European Institute of Innovation & Technology

Interview with Marina Ranga

CEO and Founder of Triple Helix Research Group Inc.

A researcher and educator with experience in Europe, the US and the Far East, Marina Ranga offers a unique perspective on the challenges facing European innovation and entrepreneurship. We got her thoughts on this issue, as well as a subject close to her heart: female entrepreneurship.

Marina, can you tell us what the word innovation means to you?

This is a question that I usually start my introductory innovation course with, and am always amazed at the variety of answers received from students. There are so many ways to look at innovation. To me, innovation is a state of mind, where one is always seeking new ideas and new meaning, better solutions, challenging the impossible and making it possible. Continuously striving to improve our lives and give them new dimensions.

Innovation and entrepreneurship – the EIT champions these two concepts, with the aim of increasing Europe's growth and competitiveness on a global level. Why do you think these areas are so essential for Europe's future?

We have now reached a point where Europe's future raises a lot of questions, to which it is very difficult to provide a pertinent answer. Europe is still struggling to recover from a lingering economic crisis, but is also confronted with other crises that require new visions and models on the economy, on the society, on the European construction and the ways we build our future. Innovation and entrepreneurship play an important role in that renewal process through their capacity to generate new science-driven industries, new technology-based companies with local or global outreach, and highly-skilled jobs within existing industrial sectors, but also, and most importantly, at the interface between various industrial sectors, building on multi-disciplinarily and inter-sectoral cooperation. Innovation is not only about research and technology, but it is also about improving organisational aspects within public and private institutions, or identifying new ways of social interaction that can impact local and global governance processes. All these aspects demonstrate that innovation and entrepreneurship are indeed essential for Europe's future.

However, innovation and entrepreneurship need to be regarded from a broader perspective, as they are, in my opinion, part of a broader "value chain", a continuum that includes education, research, innovation, entrepreneurship and the labour market. All these sectors are closely inter-related, and we need a holistic, systemic view in order to understand the needs and the obstacles, and come up with adequate policies and support measures. We won't be able to have a high-quality and productive workforce without high-quality education, just as we won't have innovative products and services without a good education and research base or without entrepreneurial thinking. Also, the interfaces between these institutional sectors need to be improved, to ensure better circulation of talent and ideas, and reduce institutional silos.

Take, for instance, the often-found difficulty to engage experienced entrepreneurs in the education process in universities because they don't have academic degrees, or the difficulty for industry and academic researchers in some countries to cross university-industry institutional borders because of large differences in salaries. It is widely recognised today that Europe needs more innovation and entrepreneurship to generate growth and

jobs, but less attention is paid to the synergies of innovation and entrepreneurship with all these 'upstream' and 'downstream' sectors, in order to realise the growth and jobs objective.

"Efforts to create new jobs need to be accompanied by efforts to ensure the sustainability of existing jobs"

On the other hand, the efforts to create new jobs also need to be accompanied by efforts to ensure the sustainability of existing jobs, especially at a time when technology is replacing many low-skilled jobs, creating social distress and disparities. We often hear that "technology is killing jobs", but in fact, the evidence for that is rather inconclusive. It is not entirely clear whether we are dealing with a temporary, albeit painful, shock caused by slow adjustment of workers' skills to the new technologies and the new production modes, or the time has been too short so far for entrepreneurs and the new technologies to create large-scale new job opportunities that could compensate for the job losses.

What's clear, though, it's that the rapid technological change is not matched by equally rapid changes in the national socio-economic systems, especially at the level of education, research and innovation, labour and financial markets, and that leads to poor ways of translating technology developments into jobs. It is also clear that the Knowledge Economy we are living in requires a different type of response to crises than the past Industrial Age, and part of that response are knowledge-intensive, highly-skilled jobs that are able to create sustainable added value.

So it's not just about start-ups, it's about their sustainability.

It is about sustainability of start-ups, but at the same time, it is also about the sustainability of our current business models and our current ways of allocating innovation and entrepreneurship resources to ensure business growth. For example, during my talks with colleagues at the EIT I was told about the case of some very talented and entrepreneurial EIT students who returned to their home countries in Southern Europe after graduation to start a business, but shortly after, had to relocate to London to keep the business alive, as their home region didn't offer sufficient investment and growth opportunities. One can also add the example of many European start-ups relocating to the US, in search of better investment opportunities.

When we look at Europe, the US and the Far East, do you think that Europe is in a position to be able to rival the Far East and the US in terms of innovation and entrepreneurship?

I have had several collaborations with universities and other partners in all these parts of the world, and I know from that experience that the situation is changing very fast. For example, the Far East and also the Middle East are very dynamic players today, who have adopted a large number of government-supported initiatives in innovation and entrepreneurship that have an important transformative potential. These initiatives are often inspired by the European or the US experience, while also reflecting the specificities of the respective national education and research systems, and that has an impact on the way global innovation and entrepreneurship are designed.

