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Technology Transfer Guide – Albania

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The Centre for Competitiveness Promotion

Guide for Implementation of Technology Transfer

ALBANIA

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Guide for Implementation of Technology Transfer

1.Essence of technology transfer

Technology has been one of the main engines of economic development since the Industrial Revolution. Technological literacy is fundamental, as the emerging global economy requires people at all levels who understand technology and can use it *as a tool to transform inputs into*
outputs or generally to achieve goals and objectives.
The concept of technology has been definedin many ways and from different angles. Simply put, it refers to a class of knowledge for makinga specific product. The technical skills necessary to use a production technique and a product areoften included in the definition of technology.
While technology transfer typically refers to the development of a technology in one setting which isthen transferred for use in another setting.Diffusion is used to describe the spreading
or use of a technology within a society, organization or group of individuals.
Technology transfer tends to focus on the *producer* of the technology while much of the focus of diffusionrelates to the *end user* of the technology. Viewed from the holistic perspective of *technology development and use*, these two areas are closely interrelated and must be considered together.
Therefore, the term technology transfer will be defined broadly to include both the movement
of technology from the ***site of origin*** **to the** ***site of use***and issues concerning the ultimate acceptanceand use of the technology by the *end user*. Adopting this broad definition of technologytransfer implies that a technology has not been successfully transferred until it has been acceptedand used by the *end user*.
Today technology transfer has become one of the pillars of innovation and open innovation with the acceleration of the digital economy and the digital industry.Technologytransfer covers all those activities that underpin the transition of a range of factors (including knowledge, technology, skills, manufacturing methods, production samples and services) f**rom scientific research to the markets**.

This process is the result of a partnership between academic and industrial fields, whose main purpose is to make technology accessible to everyone. Technology transfer can also be defined as a process characterized by a starting point (research), an end point (the market) and a series of middle phases (the so-called supply chain), involving several players.

Given that technology – materialization in other words – is the most tangible embodiment of an idea or a theory, to fully understand the concept of technology transfer the definition of intellectual property must be taken as the outset. Intellectual property is a set of laws enshrined to protect the creativity of human intelligence and thus give appropriate incentives to those who engage in research or creation.

In addition to being a sort of guarantee for all those who create innovation within the research environment, intellectual property essentially plays a connecting role with the business and production sides. For the latter, then, is one of the most effective tools to keep the advantage over competitors, positions achieved through the innovative effort. Accordingly, intellectual property makes technology transfer safer and more efficient, thus encouraging the exploitation of innovation by existing or newly established companies (spin-offs and start-ups).

In general, the circuits of public research are, for the time being, the most important repositories of cutting-edge ideas; indeed, thanks to the results of academic research, important results for the whole of humanity are not uncommon. On the other hand, scientific and technological research, whatever its field of application, is a joint activity made up of individuals who share their knowledge in order to make progress towards the frontiers of human knowledge.

This activity is an integral part of the so-called innovation life cycle. Characterized by a rather complex supply chain and represented by a series of activities that bring knowledge from research to the market. In this passage, an important role is played by all those players involved in the process of technology transfer.

Who are the key players in the technology transfer system?

Research institutions

The creation of an idea (or an intellectual property) and the subsequent phase of technology transfer, as we have said, are rather complex processes. It includes a certain number of subjects, forming a genuine supply chain. In this regard, the relevant literature seeks to subdivide the players in this supply chain into categories and roles, also adding the contribution of the so-called transfer support services.

The first part of the technology transfer path is taken up by the research institutions. It is about those engaged in research and development on a daily basis. Within these institutions (public universities are an example, but not the only one) different categories of people are involved, often classified in relation to the employment contract entered into with the same institution. This means: employees, researchers, project collaborators, PhD students, but also students working on their thesis.

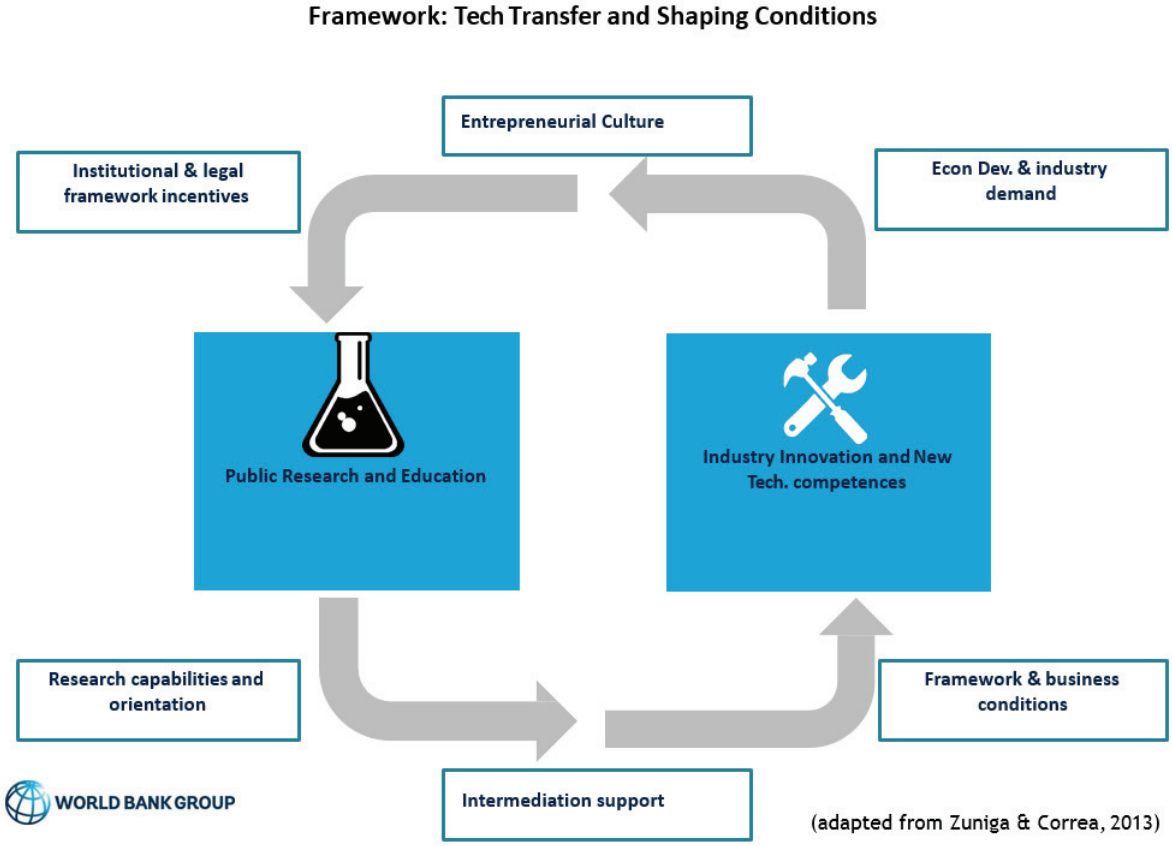
All these subjects can be the authors of an innovative idea. They can also be inventors, more romantically. For this reason, the most significant problem for each of them is the possibility that the intellectual property generated therein will be adequately protected. Furthermore, for a variety of reasons, the rules at legislative level do not specify who the research results belong to, for all those who do not fall within the category of employees of research institutions.

Companies

Companies are other relevant players in the technology transfer process. As a matter of fact, they carry out in-house research activities, even if very different from those carried out by “research institutions”. Often the mechanism is a partnership with other companies or research institutions. In the meanwhile, companies can finance research projects, for example by implementing open innovation paths, i.e. by going beyond the company perimeter to look for the technological innovation they need. In addition, companies are the main purchasers of technology derived from public entities. For all these reasons, these are essential for the successful implementation of technology transfer processes.

