



UNIVERSITY-REGIONAL PARTNERSHIPS: CASE STUDIES

MOBILISING UNIVERSITIES FOR SMART SPECIALISATION

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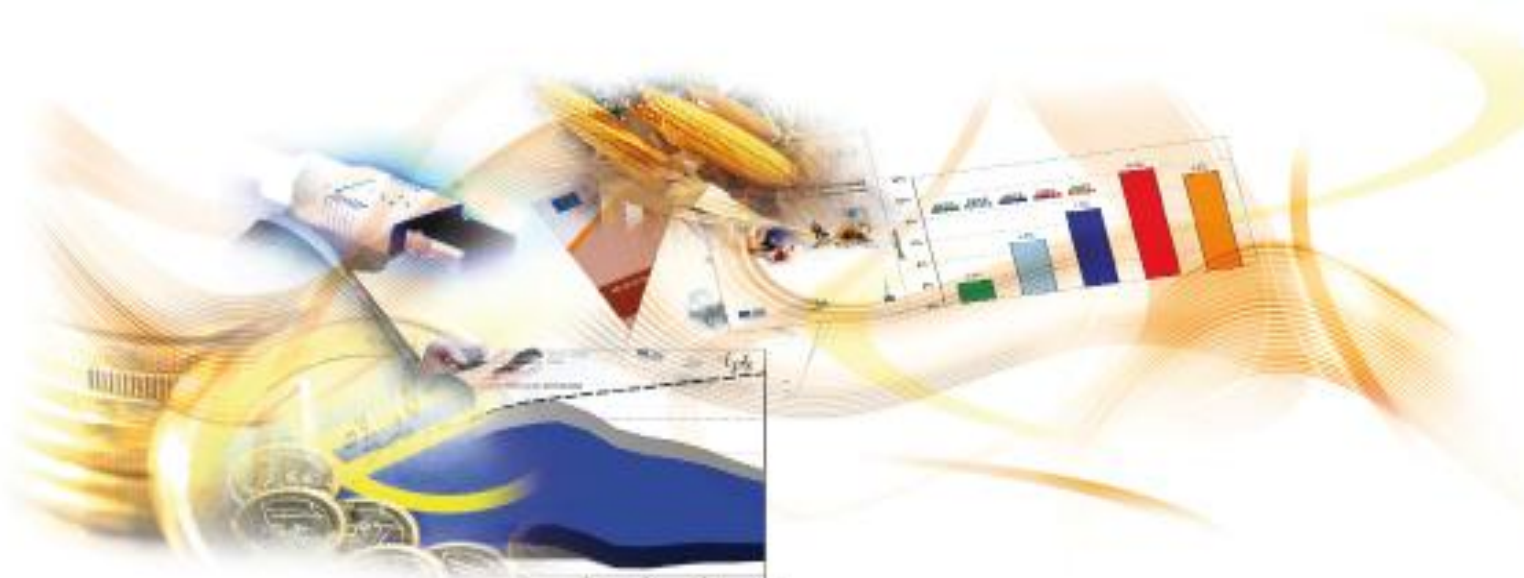


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INTRODUCTION

This booklet provides a variety of case studies of university-regional partnerships across Europe. All of them have been provided by members of the S3 Platform established by DG Regional Policy and managed by the Joint Research Centre in Seville.



<http://s3platform.jrc.ec.europa.eu>

The cases give an insight into how universities across Europe are engaging with local, regional and national authorities to help shape and implement Smart Specialisation Strategies (S3). It shows a diverse set of contributions, from providing regional economic data and analysis, proposing a relevant model of innovation for the territory, to chairing working groups of entrepreneurs designed to kick start a search process that is central to the smart specialisation concept.

Once S3 are in place universities can be expected to have a key role in implementation. This may include research work but also the interpretation of ideas produced across the world through international academic networks. The role of universities also goes well beyond research and includes training of future high skilled labour, entrepreneurs and business leaders. Universities are civic institutions too and have a unique potential to increase the knowledge of a country, region or city where they are located. In brief, they are a vital part of national and regional innovation systems whether this results in more technology transfer to high tech firms or the co-production of solutions for societal challenges.

Universities have long been involved in projects outside the faculty's walls. However, the smart specialisation agenda requires them to go beyond 'contractual' activities and build a long lasting strategic partnership with regional authorities. This type of 'transformative' relationship can be a real agent for change.

These cases studies have been prepared ahead of the high level conference 'Mobilising Universities for Smart Specialisation' held in Brussels on 20th June 2014. The conference is intended to raise the awareness of the crucial role universities can have in regional development and share experiences and different types of university-regional partnerships across Europe.

