

Report on joint EUA- REGIO/JRC
Smart Specialisation Platform expert workshop:

The role of universities in Smart Specialisation Strategies



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Foreword



Maria Helena Nazaré
EUA President

Fostering the engagement of Europe's universities in Smart Specialisation Strategies for research and innovation activities and skills development in European Union regional policy is a major priority activity for our Association which has a substantial proportion of its 850 members in regions where European Regional Development Funds and European Social Funds are important, particularly in new Member States.

We need to fully mobilise the capacities of Europe's universities to contribute to regional economic and social development and this will be a crucial factor for the success of the Smart Specialisation Strategy.

To help achieve this important goal, EUA has recently developed a partnership with the Joint Research Centre in Seville, Spain, specifically its Smart Specialisation Platform, to bring together regional policy makers and university leaders to discuss the role of universities and the best practices in place across Europe. The present joint report from EUA-DG REGIO/JRC Smart Specialisation Platform is the result of a ground-breaking expert meeting held in Seville involving leaders from universities and regional bodies who made a set of recommendations drawing upon existing best practices in collaborative activities.

I am delighted that EUA has established a strong working dialogue with the European institutions in moving forward this key initiative. The introductory contributions to this report from both Commissioner Máire Geoghegan-Quinn and Commissioner Johannes Hahn, and Maria de Graça Carvalho MEP give recognition to the critical role that Europe's universities must play and the challenge involved in doing so. Addressing this challenge requires a substantial shift from "business as usual" with respect to future use of the EU Structural Funds for all relevant actors. It relates also to another key high-priority EU policy goal of achieving greater synergy between the Horizon 2020 programme and the ERDF/ESF cohesion policy in skill development, research and innovation investment for growth and jobs.

For Europe's universities, most importantly, their education and training capacities should be crucially linked to research and innovation activities, with universities mobilising these capacities to provide input to the development of Smart Specialisation Strategies at the design stage together with the regional authorities. Greater emphasis is needed also for Smart Specialisation Strategies to have European added value at the regional level, including cross-regional collaboration where desirable.

The report and its recommendations present a concrete outcome of the Memorandum of Understanding on the European Research Area signed between EUA and the European Commission DG Research and Innovation in 2012. The new partnership with DG Regio/JRC Smart Specialisation Platform has been followed up through a special workshop session on "Higher Education Institutions and Smart Specialisation" held in October 2013 during the Open Days of the 11th European Week of Regions and Cities (also in collaboration with DG Education and Culture and the European Institute of Innovation and Technology).

As the next step, we plan to convene a major "high-level" event, including universities and national and regional authorities, to be held in Brussels in 2014, to present and debate new "guidelines" for regional-university cooperation in Smart Specialisation Strategies with the objective to inform future implementation of EU Structural/Regional Funds.

Preface: European Policy Context



Máire Geoghegan-Quinn
European Commissioner for Research,
Innovation and Science



Johannes Hahn
European Commissioner for Regional Policy

Science, innovation and regional policy in times of crisis. As the scientific arm of the European Commission (EC), the Joint Research Centre (JRC) plays an important role in addressing key societal challenges by stimulating innovation through new methods, tools and standards. These challenges require the mobilisation of significant resources by science, innovation and regional policy makers and scientific communities across Europe. Greater coordination is also critical for the success of the Europe 2020 strategy for smart, sustainable and inclusive growth.

Regional policy must meet science. In the course of human pursuits there is rarely complete agreement on the road to take; yet at least one of its features is beyond dispute. The vehicle taking Europe forward must be knowledge-driven, and its indispensable motor is science: knowledge generation, absorption and application. A concerted effort among policy makers at all levels is needed in order to make the most of the cutting edge science that Europe is capable of producing.

... and science must meet regional policy and enterprises. Universities are increasingly called upon to adjust their work, both in terms of research activities and human capital development, to better meet the needs of business and society. If universities take active steps in this direction the knowledge and talents they generate will be of even greater value.

The JRC and DG REGIO set up the Smart Specialisation Platform (S3 Platform) in the JRC-IPTS Institute to provide support to Member States and regions in developing Research and Innovation Strategies for Smart Specialisation (RIS3) — towards fulfilling an ex-ante condition for the use of the European Regional Development Fund in support of innovation in 2014-2020.

In this context, the JRC and DG REGIO place strong emphasis on developing and maintaining a close relationship with universities in the EU. Universities, represented by the European University Association (EUA), play a pivotal role as a bridge between the EC and the European academic community.

In February 2013 the S3 Platform and EUA organised a joint workshop on the role of universities in Smart Specialisation, bringing together regional policy makers and senior university managers. The event highlighted that collaboration between academics, business and policy makers, particularly at regional level, is critical to closing the gap between theory and practice in planning and implementing RIS3. The JRC and DG REGIO believe strongly in the value of this collaboration and acknowledge the valuable efforts of EUA in this area.

Universities have a critical role in innovation. The role of universities in stimulating innovation is indisputable. Excellence must be promoted throughout Europe to create and sustain industrial leadership and to address today's challenges across disciplines and research fields. Identifying the most appropriate

policies is therefore crucial. To best exploit the scientific potential of the EU requires a strategic vision and the design of policy measures that take into account existing strengths.

One of the key messages underscored in the pursuit of RIS3 is the often untapped potential of universities to contribute to regional development and the need for their fuller integration with the regional economy. In this regard, Structural Funds can be used to support innovation projects and research infrastructures that are conceived by the regional/national authorities in close cooperation with innovation actors, including the research community and enterprises. It must be stressed that Structural Funds are not intended to cover the general operational costs of universities – the main source of financing for universities will continue to come from national or regional budgets, competitive funding and increasingly from the private sector.

Smart Specialisation is a strategic approach to economic development through targeted support to R&I. It will be the basis for Structural Fund investments in R&I for the period 2014-2020. Universities can be crucial “Smart” players and the collaboration between the JRC, DG REGIO and EUA is a critical step to exploit their potential for innovation.

In closing, and as highlighted in the S3 Platform-EUA February 2013 Seville workshop, Smart Specialisation provides an opportunity for universities to be engaged constructively, together with other stakeholders, including the private sector, in identifying areas of potential specialisation in regions and Member States.



Maria da Graça Carvalho
Member of the European Parliament

Research and innovation are the foundations on which further economic development and job creation can be built. Advancement in science is crucial to the improvement of our quality of life as this includes matters of direct concern to Europeans such as health, air and water quality.

We cannot achieve improvements in the quality of life in Europe without a properly weighted budget that promotes the distinct advantages of research at European level. Horizon 2020 – the European Research and Innovation programme that will run from 2014 to 2020 with a budget of €70 billion – is a cornerstone of European policy in this respect. The sole criterion for Horizon 2020 is excellence, without geographical constraints.

Another policy of major importance is regional policy. The major objective of this policy is to support economic cohesion, reduce socio-economic disparities between the different European regions and to promote growth. Research, technological development and innovation are key aspects to regional policy and one of the main goals, in this respect, is capacity building in the field of research and innovation. This will foster greater competitiveness at a regional level.

Research and innovation policy and regional policy should be complementary and we should seek to build bridges between the two. In the European Parliament, the rapporteurs for both Horizon 2020 and the regional programmes have made provisions for greater synergies between the various programmes involved.

