## Interview with Mark Romoff



To ensure success in innovation, research, business and government need to go together

#### MÒNIKA JIMÉNEZ

Mark Romoff is since 2004 the president and CEO of the Ontario Centres of Excellence (OCE), an organisation that has placed within twenty years this Canadian province as an international model for innovation, technology research and economic development. By means of multiple partnerships between government, local companies and universities and research institutions, the OCE promotes the commercialisation of products related especially to environmental technologies, communications and manufacturing industries, among others, for the benefit of the local economy.

Two years ago, the OCE signed a cooperation agreement on science, technology and development with the Government of Catalonia. During his last visit to Barcelona in February, Mr Romoff made a balance of these two years of collaboration between Ontario and Catalonia, pointing out the need governments in any part of the world have to understand that «without cooperation between research, business and political authorities, no progress is possible».



Ontario has become an international leader in research and technological innovation in the last years, which has brought a great benefit to the local economy. What are the foundations of this evolution?

These foundations are set in a moment in which the local econ-

omy had reached a critical point. The lack of investment in technology, the poor competitiveness of Canadian products and the clear economic disadvantage compared to the US dollar caused a deep crisis in Ontario in which a lack of production, the absence of innovation and unemployment were three elements that were leading altogether to disaster. However, things started changing (e.g. new trade regulations, the progressive depreciation of the US currency) and the situation became favourable for Canada and, more precisely, for Ontario, an area especially hit by the evolution of the world economy.

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It was then when the government saw the opportunity to create policies based on collaboration of three sectors which so far had developed independently: research, business and governmental strategies. By getting them all involved in this new future project, Ontario started believing in its ability to innovate and thus to go forward, which has lasted up to now, when we can say that the province has become a leader in innovationbased economy. So we are talking about a sort of homogeneous whole, but the Ontario Centres of Excellence bring together what you call *research programmes, commercialisation programmes and talent programmes.* 

The truth is that these programmes are in fact the three pillars of one same thing and they all are very relevant in developing prosperity requiring technology and research. Related to that, it needs to be said that in all this process it is the government who from the beginning tries to give momentum to such an alliance between local research centres and companies. Based on this, both work together in research and commercialisation programmes. The talent programmes are a sort of nursery, a drive by the government for developing new generations prepared to manage companies without losing sight of the importance of research in technological innovation.

#### Which are the criteria determining the feasibility of a research project?

We can summarise these criteria in two. On the one hand, we can talk of recognition and on the other, of the contribution necessary to commercialise it. When I talk about recognition I do not only mean detecting the needs the product may serve but we can also apply this criterion to the capacity to understand the changes the economic landscape may experience in a given period. In this respect, being able to recognise market trends is a key factor. It is such little indications that turn apparent a significant change in the socioeconomic context on the long run. The fact that a project clearly states this recognition implies somehow its feasibility since it is showing us that it can contribute to keeping Ontario's leading position in technological matters. As to the contributions, it is worth mentioning that they are not only considered as what a given project may yield for improving aspects strictly related to research or Canadian economy. Beyond that, an international vision is demanded, that is, along the lines of the recognition we were mentioning before, it is about anticipating facts and

seeing what impact a project can have at international level.

#### What timeframe are we talking about?

It is difficult to talk about specific timeframes. There are projects that need years to be consolidated, while others, for reasons that are sometimes subject to mere random, obtain significant results within few months. Referred to Ontario, we are talking about twenty years. Nothing is done from one day to the other. However, what is clear is that we need to invest today to obtain a return tomorrow. This is being visionary, but I admire this kind of people, these political leaders who are aware of the need for working today to obtain results in the very long term, no matter if the benefit of this investment of time and money pays back directly during their term.

It took us twenty years in Ontario to demonstrate that the idea of bringing together differentiated sectors to follow one same goal was crucial for making progress.

## But pushing forward a project does not always mean success.

Of course not. The clearest indication of success is economy: the economic benefit of positioning certain products on the market or of applying certain technologies following research. Beyond that, from my point of view, true success lies in the capacity of bringing together the three pillars we were discussing before: business, research and government - cooperation, after all, to obtain benefits of international scope.

#### Theoretically, cooperation is an excellent starting point, but when it comes to its implementation, it is probably not that easy.

