



Transcript

British-Israeli Economic and Scientific Relations – Have we Explored the Potential?

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Yossi Vardi:

My talk will be very short, the answer is no, thank you. I'll try to elaborate a little bit about it.

First of all I must make a comment regarding the [inaudible] valley which were mentioned a couple of times in the first part of the talk. As an Israeli boy or – actually as a Palestinian boy, as I was born in 1942 – through all my youth, the exposure to Britain, to British culture, to British symbols, *et cetera*, was very prominent in our life. We were at that time part of the British mandate to Palestine. I belonged to a growing movement in Israel which strongly believed that we should reconstruct the British mandate in the region – this will take over many of the issues, but somebody suggested that the British government doesn't have the budget to take on such an endeavour. I remember, parents of friends of mine who served in the Brigade at the Second World War, I remember the curfews and that of the Australian soldiers. And then when I grew up the governing system of Israel was totally adopted from the British system. When I grew a little bit older, when I began to read about the history, *et cetera*. I went to this terrific book of Barbara Tuchman the book *The Bible and the Sword*, an amazing book which really gives you an amazing view to the yearn of the British people to Palestine and all the cultural aspects of it.

And then I was at a certain point of my career, when I was in the government, I was in charge of the chemical industry as well, and I got very curious to find the genesis of the potash war, so I spent three years going over 1,500 documents of the public record office describing the whole fight for the concession to mine potash in Israel, starting in 1917 and ending up in 1931. It was a very interesting case of the Ministry of Colonies. Churchill was the minister for a certain point of time. It was a very, very amazing chapter and you saw a whole number of government officials, senior and medium, who were really very much engaged with what should be the best development course for the region. You know, they thought how to develop the resources. Which was for me, again, as an Israeli government official, it was very interesting. You saw the great work of Lord Melchett and ICI (Imperial Chemical Industries) in the development of the region *et cetera*. So the roots are very deep and maybe they are less known today but when you look at them you really see a very strong root to the economic development of the region and also to certain behaviours, traditions *et cetera*.

Of course the climax of this part of me becoming aware of the British economic system was when I was a student and I went on a student exchange and spent the summer in Marks and Spencer, Islington branch, where I learned that you have to put the red cheek of the apple upwards. You may think that it's very easy but it took me a few days to get the idea. And I don't have to tell you about the great work Marks and Spencer has done for Israeli exports in the 60s and 70s, the Sieff brothers *et cetera*, so there is a lot of tradition.

Yet today we are in a different era. It's not any more about textile and citrus products, it's more about high tech. And the question, if we are doing the high tech field, 'What is the maximum that can be done?' Talking of the high tech field, I must pay a tribute to Ron [Sir Ronald Cohen], his company Apex was, and still is, a major player in the development of Israeli high tech. Aside to Apex, we have a few other British venture capital companies which are acting in Israel, I will mention index ventures Axel, which is actually an American company but they have very strong European activity. They raise the fund of \$500 million dollars of European money to invest in Europe and Israel and they apportion the budget according to the size of the two markets - \$250 million for Israel, \$250 million for the rest of Europe - which gives you a proxy to how they view the potential of the high tech in Israel. Hermann Hauser from Amadeus is also very active in Israel, I think he has some six investments. And you see huge interest from the likes of British Telecom, Vodafone and other high tech companies coming to Israel to scout for technology. Vodafone has already a number of investments and I think that what we see now is just the beginning.

All of you are familiar with the Israeli high tech story. Israel really became a hot bed of entrepreneurship, we have a lot of start ups. In Israel every kid wanted to do a start up!

You are familiar with the very old joke between Judaism and Christianity and Islam. When life begins according to Christianity, as far as I know it is at the time of conception of the baby. For Islam I think it is after four months, I think, I am not an expert in this field. But one thing for sure in Judaism a foetus, was a foetus, until it became a lawyer. This paradigm was true until ten years ago, when the paradigm changed: a foetus is a foetus is a foetus, until it create a start up!

Every kid is being pushed by his Jewish mother to go and create a company. And in order to be a Jewish mother, I want to tell you, you don't have to be a Jewish and you don't have to be a mother. My sons will tell you they have two

mothers, one organic one and one virtual one. But there is a huge driving force and we are exposed to these things since we are very young, you know my mother always challenged me and told me, why I am the only sister, she used to have seven brothers and sisters, and she always complained why I'm the only one who has an idiot of a son, while all my brothers and sisters have these brilliant kids. You know [Elan] is my cousin, so I had to grow with his shadow, which was kind of problematic. While she, I think, she only finished at 8th grade, she had a very strong intuition of genetics and she explained to us, to me and my brother, why we are idiots, while our cousins are not. She used to say, 'You are idiots and they are not, because they are not contaminated with the genes of your father.'

So we have a strong community, a very active community, of small companies. The symbiosis of these small companies is that large companies create wonderful things, traditionally, this symbiosis were mainly with American companies, like HP or IBM, which came to Israel and bought loads of small companies and created these large spaces. We have 7,500 people working for Intel in Israel, 5,000 for HP, 5,000 for IBM, 4,400 for Motorola, Cisco bought about nine companies in Israel. But, in recent years, we see it also happen with European countries, as Europe begins to be more entrepreneurial and I think that the potential with Britain is that on the one hand we can provide small, nimble, fast, rapid moving, aggressive companies with new ideas, while you can provide the established, well-positioned, well-managed, well-heeled companies which can take advantage of it. I think this is the main synergyism. Both governments are working on trying to enhance this. Two years ago we had an innovation day, I know that we are going to have another innovation day in the UK, and I think we just begin to see this potential being materialised and the potential is huge.

