

Collaborate to Innovate: How businesses can work with universities to generate knowledge and drive innovation

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Universities and businesses already collaborate across a number of strategically important areas, particularly in areas such as knowledge-intensive economic growth. [Muthu de Silva](#) argues that it is important that universities and businesses learn from successful collaborations and that government supports and nurtures these interactions.



Universities play a major role in supporting innovation and competitiveness in the UK. In addition to delivering outstanding research and teaching, universities widely interact with all stakeholders in the economy. There is a growing pool of evidence which demonstrates the positive contribution they make to the UK's economic and social development. However, it seems that we still do not fully understand how to make the most out of successful university-business interactions. This was emphasised in a recent [statement](#) by David Willetts, the Minister for Science and Universities, and Vince Cable, the Secretary of State for Business, Innovation and Skills:

"Universities must be open to and accessible to local businesses ... While many businesses do engage with universities ... there are still too many businesses that are not reaping the rewards of collaboration".

In response to this gap in the economy, our report, '[Collaborate to Innovate: How businesses can work with universities to generate knowledge and drive innovation](#)', (Authors – [Andersen](#), [De Silva](#), [Levy](#)) which is a joint project of the Big Innovation Centre and the Intellectual Property Office, explores ways to unlock and stimulate different forms of collaborations between universities and businesses. The research is based on a survey of 200 businesses, and in-depth interviews with 14 companies, which we have been carrying out over the last couple of months.

We found that businesses were generally very positive about their experiences with universities. More than half of our respondents stated that they were able to successfully achieve what they had set out to do when interacting with universities. Our research shows that businesses are motivated to work with universities in order to innovate, develop strategic networks and increase their market competitiveness; as opposed to the idea of gaining short-term financial gains.

While most businesses were generally able to successfully access university knowledge, trying to solve complex business challenges by closely collaborating with universities to co-create knowledge proved to be difficult for a significant proportion of companies. What we mean by knowledge co-creation is universities and businesses closely working together to develop new knowledge to capitalise on opportunities which range from the development of a new product/process through to solving larger socio-economic issues such as green energy, health or crime. Our research gave us a great deal of insight into how businesses can successfully interact with universities, particularly in regards to the co-creation of knowledge:

Adopting communication, collaboration and negotiation-related management practices is a key to successful collaborations

We are not advocating that universities become more 'business-like'. It is the inherent difference between universities and businesses which stimulates their interdependence and collaboration. Universities and businesses should capitalise on differences rather than trying to match each other's practices. Relationships were found to be effective when partners reached a mutual understanding, increased transparency, implemented a strong programme structure with clear milestones, were open to negotiations, and had more team level communication as

opposed to a top down management approach. It was also evident that Small and Medium Enterprises (SMEs) find it difficult to adopt these practices, in comparison to large firms. We must therefore do more to support SMEs and encourage them to engage in these practices.

