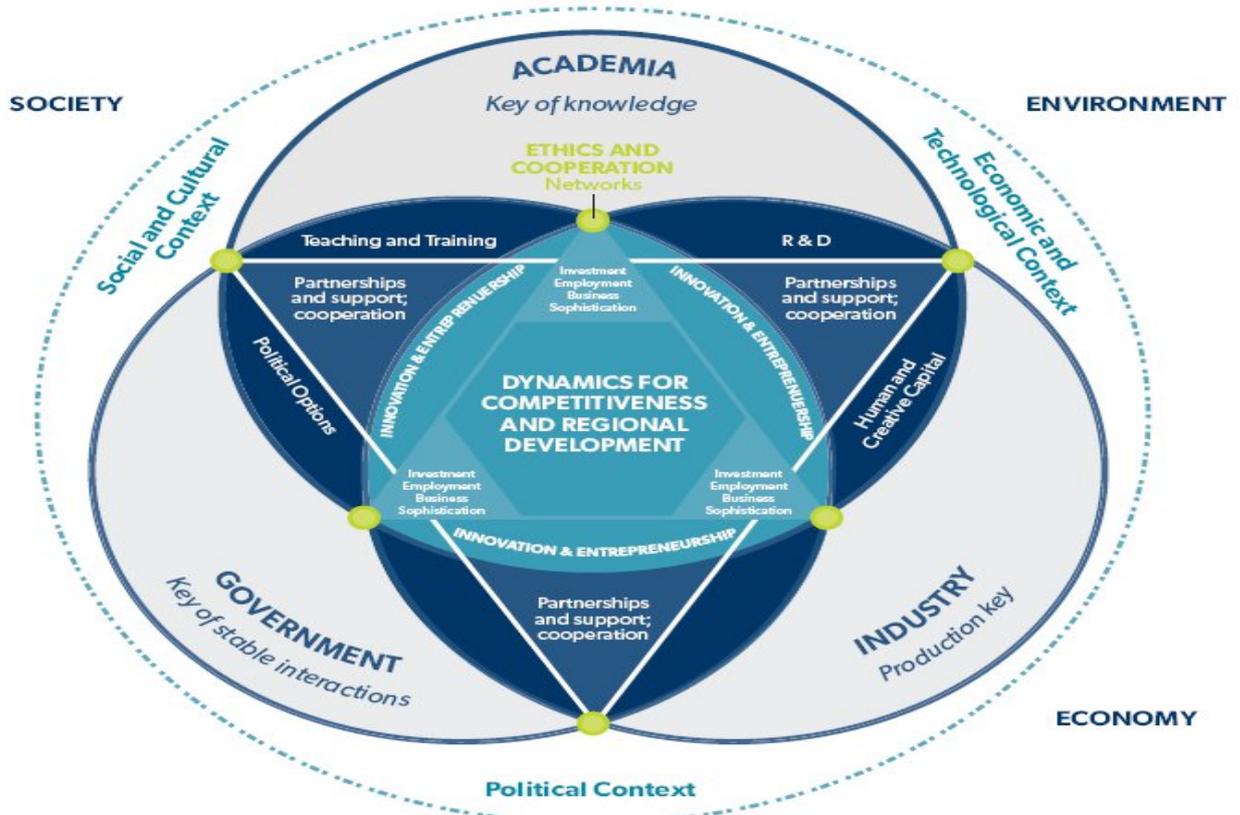
<sup>1</sup> Source: © Science-to-Business Marketing Research Centre

<sup>2</sup> UNISO (2002-2004)



Successful cooperation of universities in synergetic relationships with governments and businesses (the 'triple helix') is considered the ideal driver of knowledge-based economies and societies. The Triple Helix "is a model for capitalizing knowledge in order to pursue innovation."<sup>1</sup>

Figure 1  
Farinha and Ferreira's Triple Helix Triangulation model<sup>2</sup>



1 (Etzkowitz 2010)

2 (Farinha and Ferreira 2013)



This Best Practice Report focuses on two actors in the triple-helix: University and SMEs, where some of the outcomes include improving the education and future job prospects of students, the research conducted within the university and the transfer of knowledge and research to the community. It aims to give a clear picture of the extent of such cooperation in Europe and to gain a better understanding of how University-SMEs cooperation can be fostered, promoted and strengthened through exchange of best practice models.