I don't want to embark on wrong territory, but it will be very fascinating if you will be willing and able to share with us the magnitude of your activities in Israel, you have one guy with one company, admittedly a very big company, but the chair, that one person, one committed person that is both trusted and appreciated by both Israel and Britons, what one person can be done. And this can be multiplied and increased. So I will stop at this point and then when, at the question and answer I will be more than happy to elaborate further. Thank you.

Sir Ronald Cohen:

Thank you very much, it's a great pleasure to be here with you all and I really compliment Chatham House on organising this conference and it's not often that one manages to look back over 60 years and say well look what has been achieved between two countries. And we've just heard from Yossi who was very modest in his exposition of his own contribution to Israel and Israeli high tech industry, because Yossi really is the father of Israeli high tech, he epitomises everything that Israeli entrepreneurs are, he organises great groups of entrepreneurs from across the world to come to Israel and he has created a silicon *wadi* around himself, if I could put it that way; and that's a compliment.

So, Yossi has given you some of the cultural links between the two countries, and it's at times when there are disagreements about politics, one often forgets just how much of a debt Israel has vis-a-vis with Britain, with the Balfour declaration, with Churchill, with Orde Wingate helping to create the Israeli Defence Force. Incidentally my father-in-law, Yossi Ferell (my wife is here) was in the special night squads of Orde Wingate. He said that Orde Wingate always travelled with a bible and a revolver by his side. And the sense of mission that Britain felt about bringing Jews back to the homeland is the key reason why the state of Israel exists. And, the difficulties at the end of the mandate notwithstanding, there is a huge commonality of values and of interests and quite apart from the political dimension, the whole legal profession is based in Israel on British law. So it's not surprising that when the world of entrepreneurship began to appear and Apax Partners began to grow internationally that the idea should come to me as a Briton to try to invest in Israel.

And if you go back to 1993, when there was no high tech industry in Israel to speak of, it was an economy that had that moved away from being an agricultural economy and was trying to become an industrialised economy, it would have been hard to believe that in the space of 18 years, Israel could transform itself into a major technological power. That it could become the Silicon Valley of the European region. And the challenges that Apax faced in trying to get private equity and venture capital to take root on the technology side, in Britain, in Germany, in France, in Italy, in Spain ended up being considerably greater than the challenges that Israel faced. And it is one of the remarkable things about Israel, that despite all of the mayhem in the region, when the country focusses on an objective, the country manages to achieve and usually in record time. My own group, Apax, started in 1993 with a \$40 million fund focussing on high tech only, today we've invested two and a

quarter billion dollars in Israel. I think after all the uncertainty in the last 18 years, with the Oslo talks, with the breakdown of the Oslo talks, with the second Intifadah, with Hamas and Gaza breaking away from the West Bank, through all of this Israel has managed to continue to forge ahead. The reason I am optimistic about the future and our ability to get to a peace with Israel's Palestinian neighbours, is that when Israel sets its mind on an objective, it achieves it. The difficulty is trying to get the objective to look achievable. There's great scepticism in Israel today just as there is on the Palestinian side, I was just in Ramallah the day before yesterday with the Prime Minister Salam Fayyad, is that both sides today have lost faith that there is a partner on the other side and that peace is achievable. Both sides want it, but both sides to considerable extent are looking in to the rearview mirror and not perceiving the changes that have taken place that do make it possible to achieve a peace in the near future.

Now in 2003 Sir Harry Solomon and I, I know he's known to many of you here, considered this issue and came to the conclusion that, really, achieving peace involved a DNA with 3 strands, a triple helix. It involved the security dimension, it involved the political dimension and it involved the economic dimension. And yet nobody was focussing on the economic dimension and Sir Michael J of the Foreign Office walked into my office in Portland Place, one day and said, 'You know Ronnie, if Israel withdraws from Palestinian territories, we all have the impression that the economy will collapse, and then what, how can you have peace if you don't have a sustainable Palestinian economy.' And I said to him, 'You know Michael, I'd like to have an Apax look at this, I'd like to analyse this situation with a business head, and then talk about it.'

And we prepared a report at the end of 2004 that said you know what, this economy is like a coiled spring: This economy has 4 million people in it, \$4 billion dollars of GNP before aid of a couple of billion, terrible poverty, 97% literacy, against 70% in Egypt, an industrious group of people with long business traditions and it has real business sectors. It has a stone construction sector. It has a tourism sector. It has manufacturing centres in furniture, in clothing, in shoes. It has an energy sector, with the gas deposits that had been discovered. It's capable of achieving growth of 10% a year for ten years. Well growth last year was 11%. Prime Minister Fayyad said to me two days ago, that growth this year will, again, be close to 10%. And I think the support that Britain has provided, for an approach that says let us do everything we can to help this process practically on the ground, not just through assistance in negotiations and acting as an intermediary, but

focussing on improving peoples lives on the Palestinian side, and relieving poverty on the Israeli side, let's get these things done and if we get these things done and the Palestinians are working on security, then the third strand hopefully, which is that of political negotiation, will also come into its own.

