

## “Open Innovation” Is Not Something New



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**Did the UK innovation system evolve spontaneously or was it basically planned? What role did the government play?**

Throughout history they have always been very good inventors while support from the government was minimal. I would say that perhaps in the last 30–40 years as a result of the success of the Americans through Silicon Valley European governments have started copying that. So, I would say that initially it was not preplanned, it was probably culture and now they are trying to do it more systematically. Whether this is leading to a more successful economic growth I don't know.

**How does legislation regulate innovation process?**

There was a report (The Lambert report), released in 2003. In fact this report was commissioned to try to find out what you could do with all the scientific knowledge which was being developed in universities. Recommendations coming out of that report were basically suggesting that industry and academia should talk more to each other. As a result a more cooperative approach developed, and although the economic downturn changed it a little bit, big companies and research councils started investing a lot more in universities to conduct applied research. In a sense that was a concrete action taken by the government.

**What are the major participants in the innovation process in the UK?**

Starting from the government side there are institutions like the Engineering and Physical Sciences Research Council (EPSRC) and NESTA – National Endowment for Science, Technology and the Arts. Definitely there are entrepreneurs, investors, universities. But universities do not sell science, so there are technology transfer offices – TTOs. They basically deal with the legal and some commercial aspects and also try to make available all these inventions to investors, so that they come, take a look at them and then see if there is any potential to create commercial technologies.

**So, basically they are in search for money?**

No, they deal with all the processes that facilitate the commercialisation. For instance, if I am an academic inventor and I created something I can come and ask them what are, for example, the intellectual property mechanisms I can use and whether they have investors that might be interested: all the things procedural, they are not in charge of money. And sometimes there is a big pressure because if you don't do anything with your invention within one or two years after you have patented it they can just take it and commercialise it.

**You mean an invention can be commercialised without participation of the inventor?**

University owns all the intellectual property but it gives special commercial rights to use it to the inventor. But if he or she doesn't do anything for one year with those rights they have the freedom to look for someone else that might be interested in taking it to a sellable state. The inventor still has some participation but they have the right to look elsewhere.

**What role does the Russian scientific diaspora play in the UK? Or, in broader term, scientists from Eastern Europe?**

As you know a Nobel Prize in chemistry this year was granted to a couple of Russians. I've been impressed by discipline and thoroughness of East European scientists. Very often they are much stronger than their western counterparts. I mean you have a strong culture of basic research in scientific disciplines in general, in many ways stronger than in the West. While most of the universities are on Western side of Europe, a lot of scientists in basic sciences told me that they really admire and respect their colleagues from Eastern Europe, especially from Russia.

**How important is the government role in promoting innovations compared to that of market forces?**

It's very hard to generalise. I would say that if the government doesn't facilitate the process you are missing great opportunities. I mean, you may have a very attractive market but if, for instance, you don't have right intellectual property legislation it will stand on the way of a scientific discovery to be commercialised. So, it's undoubtedly very important. But on the other hand if a market doesn't exist you may have a most encouraging and helpful legislation but no practical result. However, government definitely plays a very important role. It has to foster this culture of innovation and entrepreneurship. It's not just inventions that matter, but the whole commercialisation process.

**What are the latest trends in innovation policy and how did the crisis and budget problems influence it?**

Well, without a shadow of a doubt the latest trends are that the budgets are being cut down very severely, and I think that can have a major impact. Disruptive technologies may take 15 to 25–30 years to be developed, and I have seen a number of scientists who have been working for the last seven or eight years on some technologies, and now all is going to be stopped because the money flow has drained. That's going to slow down the innovation process and henceforth the whole economic wealth creation process.

### What helps and what hinders development of the innovation system in the UK?

There are two things that hinder and enable it at the same time. For instance, the UK attracts a lot of international students and I think that it gives the country a great advantage to have here the brightest minds from all over the world. A multicultural, very cosmopolitan environment in Cambridge, it is incredible indeed. An MBA here is mainly international, 90 per cent are not from the UK, perhaps just 50–60 per cent are Europeans. How England is attractive to international students is really very important, but at the same time the British authorities are taking the wrong path: the legislation they might be introducing now will be potentially removing the work permits that allowed students to stay here for two years working. This is a great mistake because on the one hand they make a lot of funding available for scientists regardless of nationality: European or non-European, you come here, get your PhD, you are ready to make your small contribution or big contribution depending on what you are doing, and then they kick you out. To the contrary they should be attracting more people, and I believe the ability to attract talents and retain talents in any country is the key.