Funders

The third link in the chain, the funders, are also essential. Research activities may be carried out with the research organization's own resources or with external ones. In the latter case, the funders can be either public (mainly through tenders) or private (companies, banks, funds, business angels). In the area of public funding, among others, European funding has become increasingly important in recent years. Specifically, one of the most relevant programmes is Horizon2020. It should be noted that both public and private funders are interested in intellectual property both in the ownership and in the application of the idea.



TTOs – Technology Transfer Offices

To support the activities of the main players in the transfer process, a series of subjects which could be defined as "complementary" have been established over time. Among the most popular there are the "**Technology Transfer Offices**", also known as TTOs. Regardless of how they have been created (this process may be different), their mission is to promote technology transfer.

How? Through a range of activities: first of all supporting researchers in positioning research programmes; but also collecting and evaluating communications related to inventions; or adopting the most suitable protection methods, in addition to commercializing intellectual property towards existing companies or through the creation of new ones (spin-offs).

In other words, TTOs represent a sort of transmission **channel between the research and market environments**. On the contrary, in some cases, also contribute to give research

institutions trends and indications arising from the same market, playing the role of advisers to support the top management of research institutions, as regards relationships with companies.

Why it's necessary for enterprises and startups

Those working in the innovation sector are used to wondering: is technology transfer open innovation? Is it necessary or not, in essence, for companies to intercept the innovation that comes from outside? An answer to these questions have been attempted by the authors of the **book "Open innovation essentials for Small e Medium Enterprise"** [1]. A book where technology transfer is identified as an open innovation methodology, or rather as a part of a wider process that also includes initiatives such as crowdfunding or scouting.

Too often we hear about technology transfer as a process belonging to universities and research centers, but actually a technology can be transferred from an industrial sector to another and therefore also from a company to another. From this viewpoint, therefore, technology transfer is part of the concept of an open approach. It should not be forgotten, however, that the process of technology transfer is not limited to the mere search for technology.

Once the technology to be "carried on board" has been identified, a process consisting of several layers is created for the company. What are these phases? First of all, the identification of a **scalable business model**, combined with a "revenue model". The sales (or licensing) model of the patent is another relevant aspect of this process. The next step is the implementation of the technology, i.e. the introduction of the new product into production. Not to mention profit management.

According to the authors, the best way to allow a company to make open innovation, using technology transfer, is through cultural change. In other words, in order to innovate, it is necessary to be open to innovation, namely to be able to go beyond one's own limits, always looking for new sources of innovation, not always conventional.

Like the **startup business approach.** Even in small innovative companies, technology transfer can be functional to the business. Specifically, it can speed up the "scaleup" process and facilitate the dynamics of internationalization.

2. Types of technology transfer, benefits and risks

Most technology transfer takes place because the organization in which a technology is developed is different from the organization that brings the technology to market. The process of introducing a technology into the marketplace is called technology commercialization.

The choice of which mechanism to use in a particular technology transaction depends on many factors, including the stage of development for that technology, what the company receiving the technology is willing or able to pay, what technology or other assets it might

[1]Authors: Adriano La Vopa, Luca Escoffier, Phyllis Speser,Daniel Satinsky,Originally published: February 8, 2016

be able to offer in place of money, the likely benefits of establishing a longer-lasting partnership between the organizations instead of a onetime transfer; and the exact legal status of ownership over that technology. For example, if a small firm simply wants to sell its technology to a large firm in exchange for money, it will probably choose to license the technology. If the small firm also wants access to the large firm's complementary assets, such as its production facilities and distribution network, it will try to negotiate a more substantial and permanent relationship, such as an R&D contract or a cooperative R&D agreement.

The first step in technology transfer is finding a suitable recipient for that technology, one that can use the technology and has something of value to offer in return. Firms are now studying more systematically the process of licensing and technology transfer. There are five information activities needed to support technology transfer:

- technology scouting—searching for specific technologies to buy or license.
- technology marketing—searching for buyers for a technology, the inverse of tech scouting; also searching for collaborators, joint venture or development partners, or for investors or venture capital to fund a specific technology.
- technology assessment—evaluating technology, aimed at answering the question "what is this technology worth?" Includes research of any intellectual properties, and market and competitor assessments.
- transfer-related activities—information about the transfer process itself, such as licensing terms and practices, contracts, conducting negotiations, and how to do the transfer most successfully.
- finding experts—to assist in any of the above areas. A common saying in the field is, "technology transfer is a contact sport."

These information needs are often supported by service companies, such as licensing consultants, and by electronic media, including databases and online networks. Some new online networks use the Internet to help firms in these information activities.

The information-transfer process is one of the most critical steps in technology transfer. New licensing practices are designed to address this process. For example, many licenses now bundle both the basic technology and the equipment needed to utilize that technology in a single agreement. A license may also include a "know-how" agreement, which exchanges relevant trade secrets (with appropriate protections) to the licensee to help in exploiting technology.

Once the organization has at least started to establish ownership of the technology[2], there are several possible legal and/or contractual mechanisms for transferring technology from one organization to another:

- licensing—the exchange of access to a technology and perhaps associated skills from one company for a regular stream of cash flows from another.
- cross-licensing—an agreement between two firms to allow each other use of or access to specific technologies owned by the firms.

[2]Carayannis, Elias, Everett Rogers, K. Kurihara, and M. Albritton. "High-Technology Spin-offs from Government R&D Laboratories and Research Universities." International Journal of Technovation 18, no. 1 (1998): 1–11.

- strategic supplier agreement—a long-term supply contract, including guarantees of future purchases and greater integration of activity than a casual market relationship.
- contract R&D—an agreement under which one company or organization, which generally specializes in research, conducts research in a specific area on behalf of a sponsoring firm.
- joint or cooperative R&D agreement—an agreement under which two or more companies agree to cooperate in a specific area of R&D or a specific project, coordinating research tasks across the partner firms and with sharing of research results.
- R&D corporation or research joint venture—the establishment of a separate organization, jointly owned by two or more companies, which conducts research on behalf of its owners.
- research consortium—any organization with multiple members formed to conduct joint research in a broad area, often in its own facilities and using personnel on loan from member firms and/or direct hires.

For an organization to transfer a technology is to establish legal ownership of that technology through **intellectual property law**. There are four generally recognized forms of intellectual property in industrialized nations:

- patents, dealing with functional and design inventions;
- trademarks, dealing with commercial origin and identity;
- copyrights, dealing with literary and artistic expressions;
- trade secrets, which protect the proprietary capabilities of the firm.

Private technology transfer

Technology transfer between private companies is most commonly accomplished through licensing, although other mechanisms such as joint ventures, research consortia, and research partnerships are also quite popular.

Another growing mode of private technology transfer is the formation of research joint ventures (RJVs) between companies. Technology can be transferred between countries or regions, but most technology transfer happens between companies. Not only is research and
development done by institutions in the public domain like universities, but also by private companies outside the public domain. Research done by private companies not always delivers the results they anticipated. For instance technology was developed to be used in a product that does not fit in with their current product portfolio, or the return on a product is too small.
This potential product may however, be suitable to another company to develop further. Somehow the cost of research must be covered and if a company cannot properly utilize a product, the cost of research will be lost. A good strategy would be joint ventures with other organizations, which benefits both parties. Company-to-company transfer is usually beneficial to both parties, except in the case where transfer is attempted between a large established company and a small start-up company. Larger companies are reluctant to put effort into a smaller company to help with their development without a proportional stake. Many governments, however, believe that the future prosperity of their countries, will

depend on the speed and effectiveness of small companies to implement technology spin-offs from larger private and public institutions. The success will therefore be dependent on the relationship between the companies.
It is clear that the collaboration between companies is the major technology transfer mechanisms in the private to private domain. One form of technical collaboration is where partners increase their expertise through sharing knowledge, skills and equipment.
Another form is where one partner is in possession of technology, which the other needs for it's new product. The main aims of collaboration between companies as follows: sharing risk, sharing cost, growing of technological knowledge, helping in product development, developing industry standards together, acquiring and/or penetrating new markets, improving speed to market.
Developing new products is a risky and costly business and therefore companies will rather share the risk and cost involved in these projects. Companies also feel more assured if they concentrate on a business area they are familiar with, while leaving other aspects to partners that are more familiar with business in those areas.