And so some of the things that I have worked on, here in Britain, in the area of social entrepreneurship, which I see as the next wave after business entrepreneurship, which is occupying the minds of our children today. The things that I've worked here such as the Social Investment Task Force, the commission on unclaimed assets, the creation of Bridges Ventures which invests in venture capital in only the poorest 20% of Britain, the creation of social finance which have created social impact bonds, which have just been launched, which I think will be a major innovation in funding the social sector. All of these things are being implemented in Israel today by Israelis, with the help of the Portland Trust. And I think it is an example of the relationship that can exist between two countries that have similar values, that may have different sizes but can bring different skills to the party. We have learnt here in Britain from the Israeli experience in business entrepreneurship and we are trying to meet some of the challenges that we have failed to meet, frankly, over the last 30 years in the area of high tech entrepreneurship. We have to admit that Europe has been disappointing, over the last 25-30 years, six or eight companies have made it from scratch to the top 100 companies in the world and they're all US companies. There are no European companies that have been able to achieve that. Israel has today the largest number of quoted companies in the United States after American companies, and so we can learn from the example that a smaller country have been able to set for us. And we can bring great expertise, we can bring expertise in technical areas, and I applaud the efforts of our Ambassador, the British Ambassador to Israel today, to bring together the knowledge in the bio-technology and health care, the life-sciences areas of the two countries. There is a lot we can do at that level. But there's a lot, too, that we can do in terms of advancing the cause of peace together, and it goes through the approaches that I have described. This government in Britain, which is not a government that I have traditionally supported, as you know, this government is picking up these practical approaches in this country. Has announced it will give all of the unclaimed assets to the big society bank, it has asked me to help establish it. For those of you who don't know that is £400 million plus £200 million from banks that have agreed to support the establishment of a social investment bank to connect social entrepreneurs and the capital markets. We can bring that to Israel and between us I think we can advance the cause of peace. Thank you very much.

Baroness Susan Greenfield:

Ok, so now for a change of gear. Because as you might imagine for anyone who directs an institute with the word 'mind' in it, I am not going to talk about entrepreneurial activities or money but more give you a take on this situation from the perspective from a grass roots academic, a basic scientist. And you might wonder what I can bring to the party. Well I think the first thing is to just remind you that basic science can actually be very valuable, even though at the time that may not seem that obvious. The most wonderful example is I'm sure you've heard of Quantum theory, which was developed in the 1920s and at the time no could see any use for Quantum theory, it concerned waves and particles and was very high end abstract theory, however it has formed the basis of lasers and transistors and therefore of computers the understanding of the chemical bond and crystallography, chemical crystallography, without which you wouldn't have molecular-biology, all be it some 50 years on. So I want to make the case first of all for looking at basic research and how in Israel and in the UK, such type of research, might lead to such important and exciting and very large scale developments.

I am very grateful that President Peres flagged the issue of science and how important science is, as of course did Ambassador Prosor. Just some examples – I'm on the international board of the Weizman Institute, and therefore I turn to them for some examples – of how Israel has really pioneered the use of basic science for the use of very practical applications. And just to rattle off some, the basis of many of today's vaccines were developed there, bone marrow transplant in non-compatible donors, the use of amniotic fluid for pre-natal diagnosis, stem cell research and the current treatment for multiple-sclerosis, for slowing that down, all had their providence in a basic science lab as it happens at the Weizman.

I imagine that there are people far more qualified than me to discuss how one then exploits that in terms of intellectual property but again doing some homework for this talk, there is the astonishing statistic that since 2003, and I gather that this figure still holds, that if you look at the number of US patents and compare Israel with Britain, pro rata, there are three times as many in Israel than in the UK. There is incidentally a debate in the House of Lords in which I am participating tomorrow on innovation, and I want to flag this issue because there tends to be a certain complacency in British universities that we are wonderful with our technology transfer but I think we have some very important lessons to learn from countries such as Israel. And indeed a certain attitude and mindset that does need review among many British academics.

I also think that we haven't really made the most of some exciting schemes, for example I was on the board of Britech, now this was an initiative set up in 1999, between the two governments, of Britain and Israel, and the idea was to take companies, young companies, in both countries and allocate grants of up to half a million pounds for development of technology which neither company could develop unilaterally. And the happy idea was that if you did well, and made a profit, you gave the money back, so that went back in to the pool, so that left more money for further grants, and overall, I gather about £12 million was awarded and some 100 technology partnership were forged. Why, therefore, you might ask in 2006, did the British government pull the plug. Which it did. Israelis wanted carry on, it was a wonderful thriving, self-funding scheme and it struck me that this was a real no-brainer. Why can't we revive a scheme like that?

Another scheme that's starting to take off, and this is a very exciting one, actually the brainchild of President Peres and he's actually coined the word, neuro-technology. Now I'm very, obviously, attracted to this because I'm a neuro-scientist. We've heard of nano-technology, the science of the very small which is engineering on the scale of a billionth of a metre. But neuro-technology, I think is very timely concept because the human brain is very sensitive to the environment, it adapts to wherever it is. That's why we inhabit more ecological niches than any other species on the planet. We don't run fast, or see well, we're not strong particularly compared to others in the animal kingdom, but heavens what we do brilliantly is we learn. It therefore follows if we have a high-tech environment, this is going to impact on how we learn, how we think, what type of people we are and it's a hugely exciting and important area that will impact on both the private and public sectors. for the private sector in terms of human resources, risk management, creativity, brands, products, good services and so on and with great perspicacity President Peres has been working with McKinsey's, and I know this because they consulted with me at one stage and I think this is a very exciting initiative, and I just ask where is the UK in all of this. We have a very strong neuro-science tradition, could we not be part of coining this term, of using that term and so on? So there are some initiatives out there, some with it on the vine, some I think are taking off. And we now turn to why is it withering on the vine and what might be the bottlenecks that stop this flourishing of different schemes.