### In what areas the results of innovation have been most impressive?

I would say that here in the UK biotechnology is one, and there is a huge trend to create flexible and transparent electronics made out of plastic and other flexible and transparent materials, and I would say that that is perhaps the upcoming wave of technological shifts. It's in its initial stage now but there will be billions to be made of it within the next 10 to 15 years.

### How do you explain success in these particular areas?

I would say that with electronics Britain has perhaps some of the best electrical engineering departments in the world. In places like Cambridge you have also a lot of research and development centres of companies from all over the world, multinational companies and local spin-outs. It's the biggest research centre in Europe that attracts a lot of talent and this network has created a lot of knowledge and

shares a lot of knowledge, specifically in electrical engineering. But again creating and commercialising are two completely different things.

### How important is the role of innovation parks in the national innovation system structure? Can you elaborate on most advanced innovation parks in this country?

I would not overemphasise the role of innovation parks. I'm sure Cambridge will survive without an innovation park, but it gives you facilities and infrastructure. I mean there are a lot of companies here, they will be here even without any innovation park, and that's a very personal opinion. But what makes Cambridge attractive first is the university itself, a high quality of education: companies come here because they can hire very bright students straight away. Innovation parks are just a consequence of the need to facilitate the physical infrastructure. You can create a very good innovation park somewhere, but if you don't have all the matching systems surrounding it, all the scientists, the students, the companies, what's then the use of it? It is my opinion, and I don't insist it's relevant.

### What is your forecast of a future development of the innovation system in the UK?

This is the moment when the government has to invest. If you start cutting down all the budgets it's a great mistake. I mean innovation per se takes so long even if you have all the funds, if you slow down the funding and take out the resources it will take much longer, it will just make worse the crisis and slow down the process.

### Do you mean that market forces alone aren't able to change the situation?

I don't think so. Now is the moment when government has to intervene.

### Can you explain what "open innovation" means?

I'm not sure whether it is something relatively new, in my opinion it existed for a long time, perhaps not formally. I'm rather skeptical about how novel this concept of "open innovation" really is but anyway the concept says before you have a company and a research department you still create the products without interacting with

## INNONEWS

### *Russian Railways Has Developed Innovation Programme to 2015*

*Russian Railways has developed a programme for the innovative development of the Company to 2015, said the President of Russian Railways Vladimir Yakunin at the forum for innovative technologies InfoSpace, which began on 30 March 2011 in Moscow. As Vladimir Yakunin noted, Russian Railways has identified strategic areas for scientific and technological development to 2015 and put in place the right structures, including a corporate system for managing innovation.*

*In accordance with the instructions of Russian President Dmitry Medvedev following a meeting of the Commission for Modernisation and Technological Development of the Russian Economy held on 31 January 2011, a draft programme of innovative development of Russian Railways has been drawn up. This document contains a series of measures aimed at developing and introducing new technologies and innovative products and services that meet international standards.*

[www.eng.rzd.ru](http://www.eng.rzd.ru)

### *"Innovations and Technologies – 2011"*

*The Second International Exhibition-Forum "Innovations and Technologies – 2011" will take place in International Exhibition Center "Crocus Expo", April 12–14, 2011. It is an effective business ground where new ideas, inventions and original process solutions meet the business community ready for the transition to innovation rails. The support of government institutions, participation of leading companies and contributions of the professional branch associations provide for the exhibition's participants the high-efficiency dialogue with the Russian economic elite.*

*Within the framework of the 2nd International Exhibition-Forum "Innovations and Technologies – 2011" the following priority areas of national economic development strategy can be mentioned: telecommunications and high technologies, energy efficiency and energy saving technologies, health and safety technologies, innovations in ecology, medicine, pharmacy, biotechnologies.*