Collaboration in itself can be risky because of the fact that companies differ in several aspects. The biggest of the differences may be company culture. Despite all the differences there are several examples of successful collaboration between companies. One of these examples is the Renault Company in France. They are researching together with six partners, new material technology to be used in their products. The six partners are all leading manufacturers of materials. Renault might not see this as one of their core competencies, therefore the partnerships collaboration can be a major strategy in an organization in obtaining relevant technology. One of the most promising collaboration agreements is one where you move away from the traditional client vendor partnership, into a more mutually beneficial relationship. Remuneration will still be sought, but the main benefits for both parties will be the technology transfer between the parties. The transfer will not be one way, but both ways. This is called **reciprocal technology transfer**. Each party will have an active role to play in negotiations and in decision making. These partnerships are characterized by mutual goals. Often the one party will be strong in the knowledge field and the other in implementing the knowledge. They will therefore not compete for the same technology, but rather work together applying their specialized expertise to reach the common goal.
These partnerships are often found between universities and industry. Universities need industry in applying their knowledge, and industry needs universities to effectively apply their skills. Both parties need each other and this factor may have very positive effect on any partnership. Again the greatest stumbling block, also for reciprocal transfer partnerships, is the cultural differences.

University-industry technology transfer

For industry, universities offer the best way to acquire basic technological research as those activities are curtailed within firms. Universities also house experts in very focused fields of study that are likely to have benefits to a small number of firms. Finally, joint industry-university research is viewed as an important recruiting tool in today's competition for scientific talent, since industry-funded projects are often carried out by graduate students who later go to work for their former sponsors.

The transfer of technology from university to industry can be established in several ways. One must keep in mind that knowledge, which is part of technology as explained in the introduction to technology transfer, is part of a person and resides in their mind. Therfore technology can be transferred through the **movement of people**.The first of the transfer mechanisms is graduate employment. At university level people build up a knowledge base in their respective field and this knowledge base is then transferred to industry by employing that person.
Industry will often make grants available for people to complete their university studies. In this way they assure a smooth transfer process. A second mechanism is through **sabbaticals**. Sabbaticals enable university lecturers to work in a company. This is a reciprocal transfer mechanism. The lecturer's knowledge is exploited in the company and the university is exposed to the industry, through the lecturer's practical experience. Further very successful and often used mechanisms include consulting services offered by the universities, contract research, industry/university research units, university or industry liaison units and forums for the exchange of information.
Another major source of information and assistance is **technology transfer agencies**. These agencies offer a wide variety of services from searches on information, products and patents, to legal advice and consultancy. These agencies can be very useful for some of them specialize in certain industry areas and therefore have extensive knowledge in that area of industry. For an organization that does not have specialized skills in the area of technology transfer, this is an excellent alternative to consider. In some cases an external party has a more objective view on the industry and can therefore deliver a more objective opinion, as opposed to individuals inside an industry. A tremendous amount of research goes into universities, research bodies and industry. Organizations that do not have the capability of doing their own research should seriously consider partnering with these institutions, in order to have access to relevant research.

Technology transfer from government to industry

Technology licensing was the earliest focus of activity, based on the notion that government laboratories were like treasure chests of available technologies that could easily be applied to corporate needs.

Other agencies face substantial difficulties in licensing technologies. Often, their technologies require substantial development before commercialization, reducing their value to firms. Also, most government laboratories do research in areas where there is no clear, consistent path to commercialization as exists in the pharmaceutical industry. The uncertainty of commercialization also diminishes the willingness of firms to purchase technology licenses from laboratories.

Transfer

Transfer of technology takes place via certain mechanisms. These mechanisms can be identified per area of technology as follow:
Technology in the form of knowledge can be conveyed through the following mechanisms:

- In print through technical journals
- In print through learned journals

- Scientific magazines
- Patents
- Orally at conferences
- Orally at learned societies
- In discussions with colleagues
- In discussions with acquaintances
- In discussion with consultants
- On television or radio
- Courses
- Service bulletins
- Data packs

Technology in the form of skills is acquired by doing something. It can be conveyed by:

- Watching someone doing something
- Watching a video of someone doing something
- Demonstrations at courses
- Hands on training

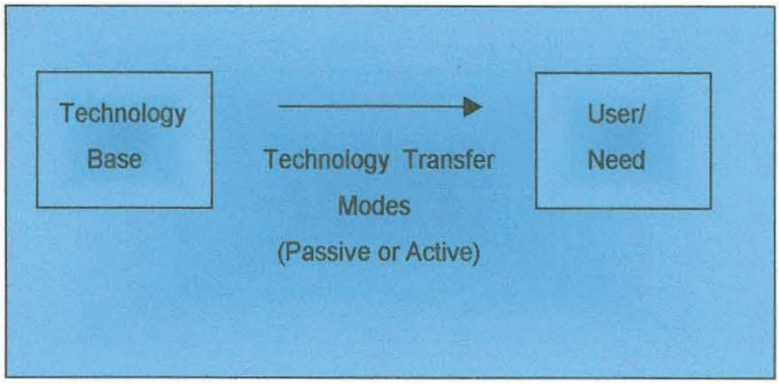
Technology in the form of equipment is conveyed via the following mechanisms:

- Products
- Trade magazines
- Trade conventions
- Sales representatives
- Advertisements
- Direct mail
- Contacts in other companies
- Specifications

Modes of Transfer

All transfer models can be divided into two major categories. The first category is passive and the second is active.This classification refers to the level of activity in applying the technology in the transfer process. If the technology transfer mechanism presents the technology to the potential user, without assistance regarding it's application, then the mode is said to be
passive. In the passive mode only the knowledge part of technology is transferred. The skills surrounding the technology are not transferred. These mechanisms can include presentations in a report. If, on the other hand the provider of the technology assists with the application of the technology, then the mode is said to be active. These mechanisms include training, etc. The
boundaries between passive and active are not easy to define and therefore a semi-active mode is also defined.

Figure 1 : Transfer modes[3]

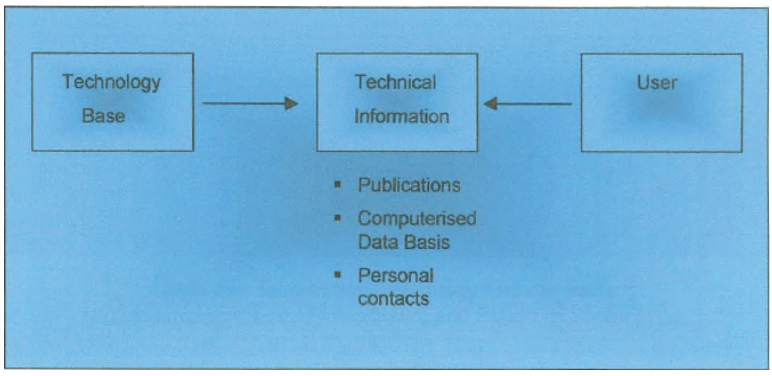


Passive Mode

The most widely used mechanism in the passive mode is the instruction manual or "cookbook" approach. This is the only contact between the originator of the technology and the user. Millions of products are made and sold with transfer occurring in this form. Just think of one's own motor car. These self-teaching manuals used in this mode all have one thing in common:

they presume that the user has some level of knowledge and competence in the specific technological area. It is an important point in this mode of transfer. A mechanic can assemble a component perfectly from an instruction manual. This becomes more intricate when we think of other technologies like glassblowing, sheet metal work and woodwork. In these areas the skill that lies with the user must be far greater. This is important to keep in mind if you want to transfer technology. The skill resting in the user of the technology must be clearly defined by the originator, because this will have a definite impact on the success of the transfer process. If you give someone who does not know how to drive a motor car, that technology, it will be useless to the person, because it cannot be used.

