

Commissioner Máire Geoghegan-Quinn

Speech at University College Dublin

29 November 2012

Forging Better Links between Universities and Industry

Ladies and gentlemen,

I am delighted to be here at UCD today.

I would like to thank you for giving me the opportunity to talk about the work that we are doing at a European level to foster better collaboration between universities and industry.

Of course, universities and industry have been working together for many years but the emergence of a global knowledge economy has increased the need for new forms of strategic partnership that go beyond the traditional exchange of research for funding.

World-class research universities have understood the need for change, and UCD is certainly among them.

UCD has an international reputation for innovative research and creative discovery. I know that your university is committed to increasing collaboration and partnership with Irish and international industry whether this is through its collaborative research, onsite co-location alongside an excellent research base, technology licensing to a diverse range of sectors, access to world-class talent or continuing professional development.

I was very interested to learn, for example, about the €7.5 million investment by the French pharmaceutical company Servier in the establishment of UCD's Servier Centre for Translational Medicine, in partnership with the UCD Conway Institute.

As you know, the UCD Technology Research for Independent Living Centre was launched with funding from Intel and IDA Ireland.

The 7th Research Framework Programme is funding research on cybercrime and cyber security, including the AFTER project on the security of electrical power systems in which UCD is a partner.

UCD is certainly home to excellent research and innovation.

The two are closely linked: innovation is a key driver of economic growth and we cannot boost innovation without an excellent scientific knowledge base.

But excellence in research is just the start. We also need to excel at transferring knowledge to the market in order to create innovative products and services. For that, Europe needs to build stronger bridges between universities, research institutes and industry.

When companies and universities work well together, they become a powerful engine for innovation and economic growth.

Innovation Union, adopted in October 2010, is our roadmap for boosting Europe's innovation capacity. It proposes a series of measures or "commitments" to improve the conditions that allow scientists, researchers, entrepreneurs and companies to flourish.

Innovation Union underlines the importance of excellent research and one of its main ambitions is to remove any obstacles that make it difficult for business to transform this research into innovative new products, processes and services.

We are making excellent progress on the 34 Innovation Union commitments. As part of Innovation Union, in July this year, the Commission launched the *Reinforced European Research Area Partnership for Excellence and Growth*.

Our idea, strongly supported by all 27 Member States of the EU, is to create a European Research Area, or ERA, as a "single market for knowledge".

The ERA initiative launched by us in July this year sets out a series of measures to enable researchers, research institutions and businesses to better move, compete and co-operate across borders.

As part of this, the European Commission has called on research stakeholder organisations such as the European University Association to develop and

implement structured programmes to increase mobility between industry and academia.

This could be akin to the *Industry-Academia Pathways and Partnership* initiative under the Marie Skłodowska- Curie actions.

The Commission also wants research organisations to improve linkages and develop strategic partnerships between academia and industry, and to define joint collaborative research agendas to maximise the use of research results.

Improving knowledge transfer between universities, public research organisations and industry is essential for ensuring that publicly-funded research results contribute to innovation and growth.

Measures to increase traffic between the public and the private sectors are beneficial in two ways. On the one hand they give companies better access to the cutting-edge research that is performed in academia and they speed up the development of applications for research.

On the other hand, it makes universities and research institutes better attuned to the needs of industry and increases their innovation potential.

Even better, this kind of inter-sectoral mobility helps create a culture of open innovation, where ideas from outside one's own organisation are used in the innovation process.

All this will lead to better science, increased valorisation of knowledge and more competitive economies.

A key issue in this respect is open access to scientific publications – this can provide huge benefits to researchers and businesses alike. It is an important means of maximising the economic value and impact of publicly funded research.

It is small companies – the motor of economic growth in so many parts of Europe – that perhaps have the most to gain from open access.

I will not go into detail now on what the European Commission is doing to promote open access, but I will mention that our approach is set out in the policy

document that we published last summer, a Commission Communication entitled *Towards better access to scientific information*.

What more are we doing at the European level to help researchers who want to engage with industry ?

Let me mention two related issues: doctoral training and career development for researchers.

Last year, we took a critical look at doctoral training across Europe and we found that, in many cases, training and research can still take place in an ivory tower.

And only 22% of respondents to last year's public consultation on the European Research Area believe that researchers are well prepared for the private sector.

Together, we must help to ensure that the new generation of PhD graduates are prepared, already during their doctoral training, for the possibility of a career outside academia.

I believe that doctoral training will become more relevant and more effective if it can be better structured and if we aim for the "Triple - I": doctoral training that is more **I**nternational, more **I**nterdisciplinary and more **I**nter-sectorial.

What would this mean in practice?

Well, all researchers, and doctoral candidates in particular, should consider the innovation potential of their findings.

Universities should make participating in knowledge transfer a valued part of an academic career.

Academic staff should be trained to develop entrepreneurial skills that can be transferred from one work environment to another.

We have collected some of the best ideas in one place. Working with experts from industry and academia we identified seven *Principles for Innovative Doctoral Training*.

These principles emphasise the fostering of excellence and of a critical mind set, and also highlight the need for transferable skills and exposure to industry or other relevant sectors.