ALGARVE, PORTUGAL

University proposes regional vision and innovation model

Algarve involved its local university early in the process of developing its S3, and a cooperation agreement was signed on 12th October 2012. Together with outside advice from Professor Phillip Cooke, an international expert on regional innovation systems, researchers from the University of Algarve and the technical team of the CCDR Algarve (managing body of the Operational Programme) reflected on the most appropriate form of innovation for the region to pursue. This reflection was based in part on a large amount of data on the regional economy collected by the university and the CCDR Algarve for the purpose of developing the S3.

The Algarve region is highly specialized and dependent on tourism activities and tourism support services, which are susceptible to changes in demand and in recent years have seen a sharp reduction in economic dynamism (according to the OECD, Algarve has the 5th lowest level of industrial employment of all European regions with lower and is the 11th highest for concentration of employment in the largest five sectors).

Thus, the working team found that the challenge for Algarve is strategic diversification into niche markets within and outside the tourism industry. It also observed the relatively underdeveloped science and technology infrastructure compared to other regions. Without a critical mass there has been a big deficit of investment in R&D in the region.

These factors together led the researchers to develop a model for innovation that combines science and technology with a large element of DUI (Doing, Using and Interacting) processes. In other words, Algarve could become a knowledge based, learning region through the absorption of ideas, sharing and testing them in its own specific regional context.

The Algarve S3 builds on the past, namely its existing Regional Innovation Plan (PRIAlgarve), but breaks with it by establishing focus groups to explore future opportunities. These groups were organised and facilitated by the CCDR Algarve and the Innovation Centre of the University of Algarve (CRIA). The participants of the groups were strategically identified to avoid the silo effect of working in sectors that existed before.



"The close cooperation between the University of Algarve and the agency responsible for regional governance (CCDR Algarve) is based on two areas of expertise fundamental to the implementation of an operational regional innovate strategy and brings the knowledge of the University into the Community"

Prof. António Branco
Rector , University of Algarve

Prof Cooke has warned that too much may be demanded of the university: In particular, it cannot alone fill the gap left by underinvestment in R&D. However, as a key partner for the regional authority, it has had an important role in developing the S3 and with its international links can act as a centre for knowledge creation, absorption and diffusion.

In preparing the Algarve S3, a process began of involvement and cooperation of numerous regional stakeholders which came into contact with the university, sometimes for the first time. Thus network needs to be retained in the implementation phase of the strategy, in particular the involvement of the most relevant and dynamic partners in each of the priority sectors for the region.

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"The strategic partnership between the CCDR Algarve and the University of Algarve since the beginning of the S3 process is the key element to its successful implementation. The future of the regional economy is to be based on a strategic overlap between different priority sectors which will not happen without connecting knowledge, research, innovation and market needs. For this we rely on the involvement, network and capacity of the University of Algarve."

Eng. David Santos
President, Regional Development
Coordination Committee of Algarve

ANDALUSIA, SPAIN

Universities as catalysers of innovation, knowledge transfer and entrepreneurial spirit

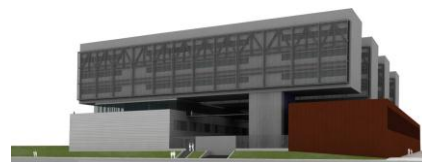
The S₃ of Andalusia has built a methodology to develop the recommendations of the S₃ Platform Guide on the issues related to participation, transparency and mobilisation of private firms in the governance of S₃.

Andalusian universities have been actively involved in the design of the S₃ of their region participating as key actors in all phases of the process and contributing to every decision-making body, such as in the Expert Panel (Vice-Rectors) and in the Director Committee (Rectors).

The priorities and vision for the Andalusian S₃ have been identified based on the analysis of strengths and weaknesses of the knowledge system and research capabilities within universities and firms located in the region. Together with business, universities have been key players in the entrepreneurial discovery process for the design of regional strengths. One of the most important outcomes of the S₃ process in Andalusia is the success in bridging the gap between university and business sectors.

Universities in Andalusia are considered as having been crucial for the significant changes occurred in the region during recent decades and their role today is also to achieve a balance between excellence and social cohesion.

Under the framework of the Spanish programme International Campus of Excellence as a means to achieve critical mass and to modernise the university sector, Andalusian universities are cooperating in various campus and projects such as the International Campus of Excellence Andalucía Tech, specialised in ICT, production technologies and biotechnology; the regional campus of excellence like the Ceia₃ campus, the BioTic Campus and CEI.MAR, focused on agribusiness, health and marine environment respectively; or the projects for becoming campus of excellence such as CamBio in the fields of environment, biodiversity and global change; and Patrimoniun₁₀, aiming to put in value the rich cultural heritage of Andalusia.