This entails building bridges in both directions between Horizon 2020 and the Structural Funds. In Horizon 2020, we have introduced the concept of “spreading excellence” and “widening participation”. The goal here is to foster teaming and twinning initiatives in order to establish and reinforce partnerships between regional research units, countries and leading international counterparts.

This will enable Europe to construct units of embryonic excellence, such as small research groups and highly innovative start-ups. Such stairways to excellence will be able to lever support from the Cohesion Funds and this will contribute significantly to the creation of critical mass from existing seeding grounds.

At the same time, we have also taken considerable care to construct bridges in the opposite direction from the Structural Funds to Horizon 2020. In particular, the Structural Funds have a complementary role to play with regard to what Horizon 2020 seeks to achieve. Upstream from Horizon 2020, the Structural Funds can be used for capacity building, downstream from Horizon 2020 the Structural Funds will help smooth the passage from conception to market.

In this respect, the concept of Smart Specialisation is key to building these bridges. Smart Specialisation involves developing a vision, identifying competitive advantages and setting the priorities for research and innovation at a specifically regional level. Universities and higher education institutions have a central role to play in furthering Smart Specialisation Strategies and, in the process, building bridges between Horizon 2020 and the Structural Funds in both directions.

The following report is particularly timely and valuable as it gives a series of concrete recommendations about how best to involve universities and institutions of higher education in the process of furthering Smart Specialisation and building the two-way bridges of which I have spoken above.

Executive summary of main outcomes of the workshop

There was an agreement that universities and regional authorities have a unique opportunity to form close partnerships that, together with industry and other stakeholders, can maximise the use of EU Structural Funds for research and innovation to deliver economic and social development. From the perspective of universities, it is vital that there is more clarity on how they can benefit from the Structural Funds and how to achieve a greater synergy with competitive EU research funds (Horizon 2020). One way to start addressing these issues is through the design of Research and Innovation Strategies for Smart Specialisation (RIS3).

In summary, a set of core issues and recommendations were agreed, as follows:

- recognition of the role of universities as a key partner in taking forward successful Smart Specialisation Strategies in partnership with other stakeholders in the region;
- the need for Smart Specialisation to build on the specific profile and opportunities of European regions, which should include the unique contribution of universities;
- active promotion and publication of Research and Innovation Strategies for Smart Specialisation (RIS3) to motivate participation of key stakeholders;
- coordination of regional/national/European RTD and innovation programmes, coupled with a necessary reduction of the complexity and range of different administrative procedures;
- creation of opportunities for the alignment of university research portfolios to RIS3 priorities, including through balanced recognition and incentive mechanisms for both research and innovation activities in universities;
- better alignment of timelines for the different stakeholders (universities, regional authorities and other external actors);
- development of appropriate instruments for synergy opportunities in competitive/structural funding with respect to: R&D capacity-building in infrastructure but also crucially in human resources and multi-disciplinary approaches; maximising use of generated knowledge through university-business dialogue and deployment of knowledge in both technological and social innovation;
- development of incentives for: academic research careers relating to regional priorities; R&D careers outside academia including valorisation of the contribution of doctorate holders; investment in high-risk spin-offs and venture capital; local firms and universities to work collaboratively; and
- ensuring the sustainability of Smart Specialisation Strategies beyond the structural funding timeframe.

Universities should be recognised as a vital partner for regions in the design and implementation of successful RIS3. Universities can benefit from Structural Funds for research and innovation (R&I) activities if they reach agreement with regional authorities on priorities for the region. For regions, the benefits should not be simply new infrastructure in physical terms but also importantly in investment in human capital development and services to the region. For the 2014-20 Structural Fund cycle, the EC has a new role in approving national and regional RIS3 strategies to meet the ex-ante conditions of the EU's Cohesion Policy. The above set of core issues and recommendations could valuably feed into the assessment of RIS3 and monitoring and evaluation of Structural Fund Operational Programmes that fund research and innovation activities.

1 | Background to the workshop

On 21 and 22 February 2013 at the premises of the European Commission Joint Research Centre, the Institute for Prospective Technological Studies (IPTS), in Seville (Spain) a group of experts from regions and universities with experience of cooperation in research and innovation debated the potential roles that universities could play to enhance their contribution in developing and implementing national/regional “Smart Specialisation Strategies” (RIS3). This in turn would help to maximise the use of EU regional funds for research and innovation activities to further economic and social objectives, and importantly, achieve greater synergy between EU structural and competitive funds (Horizon 2020).

Within the new Cohesion Policy framework, Smart Specialisation has been proposed as an “ex-ante conditionality”. Every member state and region will need to have a “strategic policy framework for Smart Specialisation” in place before they can receive EU financial support through the Structural Funds for their planned research and innovation measures. A total of €330 billion is proposed for the Cohesion Policy during 2014-2020, a substantial proportion of which would be directed towards less developed regions. Funding for research and innovation activities is likely to double compared to the previous period (2007-2013). The capacity of the relevant regional actors to absorb these funds and direct them to productive research and innovation activities for the region (“absorptive capacity”) will be the key issue and challenge, and the role of universities’ direct engagement in the design and implementation of the Smart Specialisation Strategies will be crucial for their goals to be achieved.

This first EUA-JRC workshop gathered 40 experts from 18 European countries, across both EU 15 and EU 12 member states plus Norway, including university rectors and vice-rectors, and high-level representatives from regional bodies responsible for developing and implementing R&I strategies. Participants were identified jointly by EUA and JRC-IPTS in Seville. EUA nominated university experts through consultations with its “collective” members, the national rectors’ conferences, who selected experts with experience of regional cooperation to advise on good practices and guidelines for the new Smart Specialisation agenda. JRC identified their participants through consultation with the S3 Platform comprising over 130 national and regional authorities.

For EUA, this workshop initiative formed an important part of the implementation actions of the “Memorandum of Understanding” (MoU) signed between the European Commission, DG Research and Innovation, and EUA in July 2012. In Action 10 of the MoU, EUA agreed “to explore the possibility of encouraging the development, in a cost-efficient way, of research cooperation with universities (‘twinning’) and/or regions (‘teaming’) in other EU member and associated states, building on existing experience and taking advantage of research and innovation strategies for Smart Specialisation.”

For JRC Seville (IPTS), the S3 Platform aims to produce guidance and methodological advice on how to develop RIS3 in collaboration with leading experts. This includes peer-review activities where regions present their RIS3 strategies and get feedback from peers from other European regions. Support is also given to transnational/regional cooperation in RIS3 strategies.

2 | Objectives and methodology

The specific objectives of the workshop were:

- to better understand the opportunities, challenges and obstacles for regions to form collaborative partnerships in research and innovation with universities in the future programming period of EU European Regional Development Funds (ERDF), the European Social Fund (ESF) and Horizon 2020;
- to gauge the level of knowledge and preparation among universities on the potential use of EU Structural Funds to exploit their research and innovation activities (RIS3);
- to identify a set of key issues and challenges to be met in order to maximise the use of funds for the above purposes; and
- to prepare for a conference to disseminate the results of the workshop among university leaders, policy makers and other stakeholders.