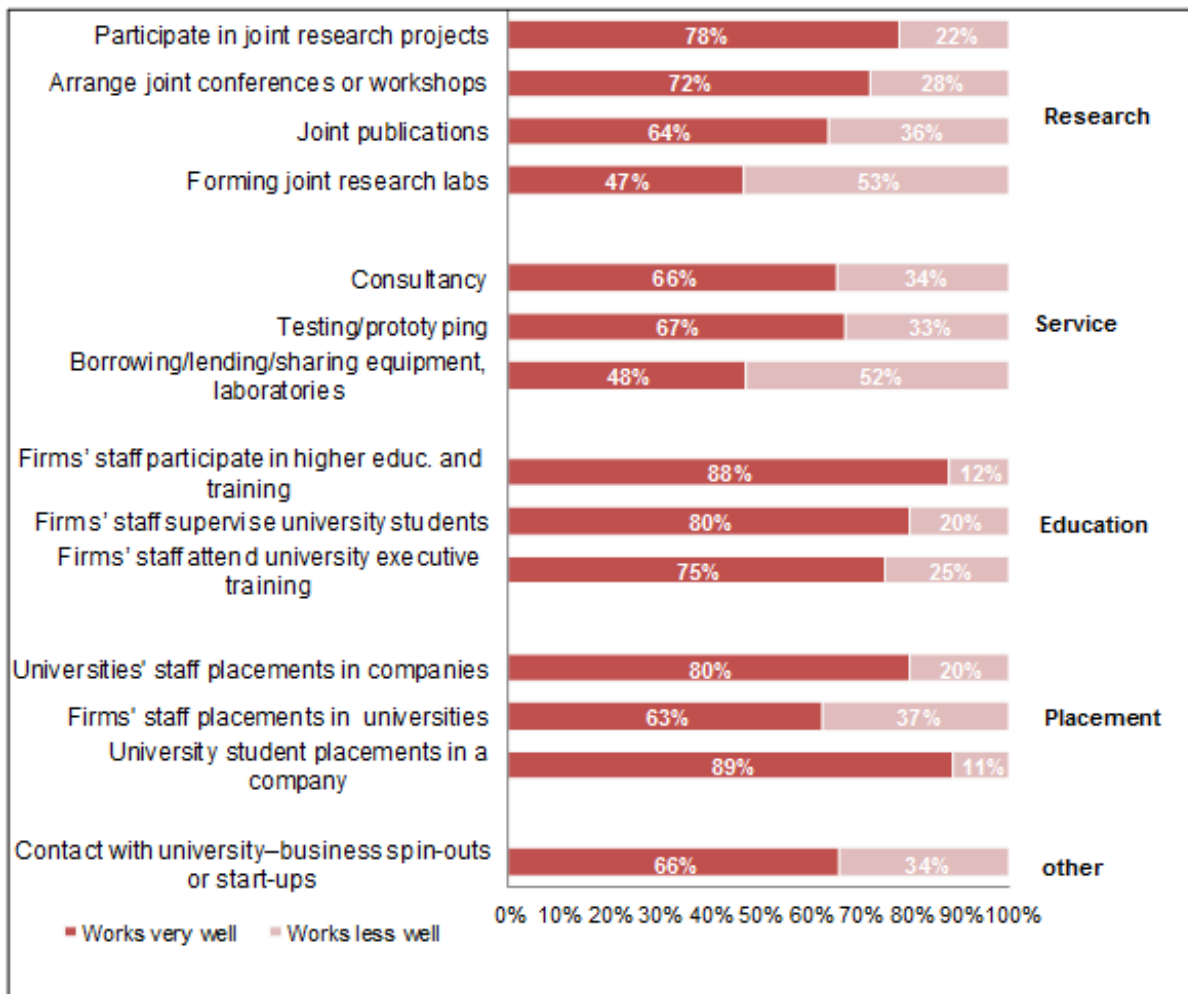
Supporting university-business interactions with institutional backing

Our research offered useful insights into a number of institutional approaches that would support interaction. First of all, the awareness of the Lambert Toolkit needs to be increased and it should consider new facets of university-business interactions. Secondly, university-business relationships should be supported by Open Innovation networks such as the University of Glasgow's Innovation Network, Eindhoven's knowledge co-creation network and Local Enterprise Partnerships. Thirdly, university and business placements and people exchanges should be encouraged as these were found to be mutually beneficial and induce the engagement in other types of university-business interactions. Finally, we need to fully understand the past failures of innovation voucher schemes. Our study made it clear that SMEs need additional sustainable support to interact with universities besides short terms funding.

Creating a portfolio of interactions with universities, built around research, education, placements, and other services

As illustrated in Figure 1, businesses told us that most of the channels they use to interact with universities work very well. The most successful relationships are built by businesses that carry out a portfolio of different interactions with universities such as research, education and training, staff placements, and technology services (e.g. consultancy, testing and prototyping). This is perhaps down to the fact that businesses which share a portfolio of engagements with universities generate additional benefits simply by partaking in different types of activities with them.

Figure 1: Effectiveness of different university-business interaction channels



Note: Percentages of firms that have used each type of interaction channel and that consider them to be 'working very well'