The mission of the International Campus of Excellence (ICE) Andalucía TECH is "to attract, integrate and develop talent by creating an ecosystem of generation of knowledge and innovation, committed to society so that the excellence level of educational and research activities increases through a sustainable, open and universal Scientific-Technology model of Campus.

<http://www.andaluciatech.org/en>

Aggregation, specialisation and internationalisation are values on which the ten public Andalusian universities have built their initiatives, closely linked to the priority sectors defined in the S3 and to the potential of the region.

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AUSTRIA

Empowering regional 'lead institutions' Developing 'fields of double strengths'

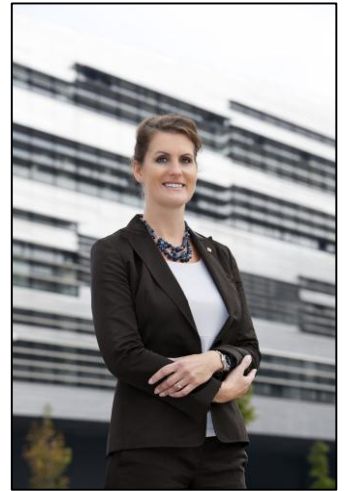
Austria's approach of supporting the creation of 'fields of double strength' incentivises the regions to simultaneously build on their academic and market strengths, thereby providing an excellent case of mobilizing and empowering the higher education sector for smart specialisation.

The Federal Ministry of Science, Research and Economy attaches a long-term perspective to knowledge and innovation-driven, place-based policies through a pro-active role in translating smart specialisation concepts into practical use. The ministry created a strategy unit for STI locations and regional policy, and initiated the "RIS3 KEY" that introduces the smart specialisation concept to research institutions, companies and regions by offering questions for self-assessment. By combining responsibilities for higher education with economic policy, the Ministry has a key role in bringing universities into the process of strategy formation, together with other public sector bodies and innovative firms.

Universities are empowered to fill their roles as regional 'lead institutions' to be active partners in the process of entrepreneurial discovery for the identification of regional strengths. In operational terms, smart specialisation has been included in the three-year performance contracts agreed between the government and universities. A total of 15 from 22 public universities have agreed to so-called 'Location Concepts' (*Standortkonzepte*) to complement their internationalisation and development strategies. They should actively participate in the regional S3 process, and their success might have an impact on future funding decisions.

The Styrian Conference of Higher Education Institutions, which itself is a self-organized regional group has decided to take an additional step forward by coordinating one joint Location Concept for all Styrian universities in order to take a coordinated view on the region's knowledge, technology and innovation strengths, and thus on future investment priorities.

The 'Science Space Styria' consists of five public universities, two universities of applied science and two colleges of



"JKU is proud of being a University with a clear focus on cooperative research. Basic research and academic teaching is on the agenda of every European University, but in our research portfolio we put a strong emphasis on cooperation with industry and on knowledge transfer into industry and society. Being integrated in the regions strategic planning in research is a vital asset in this endeavour."

Univ Prof Dr Gabriele Kotsis
Vice-Rector for Research
Johannes Kepler University



"Universities are not only 'affected' by regional strategies. They are lead institutions and active profile-shapers of their environment. How smart can specialisations be without them?"

Armin Mahr
Head of STI Locations, BMWFW

education. Altogether it boasts a budget of 700 million euros, around 55 000 students and 12 000 employees. Its mission is to coordinate strategies and research profiles, jointly develop a Location Concept including key research projects and clusters (e.g. BioTechMed and NAWI Graz), and to increase awareness of the general public, authorities and the business sector for topics and issues of science and research in Styria. Furthermore, it aims at coordinating the applications of projects for European funding programs and the coordination in planning and use of research infrastructure.

In Upper Austria, its higher education institutions (Johannes Kepler University, the University for Applied Sciences, Fachhochschule Upper Austria and the Upper Austrian Council for Research and Technology) have long been consulted in strategic innovation policy making since the programme 'Innovation Upper Austria 2000+'. The latest programme is the region's S3. This time universities have been actively involved in shaping five 'fields of activities' (S3 priorities), namely Industrial Production Processes, Energy, Health/Ageing Society, Food/Nutrition and Mobility/ Logistics. Furthermore, they will continue to take part in their monitoring and further strategic development: By chairing the field-of-activity-committees they will give recommendation on whether to support submitted key projects/initiatives. Furthermore their faculties are strongly involved in achieving impact by participating and implementing projects.

Beyond these two highlighted regional examples, the Federal Ministry of Science, Research and Economy actively cooperates with all public universities to implement principles of Smart Specialisation in universities' strategic concepts, teaming up with regional smart specialisation initiatives.

