

Round table: prepare

Our culture of risk aversion is one stumbling block that we have to overcome

Jenni Russell (chair) Good afternoon. Why is it important for us to be a country of innovation? What should be done to create that culture? What are the obstacles and how can they be overcome? I think one of the key things we have to look at in this issue is what happens to the way we educate people. With that in mind, perhaps we could start with Sir Richard. Could you discuss what you see from the undergraduates who pass through your hands and how innovative they are and how much more innovative they might be?

Richard Sykes You are not going to get true innovation anywhere unless people are reasonably well educated and understand the issues. The more you can educate, stimulate and get them to face issues and problems, the better at problem-solving they become. So, good education and a good environment to get that education are critically important.

Someone with a PhD or a post-doc can change your business model because they have been trained to be analytical. They have been trained to look at problems and to try to solve them. That is where innovation can take place.

Jenni Russell Have the undergraduates who come into your university already been part of a culture that has encouraged them to think in this way?

Richard Sykes They are smart people and smart people often are the ones who think that way because they are trying to solve problems, get something done, break a boundary, get to the next stage. A bunch of smart people stimulate each other to do smart things.

Jenni Russell Minister, can you outline what you think the problems are; why you think it is necessary to have a culture of innovation and what you think the obstacles are to achieving them?

Ian Pearson For a number of years in the Department for Trade and Industry (DTI), we have defined innovation as the “successful exploitation of new ideas”. We have a ten-year science and innovation framework. David Sainsbury did a tremendous amount of good work and produced the Sainsbury Review last year, which we are busily implementing.

It is clear to everybody that innovation is going to be crucial to Britain’s economic prosperity in the future. Innovation is probably going to be more important in ten years’ time than it is today, and probably even more important in 20 years’ time. Making sure we have that innovative capacity Richard was talking about and making sure we have the right environmental conditions for innovation to flourish in the United Kingdom is crucial. I am keen for us to build on all the good work that has come out of our ten-year science and innovation programme, and to build out from the Sainsbury Review, which focused very strongly on scientific and technological innovation. It did not focus as much on innovation in the service sector, which is 80 per cent of our economy. So we need to look to innovation in services and what role there might be for government to do more in that sector.

While we are discussing the definition of the successful exploitation of new ideas, let me question the word “new”, because does it have to be a new

Round table participants



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**Jenni Russell
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Writer,
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broadcaster

to celebrate your failures

if we are to create the right environment for a nation of innovators

We need to look to innovation in services and what role there might be for government to do more in that sector
Ian Pearson

idea? In many cases, knowledge transfer of existing ideas to businesses can improve their performance and contribute to UK economic growth. This work has been done previously by the Knowledge Transfer Partnerships, the most long-running and successful government policy initiative in this area by quite a long way. It is about bringing academics into a business to work on a project for a period of time, and we are looking at how that can be more flexible.

Sometimes we focus too much on generating new ideas and not enough on actually successfully exploiting them. It is that area of successful exploitation that we have to focus on.

Universities are an important source of knowledge and innovative capacity, but innovation can come from lots of different places. There are some practical models of innovation that are being talked about these days, such as the concept of open innovation – Procter and Gamble is sourcing most of its new products and ideas from outside the firm. It challenges customers and partners to come up with new ideas and products. These go through a gateway review process.

There is a lot of literature on user-led innovation that we have been looking at. In many cases, innovation comes from individual customers and they are driving this approach.

The government is a big procurer. It procures 40 per cent of the UK economy. Being an intelligent customer who wants to buy innovative goods and services can stimulate innovation. There is a healthy debate about encouraging lead markets and how we can stimulate innovation in that way. There are some

pockets where we do this pretty well as a government but we are not as good at it as we need to be. We are a risk-averse culture.

Jenni Russell So government is penalised for taking risks and getting it wrong?

Ian Pearson Absolutely. Sometimes we need to show leadership at ministerial level and say, “We are going to experiment in this area. We do not know whether it is going to work with any huge degree of certainty but we think it is the right thing to do.”

If it fails, we have to take it on the chin. Procurement is the obvious thing to do because it really helps to drive innovation.

Jenni Russell Government spending decisions tend to be so enormous that, if you make a mistake, it is an extremely expensive one. Wouldn't you have to start off with small pilot projects so that you are not wasting billions?

Ian Pearson That is a very good point. We get criticised for rolling out pilots but they are an effective way of taking sensible investment decisions. We are not particularly good in government at scaling that up. My impression is that the private sector is better and finds it easier.