Figure 2. Passive Technology Transfer Mode

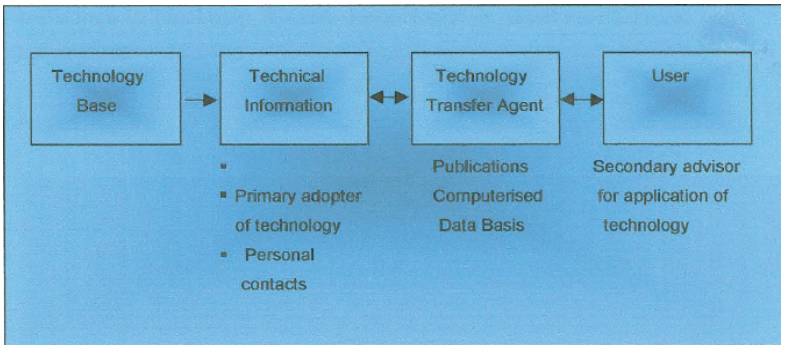


Semi-Active Mode'

[3]Adapted from: Louis N. Mogavero and Robert S. Shane'

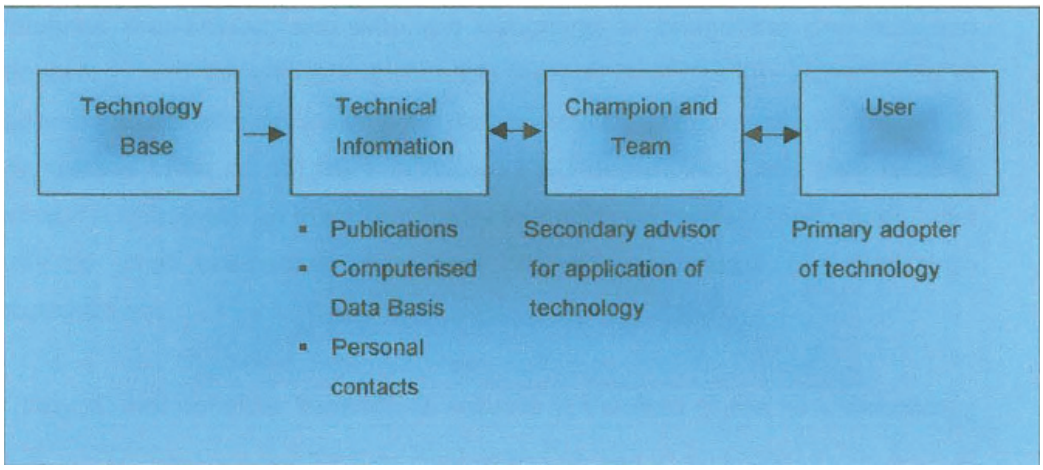
In the semi-active mode there is intervention from a third party in the transfer process. This is usually in the form of a transfer agent. In the semi-active mode the role of the transfer agent is limited to that of adviser. Very often in the semi-active mode, the transfer agent only screens information in the relevant field of interest and passes it on to the final user. He therefore
ensures the relevance of the information, because of his knowledge, not only about the user's needs, but also because of his knowledge about the technology. The role of the transfer agent is therefore one of communicator between the technology and the user. If his role is beyond this, then the mode of transfer becomes active.
The most widely used source of technical information is in the form of written technical documentation and therefore the passive mode of transfer is the most widely used. Because of this, care should be taken in the writing of these documents. Very often data banks and published material are searched in order to obtain information on relevant subjects. Experience has shown that what the first would-be user wants to read is a non-technical description
of the technology. Because the reader will be trained in one or more technical disciplines, it will be easy for him to judge the relevance of the document. Because of the increasing amount of data this becomes more relevant. This is a time consuming effort and often it is 'outsourced' to a transfer agent. He will then be responsible for identifying relevant information and transferring it to the user. The transfer agent can be in the form of one or several people
working in a team, each within their own field of expertise. An additional benefit of using a transfer agent, is that the user of the technology may have interpreted the problem incorrectly and this is leading them along the wrong path in their search for a solution. Here the agent can be of help because of his knowledge of the user's needs. The passive and semi-active modes are therefore recognized by the fact that no third party participates in the application of the technology. Only limited assistance in identifying relevant technologies is experienced in the semi active mode.

Figure 3: Semi Active Technology Transfer Mode



Active mode:

Figure 4: Active Technology Transfer Mode



The advantages and disadvantages of technology transfer

There are a lot of advancements happening throughout the world, and in many countries that are developed technology progresses at a faster rate, in comparison to developing countries. Where we find ourselves always leaning towards them in terms implementing technologies they have pioneered in order to improve our economies.There are some advantages to this, which are listed as follows:

Competitive Advantage: The world is viewed globally, and with that said it's important to have a competitive edge and the technology transfer has become very much important to commercial business, this becomes a driver in our economy.

Research Development: Technology transfer sustains the research of a particular product, which determines the need for public and private use.Furthermore, through technology transfer we see sustainable economic growth, whereby it includes commercialization of technology. These improvements can be seen in education within each passing day; today it is more convenient for students to attain international studies without ever leaving the country. We have also seen changes in the Agricultural industry, where there has been an energy transfer. Farms no longer need mass amounts of workers; majority of the heavy work can be done automatically.

The major barrier to the increase in technology transfer among firms is organizational behavior. In the past, cultural blocks such as the "not invented here" syndrome prevented firms from even showing interest in technology transfer. New concepts along the lines of knowledge management are changing behaviors and beliefs, leading firms to realize the enormous gains to be made through the active pursuit of licensing.

However there has been a disadvantage when it comes to the technology transfer, which could mostly be overlooked. One of those factors can be dependency; due to the increase of technology society has become less self-reliant, which may pose a problem in terms of performing tasks normally handled by technological products. Another huge issue is the fact that technology has displaced the need of human workers; **this causes a direct impact in unemployment.**

The only solution to moving forward as a developing country would be to create sustainable technological developments in order to sustain the country's growth but also making it eligible for us to compete. Another way to do this would be for government to aid in making it more feasible for companies whether small or medium to engage in business country to country, without endless red tape.

The more the government invests in research and development, increasing the GDP% per annum, the more information there will be in terms what countries need, which in turn creates a platform of whereby companies are able to come up with more and more innovations, treatments, mechanisms that solely aim to assist the lives of people.

From a public policy perspective, technology transfer is important because technology can be utilized as a resource for shared prosperity at home and abroad. As a resource, technology consists of: i) a body of knowledge and know-how, ii) acts as a stimulant for healthy competitive international trade, iii) is linked with other nations' commercial needs, and iv) needs an effective plan for management and entrepreneurship from lab to market.

From a business perspective, companies engage in technology transfer for a number of reasons:

•Companies look to transfer technologies from other organizations because it may be cheaper, faster, and easier to develop products or processes based on a technology someone else has invented rather than to start from scratch.

•Transferring technology may also be necessary to avoid a patent infringement lawsuit, to make that technology available as an option for future technology development, or to acquire a technology that is necessary for successfully commercializing a technology the company already possesses.

•Companies look to transfer technologies to other organizations as a potential source of revenue, to create a new industry standard, or to partner with a firm that has the resources or complementary assets needed to commercialize the technology.

For government laboratories and universities, the motivations for technology transfer are somewhat different:

•Governments or universities may transfer technology from outside organizations if it is needed to accomplish a specific goal or mission (for example, universities may transfer in educational technologies), or if that technology would add value to a technology the government or university is hoping to transfer out to a company.