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"Smart Specialisation helped universities to position themselves as appreciated partners in the Austrian innovation community as well as in initiatives for development and implementation of regional strategies."

Prof Dr Johann Kastner
Vice-President for Research
University for Applied Sciences,
Upper Austria

CAMPUS IBERUS (ARAGÓN, NAVARRA, RIOJA, CATALUNYA), SPAIN

Collaboration to achieve critical mass

Campus Iberus is the Campus of International Excellence (CIE) of the Ebro Valley, a strategic alliance formed by the public universities of the autonomous communities of Aragon, La Rioja, the Chartered Community of Navarre, and the province of Lleida in Catalunya.

This collaborative initiative aims to overcome the fragmentation of higher education across four Spanish regions. Uniting the four universities mitigates the geographical and administrative limitations and creates critical mass in a number of key areas for smart specialisation.

All the universities that form part of Campus Iberus had an active role in the development of the S3 in their respective regions. Importantly, as a result of the network, the identification of interregional cooperation has been defined as one of the key elements for the implementation of the regional strategies. Campus Iberus has also contributed to the definition of the Operational Programmes of the new European Structural and Investment Funds.

This initiative is considered a unique opportunity to stimulate an active dialogue in these regions involved in the S3 process. On the one hand, this will help universities to focus on a limited number of priorities and, on the other it will reinforce the interregional cooperation, promoting an entrepreneurial discovery process within the four regions.

Campus Iberus has several identified fields of specialisation based on the partner universities' capabilities, the specific geographic context and the big societal challenges at European level: Sustainable Energy; Technology aiding the health of the citizen; Food and Nutrition; and Cultural heritage preservation.

Campus Iberus has recently launched an initiative which aims to define and develop R&I projects based on the identification of common objectives set out in each of the four regional S3 (Aragón, Navarra, Rioja and Cataluña), and which match the areas of specialisation of Campus Iberus. This initiative aims to build synergies and collaborative projects between these four



"Campus Iberus strengthens links with the productive sector, involving businesses, institutions and society as a whole in the process, with common objectives and planning, and building together the scientific, academic and innovation model, that is the threefold mission of a modern university".

<http://www.campusiberus.es>

universities together with companies and firms in the regions, where there is common ground in the S3.

The following activities are being carried out:

- Analysis of the four S3 and identification of common areas of specialisation.
- Definition of potential areas of collaboration.
- Analysis of financial instruments and funding opportunities.
- Definition of specific Research and Innovation projects.

One key element is also the established cooperation with the French Universities of Toulouse and Pau. This will mean that this activity can be extended to the regions of Aquitaine and Midi Pyrenees.



"Iberus was created with an international vocation; it is rooted in society and committed to development. It is established as a creator of culture, a thought enhancer and the engine for economic progress, it represents a space for continual change and exchange promoting science, culture and technology."

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CASTILLA Y LEÓN, SPAIN

University-Business Knowledge Transfer Programme

Universities have played a key role in the innovation policies and strategies in Castilla y León region since the early 1990s. They were main participants in the first *Regional Technological Plan (RTP)* and in the creation of the Technological Centres Network.

When defining the Smart Specialisation Strategy (S₃), the Regional Government (*Junta de Castilla y León*) encouraged universities to participate in the working groups linked to KETs, in the specific focus-groups and also in the in-depth interviews.

For more than a decade, Castilla y León has acquired much experience to improve the contribution of regional universities to its R&D&I policies. A good example is the "*LEGITE project*" (2002-2003), launched as a part of the *ERDF Regional Innovative Actions Program (RIAP)* in order to promote a better access to innovation in rural and peripheral areas. In 2002, *LEGITE* developed an innovation intermediaries network (*Regional Innovation Agents Network*) aimed at detecting technological needs in companies located in peripheral areas and then contacting experts in universities to generate joint solutions.

The "*University-Business Knowledge Transfer Programme*" (*T-CUE*) was launched by the Regional Government, through *FUESCYL (Universities and Higher Education Foundation of Castilla y León)*, in the framework of the Regional R&D&I Strategy 2007-2013, specifically within the University-Business Strategy 2008-2013. Today *T-CUE* continues to have an important role in the context of the new S₃.

The programme is led by the Regional Government jointly with a network of eight universities (four public and four private) that develops actions aiming to increase and improve the relationship between researchers and the regional productive sector, providing scientific knowledge and innovative solutions for SMEs needs.

In this context, some specific actions have been launched. The "*Hub TCUE Plus Project: entrepreneurship and education*" provides training in order to promote entrepreneurship among



The eight universities with campuses in Castilla y León and the Regional Government integrate FUESCYL (Universities and Higher Education Foundation of Castilla y León). FUESCYL coordinate the "*University-Business Knowledge Transfer Programme*" (*T-CUE*).