I think the first is a misleading view of Israel. I was at a conference recently, an international conference, and we were discussing where we were going to hold the next one because we sort of peregrinate around the world and some

one suggested Israel and someone said no it's not safe, it's not safe to go there, we won't go there. And of course the Israelis were baffled, and those of us who have been there a lot couldn't understand this hostility simply for self preservation. Nothing to do with politics, they just didn't want to get killed going there. So I think, it's a bit like a friend of mine who wouldn't come to Oxford because he said he saw Inspector Morse all the time and thought there were so many murders. It's a similar kind of attitude.

More seriously, and I really want to touch on this, and if I am the token academic, I really think it's my duty to do so, that's issue of academic boycotts, which as we know have been besmirching the landscape since 2005- 2006. I have written about this and I have said this quite vociferously ever since, academics have decided to boycott Israeli academics is that who wins, who wins with a boycott? Do the Palestinians benefit? No I don't think so. What about the Israeli scientists? It's a bit like when we invaded Iraq in 2003, and I didn't have a hand in that of course, someone said we are going to boycott British scientists because we don't believe that they should have invaded Iraq, irrespective of the politics it seems very strange. It gives the scientists themselves and those who are promoting this boycott a very bad name, we've got petty, vindictive, spiteful and negative. And most important is that this isn't about science, if you hamper science research in the long run you are hampering health care, technology, education.

So, if no one is benefitting what is the point of it? To me it just seems, irrespective of the politics behind it, as a scientist it seems one of the most negative and stupid things to do and I am very sad that I went on the web just to see the status of boycotts, and I gather that there was a vote most recently in Manchester, holding a museum of science day with Israel, and there was actually in favour was about 25% still for a boycott. Now that's 25% too many people. And I gather someone told me, I don't know the details, at Johannesburg University in South Africa, has now just started. Incidentally I am going to South Africa for a mini sabbatical so if anyone wants me to stand up and say something then I will do. But it strikes me, it's a non-scientific attitude to prevail, and it gives the general public a bad name and it's absolutely counter-productive. In my own university about two or three years ago, I'm sure you heard, there was a guy, a molecular biologist who received an application from an Israeli who had stellar credentials, and he wrote back saying I am sure you are a very nice person but because you are Israeli, I don't hold with Israeli policies so therefore I can't accept you in my laboratory. I am very happy to say that they guy was fired from the university, not least because he was stupid enough to put all this in an email, so there was

absolute evidence against him. But for every one person who is that stupid, there is ten who are not quite that stupid who will feel that, who will think, that who will act like that, in a covert way that is not so obvious. And I think this is something that we have to get out there.

So what can we do? What can we do to give good news to reverse this very strange and illogical and non-scientific thinking? Well, I think we ought to promote more good news about Israeli and Arab university collaborations and again when I was doing research for this, I gather Technil has a close and long-standing relationship with a Palestinian authority. Ben Gurion has a paramedic programme with a Jordanian students. And the University of Haifa has a specific programmes involving Palestinian students. So, everyone often says that Israeli PR could do with a bit of improvement, these are the kind of good news stories that really would make a difference. And I just want to say about the press, when someone said about the BBC being biased, I've had more than one brush with the media and quite a lot of experience of it, my own view is that the media don't have biases, they just have a different agenda from everyone else, they want to sell stories, and if a story is lurid and sensationalist and exciting that is the story that will be on the frontline, irrespective of what's happening, and so therefore you want something exciting and important, that's a good story and then the media will take it up, they don't have high minded biases, I'm afraid they're more low-grade how can you get people to listen and to read what you want to say. So I think these are the kind of issues that we should be thinking about.

What schemes are already in play? Well the Weizman have one called 'Making Connections,' which I gather is a roaring success, I myself am honoured to have been part of BI RAX which you heard about which was the seed money for exchange fellowships. And as Ambassador Prosor said this is coming mainly from people of Jewish extraction in the UK, and one would like to widen this out and actually convince the general public, the British public, that this is worthwhile for UK plc, not just for Jewish people feeling a bit nostalgic. It should be for UK plc to see the benefits to the whole country, of collaboration with a country which has a record, certainly, of applying translational research from basic research that is infinitely better than our own, and I think that given as someone said we are in a technology, you live off science not off land, as President Peres said this is something that really we should be thinking about. I'm also part of this UK, life sciences council, that you've heard mentioned, set up by Ambassador Gould, and the subject chosen has been regenerative medicine and there is going to be a serious pool of money for that, for not just exchange fellowships, because you can

only do so many visits to each others' labs, you actually want to have the wherewithal to fund people's salaries to actually roll up their sleeves and grit their teeth (sorry to mix metaphors) and really get on and do some exciting things. All that's very good but I still think we could do more, so I see a push pull.

First of all we must start promoting stories and I think really making an effort even if it seems unnecessary for us, because we all believe in it to actually get out to the non-Jewish Brits how good Israeli science is and how we can learn from them and how it will benefit us. And the next, I think we need a little bit more cohesion with what's going on already. I see this cohesion at three levels, and this is where I think the UK might help. Yossi was very nice when he said that we have tradition and I don't know, street-cred, I don't know what we do have but I think if we can bring anything to the vigour and dynamism and the innovation of the Israeli mindset then what we can bring are three things. And there's three levels that, where improvement could be made.

The first is at the administrative level, I think we need a cohesive strategy for implementation, some kind of an overarching framework. It's wonderful the Weizman have a 'Making Connections' scheme, it's wonderful that we have BI RAX and it's wonderful we have this biological council, but wouldn't it be wonderful if it was all part of a framework, a clear framework, some kind of umbrella name or term that people could then refer to and know in an instance exactly what's going on. Incidentally that would avoid duplication and parallel parking it would also avoid things falling through the cracks that were not being attended to. And I think we need some sort of administrative framework like that.

