WIRE//2013

Week of Innovative Regions in Europe 2013

"It's important for us to spread innovation throughout the regions, bring all the regions to the table, help them to improve their research and innovation capacity (…) And the WIRE conferences, the ones from the past and the one here in Cork this year, help to do that".
– Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science

ENTERPRISE IRELAND
where innovation means business

European Commission

Uachtaránacht na hÉireann ar Chomhairle an Aontais Eorpaigh
Irish Presidency of the Council of the European Union
eu2013.ie

SCOPE OF THIS DOCUMENT

This document outlines the key recommendations of the 4th edition of the Week for Innovative Regions in Europe (WIRE 2013) Conference organised by Enterprise Ireland, with the support of the European Commission's Directorate-General for Research and Innovation on 11-12 June 2013, at University College Cork, Cork, Ireland, as part of the Irish Presidency of the European Union.

The WIRE IV conference focused on regional aspects relevant to the final stages of the Horizon 2020 design and legislative process. The conference also considered both the "Common Strategic Framework for Cohesion" and the "Common Strategic Framework for Research and Innovation".

The report sets out a summary of the conference findings relating to the key conference themes: (i) Regions and Competitive Advantage; (ii) Regional Policy in an International Context; and (iii) Putting Strategies to Work.

Details of the various presentations and conference programme can be accessed at: http://www.wire2013.eu/

The conference organisers would like to thank all contributors to the event, including presenters, panellists and delegates.

The next WIRE conference, WIRE2014, will take place in Athens on the 12-13 June 2014.

The WIRE 2013 **International Advisory Group** advised on the structuring of the conference programme, proposals for keynote speakers and presentation content and the finalisation of conclusions of the conference.

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1. OVERVIEW

1.1 WIRE2013 Conference took place this year in Cork (Ireland) on 5-7 June 2013, under the auspices of the Ireland's Presidency. Opened by Commissioner Máire Geoghegan Quinn, European Commissioner for Research, Innovation and Science and Sean Sherlock TD Minister of State for Research and Innovation, it gathered 400 delegates from 20 countries and 47 speakers. The conference addressed the Innovation Union context of the 'Capacities' 7th framework programme, especially that of the Research Potential Programme, with emphasis on research and innovation as key drivers of competitiveness, jobs, sustainable growth and social progress.

1.2 Moderated by Tony Connelly, RTE Europe editor, WIRE 2013, held in Cork, was the fourth WIRE conference with previous WIRE conferences being during the Presidency of the Council of the EU in Spain, Hungary and Poland (organised during the Danish Presidency). The conferences bring together key stakeholders including regional authorities, funding agencies, representatives of the national research bodies, the European Commission, and end-users including SMEs and other industry, to focus the attention of political leaders and social stakeholders on the competitiveness of European regions. Building on the contributions of the previous conferences, WIRE2013 covered three broad themes: Regions and Competitive Advantage; Regional Policy in an International Context and Putting Strategies to Work.

- *Regions and Competitive Advantage* addressed the place-based mobilisation of talent by matching Research & Innovation capabilities with business needs and capacities. It also considered Horizon 2020 and Smart Specialisation, and closing the innovation divide in Europe.
- *Regional Policy in an International Context* focuses on the selection of a few priorities on the basis of international specialisation and integration on international value chains and the role of cities' and regions' solutions to societal challenges of global significance identified in Horizon 2020.
- *Putting Strategies to Work* considered issues relating to critical mass and the need to provide arenas for cross-cutting links between sectors which drive specialised technological diversification. It will also examined the role of Collaborative Leadership where efficient innovation systems operate as a collective endeavour based on partnership between private and public entities and synergies between funding instruments from the EU, national and regional policies.