## **2. Drivers that support University – SMEs and Start-Ups cooperation**

There are several factors that have facilitated and motivated cooperative linkage rapidly in recent years. However, we highlight the most important drivers for both universities and SMEs concern their relationships (mutual trust, commitment, respect, shared goals) and different kinds of funds. There is a clear relationship among them, which means that the presence of funds as the highest driver is not enough to cooperate if the relationship between university and SMEs is not well developed. We classified the most common need into the two topics:

### Funds:

- Structural funds
- Public-private partnership
- Networking as part of the assessment of work performance of academics and students
- Initiatives for academics and business

### Provision of incentives:

- Internal and external promotion of university-business cooperation
- Angel investors
- Company tax reduction
- Facilitator (Expert Agency)
- Mobility for academics and students (inc. funding)
- Pre-service training for university students in business sector

### **Best practices:**

#### **➤ Bulgaria**

#### Software university programme:

<https://softuni.bg/>

The Software University (SoftUni) is founded to be innovative and modern educational centre, where true professionals in programming are created. The most important thing is the practical experience. This is why the university uses the model “learning through making”



giving the students real practical experience and profound knowledge in the most popular and modern languages, platforms and technologies in the world of programming.

The curriculum is carefully developed with the direct participation of the companies from the IT sector. It is a careful selection of courses in programming and technology in line with the latest trends in the world of information technology and software engineering. The practical training of the students is combined with various labs, and individual and team projects through which the students acquire real skills that will apply in their future work in the IT sector.

The progress of the business and the development of the education must go hand in hand, so this is why SoftUni works directly with companies from the software industry, helping the students them start their careers as software engineers. The best performing students receive scholarships from SoftUni and from other companies, providing them with free education and guaranteed opportunities for their future career start. Students have the opportunity to engage in a unique mentoring program where they can learn from the experience and knowledge of specialists while visiting the offices of successful software companies, exploring the real business environment. A job portal is also available to the students of the university where they can find various job offers for their career start.

#### Top Class programme:

The regional Top Class Programme supports young entrepreneurs in their personal, professional and business growth, motivating them to develop the mentality of globally successful entrepreneurs. The program enables members to access the right ideas, knowledge and people.

The Program includes practical trainings and mentorship programs led by successful entrepreneurs as well as networking activities. <http://www.ictcluster.bg/en/innovation-and-entrepreneurship/projects/topclassprogram/>.

#### Pre-accelerator project:

10 weeks training program, where people who have an idea and a team but do not know what to do, can learn how to develop their idea and turn it into business. Practically oriented training should know each start-ups, working in the following directions:

1. Team formation
2. Finding clients and communicate
3. Building the product
4. Establishment of product business model.
5. Financing the venture



Under this project start-ups do not receive only money, but the most important- the organization provides their contact networks that support business.

## ➤ Cyprus

### CIIM –ENTICE:

ENTICE is the CIIM Entrepreneurship and Innovation Centre launched at the end of 2013 as a new activity of CIIM. It has as a mission to contribute, through the provision of specialised consulting services, education and mentoring, in the creation of innovative new ventures (start-ups) and in the improvement of the competitiveness of existing innovative enterprises.

### CIIM- Bank of Cyprus (Idea Program):

The Innovate Develop Excel Accomplish IDEA Programme (IDEA Programme) is an integrated acceleration incubation programme, founded by the Bank of Cyprus and CIIM, aiming to develop and support innovative entrepreneurship and to create employment opportunities for people wanting to set base in Cyprus, ultimately boosting the competitiveness of the Cyprus economy at an international level.

### IEEE Gold:

The establishment of the IEEE GOLD Cyprus Affinity Group (Graduates of the Last Decade) is intended to serve the needs of graduate students and young engineers of Cyprus in developing professional skills, increase networking activities, and boost their careers. All the activities of this group are performed in volunteer basis within the IEEE general framework.

### Cyprus University of Technology - CI.GE.Soc:

The Civil and Geomatics Society (Ci. Ge. Soc) was founded in 2012. This is a student-led society founded by the students of the Department of Civil Engineering and Geomatics at CUT and is fully supported by the Department. The Society aims to promote the Civil Engineering and Geomatics and provide its members with opportunities to network and develop professionally through activities, site visits, invited talks and social events. The newly formed Society aims to link with other student-led societies as well as professional institutions in the fields of Civil Engineering and Geomatics.