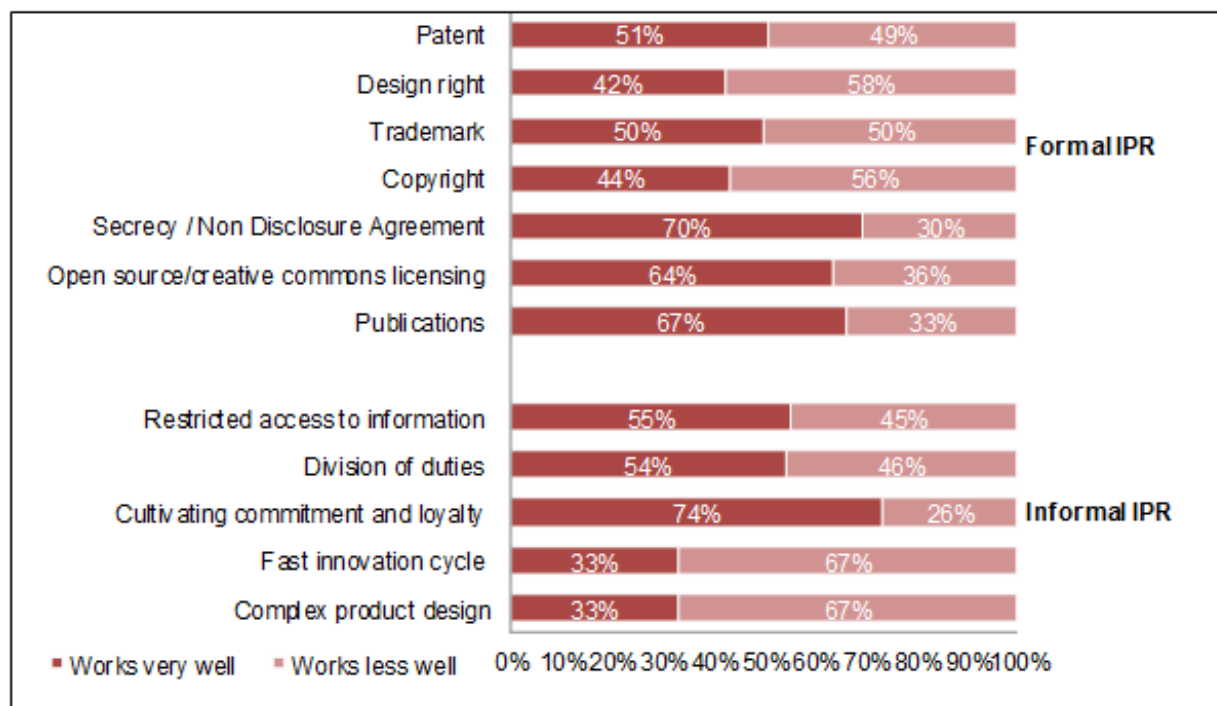
Adopting new models to share resources

The least performing university-business relationships involve creating joint research labs and sharing resources between one another. The main reasons for this are concerns around the lack of 'secrecy / confidentiality' and conflicts of interests between universities and businesses. However, successful collaborators have found that adopting new business models whilst developing joint research labs enabled them to overcome these obstacles.

Developing open and flexible intellectual property protection strategies

Most firms in our sample did not use any IP protection whilst working with universities. These firms predominantly feature in the business, creative, cultural, information and communication service sectors and interact with fewer – mainly UK – universities. Firms that use IP protection strategies generally rely on bundles of both formal and informal mechanisms. Firms in science-based sectors, collaborating with a large number of universities and with more international universities tend to use larger IP bundles. 'Soft' IP such as cultivating commitment, trust, secrecy/ non-disclosure agreements open source and publications work very well in developing these interactions (Figure 2). Firms should be prepared to embrace the use of various IP protection strategies and be flexible in adopting different strategies depending on the situation.

Figure 2: Shares of firms using formal and informal Intellectual property strategies



Note: Percentage of firms that report each IP protection strategy working very well or less well.

Academics and users are catalysts for university-business interactions, but Technology Transfer Offices (TTOs) strengthen institutional links

Individual academics are crucial to starting most interactions between universities and businesses. To create more interactions, universities could do more to empower and encourage academics to work more with business (by providing better support, for instance); universities and/or businesses could also develop new platforms to build more links between each other; alumni connections also play a key role as a source of university business links, which universities could further develop. However, TTOs and research support staff are not found to be strong modes that initiate university-business interactions. Nevertheless, they are hugely important to support academics' interaction with businesses (particularly as providers of administrative, legal and coordination services) once the relationship is formed.

Clearly our universities are no longer 'ivory towers' completely isolated from the rest of the economy. They play a key role in our innovation ecosystem as the drivers of knowledge-intensive economic growth. There is still room to improve university business interactions, particularly their close collaborations which aim to co-create knowledge. As highlighted above, it is of paramount importance that universities and businesses learn from successful collaborators and government nurture these interactions with appropriate open innovation led policies and infrastructure support mechanisms.

Note: This article gives the views of the author, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our [Comments Policy](#) if you have any concerns on posting a comment below.

About the Author

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