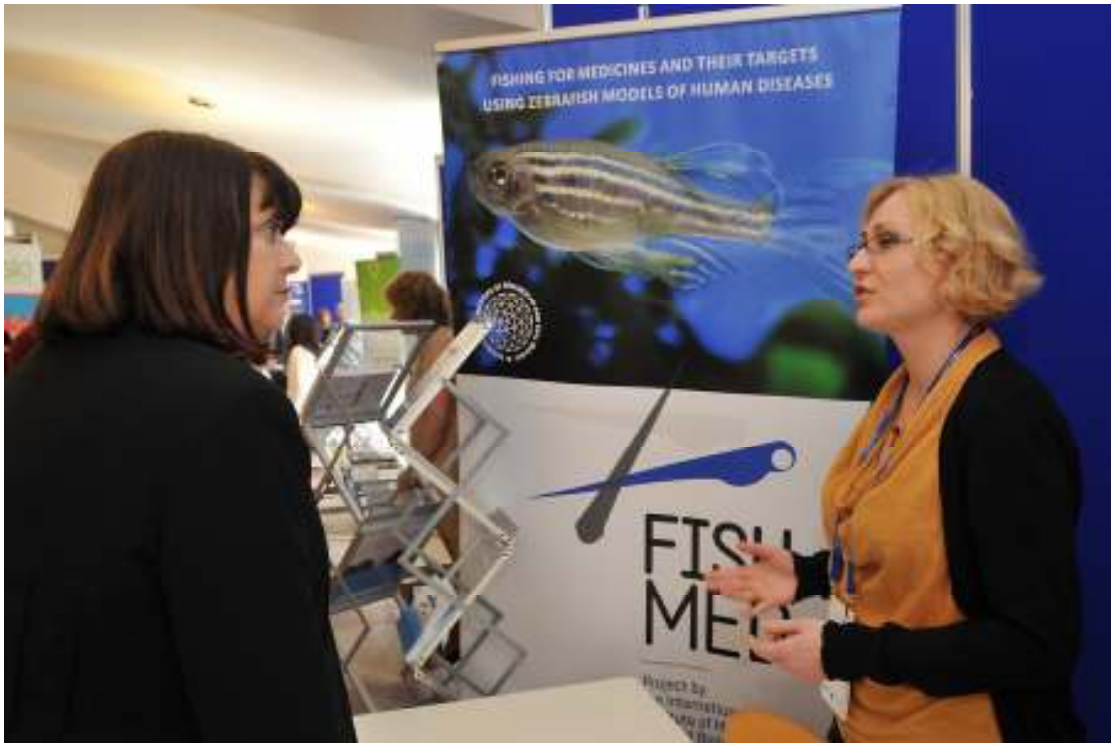
> We're meeting at a key moment, just when the European Parliament and the Council are moving closer to agreeing the future legal frameworks for the EU's research, innovation and cohesion policies – Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science

> Experiment to learn, be ready to adjust based on evidence, take calculated risks – Dr. Christian Ketels, Harvard Business School

2. REGIONS AND COMPETITIVE ADVANTAGE

2.1 *Encouraging Business Research and Innovation Investment*: In order to stimulate business research and innovation investment in Europe there is a need to combine the following key elements: (i) Learn from good practice and successful business case studies that exhibit entrepreneurial spirit and innovation leadership (e.g. the Kerry Group invests 4% of revenue in research and innovation and has moved from being a regionally based dairy cooperative to a global leader in food ingredients); (ii) Nurture talented young people through world-class education systems and partnership with industry; (iii) Customise national policies involving extensive stakeholder engagement by national development agencies; (iv) Leverage available EU instruments and initiatives on (e.g. EUREKA has been used to support more than 4000 transnational collaborative projects

in 40 countries); and (v) Use EU networks as a learning vehicle for agencies and enterprise.



2.2 *Clusters supporting smart specialisation*: The conference highlighted the potential for smart specialisation to facilitate the development and advancement of regional industry clusters with cluster-based strategies identified as a mechanism for a region to reinvent itself to drive innovation-based industrial development, often following periods of economic and social change. In this approach clusters are facilitated through cooperative processes to drive spill over effects of innovation. Within a decade smart specialisation planning around the Aviation Valley cluster in Poland resulted in a regional policy that demonstrates how a remote, mostly rural region can become a leader in innovation and new technologies for the aviation industry and the creation of thousands of new high technology jobs. Key to this was the use of smart specialisation and clustering to bridge regional, national and international planning. Similarly the North Rhine Westphalia Cluster Agency funded initiatives and projects to advance research and innovation driven clusters. These clusters are key participants in the process of defining, implementing and monitoring research and innovation strategies for smart specialisation and are the basis of focused priorities for the region.