Simon Jewell One of the problems that the public procurement system has is that of the monopsonistic nature of its market. There are lots of sellers, compared with the monopoly market. We always seem to set



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one condition for achieving innovation/best practice but one model does not fit it. The monopsonistic market stifles innovation because it forces competition. When you emerge as a winner you have the attitude of “I’ve won. I’ve won.” There is no “we” in that, no innovation and no reaching out to others. It is about getting the maximum return because this is your time in the sun. It drives all the wrong behaviours and stifles open innovation.

You have to solve the educational side. You have to solve the supply side. You have to solve the demand side. You need the means to deliver the skills, you need the means to make, you need the means to buy and you need the demand. You cannot rely on any one of those or improve any one of them without improving them all.

Ian Pearson Innovation can work in practice because there are some good examples of it working. The question is how can we be better at it? Simon is right that there is a complex innovation ecosystem. We need to take action across a whole range of areas. It really is about how we can make improvements across a range of different areas, including getting culture and leadership right, which I think will make the real difference. We need to have a capacity to be incredibly self-critical and extremely cynical too.

The world outside the UK can have a very different view about how innovative we are. When I was trade minister and spent a lot of time travelling and talking to governments in different countries, they wanted to hear about innovations in the UK, about private finance initiatives (PFIs), public private partnerships (PPPs), what we were doing on out-sourcing and on a range of other areas as well. Sometimes, when you are within an organisation or a country, things look worse than when viewed from the outside. The UK as a nation is very innovative; we have some very bright and innovative people, but we have to be relentlessly ambitious for the future. Our future has to be networked with major emerging economies. Our

future has to be about being a partner of choice and a world leader in science, research and innovation. That is one of the reasons why the new Department for Innovation, University and Skills (DIUS) exists, to co-ordinate policy.

Richard Sykes But why do we not have a Yahoo, a Google or a Microsoft? We have all the ingredients. Why do we not ever make it?

Julia King One thing missing from this discussion so far is people. From my experience in industry, what makes things happen is people. We do need really good scientists, engineers and people with ideas, but we also need people with a passion to see those ideas put into practice. We train incredibly good analytical scientists and engineers but we do not instill into them passion and self-confidence to see an idea come to something. We seem to be slightly better at doing that when we train people in creative design than when we train people in analytical subjects.

Mike Gibbons Innovation is not something you do when you have got everything right. Innovation is what you do to get things right. It does not have to be new to the world. If it is new to you, it will be useful.

People are doing remarkable things and either do not yet have the mechanism to spread that or do not realise that being at the very top of very best practice and inventing new things at that level contributes to an innovative culture.

Julia King We tend to divide up people into creative thinkers and analytical thinkers, but I think what you need is a mixture. What we need are engineers who know more about psychology and psychologists who know more about engineering – to get that customer focus and thinking in some of our analytical training.

Zenna Atkins Innovation is about people. I really support Julia’s point. A lot of this is about having the personal confidence to go forward and deliver things. New research is coming out which shows that you are two times more likely to be an entrepreneur if you are dyslexic. I love this – because I am dyslexic and because it recognises that some of the things we now condemn are skills.

In the UK, we are terrible at celebrating any form of success and the worst example of it is in the public sector. When I was a chairman in the NHS, if you were very good in your unit, everyone would say that you were good because you had some magic advantage they did not have, and they could not be as good because you had a magic that they did not.

That is complete codswallop. Instead of being able to celebrate achievement we actually shun it. How many hospital trusts have taken on the innovation of Royal Cornwall Hospitals Trust, where they have contracted to use locally produced food? This support has transformed businesses in Cornwall and has probably done more than a huge amount of European money. Who even knew it was going on?

**What we need
are engineers
who know
more about
psychology
and
psychologists
who know
more about
engineering
Julia King**



We do much better at the later stage, with established businesses that need help to grow, but not right at the outset
Stephen Uden



Jenni Russell What would you change to make sure that that kind of innovation was being adopted or that hospitals knew what other hospitals were doing that succeeded?

Zenna Atkins One size does not have to fit all. What we should do is give money to the hospital trust to take the idea round the country to help other people. When Cornwall's hospital trust knocks on the door of Portsmouth's hospital trust, they will probably be told to go away. However, if you keep rewarding the Cornwall hospital trust, Portsmouth is going to say, "They are getting more money. I want some of that."