In preparation for the workshop, the following questions were posed in advance to the participants in order to prepare the debate:

To universities:

- 1) How important are EU Structural and Social Funds in your university's overall research and innovation activities in relation to other funds gained from competitive funding sources at EU (Research Framework Programme, FP7) and national and regional level (research councils etc.), and what degree of synergy have you managed, or not, to achieve already?
- 2) In what fields of research and innovation have you had experience of the use of EU Structural and Social Funds? Please cite one or two projects/activities as examples.
- 3) What has been your university's overall assessment of the benefits of EU Structural and Social Funds for research and innovation: what has worked well and what have been the problems and challenges in gaining access to, and use of, these funds?
- 4) What have been the advantages, challenges and obstacles you have experienced when working with regional partners to pursue common interests?

To regional authorities:

- 1) How have you worked with local universities to exploit their knowledge for regional development goals?
- 2) How successful have these initiatives been?
- 3) What challenges and obstacles have you faced?
- 4) Have local universities been involved in planning for the future programming period of EU Structural Funds, including the development of an RIS3?

The discussions revolved around the potential opportunities, challenges and obstacles for cooperation. The workshop was highly interactive, to make the most of the knowledge and experiences of all participants. It allowed participants to reflect on each other's perspectives, in order to develop approaches that can work in the different institutional contexts.

The sections below summarise the speakers' contributions and workshop debate. An Annex provides some examples of existing good practices and strategies on the use of EU Structural Funds for research and innovation activities offered by workshop contributors.

3 | University responses to the questions set in advance of the workshop – main points

ERDF and ESF funds are significant and important for many universities in less-developed regions. But their investment is often aimed at short-term rather than long-term goals. Physical buildings and infrastructure can be achieved in the short term (within the political framework/time cycle). However, RIS3 requires a long-term view with respect to development and expansion of required human capacity skills to maximise the impact of the infrastructure in the region in enhancing employment, goods and services.

In some countries (e.g. Ireland and Finland) added value has been achieved through a more structured policy linkage between national funding and use of Structural Funds for research and innovation activities. This might be enhanced by greater dialogue at the outset with universities.

Often the local managing authorities of the Structural Funds (both ERDF and ESF) do not see themselves as partners in the funded regional activities, but rather as simply the regulators for setting and monitoring the rules – this narrowly defined role can inhibit the strategic goals and success of the activities and their sustainability.

For universities to access Structural Funds, they are confronted with a demanding and burdensome framework of administrative processes and rules that are difficult to navigate and meet. On the other hand, legal and administrative competencies in universities need further support and strengthening both through the universities' own initiatives and as a recognised eligible use of the Structural Funds.

National steering/management of the Structural Funds can be a problem in inhibiting the advancement by universities of inter-regional research and innovation activities (both within one country and for cross-border cooperation). Synergy between innovation policy and regional policy initiatives/investments is often lacking or under-used.

Measures for the further enhancement of mutual understanding between universities and regional authorities and agencies of their respective roles, contributions, opportunities and constraints are required. University culture of merit, assessment and evaluation needs to recognise more the value of collaborative R&I activities with external partners that contribute to regional development. New assessment indicators for R&I activities based upon good practices in such collaboration are required, aimed at measuring impact in the medium to long term.

Schedules of calls for applications for European and national competitive funding schemes for R&I activities, and schedules for use of regional funds through RIS3 need to have greater coordination, particularly for universities to provide the required match funds ("co-funding") at the appropriate size. This reflects the reality that universities have limited "own funds" for R&I activities and have to raise the substantial proportion of their R&I funding from external sources.

Political time-lines and research output time-lines have to be more aligned to achieve the desired deliverables in terms of results and their impact.

4 | Regional actors' responses to the questions set in advance of the workshop – main points

There is often a problem of matching regional policy goals/needs with the present skills and training capacities in local universities (leading to regional authorities going elsewhere to meet these needs). Hence consultancies, think tanks and other intermediate bodies, both private and public/private, are a growing phenomenon used by regional authorities.

National ministries of education, science and technology are often “spatially blind” in their R&I investments, hence not assessing and realising the full added value of projects and programmes in terms of local available expertise and potential regional impacts.

Universities have vested interests in their research and innovation activities that are often independent of their regional contexts – the challenge therefore is to marry the “curiosity-driven” research interests of universities with the “demand-driven” R&I interests of regional authorities.

The fostering of “triple helix” R&I collaborations is initiated and undertaken by all actors – universities, governments (national and regional) and external partners (industry small and large, intermediate agencies bodies, public authorities in health provision etc.). No “one-size-fits-all” approach can apply across Europe’s regions but good practices need to be identified, particularly with respect to how responsibilities for coordination and the delivery of results/impact are assigned and implemented.

Identifying the appropriate incentive mechanisms for the respective actors to engage in RIS3 will be a key requirement. The core question is how to design calls to meet common interests aligning regional development strategies with university research expertise and interests. In this context, several regions participating such as Lubelskie (PL), Ostrobothnia (FI), Västerbotten and Värmland (SE) have worked with their local universities to design the regional RIS3.

5 | Workshop debate on the respective actors' responses

The debate demonstrated clearly how the experiences of the use of Structural Funds for R&I activities varied greatly across the regions, and that the different profiles, structures and missions of both the universities and the regional authorities determined this, together with how national governments decide to manage the funds.

Several examples demonstrated the challenges and opportunities of the use of these funds. For the Highlands and Islands region of Scotland the Structural Funds were used to maximise the “asset base”, which by nature was broadly spread across remote communities. For regions in Romania, the challenge was to take up effectively the substantial funds made available when the lines of responsibility between national and regional authorities were not clearly established and bureaucratic cultures within these authorities created major barriers particularly with respect to the requirement for co-financing. This experience demonstrated that, for the future period 2014–20, clear rules for the proposed new “economic governance” between the European Union and national/regional authorities will be essential if the RIS3 goals of the Structural Funds are to be achieved.

In the case of the region of Cornwall (UK), it was emphasised how the establishment of real working dialogue between the regional authorities and universities/HEIs in the region was crucial in reaching both a “common language” and understanding of mutual interests. This example served to demonstrate that the language and meaning of research and innovation is not perceived in the same way in the respective professional communities – put in over-simplified but relevant terms with respect to barriers to be overcome, universities tend to speak of “research” and regional authorities of “innovation and development”. In general also, innovation is too often seen in solely technology-driven terms with less focus on the importance of social innovation in the development of new skills and services.

University participants felt that the future challenge for ERDF and ESF funds lies in achieving the transition from basic research to RTD impact which requires time and the building of trust between university and external partners. Overcoming and removing unnecessary bureaucratic barriers will also be required. In the German region of North Rhine-Westphalia, the University of Siegen had invested years of effort in establishing and starting collaboration with the automotive industry and there had been no specific funding available for that crucial initial stage of building cooperation. Other universities, such as University of Warsaw, concurred with this view that there was a shortage of funding for building such cooperation on a medium- to long-term R&I agenda because the ERDF funds tended to be short-term and more tied to politically determined agendas.

Regional authorities participating in the workshop debate (as volunteer members of the S3 Platform) demonstrated well-established and successful practices of achieving over several years a regular working dialogue between the authorities and universities leading to medium- to long-term strategic cooperation (e.g. Värmland, Sweden, creation of university chairs; Puglia, Italy, funding of “Innovation Alliances” and vouchers for university “spin-off” companies). But these were probably “exceptions to the rule”, so to speak, when looking across European regions as a whole. Hence there was consensus that future “common guidelines” for RIS3 policy could be built valuably on such good practices for wider dissemination and “take-up”.