2.3 *Linking with research and innovation infrastructure and capacities*: Research infrastructures are facilities, resources, organisational systems and services that are used by the research communities to conduct research and innovation in their fields. For the purpose of regional planning, research Infrastructures are centres of excellence, focal points for innovation, high socio-economic impact, platforms for the development of human potential; analysis of impact of research infrastructures carried out showed great impact on local economies. World class infrastructures are essential for attracting top class scientists and then industry. Benefits that can accrue to the region include presence of high-profile PhDs; research infrastructure available to industry; new companies created and spin-offs; and ability to attract domestic and foreign investment. Furthermore, companies working with research infrastructures are able to innovate and to develop new business as new markets are created. Leveraging these benefits for the region requires a regional innovation strategy that is developed through consensus among key stakeholders. The European Strategy Forum for Research Infrastructures (ESFRI) has placed 48 infrastructures on the European roadmap. The conference was presented with case studies where research infrastructures and capacities are incorporated into regional planning. The conference considered some examples of research infrastructures and capacities impacting on regions and challenges facing them.

2.3.1 The European Molecular Biology Laboratory is a non-profit organisation and a basic research institute financed by public research funds from 20 member states and one associate member. Research at EMBL is conducted by approximately 85 independent groups covering the spectrum of molecular biology with major infrastructures located at a number of locations. The conference heard how a research infrastructure organisation is different from a traditional research centre. The career trajectory for a scientist in a research infrastructure-based organisation is also different than in project-based research contexts with an additional challenge of providing infrastructure supporting engineers as well as the scientists to use the infrastructure. The infrastructure facilities must be world class in order for scientists to use them but their funding is complicated by having to compete with research project institutions for the same funding.

2.3.2 Located in the Region of South-Moravia in the Czech Republic, CEITEC is a scientific centre in the fields of life sciences, advanced materials and technologies. It offers a state-of-the-art infrastructure and builds on a consortium whose partners include

the most prominent universities and research institutes in Brno in the region. Leveraging EU supports including ESFRI, the CEITEC vision is to lead a path to global scientific recognition through science based on synergy and collaboration, in order to achieve a regional knowledge-based economy. To achieve this, CEITEC is aims to retain and recruit scientifically talented people to address important research challenges. The development of PhD graduates and post-doctoral fellows to support innovated-based industry in the region is also important.

2.3.3 The conference also learned from the development of new research infrastructures and capacities near Lund in the South of Sweden where the Max IV Synchrotron is currently being built together with the European Spallation Source (ESS). The Max IV Synchrothon is funded b7y the Swedish government while the ESS is largely funded by the EU and hosted by Sweden and Denmark. From the planning process it has been observed that such research facilities need to be closely linked to the society around them to reap the full potential benefits. In this context plans must be developed and implemented to ensure that the region and its people are ready for these facilities. For this purpose a number of plans are in place.

2.4 *Linking Horizon 2020 and Smart Specialisation*: Across Europe research and innovation stakeholder are engaged in two parallel actions: (i) to form transnational consortia to participate in Horizon 2020; and (ii) to develop and implement regional and national research and innovation strategies for smart specialisation. However, these two streams of actions are in fact complementary and more importantly mutually reinforcing. The linkage between the two is largely down to the fact that the same stakeholders are involved in each process both at top-down (Horizon 2020) and bottom-up (RIS3) levels. Both processes have different regulatory frameworks and being successful in one does not guarantee success in the other. They are not interdependent however smart specialisation will shape the overall behaviour of regions and member states in Horizon 2020 as both depend on people and institutions. Horizon 2020 will interface with Cohesion policy to reinforce the smart specialisation process through a host of measures with the objective of closing the innovation divide in Europe. Regions can also use the context of Horizon 2020 to align and develop regional priorities. For example, the smart specialisation strategy of a region can also include societal and industrial leadership challenges. However it is vital that regions do not adapt their strengths to link with Horizon 2020 – it should be a more organic and bottom-up approach otherwise it will not work. There is a need for regions to undertake public consultation and understand their own strengths and unique potential (which may not necessarily include high technology industries).

> Regions have become one of the primary frameworks for understanding how innovation and economic growth occurs – Seán Sherlock, Minister of State with responsibility for Research and Innovation, Department of Jobs, Enterprise and Innovation and the Department of Education and Skills, Ireland

The conference noted that Horizon 2020 is designed to be more favourable to SMEs with increased simplification of processes and more appropriately designed supports. It was noted that some regions are providing supports to SMEs in key regional priority areas to facilitate SME participation in Horizon 2020. For example, in Spain, Murcia is targeting food and biotechnology SME participation in Horizon 2020. It was also observed that there additional opportunities are available from combining Horizon 2020 with Structural Funds. These opportunities are supported by alignment in timeframe and objectives.

