Developing best practice for university-industry interactions is a considerable, but highly beneficial goal that is coming to prominence as the role of universities in society evolves. Earlier this year, *International Innovation* visited the University-Industry Interaction Conference in Barcelona, Spain, to discover more about an exciting and rapidly developing process.

As universities are increasingly encouraged to demonstrate the tangible impact of their work, so their desire to fully realise the potential of industry collaborations grows. However, to effectively foster collaborations that ultimately produce marketable innovations, both sides must navigate obvious variances in approach to project work; from timeframes and resource efficiency to intellectual property, academia and industry commonly differ in a range of areas.

With such challenges in mind, the University Industry Innovation Network (UIIN) provides a platform for knowledge exchange between those involved in university-industry interactions. To support their work, the Network hosted the University-Industry Interaction Conference in Barcelona on 23-25 April in cooperation with the Catalan Association of Public Universities (ACUP), which represents eight universities in Cataluña, including more than 200,000 students and over 15,000 teaching and research staff.

A well-rounded approach

The conference drew a large number of researchers and practitioners in the field, based in part on the event’s ability to attract prestigious keynote speakers, including the internationally recognised economist and leader in entrepreneurship Professor Carl Schramm and Dr Matthias Kaiserswerth, Director and Vice President, IBM Research – Zurich.

Another core aspect of the event’s success hinged on a balance of academic and practitioner tracks. While one talk covered Inter-Regional Institutional Learning and its Impact on Knowledge Transfer in Regional Economies, for example, another simultaneously addressed Metaphors for Knowledge in Creative Start-Ups. The result was a programme with broad appeal that served a number of purposes, and included an introduction from Director of Horizon Europa Roger Pitfield to the Horizon 2020 and Erasmus+ programmes.

At the heart of the UIIN’s ethos is a belief that ‘gathering new knowledge and insights, learning new concepts, developing new and existing contacts as well as having a good time are highly interlinked aspects of a conference’. The Barcelona event tangibly brought together these components, including PhD workshops at the Barcelona Biomedical Research Park, a range of insights from key stakeholders at the main sessions at the CosmoCaixa science museum and a networking event set in the picturesque surroundings of the Museu Nacional d’Art de Catalunya.

Key conclusions

The zeitgeist surrounding university-industry interactions suggests the inherent true complexity is beginning to unfold. A focus on big data in addition to case studies is on the rise, with findings suggesting a more fluid approach to processes and intellectual property proving beneficial to start-ups. Indeed a number of speakers, including Professor Stephanie Marrus from the University of California, San Francisco, and, perhaps most notably, Professor Carl Schramm in the opening keynote address, who suggested entrepreneurs should ‘burn the business plan’ – a directive that forms the title of Professor Schramm’s forthcoming book.

In the following pages, *International Innovation* presents exclusive content from the event, including an interview with Professor Liz Towns-Andrews, a roundtable with four key contributors to the conference and a Last Word from Schramm.

WWW.UIIN.ORG
International Innovation presents an excerpt from Professor Carl Schramm’s keynote speech during which he set out bold concepts regarding failures in existing approaches to stimulating innovation, which generated much discussion early in the conference proceedings.

TAKE-HOME MESSAGES

DR MATTHIAS KAISERSWERTH

“The key points I hope attendees come away with is that creating an innovation-friendly environment requires a holistic and consistent approach across all parameters that influence the ecosystem, including regulatory conditions. Also, research and innovation are not the only preconditions to European economic growth – data-driven innovation is and will remain key if Europe wants to strengthen its competitiveness: data is truly the new natural resource. Lastly, to take full advantage of innovation and research excellence, Europe needs to remain an open economy: restrictive or protectionist initiatives are incompatible with the way companies operate in a global economy today.”

PROFESSOR KELD LAURSEN

“A university’s linkages can provide an important source of problem-solving for private technology-orientated firms. However, researchers can be challenging to work with because scientific and technological pursuits of knowledge are fundamentally different. There are central differences in the nature of the goals accepted as legitimate within the two communities (finding a workable technological solution versus revealing a scientific truth); norms of behaviour, especially in regard to the disclosure of knowledge (patent or publish); and the reward systems (monetary or reputational rewards). Firms can lift their patent output by hiring university researchers. However, this gain is conditional on a pre-existing history of scientist employment. This is consistent with the idea that university researchers potentially help firms become more innovative, but are costly to integrate in the research process of for-profit private firms.”

PROFESSOR LIZ TOWNS-ANDREWS

“I have spent most of my career working as a scientist at large-scale research facilities, but having been in academia at the University of Huddersfield for four years, the transformation I have seen in that time has been phenomenal. I believe that universities have a central role to play in regional economies. They really are engines, and I am certain they have a distinct role to play in national economies.”

