

# **Raising the potential of the Triple Helix**

Co-innovation to drive the world forward

Birgitte Andersen and Will Hutton







The Big Innovation Centre is an initiative of The Work Foundation and Lancaster University. Launched in September 2011, it brings together a range of companies, trusts, universities and public bodies to research and propose practical reforms with the ambition of making the UK a global open innovation hub as part of the urgent task of rebalancing and growing the UK economy, and with the vision of building a world-class innovation and investment ecosystem by 2025. For further details, please visit www.biginnovationcentre.com.

#### **Provocation**

The Triple Helix's mission<sup>1</sup> could hardly be more timely. Globally the economy faces two existential challenges: how to create sustainable growth given the vast overhang of private debt in Asia, Europe and North America, and how that is to be done given the disruptive - if transformational - impact of digitalisation on traditional business models. The response has to be smart ,radical and above all innovative, imposing a new urgency on universities, business and government to work together in a clear-eyed and decisive way. With our backs against the wall, we have to innovate our way out of this crisis.

The 2013 Triple Helix Conference will integrate highly topical contributions on opportunities and challenges in each of the three spheres of the triple helix. Universities, industry and government will address the key question that lies at the heart of the triple Helix approach: how to build 'the enterprising state' in which universities, businesses and governments co-innovate to solve the global economic challenges?

The successful twenty first century university, firm or government will be much more open, more networked and more absorptive of external ideas than even before. Universities, firms and governments have no option but to sponsor such open innovation, networked growth on which, in different ways, their own intellectual, operational and financial vitality will increasingly depend. This cannot be left to luck and chance. The international evidence is unambiguous.

Successful clusters of firms grow in self-consciously designed ecosystems in which there are "thick" relationship networks between economic anchor institutions - from banks to universities - with both high absorptive capacity to the external and the new, and who actively seek to promote creative external relationships. This is the mechanism through which opportunities can be seized and the many risks associated with investment and innovation at the knowledge frontier mitigated. Some of what is needed is already in place: we do not start in a completely green field.

This Triple Helix international 2013 conference aims to be a catalyst to such thinking. By bringing together the key players in London we hope to trigger thinking, identify potential actions and start the process. The prize is the creation of world class, open innovation growth hubs, but organised in such a way that they enhance the quality of life in the global regions rather than diminishes it. We have an obligation to ourselves – and each region or country – to get this right.

#### **Triple Helix innovation**

The competitiveness and economic performance of firms, regions and nations must be understood in a local context. This is not despite, but because of the globalisation of production, trade and labour mobility - the growth of trans-national corporations, information and communication advances and the emergence of e-business. Far from wiping out the role of local business networks or the regions, these forces of globalisation reinforce their

<sup>&</sup>lt;sup>1</sup> Henry Etzkowitz (2003) Innovation in Innovation: The Triple Helix of University-Industry-Government Relations, Social Science Information 42 (3): 293-338

importance. Directors of leading companies, for example, look closely at the innovation and investment ecosystems of different cities and regions when they make decisions about where to invest and create jobs.

Differences in regional institutions - and the interplay between them – matter profoundly to competitive success because innovation does not take place in an institutional vacuum. Rather it is determined by the configuration of businesses, finance, research, education, law, regulation, skills, local government, entrepreneurial spirit, social capital and more. All these institutions and organisations have a local expression. The task for an enterprising region or city or county is to do all it can to configure their institutions in the best way they can to make the local innovation ecosystem as attractive as possible.

The approach at the Triple Helix 2013 conference is to view our economies less in traditional division of labour terms – markets self-organising land, labour and capital into productive outcomes – but emphasising more the role of institutions in organizing production and related activity (markets, businesses, banks, universities, "skilling" institutions, government and public agencies). Institutions are more or less effective. We need to understand the interplay between these organizations and other institutions, emphasising an open innovation mind-set as the key to underpinning those relationships and unleashing growth. How organisations absorb each others' ideas and propositions and then co-shape actions to stimulate demand along with building the capacity to meet that demand is key to the co-creation process.<sup>2</sup>

Open innovation is thus the key to unleash the potential of the Triple Helix. By open innovation we mean close collaboration by all stakeholders in addressing a business and social opportunity or challenge. These opportunities range from the development of a new product or business model through to larger socio-economic issues such as green growth, health or the digital economy. Stakeholders clearly include businesses and citizens, but also universities, financial institutions and other intermediate organisations, engaging with each other through multiple channels and pooling their internal resources; including knowledge, finance, people, markets, and data. This approach to open innovation is more than simply sharing risk and reward, it encapsulates the integration of the entire innovation ecosystem, and is about co-innovating and co-creating new markets and more effective and more productive business models integrating supply chains which would not exist otherwise<sup>3</sup>.