### Student Mobility (Study and/or Traineeship):

Students can go to any of our partner European Universities for a study period or for an internship period at a company of their choice (Outgoing students) while students from other partner institutions can study at CIIM (Incoming students).



### Faculty Mobility/ Staff Mobility:

Members of the academic staff of CIIM have the chance to teach and/or conduct research at other partner European institutions, while CIIM enriches the diversity of its teaching staff by hosting visiting academicians from other European schools. Non-academic administrative staff members visit and learn the methods and practices of their peers in other institutions and vice-versa.

### ➤ **England**

#### Real Business Challenges:

Very successful partnerships exist in many Universities where businesses have worked with a university to create a piece of work that they want/need doing and would like the students to complete. This is genuine work to be used in the real world and as such is good exposure for students, good experience and a great chance to build a network. For the business they gain access to innovative, creative and imaginative talent to solve problems. The relationship can involve no cost, but often there is a charge to the business for the administration of the project, and sometimes the business offers cash to the winning team – as well as jobs and other opportunities. The shape of this mechanism varies but the core elements remain the same, having students approach real problems for real businesses where the results, if good enough, will be used.

#### LSBU SMEs Investment Escalator:

A free programme that offers London's small and medium-sized businesses all the support they need to grow from optimising your business to finding funding. As part of the programme there is one to one coaching, topic specific workshops decided based on your needs and consultancy from a range of expert academics within the university. They aim to help you secure investment finance, develop your own successful growth strategy, unlock your marketing potential, maximise the power of your people and optimise your business systems. They involve industry experts as well as their staff and use their network to deliver valuable and broad support to London based SMEs. This is a new approach but a good way of encouraging a positive and supportive ecosystem.

### ➤ **Finland**

#### JA-Start-up: Program for University students to establish a real company as a part of education





Modified JA-program for Universities and Universities of Applied Sciences

A group of students create a real company during the program.

Offers a ready and tested program which can be adjusted to schools needs

Worldwide activity: The best JA-Start-Up company in Finland qualifies to European championships of JA-Start-Ups.

[www.jaworldwide.org](http://www.jaworldwide.org)

#### Start-Up Life by Start-Up Sauna:



The best learning opportunity around the network of the most skilled entrepreneurs around the globe

An internship program that sends students of Finnish universities to work at startups in the San Francisco Bay Area and New York

Learn by doing and experience working at a fast-paced startup in the best entrepreneurial ecosystem in the world

<http://startuplelife.fi>

#### ➤ **France**

##### Alternance:

A student having an « alternance » training will divided his/her time between theoretical courses at the University and practical training in a company. The duration of the time spent in the company changes according to the specific needs of the theoretical training. At the end of the “alternance” training, 40% of the students are hired by the company. Companies that hire a student in “alternance” have financial help from the government since it won't pay taxes on the salary of the student.

#### ➤ **Germany**

##### Entrepreneurial Universities:

There are about 40 Master offers in Entrepreneurship in Germany. Universities, especially now in eastern Germany, are actively engaged in supporting entrepreneurship. Many have established entrepreneurship professorships, departments, institutes, knowledge and technology transfer offices for entrepreneurship that already feature as integral parts of the internal support structure. Dedicated start-up support services by entrepreneurship centres



and technology transfer units offer would-be entrepreneurs and those already in the start-up process, consultation and access to networks and premises. Some universities call themselves “Entrepreneurial Universities”. They gather entrepreneurship initiatives on the campus within one center and strive to spread an entrepreneurial mindset across faculties. The teaching and courses are designed to give students an understanding of entrepreneurship, the problems of the venture formation process, and the management and marketing of innovations. Support is being provided to the formation of spin-off companies.

#### Financial support schemes:

The German government is also fostering the cooperation between research, science and industry with a special focus on SMEs through numerous national funding support schemes.

- Innovation Vouchers (Innovationsgutscheine): they are available for SMEs and should encourage them to innovate. They should be used as part of their overall investment. SMEs should use vouchers to form clusters (networks with universities or research institutions) and to pool resources in order to realize a more extensive project.

- EXIST

The programme EXIST seeks to support university students and researchers in setting up their own business. With a monthly scholarship, grants for material expenses and individual coaching, young people with a business idea in the field of innovative technology or innovative knowledgebased services are supported in realizing their business plan.

