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 CONTENT

SEPTEMBER MESSAGE

PAPERS

Save the Bigger or the Senseless Policies
Aram Ohanyan

Boosting Competitiveness of Regional SMEs
Lilit Apujanyan

Types of Holdings in Agriculture of Azerbaijan: Structure and Potential Capacity Building Factors
Hamza Khalilov and Ragib Guliyev

Azerbaijan Carpets – Its Role in the Life of This Nation
Fatima Aghamirzayeva

Why is the Disclosure of Beneficiaries Important?
Bagit Sagirov

Innovative Entrepreneurship and Startups in Georgia
Eteri Mamukelashvili

SME Development in Georgia
Nino Elizbarashvili

Reforms of Research and Innovation Systems in EAP Countries: 25 Years of Experiments in Georgia
Oleg Shatberashvili

Information Technology Atlas of the Rostov Region

INSTITUTIONAL PROFILE

• Small and Medium Entrepreneurship Development Center of Armenia
• National Fund for Entrepreneurship Support of Azerbaijan
SEPTEMBER MESSAGE OF THE SCIENTIFIC DIRECTOR

Distinguished Readers and Friends,

This Autom issue of the ERENET PROFILE, is devoted business and entrepreneurial activities finding their home in the South Caucasus Region: Armenia, Azerbaijan and Georgia. This area forms a crossroad between Europe and Asia and over two thousand years has been characterised by ethnic and religious conflict promoting both Islamic and Christian value systems.

Historically, the Kingdom of Armenia was the first state to adopt Christianity as its official religion in the early first century. Azerbaijan chose Islam with 96% of the population practising Muslims. Georgia opted for a society based more on freedom of religious choice despite historical conflicts with their surrounding countries.

As the United Nations Economic Commission for Europe (UN/ECE) Regional Adviser I worked in close and friendly relations with the representatives of these three countries. This was during the preparation and process involved in Small and Medium Enterprise (SME) Workshops financed by the Turkish Representative of the Konrad Adenauer Foundation (KAS). The programme was organised within the framework of Black Sea, Economic Cooperation (BSEC) in cooperation with the UNECE and later ERENET.

Unhappily, in 2004 good relations deteriorated. During a NATO sponsored training seminar in Budapest, Hungary, at night an Azeri Army officer axed an Armenian Army lieutenant to death while he was asleep. Following the tragedy Azeri experts no longer participated in further KAS-BSEC-ERENET events nor were Armenian colleagues allowed to travel to Azerbaijan. Given the known friendliness of those from South Caucasus, it was a further sad outcome from a tragic incident.

The territory has a total area of 186,043 Km and a population of 16.4 million. During the Soviet Union 60% of trade took place within the three countries. It has decreased by half today and there has subsequently been no effective regional cooperation among them despite the EU Good Neighbouring initiative. Our current periodical aims to encourage future closer relationships among specialists and business education in the South Caucasus and with the ERENET Secretariat.

In 2006 the UNECE published a study on Small and Medium sized Enterprises in the Caucasian Countries in Transition. It has served as the best source of entrepreneurship development in the region. Currently, ERENET is working on a update and it will be published in 2019.

Dr. Antal Szabó
Scientific Director of ERENET
SAVE THE BIGGER OR THE SENSELESS POLICIES

ABSTRACT

When monitoring SME policy and the actual situation it seems that parallel truths existence is a real fact!

From one side we see officials and prestigious ratings with good assessments and plenty of complains from SMEs from the other side.

Paper reveals how all these can take place owing to the government’s activities when by having favorable legislation for SMEs with adopted minimal turnover tax rate of 1.5%, it can also bring its effect to zero or even to negative by having non-public and unlawful agreement with big retail chains.

Recently an “agreed scheme” has been revealed in Armenia, when by agreement with the government big retail chains were allowed to act in the regime of turnover tax for agricultural goods sales in aim to provide price stability and to support trade of agricultural goods as it was declared. This agreement violates Armenian legislation as the same entity cannot be VAT and turnover tax payer at the same time. Besides it affects thousands of SMEs trading agricultural goods, giving huge competitive advantage to retail chains. Using this scheme they have opportunity to put unjustified low prices comparing to SMEs, avoid of paying taxes in full volumes and as a result to gain extra profit biting SMEs at the same time.

In this case, when economy or its partial sector acts by no economic, no logical laws and regulations, all the efforts, analyses, low making and the policies elaborated become senseless!

Keywords: Small and Medium-sized Enterprises – SMEs, conflict between small and big companies

JEL Classification: L26, H25, H26, K42, O12

Role and significance of the Small and Medium Entrepreneurship in social-economic life, both for the current and the last authorities of Armenia were and are of high importance. It is really difficult to not prioritize SME as besides providing economic stability it provides stable social situation which can be only beneficial for every authority and state.

As a result, the Government of Armenia has been performing continuous measures to make favorable conditions and legislation for SMEs for many years. Despite, we can frequently hear that regardless of some positive ratings Armenian small and medium entrepreneurs have no that calm and serene life they would eager.

These ratings, when we consider assessments of the prestigious organizations cannot be doubtful taking into consideration high standards, methodology, proficient stuff and their sovereignty and many negative warnings from entrepreneurs definitely cannot be false or not reliable at all from the other hand.
So, what matters? This first sight seemingly contradiction has its real deep reasons, which identification was of huge difficulty, at least till the recent times when several former officials of the former government unveiled some very interesting circumstances. All these were also confirmed by the National Service of Security.

Acting upon the agreement with former Armenian government several leading retailers were dealing combining their activities in two tax regimes: both with VAT taxation and with turnover tax. As it was explained by some officials this “agreed scheme” has been adopted and executed having aim to provide stable level of prices for agricultural products by applying non formal VAT exemption.

It is distinctive that all these were made with brute violence of Armenian legislation as turnover tax payer cannot be an entity which is VAT payer or is interconnected with another VAT or even with another turnover tax payer or are pursuing common economic interest, besides annual turnover of AMD 115 million (app. 230 thousand USD) is the threshold for being eligible to be a turnover taxpayer.

In the screened case, these retailers were not even hiding their activities within such scheme as even on the cash receipts from their cash registering machines were shown separately purchases taxed with VAT and purchases with turnover tax. Despite this obvious violence none of the state authorities addressed this issue.

In this regard, disclosure was that National Service of Security inspected those companies and found out that a criminal scheme had been constructed. Fake 450 individual entrepreneur were used to make turnover of many USD millions by applying turnover tax instead of VAT to sales of agricultural products not only being grown in Armenia but also imported as well in case, when all imported products are subject to VAT taxation.

Existence of this scheme has been accepted by high officials: deputy of State Revenue Committee (R. Mashadyan) and by member of the National Assembly, head of fraction of the former ruling party (V. Baghdasaryan) officially announced that the “agreed scheme” was applied to support sales of agricultural products by making their prices more affordable in supermarkets.

Despite this includes obvious violation of the Armenian legislation as connected to each other or to another VAT payer tax payers cannot be turnover tax payers, it is more important the meaning of the applied scheme from economic point of view and it’s influence to SMEs.

Appliance of the mentioned criminal scheme had been justified with aim to allow big retailers to avoid raising prices for agricultural products which they buy from individuals which are not VAT payers and in this case they have no option to draw off from their tax obligations the VAT which had been already paid to sellers. As it was presented in this case retailers had to surplus this 20% VAT to the prices to make able to pay taxes with no losses for themselves. Furthermore, on the next day of inspections and revealing this scheme, big retailers increased agricultural products prices by 20% which is rate of VAT in Armenia. Such increase lasted even less than 24 hours and prices came to their initial level the day after.

In reality, if we look to the very essence and the economic motivation of the “agreed scheme” it comes obvious that there could be no reason or justification except providing advantages and high rate of profit for big retailers comparing to small separate shops which are classical SMEs.

Lets obtain a simple analyses of some factors which will allow to justify the statement above.

It is obvious that under turnover tax regime taxes accounted and paid to state budget are less than comparing to VAT regime as VAT is 20% from the price/turnover, when just from 1.5% to 5% is the rate of turnover tax. It is obvious as well, that in case when a VAT payer purchases goods from non VAT payer it will have no opportunity to draw off the initial VAT of the goods which have already been paid included in the
price and as a result has to surplus this 20% to the good price which will be paid by the final customer in retail chain.

In this case no equal conditions are risen among two entities which sell the same goods but one under the regime of VAT another under the regime of turnover tax in result of different tax rates and mechanisms of tax calculation and the final volume of taxes to be paid.

In reality, if we consider some specific factors the big picture comes quite different!

Small shops can never be real and significant competitors to big retail chains or supermarkets in sense of sold volumes and profit as big ones:

- have more profit generated from bigger turnover
- due to own or more competent logistic infrastructure have more efficient supplies, storage, deliveries
- owing to having different specialists in marketing, sales and etc., can plan their product range, quantities, period of sale more smartly and economically justified
- have more favorable sales conditions and flow of customers
- due to centralization of some functions have significant savings on paid salaries
- apply better conditions for paying for the supplied goods (as usual 60days credit) which have not SMEs.

As a result of all these advantages retail chains make less expenses for 1 piece of sold goods and taking into consideration the same factors make bigger turnover and get more profit accordingly.

In this case it is justified that big retail chains had opportunity to establish comparable or even less prices to small shops as even paying 20% VAT as the maximum difference between VAT and turnover rates cannot exceed 15%. In case of having competitive market which is real in the retail sector of agricultural products in Armenia taking into account quantity of SMEs big chains had real opportunity to establish justified and not high prices which had been approved when they lowered prices within the 24 hours after increase

Even if we admit that big retailers would establish higher prices and loose some share of their turnover of agricultural products the same turnover could be done by SMEs owing to their distribution and quantity without endangering food security or sales of agricultural products.

In this situation no reasons except provision of high profit, advantages, in many cases provision of non registered real turnover and non declared profits for big chains can be realistic, especially aim and reason of making agricultural products prices affordable for population and stability in the sector.