Of course, in the public sector we are also very bad at dealing with failure. In most of the public sector, we have very poor failure regimes, so people are allowed to go on failing. There has to be a counterbalance to rewards, which is dealing with failure. One of the things we know in Ofsted is that, if a school goes into special measures, it has a dramatic effect on changing that school very quickly because there is a good failure regime – but you have to really fail quite badly. Ofsted putting you into special measures means that a school improves significantly.

Richard Sykes Good management, entrepreneurship and innovation are separate things. Innovation is something completely different.

Chris Rapley It is partly to do with leadership rather than management. My origins are in space science in the 1970s when failure rates were very high. The director of the lab in which I had the good fortune to work had an attitude that if there were not failures you were not working at the edge, and if you were not working at the edge you were wasting your time.

That lab was a world leader because it had the confidence to push the edges. It seems to me that that all comes from the culture that drains down from the leadership.

Also, it was very important to recognise what NASA used to call "T-shaped" people. You not only

had to have people who had the depth to bring something to the party, but the wisdom and interest not to want to continually rehone their PhD thesis for the rest of their career. I think a project-based approach is always a good start because you have a clear objective and you have a group of people who have been brought together because they assemble a set of skills that allow innovative approaches to the solution to be found.

One thing I can say from my experience in space science in the 1970s is that an awful lot of people migrated out of the UK because they found better opportunities to apply their innovation elsewhere, rather than in the UK. Whether that is true today, I am not so sure.

Mike Carr For me, it is a question of looking at where the blockage is. The education system and the science base are very good and need to continue to be so. The blockage is definitely in a later phase – the mid-stage.

I lived in California for a few years doing venturing in Silicon Valley. A totally disproportionate number of founders or CEOs of companies were UK citizens. They are there because there is a surround of people who can recognise whatever it takes in that early stage to lift it from a university science laboratory into something that industry can invest in. If you look in the UK, the volume of that is far too low. The reason we do not have a Google or an IBM might be simply a volume question.

We are actually succeeding extremely well with the percentage that gets over that mid-stage hurdle. In fact, we have reached the stage where, when they do become successful, they get bought either by an Indian company or an American one.

We have not reached the stage where sufficient people who are able to recognise good have the financial capacity to reinvest in good and then sustain the system.

Stephen Uden I would agree with that. We do not have the same connection that we give our mid-stage between venture capital and the ideas. One thing we are trying to do in the UK is to try to help demonstrate software businesses to venture capital, to show what to look for to invest in a software business. We have 15,000 partners in the UK. We have an interest in looking at 5,000 new businesses. Competitive advantage is often measured in months or less. It means that you get big so fast that nobody can afford to buy you. Compaq went from zero to a billion dollars, for example. The only way you can stay as a UK company like that would be through growing very fast and that means you need enormous amounts of money at a relatively early stage. There is actually a lot of money available in the UK. We do much better at the later stage, with established businesses that need help to grow, but not right at the outset.

Many people who have started businesses themselves become wealthy and can take those risks. We just do not have the degree of mechanisms that we need to connect those people up. The venture

capital industry will only invest where it thinks the risk will be rewarded. Higher risk means slower decision-making, which means that opportunities are missed.

Simon Jewell The risk-to-reward ratio is a very big issue, particularly in our sector. There is no shortage of capital to invest, but the risk return in other markets is better, so, we are drawn across to those markets.

Chris Rapley Is there not another issue about staying in for the long haul? You have to go through a series of setbacks in order to get to success. If you lose all the support at your first setback, you are never going to get to a success.

In the UK, we have a very negative, challenging culture where any sense of failure is jumped on. I think that becomes invasive in what we do. It prevents people from taking the degree of chance and risk that we should.

We are the fourth largest economy in the world, yet we act as if we are a banana republic.

Richard Sykes But the venture capitalists are not interested in funding the early stages of work any more.

Simon Jewell Because of the risk-to-reward ratio.

Richard Sykes They want to come in much later- their money is guaranteed almost. On the west coast or the east coast of the US, the angels will go in and fund the early stuff and the entrepreneurs come in later.

Ian Pearson There is some evidence to suggest that one of the areas in which we are weak is on the capacity of the business angels who exist in the UK to fund some of this.

Although there might be a slightly different mindset between some of the west-coast venture capital firms and their UK counterparts, a lot of west-coast firms have set up bases over here as well.