•Government laboratories and universities commonly transfer technologies to other organizations for economic development reasons (to create jobs and revenues for local firms), as an alternate source of funding, or to establish a relationship with a company that could have benefits in the future.

3.Normative requirements for the organization of technology transfer in Albania, including applicable intellectual property rights legislation

The concept of technology transfer is still in its initial phase in the institutions of higher education, and research institutes and centers in Albania[4]**.** One of its main indicators is particularly the low level of patents for inventions registered by the Albanian researchers, and the almost inexistent number of spin-off companies or start-ups created under institutions of higher educations, or research institutes or centers in the country. This is reflected on the Strategic Document on Intellectual Ownership 2016-2020[5]**.**Applications from Universities and Research Institutes represent a little more than 2% of the applications for patents to the General Directorate of Industrial Property. The low number of applications for patents by the institutions of higher education has remained constant over time. The universities and research institutes, which apply for protection of their patents in Albania are mainly located in EU countries or USA, and such applications are mostly made for pharmaceutical or chemical patents. No application has been made by Albanian universities or research institutes. Similar to the institutions of higher education, other institutions active in scientific research do not play any role in the Albanian patent system.

On the other hand, Albania does not yet have a Scientific & Technological Park on any specific area of research**,** unlike other countries of the Western Balkan, not to mention others, which are now part of the International Association of Science Parks and Areas of Innovation.

The identification and protection of the technological assets which emerge and, through Licensing Agreements, are transferred to the business sector turning into market products of processes, has played an important role in this process. In this sense, the culture of entrepreneurship and the close connection between the sector of scientific research and the national and international economy plays a key role in understanding the market needs and the research capacity for an intelligent specialization in research areas of competitive advantages, turning them into innovative products or processes.

Therefore, in addition to human capacity and infrastructure, the process of developing new technologies and transferring them to the business sector to be translated into market products requires a certain structure and developed legislation in terms of protection of intellectual property.

Regarding the protection of **Intellectual Property**, which is an important element in the development of technology transfer from the institutions of higher education, and research institutes and centers to the business sector, there is already a legal and institutional framework in place. In institutional terms, Albania has a General Directorate of Intellectual Property as a subordinate institution to the Ministry of Finances and Economy, which coordinates, provides information, and advises on the legislation on industrial property[6] and the Directorate of Copyright under the Ministry of Culture.

Since 2001, Albania has signed a series of international agreements and conventions on industrial property and copyright, which enable the community and institutions of scientific

[4] National Strategy for Science, Technology & Innovation 2017-22,(government decree No.710,date 1.12.2017, page 29)
[5] Strategy for Intellectual Ownership 2016-2020 (Government Decree No. 527, dated 20.07.2016).
[6] Law No. 9947, dated 07.07.2008 on Industrial Property; Law No. 35-2016, dated 31.03.2016 on Copyright and other Related Rights.

research and the business sector to establish sustainable relations to develop and transfer market-oriented technologies, such as:

The Convention for the establishment of the World Organization of Intellectual Property (2003); the Treaty of the World Organization for Intellectual Property “On the Right to Copyright” (2001); the Universal Convention for Copyright and the two additional protocols (2003); The Budapest Treaty for the International Recognition of the Deposit of Microorganisms for purposes of the Procedure of Patents (2003); the Strasburg Agreement for the International Patent Classification 1979 (2006); the Agreement for the Accession of the Republic of Albania in the European Patent Convention (2009); the Agreement for the Accession of the Republic of Albania in the World Intellectual Property Organization (WIPO) for patent rights (2009); London Agreement for the implementation of Article 65 of the European Patent Convention (2013); Madrid Protocol Agreement for the International Trademark Registration; Accession of the Republic of Albania in the Geneva Act of the Hague Agreement for the International Registration of Industrial Designs and regulations based on the Geneva Act, 1969.

The legal framework in Albania enables IHEs and research institutions to promote the transfer of technology to business. Since 1994, Law No. 7893, dated 22.12.1994 is in force on Science and Technological Development. Order No. 297, dated 01.06.2016 of the Minister of Education and Sport on the other hand on the establishment of a working group for drafting a new law on science and technological development aims at creating a clearer and more comprehensive legal framework for promoting cooperation between the academic and research community and business in the interest of the development of new technologies.

On the other hand, for purposes of establishing and developing Economic Zones and Industrial Parks, where the involvement of IHEs or research institutions may have an important role, Law No. 9789, dated 19.07.2007 on Creation and Functioning of Economic Zones is in force since 2007. However, although several decisions have been approved since then issuing the status of economic zones to Shkodra, Vlora, Elbasan, Tirana, and Durres, there have been no sustainable developments in this aspect. In 2015, the Albanian Government amended Law No. 9789 date 19.07.2007 on the Creation and Functioning of the Economic Zones, providing for the Status of Technological Development Zones, and set the criteria for the individuals and companies to be financed for this purpose through DCM No. 646, dated 22.07.2015.

The legal framework also facilitates the work for the IHE and institute researchers to register and protect their rights to use the products and technological innovations that have emerged as a result of scientific research. Since 2008, DCM No. 1707, dated 29.12.2008, on the Approval of the Regulation on the Issuance of Patents and Inventions and Models of Use is in force, as amended is in force. It is intended to facilitate procedures, and offer lower tariffs on patents for inventions emerging from the community of scientific research, paving thus the way to the transfer of technologies and new products to the business sector.

4.Mechanisms (government, license agreements, funds, etc.)

Whilst pursuant to point 4 of the DCM No. 903 dated 26.08.2009 “on the creation of the Agency of Research, Technology, and Innovation (ARTI), the Fund for Science, Technology and Innovation (FSTI)”, the Fund for the transfer of technology and innovation, which meant financing from the Technology and Innovation Sector of ARTI of Joint Research Projects Academia-Business referring to transfer of innovative technologies, this was not allocated through the years 2009-2016.

The Government financed the scientific research by the state budget through the Fund for Science, Technology, and Innovation (FSTI), which included the following:

i) fund for the national research and development programs
ii) fund for the research infrastructure
iii)fund for the research centers of excellence
iv)**fund for technology and innovation transfer**
v) fund for young researchers
vi) fund for the Brain Gain Program

Actors that participate in innovation and technology include material resources (funds, equipment, laboratories) and human capital (students, faculties, teachers, scientific researchers in the industry sector, etc.), institutional structures that participate in the innovation ecosystem like banks, private capital, research institutions and Excellence Centers, business associations, financing agencies and policy makers.

During the period 2009-2016 main attention was concentrated towards encouragement of initiative so as to raise awareness of interest groups relating to the innovation concept by primarily concentrating in the ICT sector, and new startups that commence in the new technological innovations. From the Albanian perspective the concentration of innovation initiatives in the ICT and Start Up sector that are born out of them has been connected with the young age of the Albanian population, speed and ease of the transfer of results in the national and international market and a lower request for costly scientific research infrastructure in comparison to the other fields for producing technological innovations and innovative products. Part of these initiatives are the areas of global initiatives for the promotion of innovation and innovative ideas for the transforming the economy.

The Albanian Investment and Development Agency (AIDA) administers a series of National Funds financed by the public funds for strengthening innovation capacities, and the technological development of start-ups, such as:

- Innovation Fund
- Start-Up Support Fund
- Voucher Scheme Fund

The Albanian Government in support of small and medium enterprises (SMEs), is providing these financial schemes managed by AIDA, to increase the competitiveness of SMEs, strengthen their productive capacities and facilitate the access to the market, through competitiveness fund and Innovation fund.

The Innovation Fund serves to micro, small and medium enterprises. The fund will assist firms in the form of subsidies for experts to audit their needs for innovation and technology

as well as for enterprises to identify technology providers and partners in other countries. These actions enable enterprises to choose the optimal development path.