As it is mentioned above, it was hard to understand, moreover, to show in practice and with examples how the SME situation remains unfavorable in case of favorable ratings for Armenia. Here is the practical and disclosed mechanism: on one hand, the state develops and implements policy to promote SMEs by defining the turnover tax regime, on the other hand, it allows benefiting from the same regime the ones that are VAT tax payers, making their own import, significantly big retailers and companies having large turnover by publicly unknown means and mechanisms. In this case, the legislative solutions and implemented polices aiming to support SMEs and leveraging the objective inequalities between the big and small in favor of SMEs work in the opposite way.

In the situation when the interconnection strict regulations do not allow being turnover tax payers those that even with some interconnection still do not exceed AMD 115 million (threshold of turnover tax payers) turnover, big companies with their billion turnovers and unlawful arrangements are not only getting those privileges but also using them not only in the frames and limits given informally.
So SMEs that were capable to compete with the big ones in the seemingly favorable legislative conditions were not only deprived of those advantages but were more vulnerable and uncompetitive bearing in mind that the big ones were benefiting from the situation really in favor of them.

In this regard it is now possible to understand the midlevel officials that were not aware of the used schemes and were insisting that correct policies were developed and implemented to the organizations publishing the ratings as well as to people that could not feel in practice the results and the reforms of the policies.

This is the private case that enlightens the reality of seemingly unclear, but explicable by the disclosed mechanisms of the authorities, situation on how the policies may become useless.

Given those realities any policy developed and realized in accordance to the economic laws won’t be effective or real, and taking into account that the policies should be implemented through the legislative regulations, this results in unpredictability of the legislation defined by the frequent changes in its turn resulting in difficulties and obstacles making the process senseless and end in itself.
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BOOSTING COMPETITIVENESS OF REGIONAL SMES

ABSTRACT

The paper present the EU Project on boost the competitiveness of regional SMEs and creation of employment opportunities in three Armenian marzes (region) in Lori, Syunik and Armavir. The project was funded by the European Union and the Ministry of Territorial Administration and Development of Armenia through the Pilot Regional Development Programme (PRDP) and implemented by a consortium, coordinated by the SME Development National Centre of Armenia.

The project components as well as the target sector of the presented areas. The share of SMEs in GDP generation is still week, however, though this new enterprises and several jobs habe been created.

Keywords: SMEs, regional economic development, Armenian marzes Lori, Syunik, Armavir, roadside station, EU project

JEL Classification: L21, L26, M13

The vast majority of businesses in Armenia are SMEs. They provide nearly 80% of all jobs in the country. Despite this, their share in total Armenia’s GDP is only 27%.

The EU project on boost the competitiveness of regional SMEs and to create employment opportunities in the Armenian regions (marzes) of Lori, Syunik and Armavir, focusing on the sectors of food-processing and tourism was launched on 14 December 2016 with a project budget of €1,604,808, of which the European Union contribution is €1,123,370.

PROJECT COMPONENTS
The specific objectives of the project¹ are:

- **To create employment opportunities in the Lori, Syunik and Armavir marzes of Armenia** - provide relevant skills and promote sustainable employment, based on the assessed mismatch between existing skills and the qualifications actually needed by local SMEs, targeting young adults, and with a focus on growth sectors such as food processing and tourism.

- **To create economic opportunities and diversify economies in the Lori, Syunik and Armavir marzes of Armenia** - creating business opportunities for progressive young adults, equipping start-ups and growing SMEs with contemporary business skills, facilitating access to finance and markets, creating efficient public-private dialogue at local level and establishing a model business-enabling infrastructure as a marketing platform for local products and services.

### TARGET REGIONS AND SECTORS

Activities should include the following:

- Establishment of a roadside station (RSS) as a marketing infrastructure for local products and services in the Lori region; the RSS is a multi-functional sale and rest facility on the highway, facilitating the development of local production and tourism, and includes a local brand shop, an information/training centre, and a rest station,

• Market research on the food processing and tourism sectors and the planned Road Side Station (RSS).

• Awareness-raising workshops and meetings.

• Promotion of entrepreneurship: building of entrepreneurial capacities among local young people and women entrepreneurs through "Successful Start" campaigns contributing to skill development.

• Loan guarantee facility: the most viable business plans received during the successful start campaign will have an opportunity to apply for SMEDNC’s loan guarantee facility for start-ups.

• Job promotion: to address the issues of the mismatch between job seekers’ skills and required qualifications on the labour market, the project organises a series of sector specific and general business trainings for young job seekers.

The project should promote the development of entrepreneurship by creating favourable conditions for start-ups and strengthening the capacity of local SMEs, while also providing relevant skills to job seekers, and developing local capacity to encourage the further promotion of economic development initiatives.

The European Commission has been given the informed, than on 2 September 2018, four new enterprises were officially opened in Vanadzor, Stepanavan and Alaverdi (Lori marz) through the support of the European Union. All enterprises started activities as part of the “Boosting competitiveness of regional SMEs” project. This is being implemented by the SME Development National Centre of Armenia and its partners.2, 3

Vigen Mnatsakanyan founded his business ArmBee in Alaverdi to engage in the apitherapy business (healing through bee products) and apitourism. This business keen to exploit the therapeutic properties of bees for health and wellbeing. The founder of this business emphasised that “I wanted to organise bee tours, where tourists can observe bee keeping, honey making and other activities related to bee keeping; in specially constructed bee-houses, people can breathe the healing air of the hive, taste the mountain herb teas and relax, enjoying the sweet and relaxing aroma of bees and listening to their buzz.”

Ruzanna Hayrapetyan, the owner of Gandzak fast food and bakery in Vanadzor, has set up a new business on the site of an empty non-functioning former furniture store belonging to her family. “Thanks to the received credit and grant funds from the EU and SME DNC of Armenia, we purchased the necessary furniture and equipment. For the design of the logo and for preparation of signboard we got support from the Strategic Development Agency NGO,” said the entrepreneur.

Arman Arakelyan founded Lore LLC in Stepanavan, which will provide hospitality services for leisure fans. Services oriented for both active and passive tourism fans. For active tourism fans “Lore” offers not only climbing wall with barriers but also zip line and other adventure and extreme tourism services. “Lore” resort will also provide accommodation services, private houses for rest and organize hiking tours, camps will be organized.

Hamlet Tumasyan is the owner of a new guesthouse in Stepanavan. The owner after participating in training organized by the EU support and thanks to the received credit and grant funds, Hamlet Tumasyan completed construction and renovation and acquired the necessary furniture, also a solar station has been installed. He will also offer other tour services like guided tours, bicycles, horse riding, etc.

Arshak Grigoryan, Executive Director of SME DNC in Armenia (the project implementing organisation, presented the issues facing small- and medium-sized enterprises: “We believe that potential business people in Armenia have three main problems: lack of knowledge, lack of financial resources, and lack of market access. We are trying to deal with these three key issues during our activities and suggest solutions. Today, the share of SMEs in GDP is insufficient, but the current policy is aimed at improving that gap. This project is a part of that policy – these four enterprises have provided at least 30 jobs, and will soon boost revenue, which is beneficial both for their business and for the country”.

Lilit Apunjanyan, Project Coordinator of “Boosting competitiveness of regional SMEs”, was happy to see that, thanks to the EU-funded project, the enterprises which had received support were developing well: “The main goal of the project was to support SMEs. Many talk about unemployment, but when we talk to business owners, we understand that they cannot find a good workforce. Such projects help to fill that gap. We work in three marzes: our actions are the same, but the enterprises are different, depending on a marz’s peculiarities”.

“Boosting competitiveness of regional SMEs” is a two-year project launched on 14 December 2016. It is funded by the European Union and the Ministry of Territorial Administration and Development of Armenia through the Pilot Regional Development Programme (PRDP). The project is being implemented by a consortium, coordinated by the SME Development National Centre of Armenia. The overall objective of the project is to boost competitiveness of regional SMEs and create sustainable employment opportunities in Lori, Syunik and Armavir marzes. Expected project results include the creation of sustainable jobs at the local level; increased competitiveness of local enterprises; the establishment of new enterprises. The project consists of a range of consequent and complementary activities, with the main purpose of considerably improving the economic wellbeing of target groups and final beneficiaries.
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TYPES OF HOLDİNGS İN AGRİCULTURE OF AZERBAIJAN: STRUKTURE AND POTENTİAL CAPACİTY BUİLDİNG FACTORS

ABSTRACT

This article is devoted to the analysis of the essential specificities the formation of market environment and business structures in the agricultural sector of the Azerbaijan economy and the assessment of the surprisingly diverse circumstances and multidimensional phenomena which are characteristic to this process. The authors to keep point of view that the best understanding of the links between reforms aimed at radical changes in the system of property and property relations in the agricultural sector as well as the formation of effective agricultural holdings and market participants is achieved by the development of successful models in this area and consistent immersion in all relevant layers of the national space. The conducted efforts allow stating the organizational and economic picture of the agricultural system in its formal and real dimensions. This construction is continued by the general characteristic of the factors causing stability of subjects of the agrarian market and competitiveness of agriculture sectors. The study and its results are valuable the first of all in the discussion perspective.

Keywords: Agrarian reforms, types of holdings in agriculture, agro-business, potential of development of holdings of agrarian sector.

JEL Classification: M21, Q12, Q15, Q18

1. INTRODUCTION

Agriculture plays an important role in the economy of the Republic of Azerbaijan. About 6% of gross domestic product, about 2/5 employment in the country's economy, and over 5% of the fixed assets by sectors of economy comes in the share of this sector.

The new production structure, formed by based on the absolute superiority of private –holdings as a result of the fundamental agrarian reform in the course of system changes, and the support to the agrarian sector from use large volumes of oil revenues from the early 2000s has given a new dynamics to the production of plant –growing products and livestock products, allowed for the formation of generally favorable growth indicators for agriculture.