- Central Innovation Program for the Mittelstand

SMEs should work in cooperation with research institutes/universities. The programme provides grants to specific larger-scale research projects.

#### SME Network at Georg-August Universität Göttingen:

The SME network at Göttingen Graduate School for Social Sciences is an open network for companies and business representatives from the South of the federal state Niedersachsen and for representatives of the university. The goals and tasks of the network include:

- increase of knowledge transfer between universities and businesses
  - high business reference of studies and doctorate
- open professional and career opportunities for graduates

Doctorate Candidates can participate in practical research projects with a direct link to business-related issues and scientific reference. A financial support of 3,000 – 6,000 Euro is granted to them for such a company project.



Students also can be granted a support of 400 Euro for a master thesis or project paper that is carried out in cooperation with a regional company. The results of the paper shall directly be transferred to the SME.

The companies of the region benefit from the world of science and get an insight into higher education research. They have the opportunity to cooperate with doctorate candidates or master students. The network also offers a conference series with short inputs on business-related issues. There are short presentations on business relevant research results and meetings of business people and university staff.

Further information: <http://kmu-netzwerk.uni-goettingen.de>

## ➤ Spain

### Investigation projects:

Most of the Universities develop different investigation projects involving students and professors together and other members of University community. At the end, many of the investigation projects develop by students are brought to reality with advice, guidance and funds from the University community. For example, the Investigation service of the Malaga University offers this kind of cooperation (<http://www.uma.es/servicio-de-investigacion/>) or

the Innovative Polytechnical city in the UPV of Valencia (<http://cpi.upv.es/quienes-somos/centros-de-investigacion>)

### Interuniversity competitions for entrepreneurs:

Entrepreneurs from all over Spain compete presenting their business idea and projects and the winner normally receives financial aid and advice. As an example we have the Hyundai Brilliant Young Entrepreneurs competition. (<https://startupprogramme.files.wordpress.com/2015/03/bases-premio-hyundai-2015-def.pdf>)

### THE IDEAS INSTITUTE OF THE POLITECNICAL UNIVERSITY OF VALENCIA:

(<http://www.ideas.upv.es/>)



UNIVERSITAT  
POLITÈCNICA  
DE VALÈNCIA



The IDEAS for the Creation and Enterprise Development Institute is the body THAT MANAGES and drives corporate initiatives born in UPV. IDEAS Institute's mission is to encourage and develop the entrepreneurial culture in the UPV, sensitize and energize the university community in the creation and support of new businesses, and supporting the creation and development of innovative and technological-based companies in Valencia.

The IDEAS Institute is also the unit responsible for giving information, guidance and advice to the university community on the process of creation of companies in the UPV in framework of the "Regulations on Entrepreneurship at the Technical University of Valencia from University Research Activity".

### ➤ Sweden

#### Ideon Science Park and its four incubators:

Here innovators find the necessary stimulation for the start-up, establishment and growth of their enterprise. The incubator processes, encompassing strong, committed contact networks, and cooperation with external companies, universities, the innovation system and financiers, create the best possible conditions for transforming good ideas into business.

- Ideon Innovation is a business incubator that helps entrepreneurs to build growing companies more quickly.
- The Creative Plot, our newest incubator at Ideon, is focused on helping start-ups in the creative and cultural sector.
- The LIFT Incubator - Lunds NyföretagarCentrum is the first in the country to start an incubator for service companies.
- VentureLab is the university's organisation for stimulating entrepreneurship and for supporting and helping those students and new graduates who are thinking of starting their own business.

### ➤ Turkey

#### Metal Forming Center of Excellence:

The Metal Forming Center of Excellence was established in **Atilim University** (<http://msmm.atilim.edu.tr/>).

Moreover, within the framework of Atilim University Undergraduate Research Projects Programme (<http://argeda.atilim.edu.tr/tr/lap>) industry-supported projects are carried out by



students in which students investigate the solution of a problem that an institution has provided.

Another innovation is “Entrepreneurship Projects Course” which is selective and opened in each semester. In this course students are required to carry out projects in order to establish a company. The students who have succeeded this course are issued KOSGEB Applied Entrepreneurship Education Programme Certificate of Participation.