<http://www.redtcue.es>

students in scientific and technical degrees, trying to increase the number of new knowledge-intensive companies; the "*University-Business Challenge*" as an initiative where companies look for university research groups that could satisfy their needs for innovation; and the "*Market Oriented Prototyping Programme*", for students and researchers, which funds the development of market-oriented prototypes and proofs of concept.



"EL CAMPUS"
(Author: Alicia Mediavilla)

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LOMBARDY, ITALY

Regional university system supporting S₃ processes

Before the S₃ process began, Lombardy already had a well-articulated regional knowledge system based largely on 12 academic institutions (six public universities, one polytechnic, five private universities and a university school for advanced studies). All play an important role in knowledge transfer to the business world. Several years ago, the region set up a high level working group composed of rectors of the university system.



Regional Government of Lombardy

Universities have been an integral part of the S₃ process. All Rectors have been involved in decision making in the high level working groups which met throughout the process. Furthermore, diverse departments of the academic institutions have actively participated in the public consultation process. Now the university system is involved in planning the implementation of the regional S₃, which includes the creation of a joint research platform.

Within the process of designing the S₃ strategy, Lombardy has implemented an integrated approach through inter-institutional cooperation, directly involving planning policies to support research and innovation. A method has been gradually put in place where members of the business community, trade unions and the region work as a team for the development of the region, increasing the involvement of society wherever possible.

Focus groups on technology clusters have been formed to address regional challenges and to formulate priorities through the process of entrepreneurial discovery. These groups include representatives of regional clusters, businesses, experts in technology transfer and innovation, researchers, representatives of spin off companies, associations and other entities operating on technological platforms.

A General Assembly on Research and Innovation was formed and started the process of public consultation on the S₃.

The region is part of the 'Vanguard Initiative for New Growth by Smart Specialisation' along with 16 other European regions. It is intended to identify S3 as engine for the development of new emerging industries capable of driving the dynamics of internal growth in Europe. Through this initiative pilot joint investments will be promoted within the fields of common S3 priorities.

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LOWER SILESIA, POLAND

City authority driving forward the partnership

In 2007 and 2008 the five major universities of Wrocław created jointly with the city authorities a singular strategic vehicle (Wrocław University of Technology, University of Wrocław, the Wrocław Medical University, Wrocław University of Life and Environmental Sciences (followed by University of Economics)).

The Wrocław Research Centre EIT+ Ltd. was established as the largest single research and implementation infrastructure project in Poland between 2007-2013 (financed mainly from the EU's Structural Funds). It has been running two research programmes; BIOMED and NANOMAT aimed at concentrating research potential in two areas selected both for their future commercial value and on the local research potential. The company is an instrument to bridge the gap between universities and real business in Lower Silesia on strictly economic principles. This prioritisation and mode of implementation will be built upon during the S3 process.

The new dedicated research infrastructure is located in 27 hectares campus donated by the City, whose contribution to the process far exceeded previous practices of Polish municipal authorities. Phase one of the project is complete, offering superbly equipped research space for both universities, local industry and business. The entire investment will be completed by the end of 2015.

Researchers affiliated to the Centre are recruited locally and from abroad, mostly through returning grants. The uniqueness of the initiative has been recognised in a recent OECD study as well as in the reports commissioned by various Directorate Generals of the European Commission. The project can provide an example of boosting innovation performance beyond the Lower Silesia region. The initiative was developed jointly by the academic community of Wrocław, local business champions and the City authorities leading up to and continuing in the S3 process.

Several spin-offs have been created and sold. A novel Academia2Business mechanism has been initiated to bridge the research and business communities. One of major tasks of the centre is the management of IPs created in the Centre.



Wrocław Research Centre EIT+ Ltd

The main stakeholders are the academic institutions and the regional authorities with the support of the National Government. The new campus has become a hub for a new quality of R&D activities. It has provided inspiration for other Polish experiences in terms of the institutional model adopted.



Campus of Wrocław University

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NORTE, PORTUGAL

Universities as cornerstones of regional innovation system

Norte is a follower region where the innovation system is still under consolidation. Universities are cornerstones in this process as the most technologically capable partners, as well as the structuring elements for the knowledge intensification of the regional economy. Universities were involved in the planning phase of the S₃ and will be actively involved in its implementation.