At the same time, there has been a delay in the elimination of the deeper agrarian demodernization that has taken place during the transition period in the new conditions, and the increase of productivity indices in the agrarian sector are not ensured at the required rates. According to the data of international organizations, the Gross Production Index Number for 2014 was lower than the average world indicator for 2004-2006 (World Bank WDI 2016, Tab. 3.3). In this case, for enhancing food security and product exports as the main targets in the agrarian sector, the need for more efficient use of resources and broader innovation, taking into account sustainable development needs is intensified.
New challenges are also linked to the implementation of necessary improvements in agribusiness, including the structure of types of holdings in agricultural sector. In “The Strategic Road Map for the Production and Processing of Agricultural Products in the Republic of Azerbaijan”, adopted by the state in 2016, the creation of intensive farms based on the application of advanced agro technical regulations and automation was designed as an integral part of the strategic vision. (Azerbaiyan Respublikasinda, 2016: p. 45)

In this connection, the accretion of the potential of holding types in the agrarian sector draws attention.

2. INSTITUTIONAL CHARACTERISTIC OF TYPES OF HOLDINGS IN THE AGRICULTURE

As a result of the reforms carried out within the framework of system transformation, the system of land ownership of different forms has been formed in the Republic of Azerbaijan. Lands suitable for agriculture are in state, municipal and private property. At present, the share of these lands is 2/5, 1/4 and 1/3 of the total land respectively (SSCAR Azerbaijan in figures, 2018: p 76).

Unlike the areas under planting and perennial plantings, the summer and winter pastures used for livestock, livestock camps are in the state property and the pasture fields use for cattle of the population are in the municipal property. These areas are provided to livestock producers for use and lease in the manner prescribed by applicable law.

Land plots needed for agricultural infrastructure is either in the state property (lands where important reclamation and water economy facilities are located, the lands of state scientific-research institutions, their practice bases, machine-experiment service, seed-growing and pedigree cattle breeding facilities, herd ways) or in the municipal property (the lands where the ways within farms, field-protective forest strips, local water economy, hydro technical installations and other facilities are located).

The structure, formed as a result of the agrarian reforms of land possession, caused the peculiarities of the forms of organization of agricultural production. Multiple public and private entities with the status of legal and natural entity act in the country. The division consisting of legal entities, which we can call the corporate sector too, covered 1385 agricultural enterprises in 2015, according to data from the agricultural census conducted in the country. 77.1% of them earned the basic income from agricultural activity. (SSCAR Agriculture census 2015 p. 20) The agriculture was the non-major part of incomes for remaining part of the.

Some part of agricultural entities coordinate the production of agricultural products with other activity types in the sphere of agribusiness. In 2015, 49 enterprises were engaged in the processing of agricultural products and but 51 of them in provision of services to agriculture.

Regular official statistical information does not indicate the distribution of enterprises engaged in agriculture by their ownership and organizational-legal forms. At the same time, it is possible to distinguish between the forms of ownership of the enterprises based on the data of the agricultural census carried out in the country. As can be seen in Figure 1, in 2015 there were 223 state property enterprises, 1104 privately owned enterprises and 59 production cooperatives. In the census data are given the distribution only by organizational-legal form of private enterprises. In fact, state-owned enterprises engaged in agriculture are also organized in organizational-legal forms established by civil legislation. On the other hand, the shown in the first diagram distribution of private enterprises engaged in agriculture the distribution of private enterprises engaged in agriculture in the first diagram does not fully disclose their organizational and economic forms in accordance with civil legislation. 232 farms belonging to the "Other Entities" group were registered as entities that did not comply with the forms established by the legislation during their census.

With regard to the above, it is not possible to carry out analysis of organizational-legal forms related to agricultural enterprises based on official statistical information. Non-cooperative sector in Azerbaijan's agriculture includes private owner farms, family peasant farms and households. This category includes:
- Private owner farms engaged in entrepreneurial activities without establishing legal entity. They are state-registered farms as an economic subjects. Individual entrepreneurship farms are based on the work of the producers themselves and their family members, as well as recruit permanent and seasonal workers due to outside. According to census data, there were 3290 individual farms in 2015, with an average of 23 hectares of agricultural land per farm.
Family peasant farms. Under the national legislation, such farms shall have the right to engage in production and other economic activities (production, processing, storage, transportation and sale of goods) in rural areas without establishment of a legal entity on the basis of their individual labor and property. The composition of the family peasant farms may consist of one person, of members one family and persons acting on the basis of kinship or other relations. Family peasant farm is managed by the head of the farm chosen by its members and registered by the municipalities operating in the territory. The upper limit of turnover of these farms is determined by the government and is periodically changed. It should be noted that at the present time the highest level of annual turnover of family farming in Azerbaijan was determined at the level of 5,000 manat (Annual turnover of the family peasant farm ... 2006) According to the results of the 2015 census, there were 916 thousand 340 household peasants in the country. The average size of land suitable for each farm was 2.04 ha.

Households. These are households consisting of a group of people that own and use a land plot, who live together in a home (apartment), completely and partially bind their own budget. Households - mainly produce for home consumption. Individuals sometimes sell small amounts of agricultural products in the markets. (Agricistrade ..., pp. 16) These are households with the highest numbers after the peasant farming, but also smaller in size. 413 thousand 106 households were registered in the 2015 census, with an average of 0.13 hectares of agricultural land per farm. Studies on separate settlements indicate that there is significant differentiation between households for this indicator. (Lale Yalchin - Heckmann, 2010: pp. 84-85)

At the review the mentioned types of holdings, questions arise regarding the status of the family peasant farms established by the legislation.

First of all, the family peasant farms do not apply to entrepreneurship subjects under the Law of the Republic of Azerbaijan "on Peasant Family Farming". However, in fact, it is clear from the relevant survey and monitoring data that most of these farms produce essential or substantial part of their products for the sale purposes. According to the census data, in 2015, more than 4/5 of family peasant farms earned their basic income from agricultural activities.

Secondly, the legislation of the country does not envisage applying the limit of turnover, as a criterion for granting entrepreneur status to economic entities. In this case, it is difficult to find a basis for the implementation of family peasant farms as a business entity on the basis of a specific percentage of their turnover, unlike other entities.

Thirdly, according to the legislation, the family peasant farms the scope of the turnover of which exceeds the limit defined by the government to the subjects of entrepreneurship. However, in real practice does not provide the realization of the requirements of the Law on the relevant amendment to the status of Peasant Family Farming. According to the census data, that took place 10 years after adoption of the Law on family peasant farms that could be regarded as large by size, also retained the status of family peasant farms. In 2015, 453 family peasant farms had arable land and 113 farms had more than 200 hectares of sown area. (However, the number of private owner farms has been 58 and 19, respectively). In 290 of family peasant farms the number of cattle was 100 heads and the number of sheep was more than 500 in 1034 farms. It is not doubtful that annual turnover of farms with these indices exceeds 5,000 AZN.

About that, family peasant farms, the volume of turnover of which exceeds the predetermined level, does not pass registration as subjects of entrepreneurship, It is also possible to express an opinion on the basis of data on changes in the number of private owner farms. In 2005-2016, the number of these farms fell from 2681 to 1468 or decreased by 45.2 % (SSCAR. Agriculture of Azerbaijan, 2017: p. 64)

Taking into account the above mentioned, seems to be inappropriate, allotment of the family peasant farms in the agrarian sector as an economic form that is not the subject of entrepreneurial activity.
The current approach can be considered technically favorable, as it eliminates the need for state registration as an entrepreneurial entity of more than 900,000 farms. (In fact, the relevant bureaucratic practices do not decrease in reality, but are transferred to local self-governance structures.) However, it should be borne in mind that the existing rule of determination of the status family peasant farms, which produces almost 90% of the country's agricultural output, can create obstacles to the effective solution of issues related to the identification and implementation of state policy measures towards agricultural producers.

In view of the above, it is expedient to reconsider the status of family farming in agriculture.

In this regard, first of all, in terms of market-oriented approach, it is necessary to pay attention to the fact that there is no significant difference between family peasant farms and private owner farms. On the other hand, family peasant farms as private owner farms, also involves outside workers. According to census data, in 2015, the number of involver persons from outside was 675,900 (including 27,000 permanent employees). This figure was 25.5% compared to the number of employees in agricultural works on the indicated form of the farms. At present, there are no significant differences in the management of private owner farms and family peasant farms, but there is no difference in the taxation rules. Due to the introduction of tax incentives for agricultural producers, both forms of farming are only a land tax payer.

Given the above, it is desirable to eliminate the difference between owner farms and peasant family farms status. By referring to the relevant world practice, for example, the two farms mentioned above can be combined in the "agricultural producer" category. (The same approach applies in the United States.) At this time, it is necessary to refer to those households that are at the appropriate level of market orientation (which have potential to produce commercially viable crops) in the same category. In modern conditions, there are many potential farms with household names. It should be noted that according to the census data, in 2015, up to 19,000 households had more than 0.5 ha arable land.

Applying households with the appropriate parameters to the category of "agricultural producers" leads them to participate in government subsidy programs in the agrarian sector, thereby improving financial provision.

The typical feature of farming forms in the agrarian sector is the significant differences between their average sizes by arable land areas.

As can be seen from Table 1, about 65% of all farms are those with a land area of up to 1 ha. Small farms dominate in the category of private owner farms, family peasant farms and household. In 95.5% of the facilities belonging to that category, the land area is less than 2 ha. This figure is 82.3 per cent on individual private owner farms, and 99.3% for family peasant farms. The majority of households are of small size.