#### It's the Innovation Ecosystem, stupid

The performance of local organizations (businesses, banks etc.) is too often understood in terms of traditional or blunt indicators (usually scale and turnover) that undervalue the contribution organisations make to the ecosystem through harder to measure metrics – for example the quality of their relationships, their convening power, their capacity to identify and manage risk. All organizations play an incredibly important, yet subtle and multifaceted role in our local ecosystems. It is a two way process. The better organisations understand

<sup>&</sup>lt;sup>2</sup> Birgitte Andersen, Ian Brinkley and Will Hutton (2011) <u>Making the UK a Global Innovation</u> <u>Hun. How Business, Finance and an Enterprising State can transform the UK</u>. Big Innovation Centre report

<sup>&</sup>lt;sup>3</sup> This approach is broader than the more narrowly defined version of the concept coined by Henry Chesbrough (2006, Open Innovation: Researching a New Paradigm, Oxford University Press), arguing that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their performance.

their role – and their role is understood – the better they can underpin the ecosystem: equally the stronger the ecosystem, the easier it is for organisations to grasp and seize their role in its division of labour.

For any global region to continuously raise and reach its potential, major challenges within the innovation ecosystem need to be addressed.

There are any number of questions. How well does the ecosystem in global regions support innovation and entrepreneurship by nurturing innovative markets, places and networks? Are there useful anchor points for particular capabilities or specialism? Could large firms be encouraged to become early adopters of innovative ideas, suppliers of equity capital or by the offering of major market contracts?

For universities, how well do they and research centres connect with local entrepreneurial and business communities? Could there be better means of co-mapping risks, mitigating them, coaching entrepreneurs and identifying promising scientific and technological developments?

And what about the capital dimension? What is done locally to stimulate banking relationships and other forms of finance? What is offered in terms of particular access to funding networks? Might global banks raise the potential credit to fund innovative enterprises all over the world over the next five years?

Then there are the transformed business models which will be delivering the future products and services. What is being done to unleash the digital economy and revolution of Big Data and the 'Internet of things'? Companies, societies and nations that understand how to build and combine their data with other networks of both public and private data will hold the competitive edge. When combined, data and the Internet of things can change the way in which products and services are produced, stored, delivered and consumed. It can reorganize the entire economic system of production, the entire system of science, and create new business models and ways of living. There are already great examples of big data contributing to the world economy and welfare, for example by increasing the quality of products and services in the healthcare or financial sectors, or by reducing energy waste in households or street crime. Are we doing enough to harness the possibility of the digital economy?

Innovation ultimately depends on the skills and capacity of individuals within our economy to develop ideas and run organisations capable of bringing them foreword. Does each global region need an elite group of business game changers: what is being done to identify, groom and coach them?

Finally, how well do our governments - national or regional – understand this agenda? What are they doing to create an innovation ecosystem which is sufficiently ambitious and supportive? What is their absorptive capacity for the new and innovative?

#### A rallying call to our 2013 Triple Helix Conference delegates

So – come and be part of the process. Help to identify the policies, regulations and management structures for our universities, businesses or financial institutional institutions which form part of the problem solving process. The themes for the conference include:

- How can the global challenges to the digital sphere, healthcare, the natural environment and other areas facing disruptive forces be turned into growth opportunities?
- How can the Triple Helix create a better mode of coordination to enhance productivity, output and innovation, and what are the challenges to universities, businesses and government?
- How can the Triple Helix build innovative markets, places and networks, and what are the challenges to open innovation, demand and business models?
- How can the Triple Helix build more innovation-friendly financial institutions, and what are the challenges to the business of banking in driving innovation and entrepreneurship, especially in SMEs?
- How can the Triple Helix enhance universities as interactive partners in our innovation systems, and what are the challenges to the absorptive capacity of academic knowledge within firms and by other users?
- How can the Triple Helix enhance skills for innovation, and what are the challenges to management and leadership skills for high growth firms?
- How can public action drive innovation in the private sector, and what are the challenges to public procurement, as well as intellectual property management and IPR policies?
- How can the Triple Helix enhance place-based innovations, and what is the role of local innovation systems and local key institutions to build and accelerate regional clusters?

#### In conclusion

We will try during the conference to practice what we preach, with the conference structured to deliver as many possibilities for open innovation interactivity as possible. There are not many opportunities during a working year for the kind of discussion and exchange on offer over the two days of the conference. So please seize the moment and participate to the full. The more you do, the more worthwhile for you – and for everyone else. Precisely the increasing returns to be won from open innovation!

## **Acknowledgements**

This report is a publication from the Big Innovation Centre, an initiative from The Work Foundation and Lancaster University. The content of this report reflects the opinions of its authors and not necessarily the views of the Big Innovation Centre or its supporters. The Big Innovation Centre is supported by the following companies, public bodies, universities and private trusts.

































Technology Strategy Board



















### **Contact details**

**Big Innovation Centre** 

The Work Foundation 21 Palmer Street London SW1H 0AD

info@biginnovationcentre.com www.biginnovationcentre.com www.theworkfoundation.com

All rights reserved © Big Innovation Centre (The Work Foundation and Lancaster University). No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form without prior written permission of the publishers. For more information contact info@biginnovationcentre.com. The Work Foundation Alliance Limited, 21 Palmer Street, London, SW1H 0AD, UK. Registered Charity No. 1146813. Registered as a company limited by guarantee No. 7746776. Registered address: Lancaster University, Bailrigg, Lancaster LA1 4YW, UK.