Firstly, the universities of Norte region are an integral part of the S₃ governance model. Smart specialisation platforms have been established for each domain and will have 15 members drawn from universities, firms and society, being led by a champion and supported by the regional authority. These platforms will build thematic action plans and develop coordination and prospective actions that will take the form of policy recommendations to be presented to the Regional Innovation Council. Hence, universities will be active in the operational intelligence and coordination of actions. The proposals for policy priorities (including anchor projects), for new calls and respective assessment criteria will be submitted to the Regional innovation Council. This body will analyse all thematic proposals and make recommendations for allocation of funds by the Managing Authority. The Regional Innovation Council includes the rectors of the region's three universities. For the first time, actors are being brought to the table in the process of discussing, from an everyday operational perspective, the allocation and focus of structural funds and universities will have a major role in this true participative process, being fully involved in the policy making but also in being co-responsible for it.

Secondly, through the intervention of the leader of the regional authority, the three universities of Norte (Minho, Porto and Trás-os-Montes e Alto Douro) have formed a consortium in order to merge capabilities, facilitate knowledge diffusion and improve cooperation. This consortium, officially signed in 2014, formalizes and intensifies the level of strategic cooperation beyond the level of exchange of students and common doctoral programmes (e.g. one of the goals is to rationalise courses and avoid overlap, transferring students to one location), to the level of facility sharing. This intensification of cooperation was already in the making,



University of Minho



University of Trás-os-Montes and Alto Douro (UTAD)

resulting from continuous and close interaction during the process of the S₃ formation.

Cooperation between the regional universities can be illustrated through the regional S₃ domain of Food and Environmental Systems. Discussions with researchers and firms showed the need to mix several different approaches to respond to market trends in terms of precision agriculture and the re-creation of ecosystems that reduce the use of pesticides through the introduction of natural predators of certain plagues. This is one example where, given the strong participation of universities in the smart specialization discussions, it became clear that innovation potential was higher if different scientific approaches were merged (traditional agriculture and veterinary sciences, biotechnology and systems' engineering). UTAD is well established on agriculture and veterinary sciences. Minho also has some relevant competencies, especially in the areas of biological sciences and biotech focussed on the food sector. Porto intends to develop a strand of research associated with hard-core engineering and new technologies to support the new more industrialized modes of production.

A project proposal has already been submitted to the current regional Operational Programme as joint-venture of these three universities. Each would deploy their complementary capabilities, thus exploiting the full benefits of related variety through the mixing of different knowledge bases, know-how and know-who, in a healthy cooperative environment, allowing for the creation of a living lab for new technologies and to support innovation in firms and entrepreneurship through the support to start-ups.

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OSTROBOTHNIA, FINLAND

Novel approach to improve connectivity in Smart Specialisation developed by university

The University of Vaasa has been central to the identification of S3 partners in Ostrobothnia through a novel approach to analysing the regional economy. The approach was developed by a partnership of the Regional Council of Ostrobothnia and partners from the Hanken School of Economics and Vaasa University of Applied Science. It is based on a structured triple helix dialogue including surveys and focus groups, with a bias towards connectedness (within the region and externally), as a driver for innovation.

The aim of the model is to map the innovation network of the region, identify its main shortcomings and find remedies using available resources. This resulted in a gap analysis between 'experience' and 'expectation' of the main S3 partners. The same gap-analysis is also applied to KETs, surveying stakeholders on their importance 'now' and 'in the future'.

The model builds on the economic outward orientation of the region where leading competitive enterprises are well connected internally and globally. The model aims to inform policy measures that foster even better and more systematic interaction in order for the region to collectively learn how to develop a more business orientated innovation system.

The driver of innovations in the Ostrobothnian context has been business networking and customer proximity combined with applied and scientific research. The key to success is working together and understanding the needs of the end users. This has now also been applied to the quadruple-helix partners.

The method was developed over a period of 15 months and resulted in a workshop held at the same time as an S3 Platform peer review in May 2013, called: "Measuring Quadruple Helix Connectivity: Towards a Strategy for Smart Regional Governance". Measuring connectivity also provides a means to monitor the efficiency of investments.

Furthermore, the method has been developed in a partnership with the University of Nordland, Norway providing a set of comparative data as a base for transnational learning. The



Vaasa University Campus from the air



Wärtsilä Vaasa produces Marine diesels that comply with the EU Baltic Sea Sulfur Directive, and is one of the pillars of the regional economy.



"Innovation policy making in today's changing world is highly challenging. Smart Specialisation can be a learning journey to make better and more informed decisions"

Mr Olav Jern
CEO, Regional Council of
Ostrobothnia

transnational learning element will be further widened in international partnerships and deepened in research carried out in the partner universities.

The connectivity concept and the definition of partners regionally but also globally promotes horizontal coordination within the region. European integration is also promoted by mapping the innovation networks and working together with our closest partners. The model is developed against the background of dominating TNCs combined with dependent lock-in SMEs which is also quite common in other regions.