An important debate focused around whether intermediary agencies are needed to foster the R&I synergy activities between universities and regional authorities. There were many examples of such agencies operating across European countries in previous programming periods of the Structural Funds. There are examples of good practice in the effective use of intermediaries, but at the same time it was considered

very important to retain direct contact and dialogue between regional authorities and universities (at the level of both individual university leaders and regional associations of universities).

The principal “take-home” message of the debate was that there was clearly no “one-size-fits-all” approach as Europe’s regions needed different types of cooperation reflecting their specific contexts. But “common guidelines” could be established that were based on good practices with respect to: established successful cooperation between universities and regional authorities; coordination achieved between national policy and regional policy and funding instruments; and, crucially, how mutual understanding and medium- to long-term cooperation frameworks had been developed.

6 | Main themes emerging from the workshop debate

(a) Universities need to be considered and understood in a holistic way

Universities should be seen in a holistic way, including their three main missions: teaching and education, research and creation of knowledge, regional and social development. Universities are also important to build networks, connections etc., and are anchor institutions in their regions.

Universities are not only about teaching and research but about knowledge in general, in any field. However, it is important to highlight the enormous differences between disciplines, which is particularly important when considering the contribution of universities to regional development. For example, the connection between universities and regions has traditionally been more natural for applied sciences.

Universities need to define their research portfolio and needs and map their research capacities accordingly. It is important to note that not all skills are meant to contribute to regional development. In addition, the same academic staff cannot do everything – and do it well (teaching, research, regional development). Academic staff needs to have a coherent set of incentives for each of the three missions.

Several reflections were offered about how universities can deal with the three missions. One option could be to organise teams following the grand challenges (for instance, ageing) – instead of doing it focusing on micro-research questions – to promote multi-disciplinarity and engagement with external agents, promote social innovation and better understand business opportunities.

(b) Universities’ potential contribution to regional goals

Regional policy debates have a tendency to adopt a conventional approach of viewing a university’s role in regional development as focused solely on technology transfer.

However, universities can contribute to regional goals in many different ways, including:

- research and innovation: enhancing innovation through their research activities;
- enterprise and business development: promoting enterprise development and growth;
- human capital development: contribution to human capital and skills development; and
- enhancing social equality: improving social equality through regeneration and cultural development.

There are many different resources within universities that can be mobilised to help achieve these objectives, some of which are better known than others. The relationship between the university and its region should be of mutual gain if it is to work. Universities can benefit not only from the receipt of EU Structural Funds, but on a more strategic level through market-driven education, commercially relevant research and connectedness with enterprises and local authorities, all of which raise the profile of the university, increase student numbers as well as provide alternative forms of revenue in an increasingly challenging financial climate.

The potentially large contribution of universities to the non-technological needs of the region was also stressed, such as in social innovation and participation in cultural and artistic life. However, in general these activities tend to be not evaluated in assessment exercises, which may discourage some academics from engaging. To avoid this, governments and universities should recognise this effort and include it in their assessment exercises and in promotion criteria.

(c) Smart Specialisation as a new opportunity for collaboration between universities and regions

The new emphasis on innovation strategies for Smart Specialisation in the EU provides a great opportunity for many universities to engage with regional development issues that, for a number of institutional and historical reasons, have been perceived as not relevant. The emphasis on regional partnerships for innovation in Smart Specialisation provides the ideal background for this re-engagement.

Many regions as well as the universities participating in the workshop clearly signalled their recognition of the need and their willingness to embrace the involvement of universities in regional development initiatives.

The opportunities for regional cooperation vary across the countries, depending on specific national contexts, but also geographic and institutional factors. For example, universities located in less-developed regions have a particularly crucial role to play because of the low levels of institutional capacity that are typically found in these places. The point is that all universities can contribute to Smart Specialisation partnerships but some to a greater extent than others with regard to the different regional objectives outlined above. Another aspect of Smart Specialisation is the need for evidence-based strategies, and universities can play a role in analysing the regional needs and opportunities from an independent perspective (though they too have interests that should be recognised). Finally, universities are under pressure to specialise as well in terms of teaching and research, and the Smart Specialisation Strategy formation process provides a window of opportunity to better align university and regional priorities.

In this context, the main challenges for universities are:

- rationalisation of the course portfolio and research capabilities of universities to match with industry demands and regional priorities;
- universities have to find their place in the European/national innovation ecosystem – to provide the expertise at a given stage of innovation where they have strength and capability.

(d) Obstacles to universities' involvement in regional partnerships

The obstacles to universities' involvement in regional partnerships should be acknowledged in order that they can be overcome. The principal obstacles are:

- Higher education policies are usually defined without regional/local concerns (i.e. at national level).
- Regional governments'/authorities' culture: partnerships with universities may be seen as risky due to unclear benefits of the outcomes and/or due to the long-term nature of the investment that the partnership requires compared to the shorter-term periods/cycles of governments.
- Competition or lack of alignment between national and regional political and policy objectives and strategies may make dialogue difficult between universities and regional authorities.
- University culture and self-perception: regional engagement may be seen as compromising academic excellence.
- University governance structure, autonomy and capabilities: universities need to have the freedom to pursue regional goals as well as the financial, managerial and administrative means.
- Universities need to be, at the same time, competitive at the global scale (as shown, for instance, by the relevance of the Shanghai and other international rankings) and engage in regional development. Coupling with global, regional and local dimensions simultaneously is still a challenge for many universities and their academics.
- Evaluation/monitoring/assessment processes of universities usually do not distinguish between disciplines. However, the evaluation of projects should be different for applied sciences and for pure sciences. It is still an open issue to define new indicators to evaluate projects from different disciplines.

(e) Success factors: dialogue, trust and alignment of university portfolio and regional strategies

Dialogue/communication between universities and regions is crucial: the general perception of participants was that the workshop was an excellent way to put together universities and regional authorities, particularly to define the Smart Specialisation Strategy and to discuss the best use of EU Structural Funds. These topics have been so far exclusively an issue for regional authorities with limited consultation of stakeholders. Hence, the dialogue between universities and regions encouraged by the EC in the context of Smart Specialisation Strategies is highly appreciated by universities.

However, many universities still have the perception that working with EU Research Framework Programmes (e.g. FP7 and the future Horizon 2020) is much easier than with Structural Funds. This is partially due to the fact that universities (and EUA as the European stakeholder for Europe's universities) have focused upon and contributed actively to the debate shaping EU Research Framework Programmes and their rules of participation. On the other hand, universities have been largely absent from the debate on EU Cohesion Policy.

New and innovative ways to foster dialogue and more direct links and connections between universities and regions (and society in general) should be encouraged. Some suggestions included: innovation fairs, non-conventional lessons to promote entrepreneurial spirit, mutual-learning workshops, and internships for undergraduate and postgraduate students and academics in the private sector (particularly in SMEs).

The following are suggestions of good practices based on comments from participants:

- Ostrobothnia (FI) and Norwegian regions establishing long-term strategic partnerships with their universities through institutional dialogue;
- Scotland (UK) using Structural Funds to support networks of higher education organisations, joint action plans and curricula development;
- Puglia (IT) forming networks of research organisations supporting business; and

- Cornwall (UK): strong partnership of higher education institutions supported by the local authority and built on a high level of trust among partners.