[www.en.innotechexpo.ru](http://www.en.innotechexpo.ru)

outside organisations. And now the tendency comes with a concept that you have in this research and development process companies and third parties: universities, research labs, governments intervening to create new technologies. In my opinion this is not true. In my opinion you don't have a network of scientists as something completely isolated. Obviously you have secrecy which is integral part of competitiveness in the industry, you don't rush to share the discoveries you make. But these scientists go to conferences, they talk to colleagues in universities, in research and development laboratories and their governments, to the people they have studied with or have been working with. In my opinion there is nothing new, it has always been the case, simply nobody bothered to give it a name some twenty years ago. If you look at some great scientific discoveries and how great technological shifts have happened throughout history, it was basically by people talking to people, they have always done. Perhaps you can argue that they used to share less before, but I'm rather skeptical about this "open innovation" concept unless you have a very straightforward collaboration and even in those collaborations there is a lot of secrecy. The core of the concept is that now we do it together with all the organisations instead of doing it just within a company. I doubt whether great scientific discoveries have been made within a single company working in isolation. In my opinion it has never been the case.

**In Russia cooperation between universities and companies is very weak. Can you give any recommendations how government can stimulate their interaction?**

It is rather difficult. I think that history of Eastern Europe makes it difficult. Do your people trust each other, do they trust the government? That's a big question. You can give people the resources but the whole history of Eastern Europe cultivated mistrust in societies. You have to foster trust in people. If I now come and say I'm going to share this stuff with you, we have to be open and trust each other, are you going to believe me? You can pass a legislation, for instance, that favours innovation process and specifically intellectual property. You can make results available to scientists

and offer a lot of incentives to students in universities both from business and scientific backgrounds, give them money and resources to develop their ideas. That's something that you can do. But I'm very skeptical about all this planned innovation process because the moment you have a crisis everything falls apart. Few years ago I participated with London School of Economics in an intellectual capital project. They were trying to foster these ideas and knowledge sharing. People from Poland were reluctant to use recorders for instance, they didn't want it. So, it's more a cultural issue. I don't know for instance how many new businesses can be created in Russia, how quickly it can be. If you open a new business and legal procedures take ages, forget about it. It's impossible, you have to make it simple and easy for the people.

**What research and technological achievements can bring about a breakthrough in years to come?**

Flexible and transparent electronics. Just to give you an example: the touchscreen properties that you have in your iPod are beginning to be transposed and moved into all sorts of different objects and devices. For instance, in future you will have a very thin film transistor on top of this table. And if I have my hands here I could hear some sensors that are monitoring my blood pressure. If this were a restaurant we could have a menu here and this would be screened. We are interacting with computers now mainly by means of keyboards but that is changing with telephones and iPods. In the future you will stop by a train station with a wall divided into small touchscreens: you will be able to check and send your emails there quickly, etc. I think that we are on the way of getting rid of keyboards. That is my guess. You can have a bigger screen than that one made out of plastic which is much cheaper, a screen that you will be able to carry in your case. All these I see as a major breakthrough.

## INNONEWS

### *A Trade Delegation of Leading European Venture Capital Firms and Top Executives of Major International Technology Corporations to Russia*

*The European Venture Capital Industry and Global Innovation Partnerships (GIP) today announce a trade delegation of 25 leading European venture capital firms and top executives of major international technology corporations to Russia. They will participate in the Second International Trade Delegation on Global Innovation Partnerships in Moscow and Kazan, April 18–22.*

*The initiative will connect European and Russian investors and innovative businesses to discuss cooperation in the emerging high technology areas, such as cleantech, biotech, aviation and space-related technologies.*

*In Russia, the delegates will meet government officials, leaders of Russian business, hi-tech entrepreneurs, institutional investors and venture capital backers. After meeting in Moscow, the European VCs and business executives will visit Kazan, Tatarstan, a Russian fast-growing region.*

[www.rusventure.ru](http://www.rusventure.ru)

### *The 6th Kazan Venture Fair, April 22, 2011*

*April 22, 2011, the Sixth Kazan Venture Fair will be held in Kazan at "Korston". The Venture Fair is intended to draw the interests of both technological innovators and Private Equity and Venture Capital investors. It is a platform, where managements of small and medium size innovative companies present their businesses to prospective investors. The Fair gathers all interested parties: enterprises of innovative technological sphere, the Russian and foreign private investors, venture funds and private equity funds, banks and other investment institutions, as well as technological agents. As compared to traditional industrial exhibitions, presenting companies have an opportunity to attract and negotiate with investors.*

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