2.5 Higher Education Institutions and Regional Agencies Working Together:

The task of smart specialisation is not to adapt local reality to EU funding instruments, but rather it is recommended to focus planning around areas

of strength and consider how these areas can be advanced. The question of the unique attributes of the region should not be confined to technology platforms but rather the planning process should combine the region's assets in a strategic way. Universities and HEIs represent key assets in any region and must work in partnership and in tandem. For this purpose, the smart specialisation process should examine how institutions can cooperate across regions.

It was observed that there are commonalities in the objectives of universities and Horizon 2020, particularly relating to internationalisation. This has placed Horizon 2020 at the forefront of many university research and innovation agendas with extensive planning and preparation for the first calls well underway.

The establishment of European Research Area (ERA) Chairs is a new measure under Horizon 2020 which aims to help close the research and innovation divide in Europe. These ERA Chairs will attract outstanding researchers to institutions with a clear potential for research excellence in order to support these institutions in fully unlocking this potential and hereby create a level playing field for research and innovation in the ERA in a competitive environment. The expected deliverables for the ERA Chairs will be to promote excellence, create an ERA culture, increase the critical mass of excellent researchers, widen participation, mobilise support for facilities and infrastructures, and contribute to growth and jobs based on smart specialisation strategies.

2.6 Supporting the Technology transfer cycle: Conditions for the support cycle from technology transfer to advanced manufacturing include the following: (i) real academic and industry collaboration to achieve mutually beneficial success and generate impact; (ii) A common understanding of the needs of each of the partners at every stage of the support cycle to ensure that the optimal interventions are provided with appropriate buy-in secured from the enterprises through matched resources and co-funding; (iii) External advice and expertise including commercial management support, legal information and assistance in developing an intellectual property strategy; (iv) Scale based on function networks thinking global and acting globally.

2.7 *Balancing Funding and Policy*: The conference heard that State aid is not always a '*good thing*'. For companies it can reduce flexibility, speed and focus. The objective should be to optimise state aid to accelerate innovation and growth. In this context, research and innovation projects must be aligned to commercial strategy rather than state aid conditions and timelines. However, in some circumstances state aid can accelerate innovation and growth. The availability of a diverse set of funding instruments is critical for large-scale pilot lines and demonstration projects. From a policy and resourcing perspective, this requires funding instruments made available by the European Investment Bank, Structural funds, and Horizon 2020 to be blended. Processes, supports and policies should be aligned to support innovation projects and enterprises through the Valley of Death phase. It is vital that the different funds are used properly with harmonised rules.

3. REGIONAL POLICY IN AN INTERNATIONAL CONTEXT

3.1 The conference noted that research and innovation was situated in a rapidly changing context. While the EU and the USA science, technology and innovation (STI) linkages remains strongest, STI is increasingly internationally interconnected. Drivers of the increased international cooperation include: (i) a need to access knowledge produced outside Europe and gain access to new markets; (ii) a need to promote Europe as

an attractive location and a partner for research and innovation; and (iii) a need to join forces globally to tackle global challenges.