In constructing regional capacity, each element has to undertake the appropriate tasks in constant communication with partners. For example, universities can provide research and skills and link up with the private sector but it is the companies themselves who possess the knowledge for business implementation. Policy makers cannot rely on one type of institution and within the regional higher education landscape there will be different types of institutions to provide different services.

An agreement from all participants was that this dialogue must be built on trust, which is the result of a continuous, structured, dynamic consultation process that may last for years. Successful examples show that they account for years of cooperation. Projects must have ownership of all partners, especially important for long-term plans, and goals with identified incentives and interests.

The degree of alignment of university-based R&D portfolios with regional/national innovation strategies will be also a crucial success factor. However, while Smart Specialisation Strategies take into account a region's needs, it could be the case that universities do not align completely with the regional priorities, and they may pursue areas of research excellence which may not be related to immediate local societal needs. Thus, universities are recommended not to be just a partner on individual and ad-hoc activities included in Smart Specialisation Strategies (e.g. as beneficiaries of calls for proposals) but to be involved from the beginning in its definition and in its action plan in terms of both short-, medium- or long-term goals.

(f) Specific concerns about Structural Funds

Structural Funds should be used to build capabilities of universities, not just in teaching and research but also in all the necessary skills and competences required for universities to be successful. Thus for example, legal, marketing and entrepreneurial capabilities should also be advanced. University professional financial management has to be involved and strengthened and indeed compensated appropriately in a highly competitive professional market. Consultancy services may also be developed for the execution of projects. In particular, multi-disciplinary research and management skills are needed to address many business innovation problems or societal challenges.

Some regions have successfully developed synergies between ERDF/ESF funding and EU Research Framework Programme funding. Structural Funds can be used to build research excellence through investment in research infrastructures and attracting leading researchers. These excellent research groups would be more likely to be successful in the EU Research Framework Programme and then be subsequently rewarded with long-term institutional funding.

The financial rules applicable to the next Research Framework Programme, Horizon 2020, and Cohesion Policy 2014-2020 will allow co-funding of the same projects from the two sources, and this will also facilitate exploitation by regions and universities of the synergies between the two policies. But rationalisation and alignment of the timelines and administrative rules and procedures will need to be achieved.

(g) The triple helix approach

One of the most striking messages coming from the majority of participants was the key role of industry/business in regional development, and thus in the definition and realisation of Smart Specialisation Strategies. However, industry is not always present in the dialogue. (N.B. Industry representatives were not

involved in this workshop because it was important as a first step to build clear and mutual understanding between university and regional representatives in taking forward the new RIS3.)

There was a general consensus about the importance to include all relevant stakeholders in the definition and implementation of an RIS3 strategy. The main agents of the triple helix – government, universities and industry – should sit down together. Universities had substantial and varied experience in working with industry and business partners both at the level of technological development, new skills development through innovation hubs and other new modes such as collaborative doctoral programmes. Greater dissemination and communication of these experiences of promoting entrepreneurial spirit in universities will be a crucial requirement to fulfil their engagement in contributing to regional development in the context of RIS3.

It is important to note that in the less-developed regions universities have fewer opportunities to engage with the business sector which is often much smaller and less diverse. In these cases universities may provide knowledge that is used elsewhere. Each university needs to assess its local and European/global contributions on a case-by-case basis.

7 | Next steps

The JRC-IPTS together with EUA decided to follow up the Seville workshop in two steps:

- (i) Convening a special workshop session within the DG REGIO Open Days (11th Week of the Regions and Cities) held in Brussels on 9 October 2013 on “Higher Education Institutions and Smart Specialisation Strategy” involving key participants from the Seville workshop (organised by EUA, JRC-IPTS and EC DG Education and Culture) to highlight and promote “good practices” to a wider audience.
- (ii) Convening a major event at the highest level, including universities and national and regional authorities, to be held in Brussels in 2014, to present and debate new “guidelines” based on good practices aimed to maximise the use of EU regional funds (ERDF and ESF) for research and innovation activities, and to achieve greater synergy between EU Structural Funds and competitive funds (Horizon 2020).

Annex 1: List of Participants

UNIVERSITIES AND SMART SPECIALISATION

S3 Platform workshop
in cooperation with the European University Association
21-22 February 2013
Joint Research Centre, Seville – Spain

PARTICIPANTS

Name	Country	Region	Institution/Position
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A. UNIVERSITIES

Josef Koubek	Czech Republic	Hlavní město Praha	Former Rector of the Institute of Chemical Technology, Prague
Perttu Vartiainen	Finland	Pohjois-Karjala (North Karelia)	Rector of the University of Eastern Finland
Gilbert Casamatta	France	Midi-Pyrénées	Former President of the Institut National Polytechnique de Toulouse
António Cunha	Portugal	Norte	Rector of University of Minho
Stanislav Kmet	Slovakia	Slovakia (MS)	Vice-Rector for R&D of Technical University of Košice
Jose Carlos Gomez Sal	Spain	Cantabria	Rector of the University of Cantabria
Marcin Jakub Pałys	Poland	Mazowieckie	Rector of the University of Warsaw
Peter Haring-Bolivar	Germany	North Rhine-Westphalia	Vice-President for Research at University of Siegen
Madeleine Atkins	UK	West Midlands	Vice-Chancellor of Coventry University
Anton Anton	Romania	Bucharest	Senate President, Technical University of Civil Engineering
Ray O'Neil	Ireland	County Kildare/Mid-East Region	Vice-President for Research of National University of Ireland Maynooth

B. REGIONS

Anna Ososińska	Poland	Lubelski	Chief Specialist, Regional Development Strategy
Márta Völgyiné Nadabán	Hungary	Eszak-Alfold	Deputy Director
David Santos	Portugal	Algarve	President of the Regional Development Commission of Algarve
Antonio Ramos	Portugal	Algarve	Head of Unit, Regional Development Commission of Algarve
Miguel Angel Aguirre	Spain	Andalusia	Adviser, Andalusian Regional Government, Ministry for the Economy, Innovation, Science and Employment

Jurgita Petrauskienė	Lithuania	National government	Director, Research and Higher Education Monitoring and Analysis Centre
Sue Brownlow	England (UK)	Cornwall	Adviser to Cornwall County Council
Jo Banks	England (UK)	Cornwall	Cornwall County Council
Linda Stewart	Scotland (UK)	Highlands and Islands	Chair of Board of Directors of Highlands & Islands Structural Funds Partnership Programme
Jerker Johnson	Finland	Ostrobothnia	Regional Council of Ostrobothnia
Anna Maria Monterisi	Italy	Puglia	External Relations and Communication Manager
Per Erik Sørås	Norway	Sør-Trøndelag County	Senior Adviser
Armin Mahr	Austria	Federal Ministry of Science and Research	Head, coordination research locations & EU Cohesion Policy
Anders Olsson	Sweden	Värmland	Enterprise and Innovation Manager
Rui Monteiro	Portugal	Norte	Head of Unit, Science and Innovation Unit
Alexandre Almeida	Portugal	Norte	Head Adviser, Regional Development Unit
Borut Rončević	Slovenia	National government	Director-General for Higher Education and Science

C. EXPERTS

John Goddard	UK	North East	S3P Mirror Group
Louise Kempton	UK	North East	Author of Universities Guide
Artur Rosa Pires	Portugal	Centro	Former Vice-Rector and Vice-President of Centro region