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Mike Carr But they are all medium. They are all B- and C-round companies. There is a big gap. The £40,000-£100,000 investment is just done by your neighbour. That is before any venture capitalist activity. Effectively, that is where the volume is coming from.

Jenni Russell Richard, why is there this distinction between America and the UK?

Richard Sykes In their innovative culture, their parents invested in companies that made billions and they made a lot of money. They invest that money. They have had a culture of investing in companies and having stock. When we give people stock in the UK, the first thing they do is sell it. In the US they invest it, nurture it and make money out of it.

This is where it slows down in the UK. It is nothing to do with brains or skills – we have all of that. It is something to do with the mechanism that drives you forward.

Jenni Russell So you are saying that venture capitalists would only take the risk when they are pretty much guaranteed their return, so they are not the people who will come in with that early risky stage?

Ian Pearson That is why there are various seed-capital funds around at the moment. Some of them are being supported by regional development agencies (RDAs). RDAs and others have been looking at setting up business-angel networks.

Zenna Atkins The RDAs have money. I have been involved in a couple of things that the South East of England Regional Development Agency (SEEDA) has put money into at this very early stage. The reason why I got involved was because you cannot get directors for those companies who also have the experience of growing businesses.

I have been involved in very strange things. However, we do not have a culture where people say, “I will sit on your board because I saw you grow up and I will back you.” Neighbours do not do that for each other, whether it is money or sitting on boards. We need to address that culture as well.

If your mum and dad talk about these things, you are more likely to want to go and do it. Otherwise, this whole language – of investments, having an idea and backing it – is not part of your culture at home; it becomes very difficult then to be taught. You may have the technical skills, but if you do not have that culture around you, it becomes difficult for these things to flower.

Ian Pearson In the UK, it is more apparent in the Asian business community. There are some good examples of Asian businesses that have grown with family money and relatives who have invested in the business at an early stage. The point is that we do not have those investment networks or business angels to the degree that they have them in other countries.

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Richard Sykes The business schools in the US are very good. They turn out people who will run these companies. We still do not have that in the UK.

Jenni Russell Do our business school graduates rather expect to join existing companies? Are they less entrepreneurial?

Richard Sykes No. In the US, they have a culture of very good business schools that turn out people who want to cut their teeth on running small businesses, getting there at the early stage, to make money and jump into the next one.

We have started now in the UK, but it has been quite slow. We do not have the people to run the spin-out businesses that we have.

The London Business School is very good – it is world renowned. We have the London School of Economics, but then we do not have any business schools in the top 20 business schools in the world. Most of those are in America.

Chris Rapley What about innovation within existing companies? We have been focusing on new companies and new innovation, but what about existing companies? Are we doing a good job there?

Stephen Uden Regarding our track record, like most of these things, we are not bad at it. We are better than most of the rest of Europe. We just tend to lag a little bit behind the US.

Businesses in the UK struggle to engage with universities in a way that is a little bit more likely to happen in the US. I do not think there is any lack of willingness on the university side, but I do not think they always completely trust and understand businesses and businesses do not really quite know how to approach universities.

Microsoft has a research place in Cambridge and we undertake research ourselves, but most of the work we do is in collaboration with universities across the country. It does require a degree of knowledge about

how to get the best out of each other to make that happen. There seems to be a tremendous willingness to move things forward.

If we can build on that and create some momentum it will be one way to close that gap.

Chris Rapley Is there, then, a bit of a culture of the great British amateur in academia, where money is rather a dirty subject and working with industry is not something we wish to do?

Stephen Uden Yes, you can overplay it, but there are some barriers that arise from where we have come from and where universities have had to operate previously. In the US there is a stronger culture of those interconnections. It is much better at tapping into those alumni networks.

Chris Rapley As I understand it, the leading research on organic LED devices is in the UK in Cambridge and yet it is the Japanese companies who are going to be producing and selling the big screens. Why is that?

Stephen Uden Because Japanese companies recognise the opportunity and value of working with UK investors. However, we do not have it so well-embedded in the British business culture that you should have a strategic relationship with one or more universities as a way to develop your future ideas.

Ian Risk Many of the aerospace companies are working along those lines. BAE, Rolls Royce and EADS are bringing research teams together with the academics to get this more collaborative environment that brings different cultures together so you get engineers, psychologists and creative guys working together to solve problems. The more we breed that sort of engagement – the working model we are looking at is to create a resource pool where one-third of the people come from academia, one-third are company researchers and one-third are people from business. You can have great innovation in a scientific silo, but actually getting it deployed is the key to true innovation. That is the kind of environment that we need to see replicated.