The average area of land used is higher in institutions belonging to the category of agricultural enterprises. However, the detailed analysis of the issue on the basis of Table 1 draws attention to two aspects. First, the aforementioned average indicators should not be considered as relatively large in the dimensions of all holdings of that category. In 2.6% of the holdings included in the category of agricultural enterprises, land areas were less than 1 hectare, and less than 2 ha in 31.3%. In other words, if we evaluate by arable land that is in use, 1/3 of the enterprises should be related to small holdings. Only in 29.5% of agricultural enterprises, the size of the lands exceeded 100 hectares.
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</tr>
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<tbody>
<tr>
<td>All types of holdings</td>
<td>856,405</td>
<td>64.9</td>
<td>456,025</td>
<td>34.4</td>
<td>6,109</td>
<td>0.5</td>
<td>1,612</td>
<td>0.1</td>
</tr>
<tr>
<td>Agricultural enterprises</td>
<td>30</td>
<td>2.6</td>
<td>367</td>
<td>31.3</td>
<td>429</td>
<td>36.6</td>
<td>346</td>
<td>29.5</td>
</tr>
<tr>
<td>Private owner farms, family peasant farms and households</td>
<td>856,375</td>
<td>65.0</td>
<td>455,658</td>
<td>34.5</td>
<td>5,680</td>
<td>0.4</td>
<td>1,266</td>
<td>0.1</td>
</tr>
<tr>
<td>Of them</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Private owner farms</td>
<td>913</td>
<td>28.0</td>
<td>1,768</td>
<td>54.3</td>
<td>409</td>
<td>12.6</td>
<td>166</td>
<td></td>
</tr>
<tr>
<td>- Family peasant farms</td>
<td>457,647</td>
<td>50.4</td>
<td>444,360</td>
<td>48.9</td>
<td>5,145</td>
<td>0.6</td>
<td>1,074</td>
<td>0.1</td>
</tr>
<tr>
<td>- Households</td>
<td>397,815</td>
<td>97.6</td>
<td>9,530</td>
<td>2.3</td>
<td>126</td>
<td>0.03</td>
<td>26</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*Source:* State Statistics Committee of Azerbaijan Republic (SSCAR) data

Secondly, the large share of large and medium-sized enterprises within the relevant economic unit does not mean that those have a superior position on the average and large-scale holdings. Non-cooperative sector, primarily family peasant farms has the evident advantage that it has more than 20 hectares, including more than 100 hectares of land with farmland, as well as for land in use. Nearly 89.9% of average and relatively large farms are owned by peasant farms and households (including 85.7% by family peasant farms). In other words, the harmony between the by types of holdings and size of the land used is most common in itself, but it is impossible to put equality between them. In this situation, it is difficult to justify the
unambiguous determination of the basis of the change in the number of producers' categories in the solution of the problem of optimization of economic dimensions (efficiency). In such a situation, it is difficult to explain the implementation of the line on changing the number ratio in the producer category for solving the problem of optimizing (effectiveness) the size of the holdings.

3. **THE POSITION OF TYPES OF HOLDINGS IN AGRICULTURE: EVALUATION ON THE SECTORS**

In modern conditions, the holdings of the non-cooperative sector in the agriculture are of great advantage in the use of land and labor resources as well as in production plant-growing and livestock products (Table 2).

### Table 2

The position of types of holdings in agriculture (based on agriculture census data of 2015)

<table>
<thead>
<tr>
<th></th>
<th>Number of holdings</th>
<th>The used arable land</th>
<th>The used sowing area</th>
<th>Number of employees</th>
<th>Value of agricultural product produced *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pcs in %</td>
<td>ha in %</td>
<td>ha in %</td>
<td>Persons in %</td>
<td>Million AZN in %</td>
</tr>
<tr>
<td>1. All types of holdings</td>
<td>1,352,121</td>
<td>100</td>
<td>2,288,120</td>
<td>100.0</td>
<td>3,538,958</td>
</tr>
<tr>
<td>2. The entities engaged in agriculture</td>
<td>1385</td>
<td>0.1</td>
<td>280,835</td>
<td>12.3</td>
<td>99677</td>
</tr>
<tr>
<td>Of them - state agricultural entities</td>
<td>223</td>
<td>116,704</td>
<td>5.1</td>
<td>12575</td>
<td>0.8</td>
</tr>
<tr>
<td>- Collective entities</td>
<td>385</td>
<td>24,932</td>
<td>1.1</td>
<td>11,934</td>
<td>0.8</td>
</tr>
<tr>
<td>- Joint Stock companies</td>
<td>59</td>
<td>4,037</td>
<td>0.2</td>
<td>2,095</td>
<td>0.1</td>
</tr>
<tr>
<td>- LLC and ALCs</td>
<td>428</td>
<td>86,117</td>
<td>3.8</td>
<td>49,607</td>
<td>3.2</td>
</tr>
<tr>
<td>- Production cooperatives</td>
<td>58</td>
<td>3,944</td>
<td>0.2</td>
<td>2,080</td>
<td>0.1</td>
</tr>
<tr>
<td>- Other farms</td>
<td>232</td>
<td>45,101</td>
<td>1.9</td>
<td>21,388</td>
<td>1.4</td>
</tr>
<tr>
<td>3. Private owner farms, family peasant farms and households</td>
<td>1,350,736</td>
<td>99.9</td>
<td>2,007,285</td>
<td>87.7</td>
<td>1,438,100</td>
</tr>
<tr>
<td>As well as private owner farms</td>
<td>3,290</td>
<td>0.24</td>
<td>75,364</td>
<td>3.3</td>
<td>29143</td>
</tr>
<tr>
<td>- Family peasant farms</td>
<td>916,340</td>
<td>67.8</td>
<td>1,872,012</td>
<td>81.8</td>
<td>1,382,301</td>
</tr>
<tr>
<td>Households</td>
<td>431,106</td>
<td>31.9</td>
<td>59,909</td>
<td>2.6</td>
<td>26,657</td>
</tr>
</tbody>
</table>

Source: SSCAR data
Approximately 9/10 of the estimated use of holdings lands and almost 99 per cent of agricultural workers fall to the share of the same sector. This sector produces more than 90% of agricultural products. And within it, family peasant farms has a definite advantage by the revised indicators.

In the corporate sector, 7-8 % of agricultural production is produced. This is generally close to the share of the sector in the land use. At the same time more than 1 percent of agricultural workers work in this sector. The share of corporate sector in production of livestock products is relatively large. Agricultural enterprises produce up to 10% of those products.

In terms of share in the area of sowing used within the corporate sector LLC and ALC have the advantage, and by share in the area of arable land advantages is belonging to state agricultural enterprises. It should be noted that, as a result of the recent restructuring measures, significant reduction in the share of state agricultural enterprises in the land use is observed.

During the post-reform period, it is possible to admit that the share of agricultural enterprises, as the main direction of changing in the role of types of holdings in the agrarian production sector of Azerbaijan, is a gradual increase. (Figure 1)

The tendency of an increase the share of the corporate sector covers the production of both plant and animal products. At the same time, the rates of growth of livestock products are higher.

In recent years, an increase the share corporate sector in agriculture has been attributed to the development of large-scale farms through government support for proving food security and export growth and the development of capital intensive productions (viticulture, vegetable production in covered soils, etc.).

In this regard, land plots used by agricultural enterprises have also increased. In 2010-2016, the area
of land suitable for agriculture has increased by 25.5 %, and the sowing areas by 3.3 %. At the moment, the creation of large farms on account of the state land reserve fund is stimulated by the state.

The change in the share of types of holdings in the production of agricultural products also has an impact on the effectiveness of resource utilization.

As it is evident from Table 2, the higher level of labor productivity in agricultural enterprises has been determined. However, this situation is not typical for the production volumes by the land plots used. The level of this indicator was relatively high in the non-corporate sector's economic unit. (Figure 2). The, private owner farms, family peasant farms and households in comparison with the agricultural enterprises have exceed accordingly 1.8, 1.4 and 1.3 times the average indicators for 2014-2016 of the total product per 1 ha of arable land, the planting product per 1 ha of sown area and the product of livestock per 1 ha of arable land.

![Figure 2. The volume of the production on types of holdings in the plots of land](image)

*Source: SSCAR data*

On the one hand, this is due to the fact that private owner farms, family peasant farms and households have more efficient use of land plots. According to the data of the agricultural census, in 2015, the ratio of non-cultivated lands to the total area of crops used by the entities was 10.2 percent. This is 1.4 times
higher than the corresponding indicator for the family peasant farms. It should be noted that researchers draw attention to the fact that low level of transaction costs in farms with the corresponding status is also low. (Gorton M., Davidova S. 2004)

On the other hand, the differences in the level of economic subdivisions of the indicators we have considered are related to the structural factor. Fields where crop production are relatively large are the production of sugar beets, grains, cotton, grapes and vegetables. Of them, according to sugar beet and as it can be seen from the Figure 3, provides relatively high yields on grains and vegetables. The share of agricultural enterprises in the cultivation areas of vegetables, which is significantly higher in productivity, is not high.

![Figure 3. Productivity of agricultural plants by types of holdings (average indicators of 2014-2016)](image)

*Source: SSCAR data*

As with crop production, there are significant differences between holding types by productivity of livestock and poultry levels. This can be seen from the data in the table

In the diagram, show ratio of share in the production and share in the number of animals and birds by economic unit categories in the average for 2014-2016. The higher value of ratio than 1 indicates that the appropriate types of holdings has the advantage over productivity. Apparently, agricultural enterprises have superior productivity indicators in the production of cow and buffalosed milk, poultry and eggs. The superiority degree is better reflected in the first product, the cow and buffalosed milk. In the production of beef, mutton and goat meat, as well as sheep and goat milk, private owner farms, family peasant farms and households have the advantage. Here's a relatively higher level of superiority in mutton and goat meat production.
Thus, holdings, which is included in the corporate and non-corporate agrarian sector, demonstrates different productivity indicators and different degrees of excellence in different fields of plant and animal husbandry.

4. CONDITIONS CAPACITY-BUILDING OF FARMS

Under current conditions structural changes are taking place in the sector of agricultural enterprises in Azerbaijan. Some of the inefficient enterprises stop their activity in the agrarian sector. At the same time, a new, as a rule, large-scale farms are created on the basis of state-of-the-art technologies. This policy continues with the creation of agriparks. According to the Ministry of Economy, 46 new agriparks will be created in the country in the field of plant growing and livestock.