D. EUA

John Smith	Belgium	EUA	Deputy Secretary General (R&I)
Lidia Borrell-Damian	Belgium	EUA	Head of Unit, Research Partnerships

E. IPTS/EC

Xabier Goenaga	Spain	EC	Head of Unit, Knowledge for Growth, JRC-IPTS
Alessandro Rainoldi	Spain	EC	Action Leader, Smart Specialisation Platform, JRC-IPTS
Dimitri Kyriakou	Spain	EC	Senior Economist, JRC-IPTS
John Edwards	Spain	EC	Researcher, JRC-IPTS
Fatime Hegyi	Spain	EC	Researcher, JRC-IPTS
Susane Elena Perez	Spain	EC	Researcher, JRC-IPTS
Joerg Zimmerman	Spain	EC	Researcher, JRC-IPTS

Annex 2:

Some “good practices” and general experience in use of EU Structural Funds for regional cooperation in research and innovation activities offered by invited university participants

University of Graz, Austria

The University of Graz indicated that use of EU Structural Funds for research and innovation activities was lower than that for national and European (FP7) competitive funds. Synergy effects can be seen in the investment in research infrastructures that are required for successful research collaboration. Since 2007 the University of Graz has run 26 projects with the EU Structural Funds; most of the research and innovation projects are targeted at natural sciences and regional sciences as well as research infrastructures with science and knowledge transfer projects.

Examples:

- Research project to clarify the mechanisms of gene transfer in surface-associated bacterial communities called bio-film. This research includes new approaches to prevent bio-film formation and resistance gene-spread.
- Employing cultural heritage as promoter in the economic and social transition of old industrial regions.
- Knowledge transfer Graz-Maribor in the framework of “City Network”.

The University of Graz cooperates in many ways with other universities, companies and institutions in the region. The recent establishment of the “Science Space Styria” was a milestone in order to use synergies between universities, to gain efficiency and to create thematic priorities. Besides specific bilateral cooperation with companies, the involvement in clusters, such as the automotive cluster, is a key point of the strategic interest of the university. The advantages of close cooperation in the region are synergies, efficiencies and, maybe above all, more visibility for certain fields of interest. The challenge is of course the creation of a climate of trust. In addition to that it has to be made clear that one can reach one’s own goals easier when working together. The individuality of every organisation can be seen as an obstacle to cooperation, as well as the lack of (financial) incentives.

Institute of Chemical Technology, Prague, Czech Republic

The contribution from the Institute of Chemical Technology, Prague, pointed out the overall effect of the use of the EU Structural Funds on the development of the research and innovation capacities in the university sector as a whole, particularly with respect to the consequences of the rules of funding established by the Czech Government and the EU which place Prague universities and research institutes outside of the EU Funds (ERDF and ESF). Universities in Brno, Olomouc, Liberec and Plzen regions receive substantial EU Structural Funds for research infrastructure facilities and project development, which are well-planned and of strategic importance. But Prague-based universities and research institutions require also the necessary support to ensure that cooperation and collaborative research can be built with those universities to maximise this investment within the country as a whole (at least 50% of the Czech Republic’s education and research capacities are based in the Prague region). Such collaboration and critical mass development of human and physical capital will be crucial for the career development of young researchers in the future in addressing national and European innovation goals.

Aarhus University, Denmark

Aarhus University is a member of the Regional Growth Forum in Region Central Denmark represented by Aarhus University's Pro-Rector. The Growth Forum is an excellent platform for regional cooperation, making it possible for the university to create partnerships with municipalities and companies.

The university participates in various regional development projects financed by EU Structural Funds, by Region Central Denmark Growth Forum and Aarhus University itself.

Two examples:

"The Entrepreneurial University" at the university's Centre for Entrepreneurship and Innovation (CEI): this project is funded by the European Social Fund, the Danish Growth Council and Aarhus University. It has a total budget of €6 million for the period from 1 April 2011 to 31 August 2014. The project offers courses and extracurricular activities to students at Aarhus University. These activities aim to develop students' entrepreneurial and innovative skills, providing them with beneficiary competences for both current studies and future jobs.

"Shortcut to Knowledge" project at the university's Centre for Entrepreneurship and Innovation (CEI): this is a three-year project launched in January 2011. The project is funded by the Central Denmark region, the EU Regional Fund and by co-funding from participating SMEs. The project has a total budget of €6.7 million. The overall aim of the project is to further innovation and development in SMEs through knowledge collaboration between SMEs and researchers from both Danish and foreign universities. Aarhus University's CEI manages the project and facilitates collaboration from the initial phase through to dissemination. The goal is to create the basis for growth and potential commercial development by matching SMEs and relevant researchers.

University of Tartu, Estonia

At the University of Tartu (UT) EU Structural Funds (e.g. ESF and ERDF) account for circa 20% of its funding. Moreover, EU Structural Funds constitute up to 32% of UT's research income. The EU Structural Funds resources form an integral part of the Estonian R&D funding system. Approximately 82.5% of public R&D finances are planned through the budget of the Ministry of Education and Research in Estonia, out of which circa 55% is covered by Structural Funds. Estonia has developed a comprehensive action plan covering:

- 1) research infrastructure (new buildings and equipment);
- 2) people and mobility;
- 3) activities towards internationalisation. The Implementing Agency of Structural Support is the Archimedes Foundation. In the period 2007-2013 a total of €458.6 million has been allocated for higher education and science.

Examples of use of the funds:

- Improving R&D infrastructure (incl. construction and renovation of buildings for teaching and research, investments in R&D equipment).
- Supporting top-level research (e.g. centres of excellence programme – 12 centres).
- Developing R&D human resources (e.g. doctoral school programme, supporting researcher mobility – top scientists, post-doctoral researches, full- and part-time studies of foreign PhD students, semester abroad for Estonian Master and PhD students etc.).

- Enhancing R&D cooperation between R&D institutions and enterprises (programmes supporting materials, environmental, ICT, healthcare, biotechnologies, energy).
- Improving and developing study programmes (new curricula and modules), teaching quality, training of teaching staff at university, e-education (e-courses, study aids etc.).

University of Tartu R&D expenditure has grown with the strong support of EU Structural Funds. The main challenge with using Structural Funds is to cope with the high administrative burden – the rules of Structural Funds are complex and the number of different measures, programmes and calls is innumerable. On the university side, overcoming natural competitiveness and reaching mutual agreements on division of fields of specialisation is also a challenging goal.

Enhancing access to research infrastructure, increasing the choice of study programmes, or including a mobility element in joint regional short-term study programmes, are also direct benefits from cross-border cooperation. However, a restraint for regional cooperation lies in the diversity of approaches and regulations used in different countries in applying structural funding, which does not always facilitate cooperation between regional partners.

University of Eastern Finland, Finland

The University of Eastern Finland (UEF) has made important use of the EU's Structural and Social Funds for the university's overall research and innovation activities.

In the period 2007-2013, the UEF has coordinated 126 Structural Funds projects, mainly from the ESF (65) and the ERDF (41). Additionally, it has been a partner in 47 projects and received some TEKES (national innovation agency) funding through the Structural Funds. As a university located at the EU's outer border, the UEF has received ENPI funding for five projects.

The role of the Structural Funds is therefore significant in the external funding of research. The following figures include also national public funding.