### **3. Approaches that provide largest impact on University-SMEs and Start-Up cooperation**

Supporting business approaches and activities is already rooted in the strategic plans of most universities. Universities align their programmes through capacity change and update the requirements of national and international markets due to their area of knowledge and advice from professionals. Industry professionals working in knowledge transfer area and incubators for the development of new business are well developed and with high impact on university-business cooperation. All used approaches could be divided into two categories (internal and external) focused on university-business cooperation, centered on students and academics.

#### Internally focused approaches:

- Career offices within the university
- Incubators for the development of new business within the university
- Workshops, information sessions and forums for University-Business collaboration targeting academics
- Entrepreneurship education offered to students and academics
- The presence of academics on company boards and the presence of business on university board
- The creation of new ventures or developing and innovative culture within the HEI in cooperation with business
- Commercialisation of scientific R&D results with business through spin-offs
- University-business cooperation programmes relevant to modern society, including guest lectures from private and public organizations

#### Externally focused approaches:

- Universities' website dedicated to university-business cooperation
- Collaboration activities facilitating students and academics interaction with business
- Networking sessions to meet people from business
- The provision of adult business education at all stages of life
- An alumni network
- The practice of recruiting industry professionals into the knowledge transfer area



- Promotion of cooperation between science and the private sector/improvement of the framework conditions for innovation
- Joint R&D activities

### **Best practices:**

#### **➤ Bulgaria**

##### StartUP Conference NEXT, Bulgaria.

The biggest start-up and entrepreneurship forum. StartUP Foundation develops the startup ecosystem in Bulgaria, where entrepreneurs can meet partners, potential clients, business angels and investment funds through a series of events (conferences, forums, workshops etc.).

StartUP Conference is the first event designed to promote entrepreneurship in Bulgaria. The Conference was first held in 2007 and became an annual tradition. More than 120 hours of lectures and discussions have been presented to the visitors. The videos of the lectures are available free online on <http://startup.bg/archive/>

##### Innovative incubator/ Plovdiv University "Paisii Hilendarski":

Science and business work together in Plovdiv University "Paisii Hilendarski" to transform ideas and academic developments into the market innovative products. University launches new project to create a Technology Center and Office of Technology Transfer.

This includes the transformation of ideas and research into innovative marketable products, processes and services, as well as initiating and supporting joint projects for technology transfer between science and business at national and international level. There are mobile and dynamic research teams of scientists with opportunities to establish collaboration and cooperation with other technology and research centers in Europe and participation in international research programs.

The centre also offers legal, marketing and logistical support to commercialize developments of scientists and companies in the region and the country. The office supports the establishment of joint teams of teachers and students from Plovdiv University and specialists from firms to solve problems in their production processes and improving its products.

PhD students have possibilities to prepare for future careers in business and they are able to follow the full cycle of a product, and then its supply and imposing to the market.



The project has realized several applied researches by scientists from the Faculty of Physics and Engineering Technology of Biological and Chemical faculties. Three of them are at the level of finished products.

## ➤ Cyprus

### University of Nicosia-Helix:

The Helix Business Incubator is a joint collaboration between the University of Nicosia, the Cyprus Institute of Neurology and Genetics and the Government of Cyprus. The primary mission of the Helix Business Incubator is to foster the development and growth of young companies, by providing inventors and entrepreneurs with the business infrastructure and expertise, and the necessary training, mentoring and business networking to ensure the attainment of their developmental and business goals. Helix's secondary, yet equally

important goal is to help the resident companies tap into local and international talent, which will help them execute business plans and help the local economy grow.

### IEEE Cyprus Entrepreneurs Network:

IEEE Cyprus Entrepreneurs Network (EN) was established in January 2013 and is a volunteer effort that aims to trigger entrepreneurship in Cyprus and help people interested in it to get networked and find valuable team members in order to create technological start-ups. More specifically it intends to bring together IEEE members and other professionals (non-members who are working or who are educated in an IEEE designated field – which are all fields of Engineering, Computer Sciences and Information Technology, Physical Sciences, Biological and Medical Sciences, Mathematics, Technical Communications, Education, Management, Law and Policy) in order to cooperate with electrical or electronic engineers in Cyprus and abroad, so that they come up with an innovative product or service that can be exploited commercially.