Next we need a scientific level. Again when I was in Israel recently and I was discussing with Ambassador Gould, what we were going to fund, clearly we were appealing to philanthropy, we wanted something that had vision, because as we all know, people give to a vision, you won't give to a technique, you won't give to someone with nominating committees or whatever, but you will give to someone who says, 'I have a dream.' We all like that. Imagine, imagine if such and such a disease was cured, imagine what it would be like if you could go to the doctor and get this kind of test; that's what you want to give to. Now it strikes me that what we need for attracting funds such as that, from people who are interested in society and not just Jewish people living in England. We need a menu of very clear cut and very specific issues, which have a sliding scale, a different menu of how much you give them and so on, but at the moment, to the best of my knowledge, such a

menu such a coordinated clear-cut list of prioritised areas that could be funded that will attract potential donors, that needs to be developed.

And then, as well as the administrative and the scientific level, I think the most important level of all is the visionary level. Why do we want to do all this? Why do we want to promote science? Why is it important? I think this is the most exciting and important area of all. And I think Ronnie touched on this. Which is: science is a tool for peace. Now I am not a diplomat or a politician I am just a bench scientist, so I bring to the party what a bench scientist will bring, and here is my own thinking. It actually started with a book that you might have heard of by Sebastian Haffner called '*Defying Hitler*', written in the interwar years. And his thesis was, that the reason that Hitler gained purchase in Germany, one of the reasons, was that people no longer had fulfilling private lives, that they therefore had a collective identity initially satisfied by talking about football after the first world war, talking about the first world war battles, then Hitler came along with a more compelling narrative, almost a David and Goliath narrative with the little guys and the evil conspiracies and so on. How can we combat this corrosive ideology where people have lost their individual identity and self-esteem? With education of course.

If you have a fulfilling job, a nice home, a happy life, if your kids are getting a good education, I would argue naive scientist that I am, you will be less liable to subscribe to extreme ideologies. Now, how can we deliver a successful happy private life, individual life to people and give them a sense of self worth? Surely with science and technology. Science and technology is changing our lives quite dramatically. Nano-technology we've never heard of before. That's like explaining how plastics are to someone in the middle ages. Bio-technology is transforming our lives so that we can live to be 100. Information technology both good and bad – that is the cyber world is giving us a whole new way of disseminating information and establishing relationships needs to be explored and discussed but is very, very important. And we can't just sleep walk into this, this has to be used and shaped to our advantage and the threats minimised and it can be used to give people the kind of lives, the individual lives, that we have never have contemplated even a few decades ago. That is the vision and that vision can be turned, in terms of the collaboration between Israel and Britain, into giving people a chance an opportunity to impact on the technologies that would deliver people individual lives and therefore give them a self-respect so that we can maximise peace.

And I think that if we have those three levels from the work-a-day administrative level to the clear scientific framework of goals and aims to above all, above all, the vision, then we can only benefit from having scientists at the table too. Thank you very much.

Chair:

I would like to pick up the point made this morning by President Peres on the development model that Israel can actually export, and again there was very clear suggestion, with China, with links with China and South Korea. So I would like to put a bit more meat around this bone, this concept, this model for development and I think you said something very interesting Susan, when you said that Israel has a track record of turning research into business application, so in other words, closing the gap between research and application and moving from application into a commercial product, therefore to create a virtuous circle of again economic growth. But I was also very interested in what Ronnie said about the other model, which is more, rather than growth, is more development. You know we economists are fussy about distinguishing between development and growth and more in terms of fighting poverty. So again there is another dimension of this model. And again in this model there is role of entrepreneurship, capital, given capital flows that really reward a vision as you said is really important. So I would like to open this debate and maybe each of you can elaborate a bit more about this development.

Yossi Vardi:

I will start if it's OK. All of us are familiar with the theory of relative advantage. Countries, each country has a relative advantage: it has to produce products, where they have a relative advantage, because they can create more products and exchange them with product which other countries will produce cheaply. What I would like to suggest that when we talk about high tech development, about high tech entrepreneurship, it is not a monolithic entity. If you look at the life cycle of an enterprise, Sir Ronald eluded to it when he said that there were very few or no European countries which grew. You will see that construct of a number of stages, and each stage takes different talents, different culture, different endeavour in order to make it. In the very beginning of an enterprise; you have an idea a very risky idea, totally unclear which is kind of very vague, and you need a small dedicated group of people to go and take this idea and to make proof of concept.

Susan, which I always when I hear her I become very envious about her eloquence. You know God touched, when she was a little girl and she was sleeping God came and touch her shoulder and made her speak so beautifully. But nevertheless Susan may say that before even before the very beginning, the very small idea you need the basic research which create kind of the infrastructure to come with the high-tech idea. Nevertheless in different societies, different people are doing different things on a different level. In Israel we are very good in the very beginning. Take an idea go charge, go and do it, don't be afraid of failure, because fear of failure is the main obstacle to any great idea.

