



Weekly Briefing

**Albania economy briefing:
Science, technology, R&D and innovation in Albania (or the lack
thereof)**

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Science, technology, R&D and innovation in Albania (or the lack thereof)

In July 2020, Albania recorded a trade deficit of 293.9 million US\$ - this is not a number that is unknown for the country since it is overwhelmingly dependent on foreign trade, however, COVID-19 slowed immensely local production and some branches of industries had to altogether shut down their activity. But, goods and services are not the only commodities imported from abroad – scientific and technology innovation assets be this in the form of hardware, software or knowhow, are all imported from abroad. There exists not one single entity in Albania that properly innovates in science and technology. There remain some institutions focused on the above, however, they have not produced any significant achievement, or anything worth the market value of a technological/scientific innovative product. There are a multitude of reasons for these sectors being underdeveloped – in below some main categorizations.

Brain-drain

The main driving force for a country to have any kind of development is science and technology are human resources. Unfortunately for Albania the massive migration after the 1990s did not include only low-skilled labor force, but also a high percentage of intellectuals and researchers. Various national surveys demonstrate that from 1990 to 2000, approximately 40% of the professors and research scientists of the universities and scientific institutions in the country have emigrated. Especially starting from 1993, human resources in sciences and technology have drastically decreased. Driving forces for the brain drain in science are found in the deteriorated economic living conditions, the lack of state of the art infrastructure and of course lack of funds which constitute serious obstacles for research (Cit. Albana Zotaj).

The first (failed) attempt to restructure scientific environment

In 2006, the Albanian government undertook a deep reform of the scientific research system. The Academy of Sciences was re-organized along the model of many other European countries; it started to operate through a selected community of scientists and no longer administrates research institutes, these having been integrated into the higher education system. Two new faculties have been set up: the Faculty of Information Technology at the Polytechnic University of Tirana and the Faculty of Biotechnology and Food at the Agricultural University

of Tirana. The University of Tirana has also gained an Applied and Nuclear Physics Centre and Biotechnology Department. Twelve government agencies and centers for technology transfer have also been created.

This is in paper – what about the reality? Where does this funding really end? One and half decade later, we see there is not even a single achievement in research, let alone innovation. The above mentioned institutions are mostly focused on what is colloquially named “soft science” mainly humanities and social sciences, but no trace of a real development on the “hard science” areas.

Lack of serious policies

In 2009 the Albanian Government approved the "*National Strategy for Science, Technology and Innovation in Albania*". The intent was to triple public spending on research and development (R&D) to 0.6%, create “center of excellence” in science, and double the number of researchers, both through 'brain gain' incentives like a returning researchers grant scheme and through the training of new researchers (including 500 PhDs).

In order to stimulate innovation top 100 companies in the country were promised grants to win either via investment in local R&D or via consortia with academic research institutes or foreign partners. The interested parties (Albanian based companies) proposed prioritizing fields of research such as agriculture and food, information and communication technologies (ICTs), natural resources, biotechnology, biodiversity, defense and security. Again, as the results of the “reform” in 2006, the one of 2009 produced no tangible results in science and innovation, on the contrary it flooded the academia realm in Albania with a large number of PhD degrees which in reality had little to none academic value. To add insult to the already injured situation, in 2018, an Albanian scholar studying abroad, Taulant Muka, identified an issue which is not only indecent but also illegal - plagiarism. In an overall panoramic of the investigation he conducted, more than 60% of PhD degrees obtained in Albania to date had serious levels of plagiarism (sometimes even whole chapters of a thesis).

Eyes and hopes on European Union for financial resources

The European Union (EU) has set clear objectives for research and innovation as part of its Lisbon Strategy for becoming the most competitive and innovative. In order to include the Western Balkans (WB) into this path, in April, 2009, in Sarajevo, the WB signed a Ministerial Joint Statement calling for enhanced regional cooperation to promote innovation. The EU has been at the forefront of this approach, urging member countries to spend more and better on research and innovation. To support the effort in the Western Balkans, the EU contracted the

World Bank in June, 2011, to assist the region in developing a Regional R&D Strategy for Innovation. As the cross regional cooperation appears also to have no tangible result, perhaps also the well-meant and well-funded EU projects are at a standstill. Like other Western Balkan countries aspiring to join the EU, Albania is trailing behind in the innovation development process.