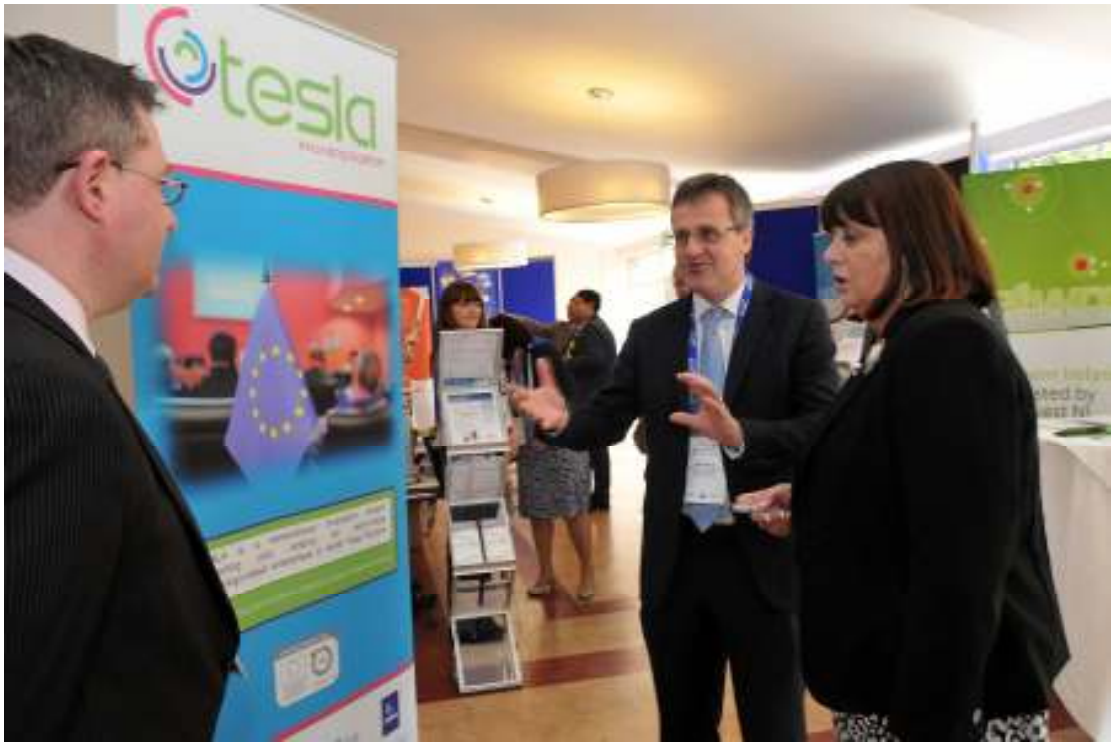
> WIRE puts the regions at the centre of the debates we're having, like smart specialisation, clusters, innovation policy and so on – Richard Tuffs, Director, ERRIN Network

3.2 It was observed that while there have been extensive international cooperation efforts, particularly in FP7, only mixed success can be reported. It was noted that actions to support international cooperation have too often developed ad hoc, and despite a multiplication of international cooperation activity, critical mass in key areas has not yet been achieved. It was agreed that there is a need to engage more actively and strategically in international cooperation. This strategic approach should combine openness with better targeted actions. It should also strengthen the partnerships with Member States. The conference proposed the following main objectives:

(i) Strengthen the Union's excellence and attractiveness in research and innovation as well as its industrial and economic competitiveness.
(ii) Tackle global societal challenges.
(iii) Support the Union's external policies.

3.3 A key requirement of international cooperation in Horizon 2020 will be that Union activities must add value and complement those of Member States. Joint Union-Member State international cooperation roadmaps were recommended with mutually agreed principles to generate trust and confidence and common guidelines for international cooperation with third countries in order to promote a level playing field

3.4 Regions play a key role in supporting research and innovation by developing regional innovation ecosystems and providing a spatial platform and critical mass for research and innovation activities. The role of regions in creating scale in the development of international cooperation was highlighted. Regions also have the potential to act as metropolitan areas to be counterparts for the megacities found in countries like China in international cooperation arrangements.



The conference considered the potential of cities as a platform for

Global competition between cities for people, business and finance as well as common challenges such as energy, water and social inclusion that are seeing cities partnering to progress their local agendas. Indicators for the success of smarter cities include reduced greenhouse gas emissions, better public services, improving business environments

It was highlighted that international cooperation benefits companies and start-ups in different ways. For example, when designing their smart specialisation approach, regions and enterprises can compare their strengths at an international level by benchmarking areas of specialisation with those of international partners. International collaboration allows regions and enterprise to position themselves in international value chains and to identify international collaboration networks which will allow them to become more integrated in the global market. Smart specialisation international platforms can be designed to facilitate mutual learning as well as international and trans-regional cooperation.

> Areas of strength are likely to cross over administrative borders: tailor policies to functional regions– Claire Nauwelaers, STI policy expert

The conference heard how international and macro-regional cooperation in the frame of smart specialisation could effectively help in bridging that innovation divide and development gap, as part of the EU regional/national funding can be awarded to beneficiaries outside the region/country. For example, this offers a unique opportunity to tap the knowledge and market opportunities in South-Eastern Europe and in the neighbourhood countries from South Eastern Europe. The EU Strategy on Danube River basin offers such a cooperation framework among 14 very different countries and is effectively supported by the EC JRC and its Smart Specialisation Platform to the benefit of the public and private sector.