Also, the Albanian Government created for the first time the "Digital Albania" Fund through its Strategic Operational Document for the Regional Development Fund 2015-2016 for supporting innovative initiatives among public institutions at the central and local level

5. Guidelines for the stages in the transfer of innovations and technologies in Albanian enterprises and its documentation

In the Paris Convention for the Protection of Industrial Property, article 1(3) says:*"Industrial property shall be understood in the broadest sense and shall apply not only toindustry and commerce proper, but likewise to agriculture and extractive industries and to allmanufactured or natural products, ...".*
The objects of Industrial Property [7]that are registered with the General Directorate of Patents and Trademarks (GDPT) are as follows:

a) Patents and utility models. There are three ways to register patents in Albania:

- Patent applications submitted directly to the GDPT as a national application;
- Patent applications through the patent cooperation agreement with the PCT;
- Patents issued by the European Patent Office (EPO) and which require protection in Albania. Almost all patents that are valid in Albania are patents granted in the EPO and are in force in Albania on the basis of the agreement with the EPO or on the basis of the EPC. Local companies,universities and inventors are not active in the use of patents for three reasons:

a) local companies and universities do not have applicants or patents for inventionsregistered in the GDPT,
b) there is a low risk of the imitation of inventions,
c) there is a low level of knowledge about the system.

About 97.5% of all patents registered in the GDPT are patents issued by the EPO and have been extended or been made valid in Albania. This means that almost all patents in force in Albania were granted by the EPO and are part of a great family of patents that have also been protected in other member countries of the EPC.
From 1997 to 2015, only 68 applications were directly submitted to the GDPT for patents by Albanian applicants, constituting 1.16% of the applications in total. This shows an extraordinarily low use of national patents, and also justifies the fact of the absence of examination, in substance, of patents by the GDPT, because the largest part of them come already examined by the EPO.
Local companies, universities and individual investors are almost not present in the system ofpatent protection. The reasons for this situation are the following:

- the Albanian companies and universities do not generate patentable inventions;
- Albanian patents have a low level of use by companies, universities and inventors because of the perceived low risk of imitation, as well as the absence of an active market for the technologies where patented inventions might be sold or licensed;

[7] The National strategy for Intellectual Property 2016-2020 (adopted with government decree No.527,date 20.07.2016

- the low level of awareness in companies and universities of the system for protecting an invention with a patent.

b) Trade and service marks

There are two ways to register trademarks in Albania:

- Trademark applications submitted directly to the GDPT as a national application;
- International applications for trademarks through the Madrid system.

In 2015,there were 937 applications for trademarks. The percentage from Albanian applicants directly to the GDPT rose significantly.Very few companies that are the owners of patents in Albania are holders of rights for registered marks. That fact casts doubt on the number of patents for inventions (principally pharmaceutical one) that are in fact in commerce in Albania.

There is a tendency by companies to register as a trademark only their commercial name and not the names of particular products sold in the market.

c) Industrial designs

There are two ways to register industrial designs in Albania:

- Industrial design applications submitted directly to the GDPT as a national application;
- International applications for industrial designs through the Hague Agreement.

In 2014, 14 applications were deposited by five applicants, whereas in 2015, there were only fiveapplications for designs, of which three were from Albanian applicants11. During those years, 28 companies and two individuals applied, with a total of 71 deposits. There is a low level of knowledge in connection with the importance of registration and protection of designs.

Before 2010, all applications for designs were made by non-residents. Since 2010, the largest part of the applications for designs have been made by Albanian subjects. The top companies owning designs provide a very diverse range of products in the market. However, no universities or research institutes have applied for the registration of industrial designs in the GDPT.

Often, companies that have registered trademarks also have applied for industrial designs, creating a possible overlapping of the rights in their simultaneous use.

The Competition Commission, by decision no. 489, dated 20.12.2017, decided to approve the regulation "On the Categories of Technology Transfer Agreements" and the repeal of Decision No.179 of 02.03.2011 of the Competition Commission for the adoption of the Regulation "On the categories of transfer agreements technological "after finding that:

1. This Regulation provides for effective competition and legal certainty for undertakings, defining technology transfer agreements that are exempt from prohibition, assessing their impact on the relevant market, and identifying cases where such types of agreements are not excluded. The technology transfer agreements between the two companies that allow the production of contracted products are recognized as exclusion right from the category of prohibited agreements. Where undertakings, parties to an agreement, are competitive undertakings, the exemption shall apply provided the combined share of the parties to the market does not exceed 20% of the relevant affected market. While undertakings, parties to

an agreement, are not competitive undertakings, the exemption shall apply provided the market share of each party does not exceed 30% of the relevant affected market.
2. In the Albanian environment, these agreements will improve the economic efficiency of enterprises, as they may reduce duplication of research and development, increase incentives for initial research and development, promote increased innovation and bring competition to the affected market.
3. The degree of approximation of this regulation is considered complete with European Commission Regulation (EU) no. 316, dated 21 March 2014 "On the implementation of Article 101 (3) of the Treaty on the Functioning of the European Union on the Categories of Technology Transfer Agreements"

6.Technology Transfer Centers and other institutions supporting technology transfer in Albania.

Technology transfer offices (TTOs) assist public research organizations in managing their intellectual assets and transforming them into benefits for the wider economy and society. TTOs are therefore important instruments to bridge the gap between research and innovation – and between researchers and businesses or researchers and government actors (OECD, 2011). TTOs facilitate the transfer of knowledge into the private sector either through spin-offs or licensing agreements. They also facilitate contractual research and assist in the protection and management of intellectual property. Additionally, TTO activities generate revenues for the affiliated universities (Thomas, 2007). For these activities to function, it is crucial that TTO staff has prior industry experience.

These centers[8]help to identify, test, and adapt agricultural practices methods and materials at a national level and provide training to agricultural specialists, farmers and students of agricultural sciences. However, these are not actual Technology transfers and do not conduct any of the activities that typical technology transfer offices conduct such as support in commercialization or research, protection of IP and establishing contacts between researchers and the private sector. Albania also has a Fund for the Transfer of Technology and Innovation, which has been established but never implemented due to lack of funding.

It is nearly 10 years since the creation of Agricultural Technology Transfer Centers – ATTC's (2007-2017) but it is fairly difficult to provide exact data relating to the application of the concept of agricultural technology transfer in the agricultural and agro-processing sector through Licensing Agreements and the use of intellectual property legislation, acknowledging that currently in Albania operate close to 400,000 agricultural units and about 5,000 units belong to the agro-processing sector.

From an institutional viewpoint at centers for institutional research in Albania are currently lacking Technology Transfer Offices, Intellectual Properties, that in other counties play important roles in raising awareness, and counseling for the scientific community relating to the legal transfer of expertise and results towards the business and trade sector.

At the institutional level of technological development, there are 5 Centers of Agricultural Technology Transfer – CATT following the merging of 6 research institutes, which were

[8] Best Practices on Business-Academia-Government Co-operation for Innovation in Albania (OECD 2016)

previously under the Ministry of Agriculture and Food, including: 1) Institute of Field Crops Research, Fushe- Kruje, (IFCR); 2) Institute of Vegetables and Potatoes, Tirana, (IVP); 3) Institute of Fruit Trees, Vlora (IFT);4) The Institute of Zootechnology Research, Tirana, (IZR); 5) Institute of Maize, Shkodra (IM);and 6) Institute of Land Research (ILR).