There is an author by the name of Greg Burns, who is also a neuro-whatever, I'm sure you know him. Neuro-technologist, neuro-economist, neuro-scientist, neuro-whatever and he wrote a book called *Iconoclast*, where he tried to identify what stopped people from going and executing good ideas, why only a few people, many ideas all of us, many people have great ideas, all of us have great ideas, but only a very few of us are willing to go and execute them. And he is suggesting the main barrier is the risk, it's not the financial risk, the failure, it's the risk of being perceived stupid. This is the main risk that stand behind people with great ideas. And people of Israel, all of us don't care if they think we are stupid, we go and do the things. In China, they are doing something differently, or they used to do something differently, very, very efficiently; and this is cheap manufacturing. In India they were able to write huge code, huge software problems of banking, airline, air traffic control *et cetera* where you have to be very careful of doing sloppy job with errors *et cetera*. So each country has different things. What of your question about the development path, what I would like to suggest, is what Israel can bring in to the party is the, this very rare, I wouldn't say unique, but very rare ability, to take an idea to go and charge, to try to put it on the table, and to see if it works or not. I would mention I am very active with young people, my passion, my business, is to identify very talented young entrepreneurs and to give them the first money. As you know Sir Isaac Newton said that if he was far sighted, it's because he stood on the shoulders of giants, I say that if I was a successful businessman it's because I stood on the shoulders of children. So this is the business I am doing and in this endeavour, the internet time I've done about 80 such ventures, 16 succeeded very nicely and I had very nice exit, which I tend to brag about. I don't tend to brag about the sixty failures which I had as the other part of the coin. You are trying to do things, you are going to fail, this is part of the thing.

So, I think to the dynamic of development, what we can bring. We can bring fresh idea, we can bring nimbleness, we can bring less afraid of failures, bigger desire to endeavour and if you look at the history of the state, when 120 years ago people came from Eastern Europe, to this piece of desert, there were also entrepreneurs. When they created the first immigration towns, the first agriculture technologies, not that it was existing there. So we are endeavouring all the time. So this is what we can bring in to development. What other people can bring in to development is more discipline, more procedures, more care, being more meticulous ability to scale (we don't know how to scale, you know in Israel growing company of over 700 people is very rare). To ever succeed in Israel is the aviation industry. So I think we are very good at some things, at others we are not good. So together we can create wonderful things, as we have proved with the American companies. There is no reason why we can't do it with European or with British companies, and I hope we will do it with some European companies before we begin to do it with the Chinese companies. I will just conclude, that in 2005 I went with Prime Minister Olmert to China, we met the Minister of Commerce and Industry in China. I made a suggestion which was really could rewrite history, but he refused. I suggested to him that if we merge Israel and China we will get the biggest country in the world, but he denied it.

Question One:

Over the last few years we've been doing research on what the strengths are, the assets of brand Israel. And one of the things we've learnt, and Yossi I had the good fortune to meet you a couple of years ago, is that your inspiration could be shared with a lot of British unemployed. And I would like to put an invitation and a challenge to you, and also in fact to Susan, what you have said about breaking down barriers between people, bringing people together. We know that when people go to Israel and they see Israel for themselves and they touch it and feel what's going on there, the buzz. And they also see the diversity of people and the plurality of voices, that they change their mind about Israel. What if we suggested to the government here in this country that a thousand unemployed 20-30 year olds are invited to go on a start-up training course, where they learn how to be entrepreneurial, learn not to be afraid, and go round and see some of these successful small companies where young people have broken the mould. And what about on the scientific side, I have a son who is studying physics at Oxford, and I know what he could learn in Israel. What if we said a thousand undergraduates, not just Jewish undergraduates, are invited to go on a 6 month study period in Israel.

These are the ways that we can break some of the trends, change the course of what is going on in the country today, reaching out but doing things which are totally relevant to the problems we have in this country today and we could maybe do the same thing coming the other way.

Chair:

This is an interesting point, but do you think that entrepreneurship can be taught? And back to what Yossi was saying about fresh ideas, how important is education? You touch upon education, but how do you generate fresh ideas?

Sir Ronald Cohen:

Entrepreneurship is a mindset undoubtedly. But at the same time it requires a system in order to sustain, and the reason Israel has been successful is it has created an eco-system that supports high tech entrepreneurship. And if you look beneath the surface of a successful companies of the large numbers of entrepreneurs you see that Israel went out of its way to import the research facilities of major organisations, of major leaders of high-tech. Whether it's Microsoft, or Intel, or Google. So not having an infrastructure of large corporates who are spending a ton of money on research and development, it imported them. Technical education and expertise is obviously a necessary condition. Through the military Israel built up an ability to do this and to apply technology in a practical way. This is not just theoretical science it's applied science. You need access to stock markets for your companies to go public. Israel didn't try to turn the Tel Aviv stock exchange into that. It made its companies appropriate for NASDAQ, and access to the best capital market in the world. What we struggle with in Europe is we failed to bring NASDAQ over here, there were attempts which I was involved with to create EASDAQ and in the mid-1990s they fizzled out which had as much to do with NASDAQ's problems across the world as anything else. But we still don't have, across Europe, a single stock market for pre-profit companies, which accesses investors across the 300 million population that we have and has institutional-level analysis and research of high tech companies. Israel has managed to achieve that by connecting to NASDAQ.

And then you needed to create a professional venture industry, and Israel understood very early on that to get it started would require major incentives, and it created its Yozma scheme where the government put some money in to start the earliest funds and sold out after a few years. Probably the best

example of a government creating and enabling environment for an entrepreneurial venture capital industry that has professional standards to be created. If you are successful in doing that then you begin to get high concentration of companies, you have a mindset of improvisation, for those of you who have read *Start-up Nation*, and you have a can-do attitude and you put together that eco-system with those attitudes and you begin to run, basically. So the things that we're struggling to do, sometimes it's much easier to get these things done in smaller countries, because the model could be dependent on the financial system of larger countries. The Tel Aviv Stock Exchange can not aspire to be the London Stock Exchange, nor is it perceived by investors as being a problem if a company says I couldn't go public on the Tel Aviv Stock Exchange and raise enough so I came to NASDAQ, if a British company does it obviously we have a bigger challenge explaining why.