One of the points raised earlier was the speed at which some of these evolutions can take place. Working in a company like EADS, I can see that the evolution of technology can be a matter of weeks and months, where a large civil aircraft can be decades. We have to understand how we are going to get some of these technologies to market rapidly or support and nurture them in a lifecycle where it will be 20 years before you see a return on.

Jenni Russell What are the incentives for the universities to co-operate like this, either for the individuals or for the institutions?

Richard Sykes You have got to get away from the old view that universities just want to do work and keep it to themselves. There is a great desire now to make

sure that there is a translation going on because they recognise that, working with industry, they are really going to be on the cutting edge.

People in the good universities enjoy that interaction because they are doing something practical and they are getting paid. The biggest issue is to get industries to work with universities.

Julia King We should also mention that, in our funding, which comes from the Educational Funding Council, funding comes in for collaboration with industry. We are rewarded and encouraged to do it. Rolls Royce works with universities and there are benefits in having people come in from outside. They understand your technology, but are not steeped in all of your company bureaucracy and systems. They say, “Why do you do it that way?”

Because they understand the product and the technology, they can challenge in a way that your internal engineers and designers respond to.

The other interesting area of challenge is getting small companies to engage with universities. Big companies have enough money to appoint people to put in the hours to develop those relationships and see what the opportunities are. How do we get small companies to do this?

Zenna Atkins I think you have to incentivise to get people to do that. We are not very good in the UK at recognising where our innovation is world leading. A lot of that is in women’s businesses. We are one of the world leaders in the development of baby and children’s products. Particularly where they are environmentally friendly or are organic foods, we have led the way in the UK. The women who have set up those businesses are not being invited into universities to talk, but smart companies, such as Mothercare, have employed a lot of them and given lots of money to turn Mothercare around.

If we are serious about getting small businesses into our universities, we are going to have to incentivise

them. If you are going to get small businesses in, you are going to have to pay for their time. They do not have somebody else back there to do the books when they are not doing them because they are still doing them themselves.

I would say, “If you come in and do this for us, we will do your books for you. We will do this for you. We will do that.” We could do practical things and show them how to do things more efficiently, or how they can grow.

Ian Risk It could be a blend of the academic facilities where you can get support, or the RDAs because they are going to get jobs created in their region. If they can provide the support to help fill out tax returns and all the stuff you do not want to be dealing with, that would help.

If you have got the idea, you want to be out selling it, but you need to know that you are going to have a viable business at the end of the day. It is supporting that creation and giving the knowledge that is needed to convert an idea into a working exercise.

Ian Risk I think it is a good idea in certain circumstances.

Mike Gibbons It is a good slogan, is it not, “We will do your red tape for you.”

Jenni Russell Minister, what do you think of it?

Ian Pearson Let me step back a bit before that, just to make the point about how our universities have transformed over the past ten years, re-emphasising what Richard and Julie were saying. They are dramatically different in the way they work with businesses. There is a range of different university missions and the idea that a successful big business can just do its research and development (R&D) in-house and expect to thrive is fundamentally misplaced. Any company of any real size will have a range of partnerships with universities and research institutes around the globe, not just within the UK.

Some universities can conduct world-leading research, which is at the cutting edge. Other universities’ primary mission will be to make sure that we have the highly skilled workforce for the future and to work directly with businesses.

If you are in a university partnership, for instance, it does exactly the sort of things that Zenna was talking about, but it charges the companies and the companies get value from the transaction.

In the process of working with them, the universities add value to the companies and encourage them to innovate. I think we need to be clear about when we are talking about business improvement and when we are talking about innovation and what we mean by that.

Jenni Russell What about the suggestion that small businesses need incentives if they are going to enter into these kinds of relationships and grow?

We need to be clear about when we are talking about business improvement and when we are talking about innovation
Ian Pearson



Government has done a lot in the past couple of years to support direct collaboration with India as a targeted partner of choice. Those models could be repeated with other key countries
James Wilsdon



Ian Pearson I think there is no greater incentive than wanting to survive and thrive.

Jenni Russell But lots of small businesses fail precisely because they do not recognise the threats until it is too late.

Ian Pearson It is a hard commercial world out there and survival is not compulsory.