Measures taken in this direction will result in a certain increase in the role of corporate sector in the production of agricultural products. According to calculations, the activity of the proposed agriparks will allow the share of agricultural enterprises to grow by 3-4 percentage points in the gross output of agriculture. However, the existence of certain limitations should be taken into account in this area of development. As already mentioned, new large-scale farms are created on account of the lands of the state's reserve fund (and on the basis of the change of purpose land). However, land plots that can be used efficiently in the long term in the relevant direction are limited. On the other hand, in fact, this rule results in the reduction of the family peasant farms and household production potential, limiting the forage base for animal husbandry under the historically-held farming system.

In addition to stimulating the establishment of agricultural enterprises (in areas where they show relatively high efficiency) in order to address food security issues and addressing the problems of agrarian
export potential, the focus should be on developing the capacity of non-corporate sector there is a need to be raised. The reason for this approach is that, in general, world practice shows that small-scale households have a specific and durable place in the agrarian sector, have sufficient internal potential to adapt to any changes in the environment, and as a result of the substantial agrarian reform carried out in Azerbaijan during system transformations, mainly due to the transfer of irrigated land to the property of family peasant farms. These farms have the potential to boost agrarian production and retain their social significance due to the resources they have. It should be noted that in the economic literature, investigative data on the adaptation of family farms to sustainability and market conditions are also given in other post-social space. (R. Sadikov, 2015). At the same time, it should be taken into account that the latest technologies (biotechnologies, the Internet, etc.) allow efficient organization of agricultural production within the small-scale farms and increase the capacity of such farms. This phenomenon is called an evergreen revolution by researchers. (UNDP 2001: p. 75)

The capacity-building of farms operating in the non-corporate sector of agriculture in Azerbaijan, especially of family peasant farms, which has a leading position in the sector, are related to many factors and conditions. From this point of view, it is possible to draw a number of points, taking into account the contemporary world experience in the relevant direction.

The economic activity of production unit in the non-corporate sector is still not fully separated from traditionalism. This situation, although favorable for the quality of products and environmental cleanliness of the products, does not allow achieving a high level of productivity. It would be incorrect to put all the responsibility on the obstacles associated with the small size of the farm. In world practice, including in developing countries, the use of modern methods, primarily use of mineral fertilizers and pesticides, has led to significant improvements in the conditions of small and small farming (in particular in the production of plant-growing products). The use of fertilizers in the non-corporate sector of agriculture in Azerbaijan is at a very low level. According to the Agricultural Census, 20.7 percent of the land used by family peasant farms in 2015 was fertilized, while the specific weight of pesticides was only 1.9 percent. These indicators were 47.7% and 8.5% respectively for agricultural enterprises. The use of modern technology in family peasant farms as well as in households is not widespread in other areas.

Enabling raise of productivity in peasant family farms and households based on modernization is connected with factors closely associated with each other.

Firstly, financial support for the development of production of agricultural products of peasant family farming and households, while still being supported by state aid measures, remains one of the major challenges. Keeping the priority of agricultural priorities in the field of economic development in the upcoming period will be aimed at the continuation of multilateral government assistance to this area. At the same time, there is a need to improve the forms and mechanisms of state financial assistance under new conditions. In this regard, it is expedient to discuss the main part of the proceeds from the state budget for the agricultural producers to replace them with preferential loans for the implementation of production in accordance with relevant international practice. The application of crediting in the mentioned order of agricultural production may be possible on the basis of establishing a specialized state bank or strengthening the existing agricultural lending institution and developing cooperation with its commercial banks in issuing loans. Systematic promotion of favorable lending products is, in turn, linked to the transition to modern insurance of agricultural products and animals.

Secondly, there is a need to adapt the system of provision with production resources to the needs of Peasant Family Farming. Presently, agricultural producers are provided with a state-controlled “Agrilizing” system on the preferential terms of technical means, mineral fertilizers and patesies. However, the types and varieties of the presented resources do not fully meet the needs of family peasant farming in the application of
modern technologies in the main agricultural fields. At the same time, the lack of a competitive market also creates difficulties in supplying with modernization tools.

Thirdly, the current education system is poorly oriented towards providing the necessary knowledge in the field of agricultural production. In this context, the integration of entrepreneurial education into the most appropriate form of education system is of particular importance for those engaged in the agrarian sphere, starting from elementary education and at different stages of the educational process, including universities (Antal Szabo, Ragib Guliyev, 2011: p.197).

Fourthly, the domination of small-scale economic unit in the institutional structure of the agrarian sector of the economy implies the necessity of forming strong advisory services for producers in the agricultural system. At present, the majority of family peasant farms and households are unable to obtain the necessary advice from a specialist in the production process. According to Agriculture Census Data, in 2015, only 6.8% of the family peasant farms having arable land area plots fit for agriculture and 1.8% of households used agronomic advice. (SSCAR Agriculture census 2015, p. 215). Consequently, the consultation service was unable to cope with being scientific provision of agriculture. There is a need to provide this service with an effective structuring and bringing it closer to the producer (giving "advice at the field").

There is a lack of competitiveness of products produced in family peasant farms and a lack of marketing organization. (Ramil Huseyn, 2018, p. 275) In the development of the production potential of non-corporate farms, their integration into the value chain in agribusiness can also play a prominent role. Establishing close cooperation of farmers with raw materials processing companies leads to the solution of issues related to the provision of producers with seeds that meet the relevant requirements, providing advisory services in meeting the technological requirements and providing them with affordable financing conditions. The development of contractual relationships between parties to the integration relationships is crucial to accelerate the process.

In the modern stage, the realization of the possibilities for possible consolidation of small Peasant Family Farm can play an important role in raising their productive potential.

At the same time, the necessity of solving the problems caused by the dominance of small-scale farming should be considered without substantial changes in the structure of the land ownership system. Increasing the size of farms in order to achieve productive efficiency should not lead to a fundamental problem - deprivation of the peasant's land, and the widespread use of farming based on labor use hired labor. In the current conditions of Azerbaijan, it can turn a peasant who is left without land to a detonator for social tension. (Xəlilov H.A. 2005: p. 79-80)

Taking into consideration the relevant world practice, one of the important aspects of the solution of the problem of the formation of a highly efficient system of farms in the agrarian sector is related to the extensive development of production and service areas outside the agro-industrial sector. Opening workplaces, which make it possible to obtain normal income in non-agricultural activity, leads to the use of a significant part of the labor intensive population engaged in the cultivation of small land plots for agriculture and for the creation of economically viable farms on the basis of freed land plots. However, we have to bear in mind that today's Azerbaijani realities do not meet the requirements for the development of production and service areas outside of the agrarian sphere.

In the light of the above mentioned, the possibility of increasing the size of farms through the transformation of plots of land owned by agri-business in Azerbaijan to other producers living and working in the village is limited. On the other hand, at modern demographic situation in rural areas, features of the inheritance right of Azerbaijan, are also expected to shrink the size of some of the family peasant farms and
households in the agrarian sphere (where to newly created families are not able to be allocated land to the required extent of municipal funds).

Given the above, the transformation of consolidation of farming in the agrarian sphere (the creation of optimal size farms) to one of the agrarian policy targets is not actual in terms of both real economic opportunities and social feasibility. However, at the same time, it is not necessary to create obstacles for landowners to widen their practice of co-farming on a voluntary basis.

With regard to the above mentioned issues, it is important to focus on the creation of adequate support mechanisms for the development of the family peasant farms in the field of improvement of agrarian structure, creation of favorable conditions for joining of these farms into the vertical integration of the agrarian-industry system, provision of organizational and financial assistance to cooperation of producers in the agro-services system. In this regard, the recent development of the country's legislation on cooperation in agriculture, as well as the implementation of the State Program on cooperative development of the country, will lead to a substantial expansion of opportunities. In 2016, the Law on the Agricultural Cooperation has been adopted and the State Program for the Development of Agricultural Cooperation for 2017-2022 has been approved in the Republic of Azerbaijan in 2017. The purpose of the State Program is to encourage joint agricultural activities of producers of agricultural products, to create favorable conditions for the organization of agricultural cooperatives based on volunteerism, to provide sustainable co-operative activities, and to support the formation and development of agrarian cooperation. (Azerbaijan Respublikasında kənd təsərrüfatı kooperasiyasının inkişafına dair, p. 16-17)

5. CONCLUSION

At the current stage, subject to the continuation of significant changes in the institutional structure of the agrarian sector of the economy of the Azerbaijan Republic, providing official statistical information on organizational-legal forms of enterprises engaged in agriculture is considered expedient in terms of the necessary evaluation of the role and effectiveness of each of them.

There is a need to promote the status of types of holdings in the unincorporated sector from the functional orientation of their activities in the agribusiness system and the institutional peculiarity, in order to obtain them a place in the priorities of agrarian policy in accordance with their role and potential.

At present stage, growth trend of the share of agricultural enterprises in the agrarian production leads to an increase in the gross volume of crops and livestock products, taking advantage of the modernization factors as well as the scale effect. However, it should be noted that advancements in this direction are related to natural resource limitation for productive use.

In the future, it will be necessary to stimulate the consolidation of land plots owned by different subjects, based on the expansion of use of more favorable organizational and economic mechanisms in the development of commodity production in separate industries. At the same time, taking into account the peculiarities of the circumstances, the process should not be accelerated artificially, they should be gradual and long-term.

The optimization of farming dimensions in the agrarian sphere will be resolved in the overall development of the country’s economy, acceleration of transition from traditionalism to rationalism in agrarian spheres, taking into account the concrete capabilities of the state in the process of modernization.

The dynamic development of multidisciplinary agriculture in the long term will depend on the continuity of policy measures to address the mutually-focused solution of issues related to the sustainability and capacity building of family peasant farming.
LITERATURE


Azərbaycan Respublikasında könd təşərufatı məhsullarının istehsalına və emalına dair Strateji Yol Xəritəsi Bakı 2016, 177 səh.

Ailə kəndli təşərufatının illik dövrünü yaxarı həddinin müəyyən edilməsi haqqında Azərbaycan Respublikası Nazirlər Kabinetinin Qərarı 16 yanvar 2006, №11


Xəlilov H. A. Aqrar iqtisadiyyatda system transformasiyaları və modernlaşdırma şəraitində Barkı “Mütərcim” nəşriyyatı, 2005, 228 p.