The model is simple and intuitively understandable and can be easily applied in regions with “dirigiste” features in their innovation governance systems, providing an alternative to models that may only work in large regions with high levels of autonomy.

The Regional Council of Ostrobothnia seeks to use the method as a part in a multi-level dialogue on innovation policies. The Department of Regional Studies at the University in Vaasa will continue to develop the methodology and the Regional Council will work with European partners to share experiences in policy making that can be used to address the specific context in Ostrobothnia informed by this new analytical model.

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"Vaasa University is committed to working with the region to achieve smart specialisation. Our business minded university has strengths in the strategic fields of Energy, Management, Finance and Multilingualism"

Prof. Matti Jakobsson
Rector, Vaasa University

SOUTH MORAVIA, CZECH REPUBLIC

Masaryk University – an engine of innovation

South Moravia was one of the first regions of Central and Eastern Europe to launch an S₃ process in which Masaryk University has taken an integral part from the beginning. Clear and tangible outcomes of the S₃ process have made their experience highly inspirational for neighbouring regions.

The partnership with Masaryk University began more than a decade ago: It was a co-founder (together with the region, the city of Brno and other universities) of an innovation agency called South Moravian Innovation Centre (JIC) in 2003 and also was also a co-founder of JCMM, the talent development agency, in 2005. Several start-ups and spin offs are have originated in Masaryk University, such as Y Soft Corporation, Invea-Tech, Comprimato, CaverSoft, Aceemce, Enantis and PhoneX, which have created hundreds of hi-tech jobs.

The South Moravian S₃ has identified five horizontal priorities (Governance, Excellence in Research, Competitive innovative companies, European-class education and regional attractiveness) and six vertical priorities (aerospace; advanced manufacturing technologies; scientific instruments; software & hardware development; drugs, health care and diagnostics kits).

Masaryk University researchers are members of permanent working groups for each horizontal priority. Each working group has approximately 15 members, who are responsible for formulating objectives, activities and projects. The S₃ Steering Committee approves the results of the working groups. The Rector of Masaryk University is a member together with the Deputy Regional Governor, the Mayor of the City Brno, other rectors and representatives of the principal industrial sectors. The Steering Committee, which meets four times per year, is also responsible for defining the mission, the vision and strategic priorities of the S₃.

University researchers provide key relevant research expertise and are members of permanent working groups for the vertical priorities. They are joined by industry representatives who bring market knowledge to the table. The results of the working groups are expected to include joint research projects or policy tools in line with the horizontal priorities, which will



"The core area of Masaryk University involvement in the RIS₃ process lies within the horizontal priority excellence in eesearch and in vertical priorities: cybersecurity and cognitronics; scientific instruments (electron microscopy)."

Mikuláš Bek
Rector of Masaryk University

be proposed to the S3 Steering Committee.

The priority Excellence in Research is central to the partnership with Masaryk University and has two strategic objectives:

- *To improve the quality and problem orientation of public research in South Moravia:* To support this objective, several projects and policy tools being developed, such as a teaming project in Horizon 2020 which would reflect the needs of the electron microscopy cluster, and the South Moravian Programme for Distinguished Researcher to fund incoming and reintegrating researchers which will provide expertise for the vertical priorities.
- *To maximize the economic benefits of public investment into R&D in South Moravia:* Projects and policy tools developed to support the objectives are: a Cyber Security Competence Centre, or a regional proof of concept. The innovation vouchers scheme has been prolonged, besides the Tech startup accelerator initiative (JIC|StarCube), whereas 15 new companies have been created.



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SOUTH OSTROBOTNIA, FINLAND

Connecting the region to external sources of knowledge

In South Ostrobothnia, universities have been closely involved in the development of S₃, but in a smart approach the universities are headquartered outside the region. They are part of a consortium of Finnish regions that have developed a satellite campus in the town of Seinäjoki. This shows that connecting the region to external knowledge centers can sometimes be a better alternative than creating a new institution at home.

In the absence of a university, the municipalities of the region founded the University Association of South Ostrobothnia in 1960. It offered summer university services and later regular university courses with an “open university” model. Furthermore, it lobbied the government for establishing a new university in the region. However, instead of a massive infrastructure investment which occurred in other regions, an endogenous, sustainable evolution began.

The first crucial step was the establishment of the first university filial in Seinäjoki in 1981 by the University of Tampere. Since then five others have been established, the latest being a unit of the Tampere University of Technology (2002). In 2001 regional actors and partner-universities signed a programme agreement to create a network that links together high level research and private enterprises and also public service-producers. This bottom-up activity was supported by the new national concept of university consortia.