To give some concrete figures, we know from the latest edition of the Innovation Union Scoreboard (2015) that

the EU is behind Japan (which has a lead of 14% over Europe) and South Korea (24% lead), but is ahead of China, which is only at about half of the EU's innovation performance. It is also very important to look at the gap between the EU and these countries and assess its trends: while the gap with Japan and with China is decreasing, it widens with South Korea. The US continues to be ahead of Europe (22% lead), but the gap is decreasing.

These indicators are undoubtedly useful in providing a quantitative picture of differences between Europe and these parts of the world, but it is also very important to get a qualitative understanding of the conditions that generate these differences, especially in terms of university historical background, links between education and research, approach to innovation and entrepreneurship in Europe and the US. For example, while we are still struggling in Europe to change our cultural perception of entrepreneurship, in the US it has been embedded organically into the university life and relationship with investors.

You participated in the 'Joint support for business creation' panel discussion at INNOVEIT 2016. Looking particularly at the role of women, what would you say are the main barriers preventing more women from becoming entrepreneurs?

One important barrier is women's lack or lower availability of resources for investing in entrepreneurial projects, compared to men. Such resources often consist primarily of savings from jobs held prior to their entrepreneurial career, but these amounts are typically lower because women usually have lower salaries than men, have worked part-time or have taken maternity leave which has disrupted career progression and status.

Also, women are less likely than men to apply for bank financing, and when they do, they have more difficultly accessing bank loans. This is not manifested directly, but may come in indirect ways, such as difficulty in providing collaterals for loan applications or generating a credit track record to indicate formal credit worthiness.

When we look at women's capacity to raise venture capital, another difference becomes visible: venture capitalists are typically men and women entrepreneurs are sometimes not taken seriously, which means very little venture capital goes to them. A study showed that at the end of the 90s, less than 5% of venture capital went to women. The situation is improving – the same study showed that by 2013, the figure had risen to 18% – but it's still low. This has consequences on the success of women-owned businesses, as under-capitalisation both at the start and throughout the life of the business is higher for women than for men, leading to higher business under-performance for women than for men.

"Women need to be encouraged to overcome that lack of confidence"

Another important barrier is the lack of appropriate training for small business, and the scarcity of mentoring and advice for women entrepreneurs. Such women are often faced with a sense of isolation and adaptation problems when moving from organisational employment to self-employment. Developing a successful and innovative business requires drive, energy and vision, and sometimes that strength and inspiration can come from other women that have gone through similar experiences. Therefore, it is very important to have access to business networks and have opportunities to meet, share thoughts and learn from each other's experiences, but there are not so many venues,

platforms or networks that offer women these possibilities.

Furthermore, work-life balance can be a real challenge for many women entrepreneurs. Last, but not least, I would highlight another weakness that really holds a lot of women back: a lack of confidence. Women tend to question themselves and their fitness to do the job more than men. Some of that comes from education, but it also comes from this idea that you should not be too assertive in business as a woman, because then you are labelled as a 'b****'. Women need to be encouraged to overcome that lack of confidence.

"Keep believing in what you do! Keep the faith!"

Realistically, what you think is achievable in terms of breaking those barriers down? How?

There seems to be a cultural perception that women are less suited to entrepreneurship than men, and this perception has to change. How? More mentoring; more business and entrepreneurship education for women; business training prior to start-up, as well as advice and support while the business is in operation; more access to funding; tax facilities; more childcare facilities; and more recognition from banks, lawyers, investment brokers, etc. We also need more success stories and higher media visibility of successful women entrepreneurs. Media have a fantastic power these days, but unfortunately much of that power is wasted on poor quality programmes. It would be such a big gain if part of that could be replaced with programmes showing real success stories of both women and men entrepreneurs from different countries and different contexts. That can be very inspiring for many women.

One of the ways the EIT wants to boost innovation in Europe is by bringing partners from the knowledge triangle together. What kind of benefits do you think combining research, education and business brings to your work?

Bringing partners from industry has opened up new horizons for me, both for my research and for my teaching. I always bring insights from my research into my teaching and I believe that sharing with the students findings from research projects carried out in collaboration with industry is very important. It gives a customised dimension to teaching, but it also gives students a new perspective for understanding theory and practice.

Do you have a particular example where you have seen these spheres connected?

I have a long experience in research projects that use various innovation indicators, including indicators that capture university-industry cooperation. I have often brought that into my teaching, explaining to students how indicators work, how they are created, and how effective or ineffective they can be. Indicators are typically less attractive for students, but when concrete examples are provided and discussed in depth, everything becomes meaningful. Suddenly, this dry world of indicators starts making more sense to them.

During INNOV*EIT* 2016, we heard from lots of young, talented entrepreneurs and innovators. Is there one piece of advice that you could share with them?

I am very happy that these enthusiastic, smart and committed people exist, and they believe in what they do, and are very well equipped to succeed in their objectives. I would just say, keep believing in what you do! Keep the faith!