It is a matter of mere survival. It is nothing else than applying the old saying: «renew or die». The

## Coffee, croissants and a success story to start the day with

It is shortly after seven o'clock in the morning, but the OCE meeting room is packed. A screen with multicolour graphics overlooks the room while a man dressed in a suit explains in a calm way how the company he represents has increased its benefits in the last months. On the big long table, the coffee cups and croissant trays give an untypical aspect to the formality of the meeting. Suddenly, somebody interrupts the speaker with a question while the audience nods. Although the meeting was planned to finish after two hours, it is almost ten and most attendants are still exchanging their views.

This is the original format with which the Ontario Centres of Excellence have managed to organise regular meetings with business leaders, government representatives and researchers in order to set up a dialog, based on the presentation of a case study, that leads them to understand the need for joining their efforts to meet any future challenge.

According to Mark Romoff, the initial idea was to hold very simple events at a time of the day that would not interfere with anybody's work so attendants could be at their office at nine in the morning. Despite certain reluctance due to untimeliness, the first breakfast was organised. It was such a big success that years later the format is still the same and attendance remains extraordinarily high.

To Mr Romoff, the secret is to have been able to find a space where companies, politicians and universities can talk about their needs and the resources they have to tackle them, to realise that they all talk the same language and that if they are able to join efforts, they will be able to meet their goals.

change is that this renewal requires integrating different forces. To start with, it is about explaining to SMEs that they will not survive economic change unless they invest in a technology and research project in the medium term. From that

### When the funding source dries out

While alluding to the similarities and differences between Ontario and Catalonia during the conversation with Mark Romoff, the case of the Merck labs and the research line they stopped funding from the moment the company merged with another lab with an own research group came up.

When asked about the possibilities researchers have when the funding source is reduced or disappears completely, Mr Romoff summarised the answer in three suggestions to keep research going: firstly, to create an independent company including managing staff to add to what was just a scientific research group until then; secondly, to offer this research to other companies; and thirdly, to redirect research along other lines and perhaps collaborate with other universities by taking advantage of acquired knowledge.

To Mr Romoff, the first of these suggestions is the most interesting one as it eventually brings together the three necessary forces for innovation: business, research and also politics.

point on, the secret will be to do easy things, that is, once the company realises this matter, government acts as a mediator between this sector and universities and research centres. There are scientific communities all over the world with plenty of young people with incredible potential and talent, highly educated and competitive, able to identify the needs of companies and also the tools to surmount these shortcomings.

It is very important to understand the need to drive for certain working lines. Efforts need to be focused and budgetary increases need to concentrate on them.

This linkage translates into knowledge transfer to business that allows to bring certain products onto the market, with the according benefits. In fact, cooperation is not difficult at all. Once this need to evolve has been identified, relations develop in a very fluent way.

Coming to Catalonia, where relations between different sectors are just coming about, do you

## think it is possible to join efforts and resources to this point?

Catalonia has an outstanding potential to carry out such projects: a good industrial and business base, good research centres and, most importantly, a government devoting the efforts of a whole ministry to doing projects related to research and innovation. Apart from all that, I think that there is an element that, instead of being beneficial, has become very harmful with years: the constant feeling of self-criticism that goes with any initiative taken by Catalans. What I mean by it is that I have the feeling that you Catalans generally tend towards criticising all projects coming from yourselves. Instead of rewarding innovation, there is a sort of reluctance that ends up becoming a negative feeling, and this finally distorts self-perception but also the image you convey.

For instance, yesterday, when I visited the Biomedical Research Park in Barcelona, I could not help thinking of how Catalonia has progressed in the last years. Forty years ago, Catalonia did not even exist on the map. Within little time, it has made terrific progress in research and technological innovation. But this is not felt this way amongst Catalans themselves, which does not help potential collaboration initiatives that may come up among the different players involved, as they eventually think that maybe it is not worth doing so many efforts. Of course it is! It is worth and it is possible in a place like Catalonia, where all elements are favourable for such a cooperation climate.

It is now two years since you visited Catalonia, together with other representatives of Ontario universities and research centres, to sign a cooperation agreement on science, technology and development. What is your balance?

Joint activity carried out since 2006 has been very interesting and highly productive. During a first stage, we dealt with identifying those projects in which collaboration could be beneficial for both parts. Then, the projects between Canadian and Catalan researchers have been following to the point that this year a researcher from the Polytechnic University of Catalonia came to an Ontario university, sent by CIDEM, to act as a bridge between these projects.

Catalonia should be a bit more aggressive in explaining its story to the whole world and showing what it has achieved within little time.