In 2012, the share of the Structural Funds in the external funding of research (total €47.4 million expenses) was 14.8% (€7 million), while the share of the FP7 was only 6.8% (€3.2 million). The rest was mainly national funding. Additionally, the value of ERDF funding for investment projects in research and equipment was €2.3 million.

It must be noted that research funding came mostly from the ERDF, while ESF funding is important especially in projects related to training, entrepreneurship and regional competence building. The total sum of ESF funding has been €33 million, and funding from the ERDF €23 million for the period 2007-2013 (in this case the total costs include also some self-financing of the university).

There has been a rather good synergy between the Structural Funds and other funding sources, particularly in the fields of science and health sciences and including more recently social sciences.

Examples of two projects from different fields:

- (i) Aerosol and emission exposure unit (€332 000)

The cell exposure unit in the university's toxicology laboratory, located in existing aerosol and emission research facilities, will be complemented by a unit suitable for studying the exposure to aerosols and emissions of laboratory animals. The building of this unit will make the research environment a global leader.

- (ii) Establishment of the VERA Centre for Russian and Border Studies at the University of Eastern Finland (€868 000)

Development and coordination of the areas of expertise in research which bring together the expertise of the university's various academic departments, as well as enhancement of VERA Centre's international and national networks, visibility and reputation. Development of methods for communicating research findings between the university and other expert organisations in the region.

Institut National Polytechnique de Toulouse, France

Institut National Polytechnique de Toulouse (INP Toulouse) in its use of EU Structural Funds has focused on the development of advanced services to enterprises, especially SMEs, for example, intensive computing facilities, experimental platforms (e.g. agro-materials platform, chemical and physical analysis services). Universities are commonly obliged to merge different competitive funding sources and since 2011 French universities as a whole have been fully involved in implementing the new national programme, Programme d'Investissements d'Avenir (PIA).

Example:

INP Toulouse has used European Regional Development Funds (ERDF) in two projects GRIDMIP and CALMIP, which were aimed at implementing new facilities concerning intensive computing with SMEs in the region. The project was successful in meeting its scientific goals (through establishing an Interuniversity Computation Centre involving all universities in the region) but the targeted level of involvement of SMEs was not fully achieved. The latter problem was not assisted by the requirement that a different and separate administrative body was involved in management of the SMEs' participation in the project. Lessons learned from this experience point again to the need for greater rationalisation of legal and administrative procedures and requirements between European and regional funding schemes and, importantly, more support to universities to strengthen these capacities within their own management structures.

INP Toulouse is situated in the Midi-Pyrénées region where coherent and strategic approaches have been developed in terms of education, research and innovation activities through synergies between national and regional funding. This has been assisted by several major policies launched at the national level: Implementation of University Clusters (PRES and mergers), Competitive Clusters and the Excellence Initiatives. For example, this has led to universities joining forces in the region to focus on research and innovation in three major fields: aerospace and embedded systems, health (ageing, cancer and use of ITCs) and agriculture and agronomics, which has had strong structuring effects. Another example is the creation of Technology Research Institutes designed in the framework of the PIA programme.

University of Siegen, Germany

The University of Siegen has participated in many projects with industry, as the region where the university is located (North Rhine-Westphalia) uses Structural Funds to co-finance their own R&D programmes. The university participated in the local regional board for the investment of approximately €200 million where 10% of funding was allocated to research- and innovation-related activities. However, synergy with other European and national research programme funding at the university is very difficult, as structural funding rules are extremely different in comparison to other programmes.

Example:

The ACS Automotive Centre is a platform for development work and knowledge transfer between automotive manufacturers, suppliers and universities with the aim of promoting weight reduction in the automotive industry. In conjunction with the University of Siegen and the University of South Westphalia mainly small and medium-sized companies jointly carry out projects.

It was pointed out that, in general, the way universities are actively involved in the current research and innovation activities under the EU Structural Funds in Germany was extremely varied, for example, in the region of Niedersachsen (Lower Saxony) with many examples of strong innovation orientation in use of EU Structural Funds programmes together with FP7 funds in Sachsen (Saxony), to several regions where the universities are not involved at all in the definition of an agenda and activities.

The National University of Ireland, Maynooth, Ireland

EU Structural Funds have been exceptionally important in building research and development and innovation (RDI) capacity in Irish universities with approximately €1.2 billion in total invested through co-financed programmes since 1998. Over that period it would have amounted to approximately 25% (rough estimate) of public investment in university RDI. The main investment areas have been:

- research buildings, laboratories and equipment;
- human capacity building through structured PhD programmes and postdoctoral programmes;
- innovation through research directed towards commercial outputs (spin-out and licensing) and research partnerships with established companies; and
- incubation centres and technology transfer teams (all Irish universities have incubation centres on campus).

The research capacity funding has been administered by the Higher Education Authority as a competitive process, with one call for applications every three years on average. Since 2006 this investment in RDI capacity has been strongly linked to synergies with other major national investments, most notably through Science Foundation Ireland (the largest national research funding agency), and the ability to succeed in EU Framework Programme funding calls. Multiple national agencies have been required to cooperate in making this investment. Funding for innovation activities has been directed through a separate agency (Enterprise Ireland) as an open competitive process on a rolling basis.

There is thus a considerable synergy between structural funding and national programmes, but all administered at one step removed from the universities.

ESF funding has largely been directed to subsidies for development and delivery of undergraduate and postgraduate programmes that are deemed to be in areas of high importance nationally; e.g. software engineering, renewable energies.

The National University of Ireland, Maynooth, had much experience of use of EU Structural and Social Funds across its teaching and research activities, as the following examples demonstrate.

Examples:

- Development of 8 000sqm building for teaching and research in computer science and information and communication technologies, and including dedicated incubation space. Project financed at circa 30% with ERDF funds, administered through two separate national agencies (one for research, one for innovation). This entails two completely separate reporting lines on the project expenditure, which is not ideal.
- Development of multi-institutional structured PhD programmes in areas designated as nationally important (e.g. telecommunications, bioanalysis and therapeutics).
- Projects under the Special EU Programmes Body (SEUPB), which administers transnational programmes such as Interreg and which covers, for example, Ireland-Northern Ireland and Ireland-Wales. These

programmes are relatively small and many universities have decided not to participate because the managing authorities construct financial and reporting rules that are not aligned with other ERDF or Framework Programme standards; e.g. full cost accounting required for claiming of indirect costs.

- ESF funding for course development in technology areas of national importance. The university receives enhanced funding, while students are attracted by and benefit from reduced course fees.

University of Warsaw, Poland

At the University of Warsaw the EU Structural Funds form an important part of the annual budget (28% of an annual budget of €240 million). Synergy effects between EU Structural Funds and EU (FP7) national funds are relatively small (70% of research infrastructure projects are still in the construction phase). However, it is expected that there will be an important effect on the increase in research and innovation activities and funding in future years.

Examples:

- “Centre of Biological and Chemical Sciences” – a new university institute for applied biological and chemical research as well as consultancy and technology transfer in these areas.
- “Centre for Preclinical Research and Technology” – a consortium comprised of the University of Warsaw and two other higher education institutions and seven research institutes in the Warsaw area.