Zenna Atkins It is not that these companies are not going to survive; they are going to flourish. However, if you are going to be talking about the food industry at university and you do not understand the growth of organic baby food and the people who are doing that, if you want them to come in and talk to you, if you want to have a partnership that is going to be an academic and practical exchange from their learning experience, you are going to have to backfill what they would have been doing sat at their kitchen table.

What I find, as a small businesswoman, is that I am forever being invited to come in and talk about things and to give my knowledge but nobody is offering to pay me for it. You either pay me or you backfill for me. I am not doing anything particularly innovative at the moment, but sometimes I am and sometimes that could be of real benefit to the academics. It is often of benefit to the public sector.

People say, "How did you set that up?" If you want me to come in and tell you, you had better do my tax forms because I need to do my tax returns today."

Jenni Russell And yet there are lots of small businesses that could benefit from all kinds of stuff that Richard and Julia were talking about, the kind of insights that academics could offer.

Julia King Across all the universities in the West Midlands, we are running a scheme that is partly funded by the research councils and partly funded by our RDA. We are asking small companies who have not engaged with universities before to bid for a

voucher. It is a very simple form. They are stuck in a hat and if they are pulled out, they get a £3,000 voucher to spend in a university.

We have a central office and they send in the problem they would like a university to look at for them. From among the universities in the West Midlands, we select a suitable academic who feels that they can help the company address this problem. We have just had the first round of these vouchers and some of the interactions are already leading to those companies wanting to spend more time and spend their own money with the university because they realise that it will bring about a business improvement idea or new bits of technology.

This was an innovation that was based partly on a scheme in the Netherlands, but it has been modified with some research done at our business school in Warwick to see if it works in the UK. We have had about £1m of funding for it and it has worked.

Jenni Russell Can I just ask James what Demos's research on this has shown?

James Wilsdon A lot of our recent work has been more about the UK's comparative strengths in the kind of globalised innovation system that Ian has talked about.

For example, he talked about open innovations, the model that has gained currency in the corporate world. Big companies tend not to have their own in-house research labs on the scale that they did 20 years ago. They have more networked systems of innovation and are thinking how that same model would apply to how we think about Britain's national innovation system, how we locate ourselves, our universities and our business in a world where the innovation capabilities of China, Brazil and the Middle East are scaling up very quickly.

In some respects, we have a good story to tell about international collaboration, but there is certainly more that we could do to make ourselves a partner of choice to some of these emerging players, whether in the university sector or in terms of corporate links. That also links with the point about having a clearer story about how we combine our strengths in hard-science engineering with our skills in economics, psychology and social science.

There is still more we could do to support joint research. There are good schemes and the government has done a lot in the past couple of years to support direct collaboration with India as a targeted partner of choice. Those models could be repeated with other key countries.

If you look at the financial services industry and the City of London and the way that has become cosmopolitan, with a flow of money, people and ideas in and out of the UK, what is the City of London model for us in innovation? That is the kind of question that we are trying to answer in the work that we are doing.

We are a think tank. What we hear of the new strategy that Demos is putting together is a very

positive step. Science and technology is absolutely critical but, up to now, in policy terms at least, innovation has too often been seen as a subset of science and technology policy, rather than the other way round. If this new strategy, which comes out in March, really takes that debate forward, it will be a really significant step in policy terms and a good advance on where we were before.

Jenni Russell I was reminded during the conversation on risk-taking of when I was at a session in Davos a few years ago. The chief executive of some hugely successful multibillion-pound company was saying that, when she had started management consulting about ten years before, she would go into companies and ask, “What is your attitude towards risk?” The answer was always, “We welcome risk-taking.” She then said, “So can you give me an example of the last time that you celebrated some failures?” Every company goes silent at that point because people in charge of massive failures tend not to be promoted. She would then say, “Obviously you do not take risk seriously in your company because if the message is that risk equals failure, you will not get anywhere.” Yet, that is a very difficult message for any company to adopt.

Ian Pearson Or for any government to adopt.

Stephen Uden We have not really talked about the next generation and what we are doing in the education system to try to prepare people with skills. Looking at the jobs that people are going into now, (a) they probably will not stay in them for the whole of their careers, and (b) a lot of the jobs they are going into now did not exist previously.

I work in what you could broadly call corporate social responsibility. When I was in education, those jobs did not exist at all.

The focus on knowledge is very strong in the education system. However, many of the skills that

people (certainly entrepreneurs and innovators) find very useful are what people sometimes call “soft skills” or “employability skills”, such as problem-solving and working in teams. Knowledge is important, but we need to make sure that we recognise many of those other skills as well because they are the raw material for commercial innovation.