## ➤ England

### Joint Research and Development activities:

Within SMEs there is a growing need for R&D, often without an appropriate capacity to deliver it. This creates a barrier to growth for the business. Universities in this situation are fantastic partners as they possess great resources, facilities and human capital. This mechanism involves SMEs presenting the work they need doing, and working on it with a team from the academic staff within the university. Again there is often some form of financial arrangement but it can vary from case to case depending on the relationship, the work and



the output. For small businesses this can even involve a sweat equity payment. This is an interesting relationship for universities as it helps to meet their requirements of using academic output to benefit the real world.

#### In-house incubator:

In the UK many Universities have a physical space they use as an incubator for start-ups. Normally they encourage businesses from current students, staff and alumni (sometimes with no time limit) to use the space. There is a process for them to join and a package of support that often accompanies the physical space. Occasionally this relationship is able to evolve into partnership depending on the start-up and if a University is a suitable partner/client. The funding for this comes from HEIF which is part of the higher education funding system. The aim is to create an entrepreneurial ecosystem, increase the profile of the start-ups and to deliver wider enterprise goals across the University.

#### Student and Graduate Internships Programme, University of the Arts, London:

This best practice led scheme has multiple options including paid work experience for graduates who receive advice throughout the process to ensure a good fit, and including guidance on working with SMEs and Start-Ups. There are also exist internships with common practice which is more specific for arts graduates and creative entrepreneurs. This option offers payment to ensure it is open to everyone and gives the arts a good option of working with new talent and helping creative graduates explore their opportunities.

#### ➤ Finland

#### Boost Turku Entrepreneurship Society:



Boost Turku is a student-based network for young entrepreneurs and entrepreneur-minded people sharing knowledge among the universities of Turku.

The most efficient producer of new jobs in the Turku region with 34 new companies and 100+ new jobs in 50 weeks and the best accelerator program in Finland according to Nordic Startup Awards.

[www.boostturku.com](http://www.boostturku.com)



#### Case MSA Invest Oy / Jyväskylä University:

- The company offered a task to Jyväskylä University
- Student picked up the project from the University's pin board where the projects were introduced
- The student got salary during the project
- Company did not have the skills to write and visualize the business concept, so they decided to find a student who was specialized in these areas
- The student was 4th year Speech communication student
- Case included writing a service and action manual for a new business concept. Core idea: Offer anything from hardware store installed in the customer's home
- Both the company and the student were happy with the results. The company got the business idea on paper and visible, the student got real-life experience how the skills she had learned in the school could be used in the corporate world.

#### ➤ **France**

#### CIFRE :



Reinforce exchanges between public research laboratories and enterprises, encourage employment of PHDs in companies and contribute in the innovation process of French enterprises, here is the goal of CIFRE (stands for industrial convention of formation by research). This measure is funded by the Ministry of Higher Education and Research.

It allows the enterprise to benefit of a financial assistant while hiring a PHD student who will accomplish his/her research work in the company's framework.

Three partners are therefore implied in the process:

- A company that will give to a PHD student a research to do which will be the subject of his/her PHD thesis
- A research laboratory that will guarantee the scientific supervision of the student's research
- A PHD student, owner of a master degree



## ➤ Germany

### Technology parks/Science parks:

The idea of Technology parks or Science parks is that major research institutes/universities and companies work side by side to “commercialise” the results of research. The synergies are manifold so that science and research find a scope for experimentation in the industry.

Science/technology parks have seen the emergence of private agencies as central points of contact for science and technology start-ups and companies. They are advising start-ups and companies about how to get set up and how to grow. They support graduates, scientists, post-docs, professors, entrepreneurs and freelance inventors from all over Germany in the development of their projects, start-ups and companies. The agencies provide a wide range of services including business planning and business model development, advice about grants and corporate finance advisory, networking events and opportunities for further qualifications.

### Technology Network: Intelligent Technical Systems OstWestfalenLippe-it's OWL :

“it's OWL” has become the brand for the cooperation of 174 companies, universities, scientific research institutes and other organizations within the region East-Westphalia-Lippe and was founded in 2011. The background for this cooperation was the application within the competition “leading-edge cluster” by the Federal Ministry for Education and Research. “it's OWL” was chosen and received funding of 40 million Euro for the realization of development projects. A new generation of high-tech products shall be realized within 47 projects. Universities, scientific laboratories and institutes support the companies in the region by acting as innovation partners. There are six universities involved that are known for cutting-edge interdisciplinary research in the fields of self-optimization, cognition and industrial automation.

