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

There are, probably, 3 major participants. The most important group is business. We’ve got a number of R&D intensive businesses in the UK. The OECD, for instance, publishes regularly all statistics on R&D intensity in business sector. You will see that the UK, probably, not at the leading edge of the ranking. But, still, there are some very R&D intensive businesses, for example in the pharmaceuticals sector, and also in services sector such as banking and the retail sector. There are also many creative companies and innovative software companies. There are other sectors where there is a high R&D intensity, such as oil exploration.

The second group is universities and research institutes. We have some very well regarded research-intensive universities in the UK. My office is based in Cambridge and Cambridge is one of the leading global universities, known for its research expertise. Cambridge is one of the leading universities in the world in terms of its research credibility. There are others across the country. There are very good universities in London, Oxford, Warwick, Manchester and many others. The so-called Russell group of universities brings together the most research-intensive universities. Not all universities are as research intensive as others.

The third group is the public sector who supports research through various channels including the Research Councils of which we have a number. If you look up Research Councils in the UK you will find all research establishments which are funded via public sector and they are researching in a number of areas including the life sciences, material sciences, agriculture and others.

Let’s try to draw a big picture of this structure. So, first of all, on the top we have BIS and then we have Research Councils. Also, now there will be Local Enterprise Partnerships which will replace Regional Development Agencies, correct?

The new Local Enterprise Partnerships (LEPs) will not replace the Regional Development Agencies. The Regional Development Agencies have been abolished but will not be “replaced” literally because the coverage of the LEPs is not the same. Moreover, they are only going to take over some of the functions which the Regional Development agencies used to play.

The “TICs” – the Technology Innovation Centres are a special type of innovation centre which the government wants to support. There is a report by Herman Hauser where he reviewed available innovation centres. We have a lot of innovation centres in the UK already and there is an organization called United Kingdom Science Park Association (UKSPA) which covers all innovation centres and science parks. The government wants to support a new breed of Technology Innovation Centres.

What is the difference between the UK and German innovation models?

The Fraunhofer Institutes are applied research centres, they are not technology innovation centres. There are a number of Fraunhofer Institutes doing research on a number of areas across the whole sphere. They are not innovation centres as such. They do a lot of contract and applied research with industry. There might be some which are linked with innovation centres or science parks but generally they are applied research institutes.

The German system in terms of its spatial organization is completely different to the UK system. Germany is a federal republic and Lander have a lot of autonomy. The UK is not a federal country; it used to have a regional innovation structure but the current government which came into power in May last year has completely changed the system.

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In terms of innovation policy which approach is more preferable – the old one, regional approach or national approach?

As I mentioned to you before the key players in the innovation system in the UK are businesses, universities, and the public sector through research establishments. The Regional Development Agencies in some ways cut across that and they had their own innovation policy. For instance in East Midlands they had (and they still do) a number of innovation clusters which are meant, at a local level, to bring together universities, research establishments and businesses, so that technology transfer and innovation can take place. That
kind of local networking and cluster developing is potentially very effective. However, it is also important to take key decisions at the national level on where funding is concentrated, for instance with respect to the distribution between, say, life sciences and manufacturing-related technologies. Those decisions are difficult to take at the regional level.

You really need both: you need a national vision of a country, where it is going and what its areas of key specialization are and how can you support those. And then, at the regional and local level, you need policies for businesses. At the end much less risk averse. When it comes to dealing with businesses they are not much helpful. The availability of funding, I think, for risk ventures, for innovation is probably a key problem in the UK.

You could probably also say that the education system in the UK is not as conducive to innovation as it ought to be. There is a lack of technicians and people with applied skills. There is a lot of investment into higher level education, academic education but effective innovation needs a whole range of skills and the middle level of skills is not as well covered as well as it ought to be.

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Why this middle level education is not covered?
It’s a long history in the UK of the education system of not being very well aligned with the need of businesses. There isn’t a very strong vocational training system in the UK. In Germany you have a very strong system which is on the basis of so-called dual training system where businesses are involved through the apprenticeship system. In the UK that’s just not so well established.

How important are innovation parks?
I think that innovation parks are very important. But it’s not straightforward to evaluate the effectiveness of science parks. Some say that at the end of the day science parks don’t actually generate that much benefit in terms of innovation. I disagree with that. I think that they have an important role to play. They are not the only instrument for innovation but they are in a way a local or regional mechanism which helps small businesses to succeed, which creates links with universities and research establishments and generally put localities on the map of innovation.

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