General observations from experience of working with the EU Structural Funds were as follows. Advantages lie in the strengthening of collaboration with universities and research institutions located in the region leading to new partnerships in teaching, research and common use of infrastructure and accumulation of human capital. Challenges lie in developing common interest and trust-building across universities, business and non-government agencies. Also local governments have a tendency to predefine areas of priority and cooperation themselves using external experts and consultancies, and cohesion funds are broadly spread and therefore not necessarily supporting the strongest strategic centres. Obstacles relate to the situation that universities are not considered by regional authorities as key partners that can bring their contribution to the programming and implementation of the EU funds, and that the use of the funds tends to address short-term rather than long-term needs and goals, and a rigidity of administrative rules and procedures can hamper adjustments being made to meet changing opportunities and circumstances.

Minho University, Portugal

Minho University pointed out that the EU Structural and Social Funds have been largely centrally managed at the national level by the Portuguese Science and Technology Foundation. Therefore, these funds are received indirectly through such programmes as the Portuguese programme for PhD grants, and access and use of major infrastructure investments in science and technology facilities, e.g. the European Laboratory on Tissue Engineering and Regenerative Medicine, the Institute for Bio-Sustainability and the Incubator SpinPark. Also, funding for basic research activities in university laboratories through key research staff and equipment investments can be gained through the ON2 programme – Consolidation of the Research Network. A general problem, however, is that necessary indirect costs of the university’s engagement are not adequately covered.

The Technical University of Košice, Slovakia

The Technical University of Košice (TUKE) in its recent education, research and development programmes has been supported significantly by the EU Structural Funds.

47 projects are currently active at the university, supported by a total amount of €95.7 million. The amount of the financial contribution from the Structural Funds exceeds €65.9 million and the Technical University of Košice co-finances these projects with a contribution of €3.6 million. TUKE has also coupled this with long-continuing participation in EU Framework Programmes. These projects achieve good synergy with R&D projects supported by the national funding sources. Research activities at TUKE are adequately supported from the national research grants (TUKE is the third most successful university in Slovakia in the competition for the subsidy resources). TUKE faculties were gradually built into centres of research excellence, within which are built permanent cooperation with relevant institutes of Slovak Academy of Sciences present in Košice and with other universities in the region.

Two examples in the field of renewable energy research:

1) The “KNOWBRIDGE” Project. Coordinator: Košice self-governing region: The Cross-Border Knowledge Bridge in the Renewable Energy Sources Cluster in Eastern Slovakia and North Hungary

The duration of the project is 36 months and the project consortium consists of 12 partners with the skills and competences for research-driven economic development in the region.

The mission of the KNOWBRIDGE project is to increase the capacity and to strengthen the research potential of two cross-border and convergence regions (Košice self-governing region in Slovakia and Borsod-Abaúj-Zemplén region in Hungary) by supporting the development of new innovative cross-border research-driven clusters in the area of renewable energy sources and associating research entities, enterprises and regional authorities.

2) Centre VUKONZE Project: Development of a research centre for the efficient integration of renewable energy sources

The Technical University of Košice conducts this integrated project with a mission that focuses on the establishment of an open research and development network. This network would significantly improve the interaction and impact of academic research on the innovative needs of the social and commercial actors in the area of renewable energy sources (RESs) in the context of both Slovak and European policy development.

University of Cantabria, Spain

The University of Cantabria indicated that EU Structural Funds had been very important for research and innovation activities at the university and, in general, at all universities in Spain. Social Funds have less importance for the funding of university projects. In present times the scenario has changed, depending upon the situation in each region. National research calls have been co-financed by ERDF but in the last years the situation has become unpredictable (some projects are co-financed and others not, and this also changes from year to year). When they have been co-financed, the projects have been of importance and relevance to the development of the university's research capacity.

The main investments and activities covered by these funds were:

- Co-financing of the university's research facilities and equipment: by means of EU Structural Funds and by means of National Research and Infrastructure competitive calls that were co-financed by EU Structural Funds (ERDF).
- Few research, innovation and technology transfer international projects funded or co-funded with EU Structural (ERDF, FEDER) and Social (ESF, FSE) Funds: Interreg II and Interreg III Projects for international (transnational and trans-border cooperation) (ERDF) plus some social research projects funded or co-funded by Social Funds.

Example:

The experience of Cantabria Campus International where all the institutions and major companies of the region signed together the agreement to create a “Region of Knowledge and Innovation” was an ambitious and exciting initiative and several clusters in several topics/areas were started. The main projects needed to be co-financed and new institutes and centres of research and innovation have been created, such as Instituto de Biomedicina y Biotecnología (IBBTEC), Instituto de Hidráulica Ambiental (IH Cantabria), Santander Financial Institute (Sanfi). The initiative is now being challenged by the economic restrictions, however this project continues with new ideas and possibilities.

University of Coventry, United Kingdom

The University of Coventry indicated that the EU Structural Funds have been of significant benefit to the university in supporting the establishment of research and innovation projects, which represent new priorities for the institution. Its use of the Structural Funds at a regional level is entirely based on the European Regional Development Fund. The university has not accessed European Social Fund grants in this current programming period. Within the 2007-2013 Structural Funds programme, ESF was managed by the Department for Work and Pensions. Universities for the most part were excluded from the ESF programme as a result of its concentrating funding on training only up to level 3 (i.e. sub-degree level).

The university’s plans are based on addressing key issues where applied research is needed, and where the university’s expertise can have a significant impact.

The following objectives are most relevant:

- strengthening research, technological development and innovation;
- enhancing access to, and use and quality of, information and communication technologies;
- promoting sustainable transport and removing bottlenecks in key network infrastructures;
- protecting the environment and promoting resource efficiency; and
- investing in education, skills and lifelong learning.

Two examples from different fields:

Assistive Technologies and Community Healthcare Development (HDTI)

The Assistive Technologies and Community Healthcare Development Project was established to increase innovation, productivity and wealth creation in the West Midlands assistive technologies and healthcare industry by providing a tailored package of research and development support to regional SMEs. This was envisaged through the provision for individuals, start-up companies and SMEs of a package of research and design support services including product design, prototyping and usability testing to develop innovative healthcare products. Overall the project has output targets to assist 30 businesses and support 30 collaborations with the knowledge base resulting in the development of 20 new healthcare products and the launch of 5 new products. Alongside this, the project has a target of supporting the creation of 9 new businesses.

Technology and Innovation Futures West Midlands (CUE)

The *Technology and Innovation Futures West Midlands* project is designed to help businesses transform their processes to be future-oriented to respond to growth opportunities through the exploitation of new technology developments. This will ensure that supported business will remain competitive, grow and be able to compete in international markets. It will deliver this through the integration of foresight and strategic planning linked with high-level business support for technology identification, development, adoption and commercialisation. As a result the project will support jobs safeguarding, job creation,

enhanced productivity, enhanced revenue generation and increased competitiveness. Eligible businesses will be provided with specific assistance to define their future strategic technology and business orientation and potential technologies that could be beneficial to them to support business growth. The delivery is divided into four key stages, namely: beneficiary engagement, beneficiary diagnostic, high-grade specialist support, and technology implementation.

The European University Association (EUA) is the representative organisation of universities and national rectors' conferences in 47 European countries. EUA plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research and innovation. Thanks to its interaction with a range of other European and international organisations EUA ensures that the independent voice of European universities is heard wherever decisions are being taken that will impact on their activities.

The Association provides a unique expertise in higher education and research as well as a forum for exchange of ideas and good practice among universities. The results of EUA's work are made available to members and stakeholders through conferences, seminars, website and publications.