Within cross-sectional projects the universities and research institutes are developing new technologies and methods for intelligent technical systems. Companies then make use of these in the innovation projects in order to develop marketable projects and production systems. New technologies will be introduced to other interested firms in transfer projects.

Further information: [www.its-owl.com](http://www.its-owl.com)

## ➤ Portugal

### UPTEC-Science and Technology Park of the University of Porto:

<http://uptec.up.pt>

Committed to profiting from the knowledge produced in its R&D centres, the University of Porto intends to extend that same attitude to the whole community by stimulating the implementation of business projects with potential for rapid growth, born from ideas nurtured



within the University and elsewhere. This ambition is particularly endorsed by the Science and Technology Park of the University of Porto (UPTEC), a pioneering structure in the context of higher education in Portugal, which musters a wide range of startups and private R&D centres around the University of Porto.

Since its inception, in 2007, UPTEC has supported the development of more than 150 companies notable for their high degree of innovation, technological intensity, expertise and

potential for internationalisation. These companies generated hundreds of jobs (skilled ones, in their overwhelming majority), which makes the “birthplace of innovation” of the University of Porto a major focus of innovation and development within the Portuguese socio-economic context.

The activity of the Park is spread over four sites geared for business incubation in various fields of knowledge: the Technology Site, the Biotechnology Site, the Marine Site and the Creative Industries Site. A site for technology-based agricultural companies is still to be created in the Agricultural Campus of Vairro (Vila do Conde). With all these sites, UPTEC covers a wide range of sectors of great growth potential and of strategic value to the country.

Furthermore, UPTEC hosts a Centre for Business Innovation, where several renowned companies have found the ideal space and means to undertake R&D+I by taking advantage of the synergies with the University’s research and development departments. And it is also at UPTEC that international players in innovation, such as Fraunhofer Portugal and Alcatel-Lucent, develop new products and services.

UPTEC thus offers the ideal environment for innovation and for the creation of sustainable companies. At the same time, UPTEC plays a valuable role in bridging the gap between knowledge and market, which can enhance the socio-economic fabric of the region.

#### Start-up Coimbra:

<http://www.startupcoimbra.pt>

Startup Coimbra is also an incubator in an academic town which hosts startups and aids their growth and development. It is well known for its 3 Day Startup event, an intense 72 hour workshop from where participants are expected to emerge with a tech-based company idea. The same city is home to IPN–Instituto Pedro Nunes, one of the initial centres to support innovation and research in technology and science, also creating the bridge between academic life and the business world. Companies like Critical Software, that develops software and information systems, as well as Bluepharma, a pharmaceutical company, were born and developed within IPN.

#### ➤ **Spain**

PARC DE RECERCA UAB (<http://www.uab.cat/parc-recerca/>)



The UAB Research Park (PRUAB) is a non-profit organization created in 2007 by the Autonomous University of Barcelona (UAB), the Higher Council for Scientific Research (CSIC) and the Institute of Research and Technology (IRTA). Its mission is to promote and enhance the technology and knowledge transfer activities of its members, encourage entrepreneurship through the creation of new businesses based on research and generally facilitate interaction between research, business and society. The UAB Research Park aims to be an effective tool for knowledge transfer and technology transfer, able to communicate and respond to the needs of research staff, entrepreneurs and businesses.

The Research Park provides services to UAB's research departments, as well as centres and institutes located on the Bellaterra campus. All of them carry out their activities around six core themes: Biotechnology and Biomedicine; Food Technology and Animal Health; Materials Science and Energy (nanotechnology and microelectronics), Information Technology and Communications; Social Sciences and Humanities; and Environment and Climate Change.

#### INTERNATIONAL CAMPUS OF EXCELLENCE VLC :

[\(http://www.vlc-campus.com/\)](http://www.vlc-campus.com/)



VLC/CAMPUS is the joint proposal promoted by the University of Valencia (UV), the Universidad Politécnica de Valencia (UPV) and the High Council for Scientific Research (CSIC) for the creation of a Campus of International Excellence within the metropolitan area of Valencia which aims to:

1. convert the VLC/CAMPUS into a hub of knowledge of international excellence, through specialization of scientific-technological production in health, information/communication and sustainability;
2. improve the quality of training on offer, services and facilities, with an orientation towards student centrality;
3. promote attraction and retention of talent;



4. lead, from its own area, the change towards a new social and economic model in the territory, more intensive in knowledge and a generator of employability and productivity;
5. act as reference model for those values and socio-cultural innovations that allow for a transition towards a sustainable economy and society.