The ATTC have been established by the Council of Ministers Decision no. 515, date 19.07.2006 "On the restructuring of the Scientific Research Institutes under the Ministry of Agriculture, Food and Consumer Protection"

Experiences and thematic competences

• Identification, testing, adaptation and introduction into agricultural practices of new technologies and inputs for fruit trees, olives, vines and citrus fruits; Preparation of technological packages and model projects for the creation of fruit trees, olive groves, vineyards and citrus fruits;
• Technical assistance and training for the design, establishment and well-functioning of nurseries, orchards, olive groves, vineyards and citrus fruits;
• Production and increase of certified herbal material for nurseries (fruit trees, olive trees, vineyards and citrus fruits);
• Farming research and testing on the problems raised by farmers for fruit trees, olives, vines and citrus fruits;
• Training for agricultural specialists, farmers and other interested subjects;
• Providing technical expertise to advisory service structures and farmers;
• Demonstration of new cultivation technologies for nuclear fruit trees, olives, vines and citrus fruits;
• Preparation and publication of divulgated materials for agricultural specialists and farmers.

In addition to the above responsibilities, the Center's duties will also include:

• The needs and priorities of the region;
• Agro-regional testing required by other Centers;
• Initiate / prepare projects that address the specific issues of the area;
• Practice for Agricultural University students, etc.

Apart fromAgricultural Technology Transfer – CATT, there are many national institutions, agencies and private organizations that support innovation and scientific research in Albania:

-Ministry of Finance and Economy (MoFE): is responsible inter alia for: developing innovation policies in favor of small and medium businesses in accordance with the relevant European policy in cooperation with chambers of commerce, business associations and civil society.

-**Ministry of Education, Sports and Youth (MESY):** is responsible inter alia for: developing policies in favor of Higher education and scientific research. Under the general directory of policies and development strategies for Education, Sports and Youth, are included two small units with 3 people each: i) the unit of policies and strategies of scientific research and ii) unit of scientific research development programming.

-**Ministry of Agriculture and Rural Development (MARD):** supports strategically and financially the measures in the area of applied research and technology transfer offices /TTO in agriculture and livestock sector. TTO-s performs as consulting centers to the agricultural sector, rather as typical TTOs.

-Council of Higher Education and Research (CHER)

Based on the Law 80/2015 dated 22.07.2015 "On higher education and scientific research in higher education institutions" has been established the “Council for Higher Education and Research” (CHER).CHER is the policy advisory body for higher education and scientific research. CHER provides counseling on the national strategies, policy directions and legal framework. It is an important body that could guidethe research and development policy in the direction that the country could benefit better and more than in the past.

-University of Tirana (UT): composed of six faculties, is the largest public university in the country. University of Tirana is partner institution and beneficiary in several research and teaching supporting progrmmes as Tempus, Erasmus Mundus Action 2, JoinEU-SEE, Basileus, Pacinno, Eureka, Tempus Interface etc.

The University of Tirana is member of several university networks established by foreign universities or by its own initiative (as it is the creation of the Albanian Language Network). The University of Tirana is part of the "European Network Euraxess"; it has signed the formal document "European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers". Being part of this network, it will help UT to be better integrated at the European Single Market for Scientific Researchers and to increase the mobility of researchers and academic staff in the EU countries.

-The Research Office “Metroresearch” of the non-public Metropolitan University

Is integral part of the non-public “Metropolitan Tirana University”, while recently it is registered as an independent center. The latter aims to contribute to the professional and academic capacities of University, as well as introduce applicable standards particularly in the field of construction, information technology, sustainable development, the involvement of communities in local development, civic education, art and cultural heritage etc. “Metroresearch” provides suitable spaces: mentoring, management, consulting for strategic partners in the development of research projects.

“Metroresearch” has established the incubator aiming to encouraging students to identify and implement innovative ideas that concern information technology, but not only. These ideas may serve as start-up potential business that can operate in each relevant field. Currently, Metroresearch has established a strategic partnerships with EU member countries’ research institutions like Italy, Greece, Spain, Cyprus, Hungary, etc. as well as with regional partners like Kosovo, Macedonia. In less than a year, Metroresearch team has developed and submitted application for INTERREG, IADSA, IPA - CBC and is in the process of developing LIFE and H2020 Applications.

-Barleti Institute for Research and Development (BIRD): operates as a non-profit organization of neither economic nor political and religious purposes, based on the Albanian legislation on the non-profit organizations in force. BIRD has a remit to carry out and promote high quality applied research, while as a part of the wider agenda of modernization of higher education in Albania, it assisst the University to fulfill all the requirements of Standards & Criteria of the European Quality Improvement System (EQUIS). BIRD aspires to

become a centre of excellence for multi and interdisciplinary research studies in social, economic, scientific and technological fields as well as a forum where the business world can meet academia, public policies on sustainable development can be debated among policy and decision makers and where young people can become important partners and a valuable source for the community.

Apart from supporting Innovation Hub (as mentioned in the section of Innovation Hub), BIRD has supported the 2nd Forum on Smart City, which is the nation's largest smart growth and sustainability event. The Forum is a gathering place for leaders, representatives from the private sector, multilateral development banks, governments, housing authorities, academia, and civil society organizations from across the region/world to share and learn about successes for implementing smart growth principles and techniques in tackling many of the most crucial social, health, and development priorities in our communities. The Smart City Forum is built on five thematic pillars: Smart Growth; Smart Governance- Economic Diplomacy; Smart People-Community Schools; Smart City; Smart Working and Living.

-Epoka University : Because education in universities does not meet the real need of the labour market, Epoka University is supporting the process of increasing partnership with private sector. The creation of Career Offices through internships and employment of students, enable early development of career counseling at school. Adapting university curricula for certain industries by implementing curricular projects and classes in the environment of the local business, intervention in the university curricula to fulfill programmes related to the increase of analytical and practical skills of the students, it is a good example which should be taken into consideration by public and non-public education system in Albania.

-National Agency for Financing the Higher Education (NAFHE) - is entitled to provide grants which support thescientific research work of public universities.

-National Agency for Scientific Research and Innovation – NASRI - is the agency that provides the funding forscientific research and innovation at the national level (depended on the annual budget allocated) and carries out the performance evaluation of the scientific research for IHE and the authentic research institutes. One of NASRI goals is the establishment of cooperation with other homologue institutions abroad, focusing on the countries that have a frame cooperation agreement in education and research with Albania.

The Albanian Investment Development Agency (AIDA): The main objectives of the Albanian Investment Development Agency are: the attraction of foreign investment, increase the competitiveness through supporting small and medium sized enterprises, as well as innovation.

-National Agency for Information Society (NAIS) : is a public institution aiming to coordinate the GOA's activities in the field of Information and Communication (I&C). The main objectives of NAIS are the implementation of strategies for the development of information system (IS) and particularly ICT; promotion of investment in the field of IS; promotion of new technologies in the field of IS; contribution in the education and promotion of ICT use by the public.

-Innovation HUBProject: was implemented in the framework of Italian – Albanian Debt for Development Swap Programme and in cooperation with two major partners, the Institute

for Research and DevelopmentBarleti (BIRD) and Partners Albania (PA), and both non-profit organizations.

Innovation Hub has developed a wide range of programmes on capacity building, awareness raising and networking with potential partners in Albania and beyond borders. To be mentioned are two youth camps with youngsters who developed an ICT business idea for the creation of a new ICT product/service, the development of 58 training seminars and workshops which build the capacity of 1,235 young people in the field of ICT, business management, marketing, community development, software development, networking and partnerships.

The Information Hub has provided financial support for 16 start-ups, approx. € 4500 per each applicant. 100 applications have participated in the competition and out of them only 16 had the possibility to be funded. Due to this financial support, 4 of the start-ups have been registered their idea into the real market.

Swiss State Secretariat for Economic Affair (SECO) has supported the Innovation Hub with different foreign expertise from the region aiming to foster the ecosystem of start-ups and the best accelerator program for them.To continue offering the service and capitalize the achievements, a process of transforming the Innovation Hub into a non-profit organization called "Centre of Innovation Hub"(further will be called Centre) has been developed. The idea was to establish the Centre based on a Triple Helix approach, bringing together National Agency for Information Society (NAIS)**,** representatives of universities and representatives of business community. The Canadian Institute of Technology, Chamber of Commerce and Industry of Tirana/Centre for Innovation and Development and the Italian Agency for Cooperation and Development are the partners and members of the Board of Directors of the Centre.