SSCAR Agriculture census 2015 (total information ) , Baku, 2016, 227 p.

SSCAR Agriculture census 2015 (grouping of farms by land area) Baku, 2016, 376 p.


SSCAR The agriculture of Azerbaycan Statistical yearbook, 2017


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AZERBAIJAN CARPETS. ITS ROLE IN THE LIFE OF THIS NATION

ABSTRACT

The paper presents the history of the Azeri carpet tradition, which is the ancient art of nations leaving along the Caucasian mountains. The author presents the Azeri carpet schools. The World of Carpets Association tries to restore the roots of carpet traditions. In this way a project was developed to bring back carpet school in Aran (low-lying areas) regions of Azerbaijan especially in villages. Because after harvesting rural people have nothing to do, and they start moving to cities and villages becomes empty. This project will employ them and protect this movement. Carpet tradition comes from culture root of our native. The Author is a leading person in Azerbaijan with world-wide reputation, who promotes the carpet waving culture not only in her country but also worldwide.

Keywords: Azerbaijan carpet, World of Carpets Association, Guba school of carpets

JEL Classification: L26, L67, O53

Azerbaijan is very popular with its carpets from the ancient times. Its each region each village has own special carpet compositions. The main fact is that Azerbaijan is the country with many ethnic and minority groups which came from the Prophet Noah at the period when the water withdrawal and the ground became drying tribal formations to these lands. But the history of carpet goes more deep. At the description of Quran we can find story about the Prophet Adam’s fist child the Prophet Sirs who spinning the camel’s wool prepared three kinds of dyes and weaved the carpet. In the description of Eden Garden there were used words as jewelry, rugs and carpets. From the world's creation the carpet has connection with humans. It was used in household, trade and even though in politic. All the time humans used three ways to send their messages to the next generation: by fairy tales, by messages on the stones and most of all by inscriptions and totems on carpets. The carpet mythology is so great science; unfortunately there were few rare occurrences to paing attention and deeply study. Azerbaijan Carpet tradition is the ancient art of nations leaving along the Caucasus Range Mountains. Ancient Chinese itinerant and scientist Su gave very deep information about carpets and noted that Azerbaijan carpet is the oldest and most valuable source of information. After creation of the Soviet Union time there was stolen the most valuable carpets from rich houses and palaces and delivered to Russia. Also at the same time the workshops of carpets and natural dyes of palaces and aristocrats’ houses were destroyed, using different reasons professionals in this sphere were arrested or departed. Despite all this Azerbaijan carpets still stands out and love.

There was the World Trade Way which name was The Silk way where carpets were purchased and sold. They were taken to the all places in the World. Because of its origin destination was very important. That is why according to the old trading laws carpets have three groups:

1. Middle Asia
2. Persian
3. Azerbaijan

Each GROUP has its training schools. For example: when we talk about Middle Asia Group we mean India, Pakistan, Uzbekistan, Turkmenistan, Kyrgyzstan and so on. This Group has 7 compositions. Persian Group includes Arabic and Farsi countries. There are 14 compositions in it.
Azerbaijan Group consists of 5 schools:

- Shirvan
- Guba
- Qarabagh
- Mughan
- Tebriz

This Group has 148 compositions.

1. Today Tebriz because of its area became to Iran.
2. Qarabagh School in scattered condition.
3. Shirvan School usually joins to Guba school
4. despite the historical significance Mughan School is unimportance situation
5. Guba School was the main school which played important role in the World carpet culture. The most compositions depend on to Guba school. Ancient Chinese scientist Su also gave importance to totems and mythology of this school. He recognized it as the oldest information book in the world. Guba school include composition from ethics living along the Caucasus even though from ethnics living in Dagestan. Unfortunately all these details were not researched.

In 1988, when the Soviet Union was broken out, I created special art school in Azerbaijan. The main directions were carpet, sewing and modeling. Difference of our school was that after finishing their trainings students could employ and continue education on the practice. It was the best way to bring back original tradition of carpet industry. Because there were just few professionals and big chaos in this field like alien technology, shallow compositions, technical malfunction, using of chemical dyes and synthetic row materials.

All these facts made me to make deep researches of situation in the field of Azerbaijan and other countries’ carpets, their problems and the ways leded to these problems. In 2002 we had an expert form England Dieneke Ferguson invited by BESO organization. During two weeks we had hard work with her. Working with her I changed my vision to this business. I really understood that on the way which I go I just need to find the ways for save this business. It was wrong management. And I started creation of new method of approaching to direct this business. Also I realized that it will change my children and my lifestyle. But there was no way back. The second expert and adviser Dr. William Miles (professor of Canadian University and also distributor of popular carpet expert in Canada and US Dr. Kazemi) was from Canada CECO Program. He worked with us in 2003. He worked with us two weeks. He helped us in the marketing and management way. How correct promote the product. To the end of his business trip he took eight carpets with him to advertise our business in Canada and receive feedback from the expert Mr. Kazemi. He could make little gallery in few places in Canada and received feedback from Mr. Kazemi, participants and citizens. We were glad to find out that we could repair the mistakes we did before works with the experts. Then he made researches about situation of Azerbaijan carpets in the World market. Unfortunately feedbacks were bad. And the second aim was to make researches of reasons and possibilities to bring back good reputation of this art. He did really great job with statistics and facts. Up to now we could achieve excellent results with the indispensable support of these two experts.

In 2005-2006, we had great chance to work with few experts from US. They prepared training program and the program was very productivity for our work. And in 2006 the business expert from US Mr. Rolf Gamble advised us to create Association Public Union and made training how to create Public Union and mange it. So soon we created The World of Carpets Association PU. Although the association did not have a technical and material base and support we started researching problems in this field of business and analyzing solutions of them. In this way I twice met with the Minister of Tourism and Culture of Azerbaijan Republic Abulfaz Qarayev, twice with the ex-Minister of Tax of Azerbaijan Republic Fazil Mammadov and
once with the ex-Minister of Ecology and Natural Recourses of Azerbaijan Republic Huseyn Bagirov. I frequently visit the Ministry of Economic Development of Azerbaijan Republic and discuss problems with deputies.

The World of Carpets Association has the main role in including Azerbaijan carpets to the list of Cultural Heritage UNESCO.

Today the Azeri Government pays special attention to this business area. There was created “Azerkhalcha” stock company and AZN 22,000,000 (1 AZN is equivalent to 0.506 EUR) was allocated to this company from the state budget and the government expects to earn double sum for future. The main goal is to reduce unemployment. They are constructing new buildings in cities for it and supplying with modern equipments. It means that handmade carpet tradition partly transfers to industry.

Following advices and feedbacks from experts The World of Carpets Association tries to restore all roots of this art. In this way we are working on a project to bring back carpet school in Aran (low-lying areas) regions of Azerbaijan especially in villages. Because after harvesting rural people have nothing to do and they start moving to cities and villages becomes empty. This project will employ them and protect this movement. Carpet tradition comes from culture root of our native. That is why people adopt it easily. It also close to nature where they could take natural dyes. Income taken from carpet is enough for rural families but not for families from cities.

The World of Carpets Association continually engages in searching for ancient and lost compositions. There is different kind of carpet technology in Azerbaijan. The Association promotes and trains them. We are mainly trying to find ways for preparing natural dyes plantations and natural dyes laboratory. In 2017 with support of US Embassy and The Ministry of Economy Development of Azerbaijan Republic with the aim of development of carpet sphere we created carpet workshop in Guba in the far mountainous village Alpan. US Embassy spent AZN 75,000, The World of Carpets Association spent AZN 40,000 and local community supported with masters in construction work. The project gives good results.

Here also was created community “Danishan Ilmeler” (Talking loops) for rural women. This community can work not only for development of carpet sphere, it can also solve rural issues. But now The World of Carpets Association and Talking loops Community Unions work together to explain people from the world about important role of carpet in their economy and morally life.

Today all three organizations I rule are hardly working on handmade carpets and learning about old carpet tradition and secrets. Having results of all our researches we put the aim that we have to prepare strong strategy plan. One of our projects was confirmed by Europe Union, but unfortunately we can not find the organization, which could give us financial support. This project could solve the problems not only in the carpet sphere even it could lift economy situation in three places of our Republic where is real crisis in economy.

The carpet weaving culture of Azerbaijan from the ancient time has been undergone to jealousy by some neighbors. But none of them does not understand that it is impossible to own the culture if it is not your root. Carpet is the best gift to human by God. If you love it and care about it, you will find luck. But if you destroy it you will lose important things in your life. Carpet, stones and fairy tales are greatest gift to us! So let’s save the World!
REMARKS BY THE EDITOR:

Fatima Aghamirzayeva enrolled to technical college in 1967 and graduate in 1971. In 1974 was enrolled at Technology faculty of Polytechnic Institution in Makhachkala, Dagestan. In March 1974, she found sewing courses at Guba Teachers House, which were consecutively active till 1988. At the same time sewing courses were opened during 3 years in Baku. The lack of teaching materials was the reason of creation "Learn to sew" book by Fatima, which was accepted for government program and was issued by Azerneshr. Later, Fatima writes "Sewing Practice" and "Gözəllik ondur" books which were included into official education program.

According to WIKIPEDIA Profile (see at https://en.wikipedia.org/wiki/Fatima_Aghamirzayeva) Fatima Aghamirzayeva started as an entrepreneur in 1988 with opening of technical school on dressmaking and carpeting named "AYGÜN". The enterprise was investigating the market, its problems and ways of their solving together with invited specialists from England, Canada, US and France. Fatima is the honorary member of such European organizations as "Leader Women", the United Nations Economic Commission for Europe, ERENET, had twice participated in discussions of Geneva Committee on Projects. In 2002, she was awarded as the "Entrepreneur of a Year" UN Competition among 55 European countries. Fatima is also a member of Turkey based International Organization KAGİDER. She is also participant of US and Romania "Foundation of Business Incubations" government programs and TOT training programs. Fatima has represented Azerbaijan carpets at exhibitions in Turkey, Germany and later on in Kuwait and Iran at the same time providing workshops. In 2006 founded World of Carpets Association IB (Xalça Dünyası Assosiasiyası (XDA)) which is currently the official member of UNESCO. WCA is involved in discussion of problems related to carpeting and carpet-makers.