The triple helix model (Government – Universities - Businesses)

According to the triple helix model of innovation, the three actors collaborate and form a complex set of links and networks that bind them together in multiple dimensions with the goal of creating innovation as an output of institutionalized and structured interactions. Governments take on the important role of promoting and funding strategic cooperation between universities and industry. Public grants for applied research, subsidies for seed investments, support for filing patents, etc. cover early-stage and resource-intensive collaboration of which a large part is unlikely to yield tangible returns on investment.

The research system in Albania includes a wide range of institutions in higher education, scientific research, development and technology, and the private sector. Businesses, however, have minor participation in R&D and other knowledge generation activities. Even though innovation features heavily in several public policies not only in the education field, entrepreneurship and commercialization of research results are not included in any of the university strategies.

In 2019, a very deep survey initiated from the Swedish Embassy in Albania and EU in reported that definitions for innovation and start-ups by the Albanian government that pave the way for interventions and legislation have been a compilation of the different definitions available in other European countries, not taking the local context into consideration, and have been used inconsistently along different strategies, funding streams and documents. For instance, in the “National Strategy for Development and Integration” which forms the national vision for the social and economic development of Albania over the period from 2014 till 2020, research and innovation are recognized key drivers for increased competitiveness. However, there is no definition of what innovation in the Albanian context means. Innovation seems to be reduced to the process of providing support to “existing Albanian enterprises that are seeking to modernize their technology by transferring and absorbing (in co-operation with academicians and researchers) innovations currently being applied in other countries or in other local enterprises.”ⁱ

Too many strategies – too little funding

Strategies and Action Plans of the Albanian Government are never the issue, for reference some of the most notorious below:

- National Strategy for Development and Integration (2015-2020): promoted by the Prime Minister – outlines several objectives to foster economic promotion, private sector development, science and research and innovation.

- Digital Agenda for Albania (2015-2020): promoted by the Prime Minister - focuses on ICT and digitalization supporting economic processes.

- Business and Investment Development Strategy (2014-2020): promoted by the Ministry of Finance and Economy - establishes a framework for creating partnerships between government and businesses on technology improvements, innovation and human capacities.

- Action Plan 2017-2021 Support the development of innovative policies: promoted by the Ministry of Finance and Economy - entails developing a virtual innovation support network that helps Entrepreneurs.

- National Strategy for Science, Technology and Innovation (2017-2022): promoted by the Ministry of Education – intends to maximize research (raise funds, quality, cooperation with businesses & diaspora) from 0, 2% of GDP during 2009-15 to at least 0.6% (EU28 average: 2%, target EU in 2020: 3%).

Expenditure for scientific research and Development in Albania does not exceed 0.18% of GDP as of date, which marks the lowest level in Europe. Economic competitiveness and exports are low, with the economy still heavily skewed towards low technology. ⁱⁱ

On the (slight) bright side, as for the latest data available the largest number of patent applications was in pharmaceuticals and cosmetics, followed by the chemical industry, biotechnology, and medical engineering. These industries account for over three quarters of all patents filed. Other important technological fields are civil engineering, architecture and mining, and service users and equipment.

Conclusions

There are many reasons and factors that have influenced the lagging behind of the country in such spheres.

The disastrous structural problems Albania is facing in its never-ending transition from a centrally planned type of economy to an open market one, have had their impact in the academic field with the same brutality it has affected the society and the nation as a whole. In this domino effect from political, economic, societal and developmental recklessness, as one crumbles

because of, or as result of the other, the desperate outcome is a of a low level of innovation appears to be just a side effect of a perpetually broken system.

ⁱ Full report of the research available at: http://euforinnovation.al/wp-content/uploads/2019/12/Gap-Analysis_E-Publication.pdf

ⁱⁱ Ibid.