The University Consortium of Seinäjoki became operational in 2004. The university units provide adult education as well as research activities, enhancing the demand for scientific knowledge among the region’s workforce. All the essential actors in the region have been highly committed to this evolved multi-university approach and innovative organisation of university activities and services.

From the perspective of the regional smart specialisation process this multi-university approach is highly beneficial. The basic principle concerning all the university activities is to be both of high academic standard and beneficial to businesses and other spheres of the regional community. The idea is that all the research fields conducted in South Ostrobothnia are



University Consortium of Seinäjoki

highly relevant both to the region (e.g. key fields of industry or growing business sectors) and to the universities, creating a win-win situation. In addition, the national specialisation and interdisciplinary nature of the research fields are emphasised.

Private businesses play a key role in planning and steering the research programmes. They also fund the research: More than 100 enterprises, including SMEs, have donated funds to finance the research fields. This South Ostrobothnian collaboration between firms and universities has been selected as a best practice case in a report of the Finnish Higher Education Evaluation Council in 2013.

These basic ideas described above and the engagement and interaction with other regional actors have become essential to the university units located in South Ostrobothnia. The S3 agenda strengthens this collaboration between the universities and businesses in the region.

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VÄRMLAND, SWEDEN

Aligning university and regional priorities

The S₃ framework in Värmland is being built on the foundations of six years of partnership with Karlstad University. The region was reviewed as part of the OECD's initiative "Supporting the Contribution of Higher Education Institutions to Regional Development" and this resulted in an ambitious collaborative agreement, co-financed by the region and the university.

Four cluster organisations (Compare, Steel & Engineering, The Paper Province and The Packaging Arena) representing the key strategic industries in the region also participated by working together with researchers at the university to formulate the content of the collaboration. As a result over 20 projects have been launched, the most significant ones being the '10 Professors' programme.

Eight of the ten professorships are defined in the intersection between the university's strategies and the development areas of the cluster organisations in Värmland (and their member companies). Subjects that these professors will cover include: Production technology, improved energy efficiency, the development of services in the engineering sector, user-focused packaging development, renewable energy, testing of software systems, materials science and cloud-based IT services. The other two professors are linked with municipal school development and regional development in general, which are also forming important links with the cluster organisations looking at broader issues of regional development and education policy.

In June 2013 that the regional business cluster, The Paper Province received SEK 130 million from the Swedish research and innovation agency Vinnova, as one of three winners of the highly competitive Vinnväxt competition. The grants have secured the financing of The Paper Province for the next ten years. The funds will be used to research, develop and commercialise new products and services in the bio-economy, mainly for the forest industrial sector. All partners acknowledge that this outcome would have been unlikely without the cooperation agreement between the region and Karlstad University. This demonstrates a major successful outcome for the collaboration and shows what can happen



Karlstad University and the Region of Värmland have had a strategic collaboration agreement since 2008.

<http://www.kau.se/en>



"It is not enough for a university to develop new knowledge; we also have a responsibility to make sure it's put to use. Joint efforts with public organisations and trade and industry add to our research. We gain access to data, get the opportunity to carry out experiments and test models and theories in real life situations - and our partners benefit directly from our results"

Åsa Bergenheim
Rector of Karlstad University

when regions and universities act together in 'smart' ways.

This strong partnership has formed the basis for Värmland's thinking on S3. The '10 Professors' programme has contributed to shaping the regional priorities. At the same time, the region acknowledges the risk of 'lock-in' if the priorities are defined too narrowly. It will attempt to mitigate this risk by using the work of two new research centres (SP and [The Interactive Institute](#)) that focus on service innovation and collaboration between research, business and civil society, which can help in monitoring the demand for the selected S3 priorities.

The University has strong connections with regional innovation business clusters in its teaching as well as its research. This is reflected through research funding partnerships, professional up-skilling programmes, degree programmes including work-based learning, and close matching of university courses with regional S3 priorities.

Several recent projects have already been identified for implementation of S3 in Värmland. One of the objectives of the strategy is to increase absorptive capacity in SMEs which can be helped through initiatives such as the 'borrow a professor for a day' scheme. Initiated first by the Paper Province Cluster, it aims to break down barriers between academics and business. Due to its success, the scheme will continue in the recently opened Innovation Park at Karlstad University campus supported by the region.

The main reason for the success of the collaboration and its role in fostering regional smart specialisation is the long term partnership between region and university. Despite changes in the leadership of the university and the regional authority, the partnership has in effect become 'institutionalised' as part of the governance arrangements of the regional innovation system.

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We can already see that the new professors have helped to provide local companies with valuable knowledge and greater competence. There have been several external recruitments that will now establish new research environments at Karlstad University, which in turn will impact trade and industry in Värmland.

Tomas Riste
Regional Commissioner, Värmland