SOME OF THE CARPITS BY FATIMA
Three generations of the Quba Carpet factory:

Owner and founder of the Quba Factory: Fatima Aghamirzayeva with the UNECE Diploma on Best Entrepreneur of the Year 2002

The Daughter of the Quba Factory: Aygün Aghamirzayeva, Marketing Director with the Prospective Generation

Photos © by Dr. Antal Szabó
WHY IS THE DISCLOSURE OF BENEFICIARIES IMPORTANT?

Despite leaving the EITI in 2017, Azerbaijan declared its commitment to the EITI principles. This is confirmed in the presidential decree dated 5 April 2017\(^4\). Clause 1 of the document states the following:

“The application of transparency and accountability standards to the extractive industry in the Republic of Azerbaijan shall be continued on the basis of the following international principles…”

According to the decree, a Commission on Extractive Industries Transparency has been established and the preparation and publication of annual Extractive Industry reports shall be continued. It is possible to say that the report for 2016 was prepared in accordance with EITI requirements\(^5\). Along with requirements, the EITI Standard 2016 also contains recommendations. One of them has to do with the disclosure of beneficial ownership. So what is a beneficial ownership? Current Azerbaijan legislation does not provide a definition of this concept. At the same time, the “Key Concepts” article of the Law of the Republic of Azerbaijan “On fighting the legalization of financial resources or other property acquired in an illegal way and the financing of terrorism”\(^6\) provides the following definition of a Beneficial Owner:

1.0.12. beneficial owner – a natural person or a corporate entity which has derived economic or other benefit from the transactions involving financial resources or other property, including the actual owner of the corporate entity in whose favor such transactions have been implemented or a natural person exercising control over a customer and (or) implementing financial or any other transactions or a natural person exercising control over a corporate entity;

This concept was incorporated into the Law on 13 May 2017. The previous edition of the law did not have a definition of a beneficial owner. It only contained the definition of a beneficiary, and it was slightly different\(^7\). After this amendment was made to the law, the concept of a beneficiary was replaced with a beneficial owner in a number of other laws.

At present, the concept of a beneficial owner is used in a number of laws. For example:

- “On banks” (a relevant amendment to the law was made on 31.05.2018);
- “On the securities market” (a relevant amendment to the law was made on 31.05.2018);
- “On investment funds” (a relevant amendment to the law was made on 31.05.2018);

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\(^4\) http://e-qanun.az/framework/35174
\(^6\) http://e-qanun.az/framework/16347
\(^7\) Beneficiary – a natural person or a corporate entity which has derived economic or other benefit from the transactions involving financial resources or other property, as well as the actual owner of the corporate entity in whose favor such transactions have been implemented or a natural person exercising control over a customer;
“On post” (a relevant amendment to the law was made on 31.05.2018);
“On insurance activity” (a relevant amendment to the law was made on 31.05.2018);
“Code on Administrative Offences (a relevant amendment to the law was made on 13.06.2017)”.

The concept of a beneficial owner has been included not only in the laws but also in other regulatory documents. In particular, the concept of a beneficiary in the “Guide on notarial actions in the Republic of Azerbaijan” was replaced with a beneficial owner on 11.10.2017.

So, our research suggests that the concept of a beneficial owner was first used in the “On fighting the legalization of financial resources or other property acquired in an illegal way and the financing of terrorism” (on 13.05.2017). The concept of a beneficial ownership appeared in the latter half of 2016. It is known that the new Extractive Industries Transparency Initiative (EITI) Standard was adopted in 2016. Clause 2.5 of the Standard is called Beneficial Ownership.

Therefore, the concept of Beneficial Ownership was used one year earlier than the concept of a Beneficial Owner during the translation of the Extractive Industries Transparency Initiative (EITI) Standard for 2016. The Standard provides the following definition of the concept of beneficial ownership (Clause 2.5.f.i):

A beneficial owner in respect of a company means the natural person(s) who directly or indirectly ultimately owns or controls the corporate entity.

In comparison with the concept of a beneficial owner (in the Law of the Republic of Azerbaijan “On fighting the legalization of financial resources or other property acquired in an illegal way and the financing of terrorism”), this concept is simpler and applied only to the owners of corporate entities. Considering the fact that the concept of a beneficial owner has already been introduced to a number of Azerbaijan regulatory documents (listed above), it would be expedient to use this concept in the documents pertaining Extractive Industries Transparency in the future. Otherwise, further amendments would have to be introduced to a number of legislative documents (laws, decisions, etc.). Legislators should probably decide on which of the two concepts to use.

Recommendations regarding the disclosure of beneficial owners (hereinafter referred to simply as beneficiaries) were first contained in the Extractive Industries Transparency Initiative (EITI) Standard 2013. A new EITI Standard was adopted in 2016 and clause 2.5 of this Standard dwells upon the issues of Beneficial Ownership. Clause 2.5a of the Standard recommends maintaining a special register of beneficial owners:

“It is recommended that implementing countries maintain a publicly available register of the beneficial owners of the corporate entity(ies) that bid for, operate or invest in extractive assets, including the identity(ies) of their beneficial owner(s), the level of ownership and details about how ownership or control is exerted. Where possible, beneficial ownership information should be incorporated in existing filings by companies to corporate regulators, stock exchanges or agencies regulating extractive industry licensing. Where this information is already publicly available, the EITI Report should include guidance on how to access this information.”

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8 http://e-qanun.az/framework/488
It is evident, it is important to make this register publicly available. The Extractive Industries Transparency Initiative (EITI) Standard (cluster 2.6.b) contains certain requirements pertaining to the disclosure of beneficiary ownership:

i. **The EITI Report documents the government’s policy and multi-stakeholder group’s discussion on disclosure of beneficial ownership.** This should include details of the relevant legal provisions, actual disclosure practices and any reforms that are planned or underway related to beneficial ownership disclosure.

ii. **By 1 January 2017, the multi-stakeholder group publishes a roadmap for disclosing beneficial ownership information in accordance with clauses (c)-(f) below.** The multi-stakeholder group will determine all milestones and deadlines in the roadmap, and the multi-stakeholder group will evaluate implementation of the roadmap as part of the multi-stakeholder group’s annual progress report.

It is worth noting that up until April 2017 Azerbaijan (as an EITI member) followed the above-mentioned “i” provision of the EITI Standard. Likewise, while Azerbaijan was an EITI member prepared and published a multi-stakeholder roadmap for disclosing beneficial ownership information in December 2016.10

The EITI Standard 2016 contains provisions relating to time-limes for disclosing beneficiaries (2.5.c). In particular, as of 1 January 2020, it is required that implementing countries request, and companies disclose, beneficial ownership information for inclusion in the EITI Report. This applies to corporate entity(ies) that apply for, or hold a participating interest in an exploration or production oil, gas or mining license or contract and should include the identity(ies) of their beneficial owner(s), the level of ownership and details about how ownership or control is exerted. Any gaps or weaknesses in reporting on beneficial ownership information must be disclosed in the EITI Report, including naming any entities that failed to submit all or parts of the beneficial ownership information. Where a country is facing constitutional or significant practical barriers to the implementation of this requirement by 1 January 2020, the country may seek adapted implementation in accordance with requirement 8.1 of the EITI Standard.

So what is the attitude of the Azerbaijani Government to disclosing beneficiary information? The following facts attest to the presence of a positive or at least an attentive approach:

- In 2016, the multi-stakeholder group approved a roadmap for disclosing beneficial ownership information (some information about the roadmap will be provided below);
- The Government Commission currently supports a project on the application of this roadmap funded by the Asia Development Bank;
- In November 2017, the topic of “EITI and beneficial ownership: analysis of other countries’ experience and preparation of suggestions on applying it to Azerbaijan” was included in the grant competition announced by the State Council for Support of Non-Governmental Organizations under the President of the Republic of Azerbaijan11. This preparation of this article is part of a project by Partnership in Economic and Social Initiatives, the public association that won the said competition (the author was involved in the project as an expert).

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Therefore, it is possible to say that the Azerbaijani Government is interested in the issue of disclosing beneficiaries. The roadmap for disclosing beneficiary information adopted in December 2016 includes the following sections:

- Introduction;
- Coverage;
- Objective;
- Concept of beneficial ownership;
- Roadmap structure;
- Key activities;
- Monitoring;
- Budget;
- Content (Actions).

The Introduction of the Roadmap states that this document “… has been prepared in accordance with the recommendations of the Extractive Industries Transparency Initiative (hereinafter referred to as “EITI”).

The document also states that “The key objective of the framework to disclose beneficial ownership information is to achieve greater extractive industry transparency and prevent cases of corruption and tax evasion on the part of irresponsible corporate entities”.

The Actions section of the Roadmap covers 11 directions:

1) Link between beneficial ownership (BO) and national reform priorities;
2) Legal reforms required for BO;
3) Institutional framework for BO disclosure;
4) Concept of beneficial ownership;
5) Accountabilities of political figures;
6) Level of detail of information to be collected and disclosed;
7) Collection and openness of information;
8) Accuracy of submitted information;
9) Updatability of submitted information;
10) Knowledge building;
11) Monitoring.

The roadmap outlines the following actions to be under the second direction:

- To conduct discussions with the Milli Majlis (parliament) and Presidential Administration of the Republic of Azerbaijan to introduce the proposed amendments to national legislation;
- To introduce relevant amendments to the Law of the Republic “On subsurface resources” to reflect the concept of beneficial ownership and the process of disclosure of beneficial owners;

In order to integrate the mechanism for disclosing beneficial owners into the existing register of commercial legal entities of the Ministry of Taxes of the Republic of Azerbaijan, to introduce relevant amendments to the Law of the Republic of Azerbaijan “On state registration of legal entities and the state register”;

To prepare a draft of the proposed amendments.