AN END TO IGNORANCE

MEET THE KEYNOTES

PROFESSOR CARL SCHRAMM is an American economist and entrepreneur, and former President and CEO of the Ewing Marion Kauffman Foundation, the leading global entrepreneurship foundation. As an expert in entrepreneurship and innovation, in 2007 Secretary Carlos Gutierrez asked Schramm to chair the Department of Commerce’s Measuring Innovation in the 21st Century Economic Advisory Panel, who currently also serves on a similar panel in the Obama administration.

DR MATTHIAS KAISERSWERTH is Director and Vice President, IBM Research – Zurich. In this role he is responsible for pursuing cutting-edge research, cultivating close relationships with academic and industrial partners, maintaining IBM Research as a premier place to work, promoting women in IT and science, and driving Europe’s innovation agenda. Read Dr Kaiserswerth’s exclusive interview in International Innovation’s recent North American Research publication (issue 144).

For 10 years, I ran the Kaufman Foundation, and, as a professor who had become an entrepreneur, an exciting part of that job was having sufficient funds to conduct research on entrepreneurship – this had never been undertaken in any consequential way beyond case studies in business schools.

Much of what we think when we try to stimulate innovation or new firm creation derives from case studies. Many people visit Silicon Valley to record case studies and return home with entirely the wrong lessons. As an economist, I don’t tend to pay much attention to case studies. I investigate big datasets in an attempt to describe phenomena that can be established statistically or empirically – it’s quite epistemologically different from case studies.

I want to talk about the breaking points of this present paradigm. When paradigms break, they do so because some of the empirical evidence won’t enforce that which we believe. If we look at real data, the number of new firms being created is declining rapidly. Many may believe this is due to the global recession, but it’s larger than that.

There is an inverse correlation between the number of professors teaching entrepreneurship and the number of new firms being formed. In 1990, there were fewer than 100 professors purporting to teach entrepreneurship, today we have 6,000. […] So, perhaps we’re teaching the wrong thing?

I think what we’re doing is overemphasising business start-up techniques and undervaluing the teaching of how innovation happens. It’s a natural human response: we always prefer to teach the easier lessons. […] The first lesson when teaching students about starting a new company is ‘write the business plan’, but here’s where empirical evidence interferes. Looking at the fastest growing companies in the US, fewer than 40 per cent ever wrote a business plan; there was no business plan for Microsoft, Apple or Twitter. Companies start without
business plans. I’ve started six companies and have yet to write a business plan – in fact I am currently invested in 10 companies and have never read a business plan. So, we make a liturgical event of this plan, but the real key to any new business is innovation. I argue in my new book *Burn the Business Plan* that there are only two forces that really count in making a business work; the first is what I call ‘scalable innovation’ and the second is entrepreneurial competency. […]

I’ve just finished a meta-analysis of over 1,000 papers and 150 books on disruptive innovation and open innovation, and I found that if you want to teach how innovation works, these texts are largely useless. They discuss, among other things, how innovation disrupts and is important to economic growth, but they don’t include practical, substantive advice on innovation.

In fact, I have encountered around five fairly stable sources of innovation. The first source emerges from tinkering. At first, universities were upset by the notion of ‘tinkering’, as it conjures the idea of men in workshops, but it is hugely important. The second is accidental innovation. A wealth of literature is available on “accidental” innovation – a good example is Charles Goodyear, who threw rubber into a fire at the end of the workday and came in the next to find it had hardened, creating vulcanised rubber. However, this cannot be staged; it’s not actionable.

The third source of innovation comes from purpose driven research. There are two great forces driving this: warfare and medicine. These reflect fundamental aspects of human nature: we want to protect our superiority and don’t want to die. They are generally well funded by the state. The fourth foundation is pure science, also funded by the state with the help of the scientists who emphasise its importance to politicians. Pure science is, in fact, very important. The fifth source is often undervalued in the academic and business worlds: linear progress. Almost 95 per cent of innovation emerges as a result of a linear descent with factories, companies and laboratories attempting to make pre-existing products better, faster and cheaper. This overview of channels through which innovation can emerge opens a window into how the entire ecosystem can be improved.

It is important to know where innovation comes from. Much public policy is developed based on the notion that pure science is the only way to develop innovations, while others argue that defense spending and health spending are the only real root. We don’t have a comprehensive, intelligent view of where innovation comes from and this is central if we want more new businesses. Indeed, the reason we want new businesses is that they fire the economy, stimulating growth that feeds into the holistic vision of why innovation is so important. […]

**PROFESSOR LIZ TOWNS-ANDREWS** is Director of Research and Enterprise at the University of Huddersfield and Chief Executive of the 3M Buckley Innovation Centre. She is responsible for centrally supporting and underpinning the University’s research and enterprise strategies and identifying opportunities for the development of research activity, strategic partnerships and collaborative R&D activity.

**KELD LAURSEN** is Professor for Innovation at Copenhagen Business School and Vice President of the European Academy of Management (EURAM). Since October 1998, he has been working at the Department of Innovation and Organizational Economics at the Copenhagen Business School. Professor Laursen is elected to serve on the chair track of the Academy of Management’s Technology Innovation Management (TIM) Division for 2012-17.