The Campus of International Excellence Program is one of the objectives of the University Strategy 2015 to modernize the Spanish university. It aims to promote strategic aggregations between universities and other institutions located in the campus in order to create "knowledge ecosystems" that promote employment, social cohesion and local economic development. The National Government has invested over 590 million Euros since it launched the Campus of International Excellence Program in 2008.

All submitted projects comply with the central lines of the Campus Program. This is a new concept focused on universities and their interaction with research centers, science parks, technology centers, productive environment and other agents for the development of education, research and innovation ecosystems that contribute to economic and social development local or regional environment.

The goal is to create environments of university life socially integrated in its urban district or territory, with high quality and performance of services and improvements in environmental sustainability (sustainable and healthy campus). It also seeks to address challenges such as attracting the best students and researchers and competitiveness for scientific facilities and companies to locate high value on university campus environments.

#### ➤ Sweden

##### Ideon Agora:

Since the turn of the year 2010/11, Lund's innovation systems exist together in one joint, creative environment – Ideon Agora. Here, focus is on the incubator businesses, with the entrepreneurs meeting people from the different innovation system organisations in the café and around the coffee machines. The organisations are located at Ideon Agora building so they can be close to the incubator businesses and support them with commercial development, financing, and tips and advice.

##### Lund Life Science Incubator:



Lund Life Science Incubator helps start-up companies in life science to develop and commercialise their ideas. LLSI offers an incubator environment with well-equipped wet labs and cell cultivation labs, as well as offices and meeting rooms.

#### INNOVATION OUTCOMES 2014:

- New innovation ideas: 119
- Projects: 84
- Patent applications: 16
- Companies formed: 15 (with LUIS\* as a part-owner: 5)

\*Lund University's innovation system has invested in over 70 companies that have generated over 2 800 jobs and over SEK 800 million/EUR 85 million in tax revenue since 1999.

#### ➤ Turkey

##### Eastern Mediterranean University/ Entrepreneurship and Innovation Centre

Established by Eastern Mediterranean University Business and Economics Faculty, the Entrepreneurship and Innovation Center, in collaboration with the Cyprus Turkish Chamber of Industry, has the fundamental aim of encouraging the industry, those involved in the industry, and the community towards entrepreneurship and productivity. In line with its aim, the center endeavors to contribute to the country's economy.

As a pioneering organization in the TRNC in this respect, the Entrepreneurship and Innovation Center has the goal of teaching individuals how to become more innovative, productive and creative. Assisting those involved in industry on how to prepare work plans and the provision of advisory services to small scale businesses on how to effectively benefit from the financial support and credit possibilities of the EU and the Republic of Turkey are amongst the center's targets. Additionally, the center aims to create an economy based on production and productivity. Since its establishment, the center has actively prepared numerous work plans, carried out and finalized important projects. One of the most important missions of the center is the formation of a bridge between the business world and the university. In this respect, the center has initiated numerous connections to transfer the academic know-how to the state and private sectors.

#### **4. The special cases of University-SMEs and Start-Up cooperation**

The importance of SMEs in the development of economic activity and job creation is now generally accepted. This meaning becomes clearer when it is specified by sector of economic activity. Services are the largest and most dynamic sector with the highest growth rates. Starting a small business is often one of the hardest things a person can do.

Universities pay an important role in research, innovation and education and encourage SMEs to work together in order to achieve their goals. There is a general movement toward longer-term strategic partnerships between university and business, beginning with projects



up to sustainable strategic partnership. These projects need to embrace two, interrelated, elements of the sustainable partnership:

- the ability of cooperation to continue as an activity in the future, ensuring that the conditions are right for this; and
- the ability of society to absorb and benefit from the impacts in a sustainable way.

In this way we can minimize the negative impacts on society; and maximizing positive and creative contribution to local economies and the quality of life. The extent of development of the all elements of the model of cooperation will have significant affect to the extent of cooperation between university and business.

We still have a long way to go and we could, surely, use more support, funding and attention but we are getting there. Year by year the above mentioned activities will expand and will give more motivation, more knowledge and a broader entrepreneurial education.