

Marco Baccanti - Managing Director, ENEA Tech and Biomedical, Italy



The situation in Italy has changed; there is a new awareness of the importance of the life sciences/pharmaceutical industry

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ENEA Tech and Biomedical is a foundation supervised by the Italian Ministry of Economic Development that aims to strengthen Italian R&D and the industrial transformation of the country's biomedical sector. Its managing director, Marco Baccanti, outlines the organisation's strategy to support and fund projects and analyses the current state of the Italian life sciences sector.

Before discussing ENEA Tech and Biomedical and its role within the Italian life sciences ecosystem, can you walk us through your professional experience and why you decided to join the organisation?

I started my career working in R&D and international sales management, with a series of patents on my name, then in the management of science and technology parks, going on to become president of the International Association of Science Parks. I was the managing director of San Raffaele Biomedical Science Park in Milano, which is a big organisation with the biggest private hospital in Italy and a large research centre with 600 scientists. There, I managed all the technology transfer, intellectual property, clinical trials and investment activities.

After five years, I moved to Dubai to lead DuBiotech (now called Dubai Science Park), the biotechnology free zone of the government of the UAE, where I spent two years restructuring the organisation to target international investments. I then moved back to Italy for three years and

spent seven years in Australia. My first appointment in Australia was as chief executive for the organisation in charge of economic development in life sciences of the government of South Australia, reporting to the Ministry of Health, for five years, then CEO of an Australian life sciences company.

Finally, I recently came back to Italy and was named managing director of ENEA Tech and Biomedical Foundation in Rome, the economic development organisation for life sciences supervised by the Minister of Economic Development.

How would you define Italy's life sciences strategy?

One of our tasks is precisely to design and execute the government strategy for economic development in life sciences. We have been asked to deliver the strategy shortly. The need for a clear path forward is one of the reasons why the government has created ENEA Tech and Biomedical, so that initiatives in the sector can be coordinated by a single organisation.

There has been increased awareness about the importance of the sector by the government in the last two years. Within different ministries such as health, economic development, and research, there was evidence of opportunities that should be exploited but in absence of a single organisation to manage them. Having now an organisation dedicated to the life sciences sector, responsible for economic development, is a big step forward.

Since Italy is already a leading European manufacturing hub for the pharmaceutical industry, do you believe that the organisation is starting from an advantageous position?

Having such an extensive manufacturing base is a good foundation, but we prefer to approach the industry from the point of view of the entire value chain. The beginning of the value chain is R&D, then we move to technology transfer, which is a critical point of the strategy. If we compare data about scientific research, we see that Italy has an excellent level in terms of number of publications, quality, and citation index. However, with those numbers, we should expect to have better results in the number of start-ups and innovative products which is not happening today; we are far behind expectations. It is not entirely a money problem although the venture capital availability is lower than expected.

Next on the value chain is pre-clinical where we see a need to diversify. After that, we have clinical trials and our vision is that the limiting factor is around policies, regulatory framework and not necessarily infrastructure, expertise or capital. Manufacturing would come next on the value chain and, fortunately, Italy performs very well globally. One of the points of our strategy is to have a more complete supply chain, aiming to maintain the country's leadership in several niches.

The last point is investment attraction, aiming to increase the overall attractiveness of the Italian industry as it looks to attract more global investments; this is an area where the government can do a lot.

Have you taken cues from any particular model, such as those found in the United States or the United Kingdom?

We have been studying these models but decided to not simply cut and paste an existing one. We have tried to focus on the current bottlenecks at national level and customise the organisation accordingly. Our target is the entire life sciences value chain including pharmaceutical companies, biotechnology, medical devices, and digital health.

Moreover, we cover the entire range of economic development, targeting the development of new entrepreneurial initiatives, trying to make them sustainable so that they can grow fast, thereby improving the competitiveness of the current industrial network of companies in Italy. Finally, we are looking at international investments that can add to the local network.

What role will the organization take in the financing of projects and start-ups?

In terms of funding, the government is providing the foundation with two separate funds. The first is dedicated to new entrepreneurial initiatives, and the second is directed at the rest of the life sciences sector.

The process fine tuning is still in progress as we are finalising the final rules of how the funds will be made available and the tools that we will use. We want to be free to design the specific incentive or investment schemes, customising them to particular projects; they could be grants, loans, equity investments, quasi-equity with clawback clauses so that the government can offer support in change of a promise of future development.

As I mentioned, Italy is characterised by strong expertise in research and weaker performance in technology transfer, which has affected the availability of venture capital in the country. However, the central government should not be competing with venture capital in the funding of start-ups and projects but rather work to create an environment that becomes attractive to venture capital. You must work upstream with the opportunity; you do it with policies, infrastructure, investment in situations where the risk is very high for VC such as pre-clinical research and proof of concept.

Is the money related to the new funds approved by the European Union?

The money that will be given to organisations through the two funds comes from national resources and it is not related to the National Recovery and Resilience Plan. However, companies can take a look at both instruments.

How can the Italian life sciences ecosystem work to change its mindset around traditional parts of the businesses and accommodate the new reality brought on by biomedicine?

Culture is in many cases the bottleneck of economic development. Government organisations can try to change culture with education and training, and policy KPIs that motivate people. For instance, we will support the transition of the pharmaceutical manufacturing base where Italy was the leader in the synthesis of small molecules, number one in active pharmaceutical ingredients, very clever in organic chemistry and so on, to become a leader in the future of biotechnology fermentation. That transition is a cultural gap that the faster it happens, the more competitive the country is. And you can influence the speed of that change by channelling resources into education and training of workers.

Collaboration between the industry and academia is extremely desirable in any environment. This is happening; we have a group of life sciences companies that are well aware of the opportunity to leverage the expertise and knowledge available in the academic environment.

The position of the government, through an organisation like ours, should be to catalyse the process by creating opportunities, the network and system of relationships. Fortunately, most international companies are not only present in Italy just to provide medicines to the system but also with manufacturing and strong R&D activities.

What is your position on the pharma industry's concern that R&D and manufacturing investments should follow a country's willingness to provide access to innovation?

Each environment has strengths and weaknesses. The global industry recognises that in Italy you find a high level of expertise and cost of skilled personnel is not as expensive. Those companies that have decided to invest in Italy have done so because the strengths are greater than the challenges. The responsibility of the government is to target the bottlenecks and improve the ecosystem so that the country's overall attractiveness stands out.

As you continue to set up the organization, what type of team are you looking for?

We are looking forward to hiring in two steps. The first step is to hire experts, people experienced in understanding a specific need or an opportunity and converting it into a project, with a process. In the first six months we will not be segmented enough to target people with specific vertical expertise.

When we go ahead and have a robust operation, we will need specialised people dealing with more specific areas such as education and training, clinical trials, gene therapy, data management, infrastructure, and so on.

To conclude, is there a final message you would like to share with our audience?

My message is that the situation in Italy has changed; there is a new awareness of the importance of the life sciences/pharmaceutical industry. There is a new organization that will work as a gatekeeper for the economic development of this industry, on behalf of the government, but with the agility of the private sector. The world should take a close look at the new opportunities being created and take advantage of them.

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