Jenni Russell The current critics of the education system pointed out that it is not just that those things are not encouraged, but that they are positively stamped out.

Mike Gibbons I would have to violently disagree with that. I see all sorts of schools of all sorts of styles and sizes doing just that. I could take you now to a tiny school of just 35 students in Cumbria where the head teacher is only entitled to 2.5 staff, including herself. What she has done is to appoint seven part-time staff, all with different specialisms. However, these tiny youngsters (five, six and seven year olds) come into school each morning, put on their own computers, see who is in school that day and organise their own learning according to the resources that are available.

Those youngsters are incredibly articulate and co-operative. They are designing and learning all of these skills. This is a school turning what some schools would call a startling constraint into a most amazing creative opportunity, which is making these children the most independent and collaborative learners that I have seen in a long time.

Now what has happened is that the user voice is running through that little community. It is a first school and we have parents there now saying, “When our children go to the primary school, we want this. We do not want what we have had before.”

There are huge numbers of examples of this going on throughout the country and we need to piggyback on that more than we are doing to see if we can find some systemic stage from that in order to make it more workable.

Jenni Russell One of the reasons you exist is because most schools are too scared about their results to take that sort of risk.

Mike Gibbons We are trying to inculcate a culture and a climate in which innovation, change and taking responsibility for your own community in a way that we have not done before is absolutely crystal clear and has to be done. If we are evolving our educational system, it has to go through a stage of being absolutely crystal clear that the accountability genie is out of the bottle. That is always a painful stage. The next stage is to work on that and to use all the constituents.

One of the global lessons that we are learning is that government and others getting the right balance and configuration between the roles of the state, the practitioner or the expert is a game that we have to play very carefully.

We are often good at getting two out of three of

For government and others, getting the right balance between the roles of the state, the practitioner or the expert is a game that we have to play very carefully
Mike Gibbons



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Zenna Atkins



them right, but until we are able to get all three right we are not going to get this whole thing going.

Jenni Russell Is it the intention of the Innovation Unit to create schools that have innovative staff and children within them? What is the actual aim of the innovation?

Mike Gibbons Its original aim was to encourage practitioner-informed and practitioner-led innovation in the education system. I think it has evolved now to looking at what practitioner-led and informed innovation means across public services and not just in the education sector, because these are generic issues.

Jenni Russell But are you concerned with building schools and other areas that focus on the kinds of things that Stephen is talking about such as teamworking and risk-taking?

Mike Gibbons Absolutely. We are not saying that we are going to build them; we would say that we are going to nurture, encourage and shout from the rooftops when those things happen. It is perfectly possible for the little school that I was telling you about to do what it is doing and get a wonderful Ofsted report because it is so far ahead of the sorts of schools who are second-guessing what they think they have got to teach you because they think it is what Ofsted wants.

Zenna Atkins I think a lot of it adds to the very first point that Julia made. There is no doubt that the two biggest single factors in getting good outcomes for kids are the quality of leadership and the quality of teaching and learning. That is about the people. That is about investing in people to get it right. I can point to many examples of fantastic innovation in schools where kids are really learning.

They are not only learning differently with their hand-helds and all the rest of it, but what they are

learning is different and so the outcomes for them will be different. However, I can also point to some really abysmal schools and a huge swathe of fairly mediocre schools, where I think there is that issue about the quality of teaching and learning.

The challenge between control and quality learning is difficult. Controlling people who are bubbling with innovation, creativity and great ideas is a great deal more difficult than controlling ones who are copying from the book nicely. If you want people who are innovative, who are going to come up with the next solution, who are going to invent the next social network event, one of the key things is how we accept that innovation and creativity in young people because often they are a huge pain in the arse to manage if they are really innovative.

Jenni Russell How do we go about changing that culture in our schools? Children do feel squashed. How do we expect them to be innovative and be creative if they feel they might as well not bother?

Mike Gibbons I think it is about how to solve problems – as in the example I have just illustrated where the teacher is responding to adversity and lack of money. She had to solve a problem and she has addressed the issue through an innovative solution. We do not get enough of that within the education system. It is more about, “Let us answer the question we have been given.” It is not about free thinking.