Protik ICT Resource Center - is established as a contribution of Government of Albania, USAID, AlbanianAmerican Development Fund (AADF), Microsoft, Cisco, and Albtelecom, aiming to catalyze the development of the ICT sector in Albania. It offers co-working space and a variety of activities to support innovation and entrepreneurship. Initially, Protik held a number of networking events to raise awareness of start-ups in the community. Currently Protik experiences shortage of ideas and funds; there is no inflow of ideas to be initially supported and later to be turned into business proposals. This, among others, also due to the social problems (people try to find short-terms solution, rather thinking on a medium to long run), parents do not support entrepreneurship ideas of children (when they have), rather guiding them towards public jobs and universities, which the latter with their curricula do not stimulate entrepreneurship spirit and ideas of students, while continue to use traditional methods teaching.

-Ofiçina - is a strategic initiative focused in supporting Albania's transition to a knowledge-based economy and aims toinvest, incubate, and help develop a new-technology industry in Albania. It aims to promote entrepreneurship, bring commercially viable technologies and business to local and global market and supports employment of youngsters in a growing ICT industry. Oficina is established as a joint project of Opens Society Foundation Albania and the Harry Fultz Institute and works in partnership with the private sector, local government, academia, community organizations and outstanding leaders and innovators.It offers service as: networking, mentoring, scale up and working and recreation spaces. The

assistance and training offered to clients' is tailored as per their needs, including the provision of coaching one on one assistance and training and the facilitation of meetings and group activities. Ofiçina runs an Annual Accelerator Programme for high tech start-ups and organizes a range of programs and events for new entrepreneurs and develop their business skills and utilization of e-skills and networking. Currently Oficina is in the second year of hosting Albanian start-ups in its location at Harry Fultz Institute and in the third year of project implementation.

In terms of financing, Oficina project will come to an end by the end of 2017. In order to continue with what has been achieved and to further develop its capabilities, Oficina needs to raise funds from different donors or interested parties who want to "buy in" and support its mission. Currently it has applied (as a project supporter) to IPA 2014 on strengthening the cross boarder network of innovative centres. Even if selected, the amount won't be enough to cover the program endurance. Oficina has gained the trust to be part of Entrepreneurship in Residence (EIR) Programme which is a great "Value Added Service" to its start-ups and to the community.

-Institute for Smart, Creative and Growth- Adriapol. - The Institute accomplishes its mission on research, trainings,courses, consultations, services etc, with the view to better serve public interests. The Institute strives to create an attractive and lively city based not only on the Innovation and Creativity but also on making this a daily philosophy. The Institute realizes its mission in collaboration and partnership with specialized enterprises of the respective fields. The Institute aims at providing guarantees for the vertical integration among the various levels of governance and the stakeholders well as for horizontal integration among various sectors of public activity. This vision is made up of four components. Vertical dimension focuses on 3 levels of governance, policy making, international trends; Horizontal dimension focuses on various industrial, economic, cultural, social aspects; Internal dimension focuses on various groups of stakeholders, collaborators; Application dimension focuses on creative forms of action, clusters, events infrastructure .

Chamber of Commerce and Industry (CCI)/Centre for Innovation and Development - assist the business progressthrough supporting the modernization, leadership, and promotion of business interests as well as the establishment of long-term relationships with key business partners. There is a little awareness among the business for innovation and its benefits, and there are even less attempts to undertake innovative actions. This is related to the fact that majority of business are small and weak and do not have the financial capacities and knowledge for such ventures. CCI values the working philosophy of Triple Helix and suggest replicating that experience. CCI is cooperating with the Austria Cooperation Office and the MESY to implement an education pilot project which combines the theory and practice in the high school. That system takes into account the requirements of the labour market, business and industry. CCI believes that a dual vocational education system (practice and theory) is very much needed in Albania.

-Yunus Social Business (YSB) is part of the Yunus Social Business (YSB) global initiative. The Albanian operation was founded in April 2012 initially with government support, developed later based on different donations and projects (to be mentioned USAID project). It focuses on social improvement enterprises and agriculture - a major part of the Albanian economy—but also accepts for-profit start-ups. YSB Albania functions as incubator and/or accelerator based on the client's needs. It supports the clients in structuring their ideas,

developing the business model, building and developing the capacities of business team as well as finding financial possibilities to implement the project/ideas.

YSB Albania mentors the business during the whole business cycle, from the project idea until the idea is materialized and the product has been issued in the market; this process last from 3 months until one year.

During the programme implementation, YSB identifies that the need for using the co-working space has not been evident; the business/individuals who cooperated with YSB did not find this approach attracted. It offered the co-working space for one year but it did not result successful, hens it is not offering anymore this space. For the target businesses/individuals YSB is working with (support offered basically to the vulnerable or people with special needs) the need for mentoring, capacity building, on the spot assistance and financial assistance are essential.

YSB tries to be innovative in its endeavor to support the business and individuals; the innovation YSB brings regards the new ways of implementing the assistance, cooperation with the partners and the use of resources.

-Talent Garden (TG) - is the local franchise of an Italian platform that provides co-working space, training sessions for entrepreneurs, event hosting, and networking opportunities. With eight locations in Italy, TG chose Tirana as its third international location and opened in May 2015. TG selects its members (i.e., the participating start-ups) through a qualification event, recommendations, and the votes of existing members. According to local interviewees, the prices charged for rent are higher than average for the Tirana market, although the space is attractive. Promising start-ups receive the first month rent-free, and the rent waiver can continue if the company's progress warrants. In 2015, TG and Local Eyes, its local partner in Tirana, funded a competition with a prize of 10,000 Euros to be awarded to a local start-up with global potential in exchange for equity. In addition, the winning company was to receive one-month acceleration in the affiliated Go Global Academy in Milan. At the time, however, no companies in Albania had the necessary qualifications to win. As of late 2015, four companies were in the TG program. Start-ups receive help in writing business plans when applying for funding, as well as promotion through the incubator's network, which also helps them establish new contacts. Local Eyes' employees offer business mentorship, while its CEO, a successful entrepreneur, provides access to financing for companies with international potential. Currently, the local TG franchise is not yet at break-even; the amount of time necessary for a company to reach an investable stage and thus create a return for TG suggests that the break-even point likely lies substantially in the future.

-Albanian Innovation Accelerator (AIA) is funded by Gconsultantcy Innovation, a "boutique innovation studio" founded by Julia Goga-Cooke, an Albanian who lives in London. AIA is Gconsultantcy's social innovation project; its mission is to help universities, schools, public administrators, and corporations adopt new approaches to providing socially beneficial goods and services to the public. AIA provides collaboration spaces to three start-ups from Goga-Cooke's native city, Durres, that are selected during the Tirana Innovation Week. In addition to office space, these companies receive free mentoring and incubator services for six months through AIA's network of academic experts and media personalities. The group provides a number of workshops and boot camps to get people thinking about new ways to solve social problems. AIA also organizes a monthly "innovation café" where participants in the incubation program and others can exchange ideas with Goga-Cooke. Each café occurs

in a different Albanian city, helping to expand the concept of creative entrepreneurship throughout the country. Along with networking and idea generation, these platforms help solve problems on a number of levels, including helping companies network with groups like the World Bank.

-Tirana Business Park (private initiative) is another co-location resource for start-ups. Located in a new state-of-the-art business park, it was developed by the Linder Group, a German real estate firm and is the largest private foreign real estate investment in the country. Tirana Business Park aims to establish a business park, an economic centre of European standards, and to give Albania a potential of economic and social development. It is a concept – urbanism, architecture, landscape, traffic, and infrastructure – for a premium business community in Albania.

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