"Exposure" can include placements; shared funding; involvement of non-academics from relevant industries in teaching and supervision; financial contributions and joint programming.

Other principles identified are the availability of *Interdisciplinary Research Options*, and the possibility of *International networking*.

These Principles have been endorsed by the EU Council of Ministers in November 2011 and in April this year by the "Bologna Ministers", responsible for education. Significantly, the EU Ministers called on Member States and universities to link national funding to these Principles.

For its part, the European Commission is supporting tens of thousands of doctoral candidates through its funding programmes in education and research, whether the Marie Skłodowska-Curie Actions, the European Research Council and other parts of the Framework Programme, Erasmus Mundus or the Structural funds.

All these programmes will be encouraged to apply the principles for innovative doctoral training.

The European Commission is also working very hard to support researchers' career development.

Europe-wide, 115 universities, research institutes and funding agencies have received the "*HR Excellence in Research*" logo for their work in implementing the European Charter for Researchers and the Code of Conduct for the recruitment of researchers.

I would like to congratulate UCD on recently becoming the first Irish university to be awarded the logo by the European Commission. This identifies UCD as a provider and supporter of a stimulating and favourable working environment for researchers. The award is proof that it is possible to support researchers in the current economic times.

All of the measures and initiatives that I have just mentioned are contributing to our overall goal of establishing the European Research Area.

Our drive to complete the European Research Area is complemented by our proposal for Horizon 2020, the new funding instrument for European research and innovation from 2014 onwards.

Horizon 2020 is definitely not business as usual. It represents a major break from the previous Research Framework Programmes.

For the first time, Horizon 2020 brings all the European level funding for research and innovation under one roof.

Secondly, there will be a greater emphasis on innovation and economic impact.

Concretely, this means that we will be funding more close-to-market activities, including pilot actions and demonstrators. We will fund actions along the whole innovation chain, from lab to market.

To make life simpler for SMEs, there will be a single, comprehensive programme, adapted to their needs.

So that research results are put in the hands of other researchers and innovators who can use them, open access to scientific publications will be the default setting in Horizon 2020.

Horizon 2020 will also support a whole series of public-private partnerships designed to drive growth and investment.

Let me give you just one example of what these can achieve.

We need new antibiotics to combat dangerous super-bugs, but it is not financially viable for individual pharmaceutical companies to develop them. So, the Innovative Medicines Initiative is bringing together major pharmaceutical companies, university researchers, hospitals and small businesses, to tackle the problem.

It is enabling pharmaceutical companies to share pre-clinical data to deliver more effective treatments for depression and schizophrenia. This matters because, with bigger genetic databases, you can develop personalised medicines.

You simply cannot solve problems of this scale within a single university, company or country. It is a clear case for action between sectors and between countries.

None of this means that we are forgetting fundamental research.

Far from it!

We are proposing to double funding of the European Research Council that promotes curiosity-driven research.

I often meet global business leaders. And when I ask them about the key factors for investing in one place rather than another, one of the answers they always give is "world-class research institutions".

At the European level we have recognised this challenge with the creation of the European Research Council, or ERC. It is helping to build a world class science base in Europe.

The ERC provides generous, long-term funding for the best researchers with the best ideas to carry out their work in Europe. Awards are granted solely on the basis of scientific excellence with no predetermined priorities, targets or quotas. Allowing researchers the freedom to explore ideas at the frontiers of knowledge is proven to be the best way to generate radical breakthroughs.

The ERC therefore complements national efforts. Ireland has been increasingly successful in hosting ERC grantees, with 27 ERC grants awarded since 2007.

18 of the grantees are Irish nationals. But this funding has also helped Ireland to retain and attract world-class researchers, including the American Nobel Prize winning economist James Heckman here at UCD.

Researchers based at UCD have been very successful, with seven ERC Starting and Advanced Grants as well as one "Proof of Concept" grant. This puts UCD in the top 90 institutions in Europe in terms of ERC grants. I am delighted that some of the ERC grantees are here today. Congratulations on your success!

So, there will be no compromise on excellence in Horizon 2020. I want to see more excellence in Europe, and to see it in places where it has not existed up to now.

The Horizon 2020 proposal is just one chapter of the overall EU budget that we have proposed for the period 2014 to 2020.

I believe that the European Commission proposal for a budget of 80 billion Euro over seven years is realistic.

Through a smart re-allocation of the budget, we have created room to finance new priorities, including a significant increase for research and innovation.

So, we are seeking to restructure the budget – in a progressive direction – towards growth and competitiveness policies.

But the budgetary negotiations in Europe are proving to be very tough with a number of member states seeking to reduce the size of the overall EU budget for the next financial period 2014 – 2020.

Research and innovation need more champions.

So, I would ask you, please, to support us, and to persuade others to do so. We need to keep repeating the message that research and innovation pays off for growth, competitiveness and jobs.

Ladies and gentlemen,

Many organisations in Ireland, UCD among them, are already demonstrating the huge gains to be made by forging stronger links between universities and business and between excellent research and innovation.

The European Commission is working hard to help you build more and stronger partnerships between business and academia.

Thank you very much for giving me the opportunity to present today some of the actions that we are taking. I am counting on you to take an active part in them!

Thank you.