Another example of how this agreement has evolved is the project to install crop chambers on Mars carried out by the University of Guelph, Ontario, which is currently preparing to move its headquarters to the Autonomous University of Barcelona. Also worth mentioning is Starlab, a joint project of the University of Toronto and the Polytechnic University of Catalonia, consisting of creating a microsatellite of about 6.5 kg, able to travel through space and detect traces of life. Apart from that, I am very proud of the collaboration in photonic research that has been implemented in a very short period of time.

The balance is absolutely positive, especially if we consider all future projects this initial contact has led to. This is in fact the key to this kind of agreements: people meeting people with the aim of sharing and of course working for common interests.

#### Could you give me the most significant similarity and difference between Catalonia and Canada related to innovation and technological research?

We are talking the same language and this is why it is so easy to work together. We also come from similar backgrounds so it is not difficult at all to place ourselves in the position of the other and see how we can go together into a future that benefits both of us. As to the differences, we could say that Ontario started moving a bit earlier than



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#### The importance of international diplomacy

A former member of the diplomatic corps, Mr Romoff is aware of the relevance of politics in those relations going beyond the own geographic borders. He therefore points out especially the need that governments be aware that research requires support by a person appointed by public authorities, being at the service of research and innovation. The OCE has been supported by Canadian diplomacy in Spain for years in relation with research policies set up within the host country. Catalonia in this respect. It was somehow a forerunner in detecting trends and needs. In fact, we are back to the previous idea: Ontario has invested lots of time in recognising what has been done so far, while this time has perhaps been used for self-criticism in Catalonia, which has caused a lack of recognition of all progress made within so little time.

From my point of view, one key to success is to tell your story, your roots on the one hand and to celebrate and dignify all the achieved goals on the other. If not, negative feelings will eventually eat up any dream and thus any initiative. Catalonia should be a bit more aggressive in this respect, both in telling its story and in celebrating all it has achieved within little time.

#### How do these recommendations affect the development of the National Pact for Research and Innovation?

Here is another key to success: the ability to provide communities with enough resources so they become involved in projects that will generate a mutual benefit. In this respect, it has to be said that the NPRI is working along these lines, it is doing a good job to set up a dialog between business and existing scientific communities in Catalonia. It is a matter of time right now. The important is that the Catalan government has detected this need for collaboration and that it is working for economic and technological progress of the involved players.

#### You talk about innovation culture as an indispensable requirement for economic development. How does this concept fit into the NPRI?

This concept is already within the NPRI, it is in fact one of its main objectives. Now, the hardest part is to tell the different audiences the importance of innovating to grow, and for this the right conditions still need to be found to make things easier. Success in some common projects will be enough to create a sort of movement that manages to change the trend of having everyone going on their own, which so far has been prevalent in Catalan business and universities. As I said, though, it is all a matter of time. The NPRI goals will be met little by little.

## Any advice based on your experience as the OCE chairman?

Trust your own abilities and be also able to see beyond everyday work. It is not easy, I know, yet it is much easier than we think, especially considering that the base for growth lies in technology, and Catalonia does have this base. The only thing to do is to find the path of cooperation.



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# **Ontario Centres of Excellence**

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The OCE were created in 1987 as a reaction to the competitive challenges of Ontario, acting as players driving research for commercialisation in order to turn ideas into revenue. Their main goals are to strengthen links between researchers, the industry, entrepreneurs and financing bodies and to stimulate technology transfer of researchers so as to foster economic growth through support to R&D. The OCE have basically become an interface between business and border research, an efficient agent that has allowed to set a continuous flow between both worlds by means of their working programmes in three main areas: research, commercialisation and talent.

These three areas create a virtuous circle of the value chain. They gear research to business needs, assist in commercialising the results of this research and, thanks to their talent programme, make sure the consolidation of a new generation of researchers.

One key factor for OCE success has been their specialisation in five centres of excellence: communications and information technologies, photonics, earth and environmental technologies, materials and manufacture as well as energy. These centres of excellence represent the critical areas for growth and development of Ontario's economy.

The three transversal programmes (research, commercialisation and talent) are developed through these five centres, with a clear focus on satisfying the needs of the market in order to generate prosperity and wealth in the region.

The key word in all this process is commercialisation of research. The whole science, technology and enterprise system of Ontario is based on this concept.

The typical distribution of funding is as follows: one third for the company, another third for the OCE and the last for universities. Public administration usually pays for university research infrastructures while companies bear the overhead costs (basically human resources).

Universities are clearly aware of their role in doing research and not obtaining any financial return for property rights. All players realise that university needs to do research and companies need to create wealth.

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