Zenna Atkins I do not think it is all about the syllabus or all about the curriculum. There are a lot of environments where you are in the business of crowd control and when you get into that, you are not going to get into lively debates. In my capacity of chairman of Ofsted, I have seen teacher training. Generally there is a lot more emphasis in teacher training on how to engage, how to manage challenge, how to manage difference so you move away from crowd control to much more innovative styles of teaching. I have been hugely impressed with some of the young people I have met going through teacher training, who are struggling to do something different. One of the most impressive things I saw on a recent visit was the incredible difference in the background of those teachers. We are doing some stuff on bringing people back into teaching as a second career and that sort of thing. I think those things will filter through the system but, where you are under-resourced, you will always have a challenge.

Chris Rapley Could we just explore for a second this issue of rebelliousness. I think there is a relationship between rebelliousness and not accepting the conventional view and being innovative and breaking new frontiers. A good example many years ago was that Lockheed Missiles and Space Company, which ran a large missile plant in Sunnyvale, used to take all their obstreperous people and the people they found difficult to manage in building missiles and put them in another place, Palo Alto Research Lab, where they

did world-class innovative research. I think there is a well-demonstrated strong relationship between rebelliousness, independent thinking and innovation and that is something that we can maybe draw on.

Jenni Russell On the same subject, the Royal Society of Arts has found that when you give children very difficult situations and challenges and put them in charge of their own learning, they do not become more rebellious, but much easier to manage on all kinds of criteria, from exclusions to violence. Rates drop by 90 per cent because they are so engaged, curious and interested.

Mike Gibbons And so creatively mischievous. Many of you will know the Stephen Heppell story of the video that he asked some children to make on the word “superfluous”. He was going to show it at the V&A. It was a beautiful video and great fun, but as he looked at the first slide, “superfluous” was spelled wrongly. He thought, “Do I become teacher and intervene or do I just let this go?”

Teacher overcame freedom, so he rang these youngsters and said, “Do I have your permission to change the first slide because you have spelled ‘superfluous’ wrongly?” There was this rather tired, almost middle-aged sigh from this 14-year-old boy who said, “You don’t get the point, Stephen. There were too many letters in superfluous so we have taken some of them out.” It is being able to capture that sort of sense of creativeness that children love.

Simon Jewell There is a great deal of focus on the school insight and I understand that entirely. We employ the most number of graduates in the UK in the company. We have about 650 scientists working on innovation so we have a lot of people who do that.

I wanted to jump in on the university side. I do not recognise this rather negative model of universities. I think we have a very positive model of engagement with the universities. The point I wanted to make is

that what we are neglecting is the organisational aspect of innovation. There are various studies that show that the problem we have in the UK is because companies become totally focused on the bottom line and short-termism and contracting staff; it stifles innovation in the environment. It does not matter how good they are, when you bring them into that system, over time, they are going to be stifled. I think we have to solve that. You cannot just solve it by telling people to be better organised, to be innovative and all the rest of it. You have to create a much clearer demand model because, without that demand model, you get what you pay for. You get this very lean organisation always looking to sack people rather than looking to have innovation.

I think that is the flaw that we have in the UK. We have such a negative culture towards Britishness that it just erodes everything and we get this downward spiral. Turning that around is the absolute key. Turn organisations around and turn the attitude around. We have all the competence and skills coming through our schools.

I have four kids who are going through education. I look at what they do and it is very impressive. It really is very impressive. I am not negative about what they are learning. The graduates that we get are very impressive individuals as well. I do not think it is a skills issue at all, although we always need to do more. It is the lack of demand which forces the behaviour in industry, which forces a model that does not innovate as much as we would want.

Jenni Russell Thank you very much. Does anyone have 30 seconds on what change they would like to see happen to help create this culture of innovation?

Simon Jewell I wanted to make a point about actually helping to engage. We have had the point about the supply chain. Across the aerospace sector, there is a supply chain and, as you go down, the smaller companies cannot afford to innovate because, as you say, they are focusing on doing the day job. The whole initiative is that the big companies need to collaborate together to ensure that there is only one process flowing down, so that companies do not have to align their quality plans to 27 companies. They align it to one process and that is common throughout. I think that, if there were more processes like that outside the aerospace sector, it would be a good start.

Richard Sykes All companies today, through corporate governance, have risk management on the agenda. What they should have is opportunity management. That may need changing.

Julia King Or maybe a public accounts committee that asked ministers why their ministries have not had more failures. It is because they are not taking enough risks.

Jenni Russell What a point to end on! Thank you all very much.

You have to create a much clearer demand model because, without that demand model, you get what you pay for
Simon Jewell