Yossi Vardi:

Ron if I may, why don't you mention to them (as you know Ron is probably one, if not the most successful VC [Vice Chairman] person in the world). Why don't you refer them, why don't you give them the name of your book which describes and elaborate about all this. He write a very insightful book where he expands on what he says.

Sir Ronald Cohen:

Well Yossi was a hosting a conference of entrepreneurs, and I think about 500 entrepreneurs turned up, when the Hebrew edition of my book appeared he happened to like it and it's called *The Second Bounce of the Ball*.

Baroness Susan Greenfield:

As we only have ten minutes I will try and incorporate the lady's question over there and some issues that were raised. I think that while I was listening I scribbled down five clear action points as I see them. The first starts from back in 2003 as a result of the boycott I has this idea to take non-Jewish academics over to Israel and let them see Israel and then to go on to Jordan, because I had connections in Jordan, and they were very cooperative. After the invasion obviously everything was off the table. But what saddened me was that the Foreign Office, and I speak about our Foreign Office here, suddenly the budgets have disappeared like the snow in spring time, and I

had to go back to my very well-meaning British scientist colleagues, and say I'm sorry we can't go now because the Foreign Office have pulled the plug on the money, rather like with Britech. That's the kind of thing that the Brit's can do, that I think would bring value to the region. Incidentally I'm also a trustee of the Alexandrian Library in Egypt, and I know that that can be great cultural powerhouse, and again it would be wonderful to see collaboration set up in that way. And if we by, being the third party can soften, or help, or negotiate, I think that's a role we could actually do.

The second area that occurred to me, and this is because I was in Israel recently with people like Rifka Kani and Ruth Arnenheim. Women in science need help, we need help, we are a small minority, the more senior we get the more in a minority we are, we need to band together. And I think the wonderful role models of women scientists in Israel if we could think of some scheme, that would be quite low-key in terms of finance, that would be a marvelous asset for we women scientists who tend to get dismissed quite easily in terms of the problems that we have.

Another issue that I think would be very helpful, the third issue, is a talent scout system. Part of the reason we are so weak in the UK is that our technology transfer offices and universities are under resourced and under staffed so that you have to knock on their door, they are unaware of what's out there going on in the labs. Similarly the academics aren't going to do that, they have a distrust of the commercial sector, forgive me you two, because often many scientists do, you know it's not pure science and so on. A talent scout system whereby, especially if it was young Israeli interns, who were from Yossi's companies and so on, coming and actually spending coffee with the scientists and persuading them that what they were doing might have application. Acting as talent scouts would be very valuable and again low cost form of collaboration that I think we would benefit from.

As would another idea that I'm going to talk about in the Lords tomorrow, which is private sector grants, where by people put in, not investment, but small grants into research because all we need is very small amounts of money that don't give high returns and where the burn rate is high and so on, and they don't understand the technology. But if you dilute that by being a syndicate you can then buy, with that grant, if you've given privileged access to the work and as it matures, you then spin it out as and when you might feel it would be appropriate. That kind of innovation I think we could benefit, because the Brits don't think in that way, and I think it would be much easier to get that kind of help going with Israeli universities.

I think what we could bring to the party, if we're thinking about pros and cons, Yossi was saying that we are perhaps better, I don't know how to say, but better organised or more obeying the rules or more regulatory, or whatever word you want to use but whatever word I use has a kind of value added to it, which is neither good or bad. But the sort of coordination, which I said when standing at the lectern, I think the Brits could be good at that and help with that, which is to provide an overarching framework within which people function as they are. So I think these are various ways we could do: this brokering with Arab countries, a talent scout system new to us, private sector syndicates and innovative idea, coordinating, us helping with that, and women in science. I think that there are lots of ideas as long as there is good will on both sides, but I do urge my own government having had the Britech plug pulled and having had that expedition pulled in 2003, please be a little bit bolder, and please you have to meet people half way you can't expect people to do everything.

Question Two:

Yossi I just wanted to say to you, when Jewish life starts actually it's when the dog dies and the children leave home. Susan, you very kindly gave us a good plug for Making Connections, I just wanted to say a little more about it. It was formed by Sheridan Gourd who is sitting beside me, and myself, when the boycott was very much in the news, and what we decided instead of writing letters and making speeches that we would try and do something very positive. So Making Connections actually we raised a million pounds to enable Weizman scientists and UK scientists to work together on projects. We didn't fund the projects but we made it possible. The money we raised paid for things like hotel bills, airfares and we have 16 projects going now which is at the very highest level of basic science. Oxford, Cambridge, UCL, Durham, Newcastle, throughout the country, and this has been going for three or four years now, and I can tell you that two weeks ago we had a meeting in Manchester. Yes, so here's my question, do you think there is more that we can do, all of us? Not just in science, but in arts and in sport and all sorts of other areas, to bring Israelis and British people together on joint projects?

Question three:

I happen to suffer from Parkinson's. It followed from my involvement jointly with Wellcome Foundation in the establishment of the imaging centre at Queen's Square. And I am familiar, with the search that work has taken, and

in fact the successful contribution by Telepharmaceutical, where I take its products once a day. The latest situation that I have is that I now attend the English Ballet School and participate in dancing with people older, if there are any older, and younger than myself, to the music like Romeo and Juliet, which is a great support. I have now indicated to those involved in the English Ballet School, that I will take it my responsibility to enlarge their influence and encourage others to get benefit from the programmes of the English Ballet School and I hope it is something, that particularly Baroness Greenfield, may think has a future.