Hungary is currently engaged in developing strategic collaborative initiatives rooted in the smart specialisation concept which feature linkage to downstream and upstream instruments, improving the general framework conditions, stimulating entrepreneurship among others. Hungary plans to strengthen its R&D infrastructure in the Operative Programme of the 2014-2020 financial period, including schemes supporting participation in ESFRI, as the R&D infrastructure is a base for research institutional excellence. In preparing for the next programming period and the allocation of funds for different research and innovation schemes, Hungary is reviewing past experiences in previous programmes. The more successful programmes have been the JEREMIE type programmes which introduced new seed capital type schemes to address the ecosystem process. There is an urgent need to secure early stage investment and accelerator-type processes and financial instruments to absorb it. The precondition for the SME programmes is to have an accelerator type institution. The drive is focused on how to combine traditional grand type instruments with credit instruments.

4. PUTTING STRATEGIES TO WORK

4.1 The conference considered key RIS3 implementation recommendations from DG Regional and Urban Policy, supported by case studies illustrating some of the implementation principles.

4.2 Key messages on the implementation of smart specialisation were identified. These included:

(i) Implementation of RIS3 should extend beyond legal obligations and involves prioritised and specific thematic objectives for the region.

(ii) The RIS3 is as an interactive entrepreneurial discovery process leading to an economic transformation of the regions, based on: (i) selecting priorities based on existing and potential competitive advantages, to be reinforced and diversified; (ii) mobilising and developing R&I potential for meeting business needs & capacities

(critical mass, cross-cutting links between sectors which drive technological diversification); (iii) targeting emerging market opportunities and promoting cooperation between regions to avoid fragmentation and duplication of efforts; and (iv) involving public/private stakeholders and funding sources, authorities and bodies concerned by the different EU policies (ERDF, Horizon 2020), representatives of universities, research centres, businesses and civil society.

(iii) The RIS3 implementation framework should combine thematic areas that have been prioritised and specified for the region with appropriate cross-cutting actions.

(iv) The RIS3 implementation framework should facilitate coordination between priorities, programmes and funding sources (EU, national and regional). For example, the RIS3 implementation framework should be aligned with the Horizon 2020 implementation schedule. Similarly there should be logical linkages with the ERDF Operational Programmes.

(v) Consistency of RIS3 regional strategies with national operational programmes should be set out in partnership agreements. There should also be similar consistency at macro-regional level with suitable agencies appointed to implement joint RIS3 frameworks.

4.3 A political willingness to change was set out as underlying condition for successful implementation of smart specialization strategies, based on the experience of *Nord-Pas de Calais Region* in France. The six steps approach to RIS3 is used to support a logical design structure. The transition pathway from RIS to S3 involved using the results of the evaluation of the RIS 2009-2013. The RIS planning framework is prepared in the context of further development of the structure of national and regional governance with a shared politically supported vision for change . For each priority a working group involving all regional stakeholders identified smart specialisations, planned and agreed objectives and indicators for the priority and designed actions plans to achieve the objectives.

4.4 Faced by challenges that included low relative growth, research investment, and business creation, the *Southern Denmark* region set itself a 2020 vision of being distinguished as a region with strong growth powered by high productivity and employment by companies that act globally. Health and social innovation, sustainable energy, and the experience economy were identified as three business areas for the region and strong cluster organisations were established to facilitate each with particular benefits for participating entrepreneurs. The framework is supported by targeted and active participation in EU competitive

programmes such as INTERREG, CIP and LLP, and involves closer cooperation between the business and education actors in the region.

4.5 The *Border, Midland and Western Regional Assembly* in Ireland supports a region characterised by a high reliance on primary industries, significant up-skilling challenges; and a need to accelerate the transition of early-stage technology based enterprises to high growth internationalised enterprises. The Assembly are leading an ERDF Interreg funded transnational innovation support project involving eight partners from six EU Member States in a project consisting of ten targeted initiatives aimed at helping HPSUs internationalise more quickly, access key export market intelligence in the European Union and beyond, identify new product development opportunities and, with the support and expertise of the partner network to identify new sources of finance for HPSU development. An anticipated outcome of the project is higher involvement of enterprises in HEI incubation centres.