Question Four:

Sir Ronald, if I could ask whether you believe that your interaction in the areas of cooperating with the Palestinian Authority, in particular in developing entrepreneurship and so on – has it had any tangible effect on the overall willingness of the PA and Fatah to be more moderate or to develop relationships with Israel? Has it actually had a tangible effect that you can detect?

Question Five:

Sir Ronald, Baroness, I have a question. I have personally been involved for 45 years in international, and I mean international business, and I haven't heard all since the President's speech, the involvement, trying to coerce the trade unions in this country, to understand the advantage in the academic, in the business, to a close cooperation with Israel. Particularly from non-Jews who are quite open, not necessarily friendly with Israel, but quite open on the entrepreneurial side that it is an advantage to develop a relationship.

Question Six:

It's on the back of the second, the last but one question, that I want to point this out, because I feel rather frustrated that some of the funders of the scholarships which enable Israelis and Palestinians to get undergraduate degrees, in a variety of disciplines; science, arts, humanities. And to talk to each other as they go along, along the way, and to learn a great deal about their conflict and each other. I get frustrated that the funders of the scholarships tend to want instant, visible results in terms of Israeli -Palestinian cooperation and even peace. And I am spending my time protecting these young people from the expectations of others that through their education and

growth, they can somehow deliver on the aspirations of other well-meaning people. So this is plea, for education for its own sake, inclusive of scholarships for Israelis and ideally Palestinians alongside, in a British setting where they can benefit from all that British higher education and exposure can give them, don't ask them to tell you what they gained in their second term and before they've completed their path.

Sir Ronald Cohen:

I'll be brief. I think you can measure the progress by the fact that in the West Bank today two thirds of the population is employed by the private sector, 15% is employed by the public sector and the balance, about 15%, is unemployed. The fact that the standard of living is rising significantly, although they've only just caught up with the standard of living in 2000, only just caught up. You know we forget how much you dip before you went up. This creates a bedrock of support for moderate policies, and the big fear of Palestinians here on the West Bank is the ability to create a secular Palestinian state that can live along side Israel in peace is going to slip through their fingers because the extremists are going to take it over, because Israel is not as helpful in their perception at arriving at serious peace talks as it might be. And there are lots of reasons why Israel hasn't been more cooperative, so I think if you look at the leadership of President Salam Fayyad who has been there now since 2002, the security situation has never been better in terms of Palestinians actually trying to catch the culprits when there are attacks. The level of cooperation between the security services has never been better. We need to get ourselves in to a situation where the two sides can sit down at a table and begin to change their perception. And begin to change the perceptions of not having a partner on the other side.

Yossi Vardi:

I would like just to say one thing about the boycott, I am not excited by anyone who wants to boycott us. I welcome anyone who want to boycott us, be welcome. Charles de Gaulle boycotted us and we created the electronic industry. The Arab League boycotted us and yet we created a whole industry. The people that want to boycott us don't want us anyhow and they just incentivise the people who want to work with us, so we aren't going to work with everybody in the world. It's good enough that we work with people who really want to work with us and enjoy it. And the message I will send to all the

people that want to boycott us. We will survive without them, it happened for the last 2000 years, it will happen for the next 50 years also.

Baroness Susan Greenfield:

Can I just pick up on that. Yossi, I love you dearly, as you know, and it's very rare that I would disagree, however I think the academic attitude to the boycott can not be so casual as the entrepreneurial one. Because as a scientist you need to get invited to meetings, you need have your papers accepted, you need to have peer review for your grants, we cannot afford to just shrug things off. It's vital and it's important and I think we really need to think about it, how we deal with the boycott.

I think another problem and the biggest stumbling block, is how we introduce non-Jewish people to get excited about what is happening in Israel and participate in the schemes that we've been looking at. And I think that unfortunately people are inherently selfish and the way to do this is to persuade people that they are going to benefit and there is something in it for them. You know, no one is that interested in altruism, let's be cynical. If someone's going to benefit, you or your life, you are going to do it and I think that is the angle perhaps we haven't been using too much.

There are three areas to sum up where I would see a lot of work could be done. One is with coordination. There is a lot of talent, a lot of good will, a lot of schemes, but somehow we need to add value more, we need to lever it more, we need to explore more possibilities like women in science and working with Arab states or talent scout systems and the like. We need vision, because if you don't have a vision no one is going to follow you anywhere. Someone said that if Martin Luther King had said, 'I have a three year plan,' no one would have bought in to that much. And then the final one and again, dare I say it Yossi, given that I love you so much. That attitude, of frankly I don't give a damn, sadly, I don't know if I'm offending people here, I hope I'm not, sometimes that is the perception with Israeli publicity. I have talked a lot to some of my colleagues about why people are negative about Israel sometimes, and I think that Israel feels so bruised, certainly my colleagues feel so bruised that you just take your bat home you just curl up you just go home, and you say I don't care anyway, I'm not going to bother because it pointless, everyone hates us, I'm not going to bother. And I think that attitude of stuff it, whilst it might be OK for entrepreneurs, it's not OK for academics, and it's not OK if we're thinking of a wider scheme. So I urge very much, that

we do, I'm afraid grit our teeth, or bite our tongue or whatever we do and think how can we engage and persuade other people and give a positive image, even though one is justified in saying stuff it. Let's try and look to the bigger picture and think of ways of how we can engage the non-Jewish people.