According to the roadmap, the preparation of draft amendments to national legislation was to be completed at the end of June 2018. The work was to be carried out by an external legal consultant. This is being done by BDO with support from the Asia Development Bank. The delay has been caused by Azerbaijan leaving the EITI.

Article 2 of the above-mentioned Law of the Republic “On subsurface resources” is called “Principles for using subsurface resources”. This article contains the following principle:

- Use of subsurface resources in the conditions of openness;

However, no explanation is provided of such openness.

Article 8 of the said Law is called “Users of subsurface resources” and Article 9 is called “Rights and responsibilities of users of subsurface resources”. These articles do not set forth any requirements in respect of beneficiary disclosure.

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13 [https://www.bdo.az/az-latn-az/bas-s%C9%99hif%C9%99](https://www.bdo.az/az-latn-az/bas-s%C9%99hif%C9%99)
Article 4 of the Law of the Republic of Azerbaijan “On commercial secrets” is called “Information considered to be a commercial secret”. The article states the following:

4.1. Except for the following, the information of legal entities and natural persons consistent with the requirements of this Law is considered to be a commercial secret:

4.1.1. Information representing a state secret;

4.1.2. Information stated on constituent documents (except for information on founders (participants) of a commercial legal entity and their respective shares in the charter capital);

Therefore, this Law does not consider information on beneficial ownership to be a commercial secret.

Article 18 of the Law of the Republic of Azerbaijan “On state registration of legal entities and the state register” is called “Openness of the state register”. This article says:

18.1. With the exception of information on founders (participants) of a commercial legal entity and their respective shares in the charter capital, every person has the right to become familiar with the information shown on the state register, require an extract from the state register and copies of documents submitted for registration purposes. A relevant body of executive authority of the Republic of Azerbaijan shall, upon a request by any person, provide information on whether a legal entity is or is not registered by the state.

18.2. Other information envisaged in national legislation in respect of state registration of legal entities, representative and branch offices of foreign legal entities and their inclusion on the state register, as well as incorporation and activities of legal entities (except for information on founders (participants) of a commercial legal entity and their respective shares in the charter capital) shall be published in an official state newspaper for general familiarization purposes.

Therefore, it is this law that prevents official disclosure of beneficiaries.

International experience shows that the non-disclosure of beneficiaries by corporations takes place mainly because of their behind-the-scenes directors. This, in turn, creates favorable conditions for corruption, tax evasion and secret funding of terrorism. In fact, the disclosure of beneficiaries:

- Reduces the risk of corruption and tax evasion. If a beneficiary is a senior official, there is a higher risk that his company may obtain an unfair advantage in state purchases. This means that the state budget would incur certain losses and the overall competition environment would be compromised. This is why Azerbaijan legislation prohibits government officials to engage in business activities. Whether or not the beneficiary is a government official, non-disclosure of the beneficiary paves the way for tax evasion;

- Saves the persons with important political functions from the conflict of interest. This is possible only if national legislation explicitly provides for beneficiary disclosure;

- Beneficiary disclosure makes it easier for companies to access external funding, as it opens the doors to securities markets and creates favorable conditions for selling their shares;

- Investor confidence in the companies disclosing their beneficiaries increases. What investor would be

15 http://e-qanun.az/framework/2861
16 http://e-qanun.az/framework/5403
the shares of an unknown or unofficial company?

- Public confidence in the companies disclosing their beneficiaries increases;
- Beneficiary disclosure reduces the risk of financing terrorism.

Is there anything in Azerbaijan’s extractive industry today that is not transparent and remains hidden? Unfortunately, there still is:

- What regulatory document (law, decree, etc.) governs the selection of foreign companies selected and the signing of contracts with them? After being signed, the contracts are ratified and signed into law by the parliament, but the entire process is not governed by any legislative act. This has been practiced for many years, but whether that is sufficient is rather questionable. After all, it is not just a business area, it is associated with the exploration and production of the state’s natural resources. The award of a license in this area must be governed at the most rigorous level. Such legislative probably does exist, but it is not being disclosed;
- Results of audit on oil and gas reserves. SOCAR has hired a foreign company to perform such an audit, but the results have not been disclosed. Today, Azerbaijani citizens, experts, journalists and investors, including foreign ones, have to apply to BP statistics for reliable information;
- Beneficiaries of a number of companies operating in the extractive industry (of course, this does not apply to trans-national companies whose beneficiaries are known). In some cases, the companies signing oil and gas contracts do not even have a web page.

Some EITI member-countries have made great strides in beneficiary disclosure. Here is information about some of them. It is extremely important to eliminate such cases. A total of 51 countries are involved in the EITI. Multi-stakeholder groups in 50 of them have approved roadmaps for beneficiary disclosure 17.

All these roadmaps are available on the EITI web page18. The roadmaps have been prepared on the basis of EITI recommendations and are therefore quite similar. The key action stated on the roadmaps is to introduce changes to legislation to ensure beneficiary disclosure.

**Kyrgyzstan.** For its efforts towards beneficiary disclosure, Kyrgyzstan received a special award of the EITI Chairman (Frederik Reinfeldt) at the “Opening up ownership” conference held in Jakarta, Indonesia, on 23-24 October 201719. Representatives from more than 50 countries attended the conference. The first attempt at beneficiary disclosure was made in Kyrgyzstan during the preparation of the EITI report for 2014.

Following amendments introduced to the Law “On subsurface resources”, companies operating in the country’s extractive industries are required to disclose their beneficiaries. The law also envisages serious penalties for false information. The government is currently working on a special register.

The European Bank for Reconstruction and Development (EBRD) assisted the Kyrgyz Government in preparing the roadmap. Three UK-aided training programs on beneficiary disclosure were implemented in Bishkek for: 1) members of the country’s EITI Council; 2) Representatives of the civil society; and 3) journalists. In addition, a Communication Strategy on beneficiary disclosure was adopted20. Also, on a request from the business community, law firm Kalikova & Associates performed a risk analysis on beneficiary disclosure.

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18 https://eiti.org/publication-types-public/beneficial-ownership-roadmaps
disclosure. After reviewing the results, stakeholders said that beneficiary disclosure would not cause any insurmountable risks.

Kazakhstan, too, introduced amendments to its Code “On subsurface resources” and compelled oil, gas and mining companies to disclose their beneficiaries. In other words, any company applying for a license is required to disclose its beneficiaries and provide updates if the beneficiaries change. The country launched the pilot application of the law in its 2016 report.

Ukraine. This country has introduced the world’s first register of beneficial ownership of legal entities and a special register of government officials’ assets. The Government started this work, which covers all companies, in 2014. So far, 70 percent of the companies have been covered (including the extractive industry). All information is public and easily accessible. The register is updated by the Ministry of Justice. The Government of Ukraine received a “Mark of Distinction” at the “Opening up ownership” conference held in Jakarta, Indonesia, on 23-24 October 2017.

Mongolia. The first attempt at beneficiary disclosure was made during the preparation of the EITI report for 2013. The multi-stakeholder group suggested to 250 companies that they disclose the beneficiaries possessing an interest share of more than 5 percent. 215 companies did that. In the following years, fewer companies disclosed their beneficiaries. In particular, in 2016 only 47 of 213 companies disclosed their beneficiaries. According to the roadmap, the Report for 2018 (to be released in 2019) shall disclose the beneficiaries of all companies. The issue of beneficiary disclosure has been included in the 2017-2023 National Anti-Corruption Program and the State Policy on Mineral Resources for 2014-2025.

Albania. During a global EITI conference held in Lima in 2016, the Albanian energy minister stated that the Albanian Government was in favor of beneficiary disclosure. In 2017, the Albanian EITI Secretariat prepared a draft EITI law, which requires beneficiary disclosure. The law is expected to be adopted. During the preparation of the EITI report for 2015, a total of 134 companies were offered to disclose their beneficiaries. Of these, only 31 submitted the information. In 2016, the Albanian EITI Secretariat conducted a survey among Albanian citizens, asking two questions: 1) Are the actual owners of companies known to you? 2) Do you think that companies are concealing their actual owners? The results of the survey showed that citizens think that companies are actually owned by politicians.

UK. In order to encourage disclosure of beneficiary information, amendments were introduced to national legislation in 2015, which resulted in the creation of the world’s biggest register of beneficial ownership (persons controlling companies). The register has an interesting name: “Persons with Significant Control”. It covers close to 4 million companies registered in the United Kingdom, and is open and easily accessible. The register was developed in accordance with the UK Law “On small businesses, entrepreneurship and employment” in June 2016. To date, 2 billion people have accessed the register. The register is part of the “Companies House” register. The disclosure of this information allowed civil society the opportunity to conduct their evaluations and find errors for the Government to correct, which will improve the accuracy of

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22 https://usr.minjust.gov.ua/ua/freesearch
23 https://eiti.org/mongolia#beneficial-ownership-disclosure
26 https://eiti.org/united-kingdom
27 https://www.gov.uk/government/organisations/companies-house
the database. The UK Government received a “Mark of Distinction” at the “Opening up ownership” conference held in Jakarta, Indonesia, on 23-24 October 2017.

Again, all EITI countries have approved roadmaps on beneficiary disclosure, and there are plans to disclose all beneficiaries by 1 January 2020. Civil societies of all the countries have been heavily involved in the preparation of roadmaps and the overall disclosure of beneficiaries.

It is also worth noting that beneficiary disclosure is not only in the best interest of the EITI. It is of global nature. And the reasons have been described above.

Article 30 of the 4th EU Anti-Money Laundering Directive (4AMLD) requires member-countries to have provisions on beneficiary disclosure in their laws, stating that accurate information as of 16 November 2016 must be reflected in their respective registers. The next EU Directive 5AMLD (adopted on 14 May 2018 and entered into force on 9 July 2018) contains provisions regarding a centralized register. The global beneficiary register contains publicly available and free information about 5,078,866 companies (this includes: UK PSC Register, Denmark Central Business Register (CVR), Slovakia Public Sector Partners Register, Ukraine Unified States Register (EDR) and EITI pilot data).

It is worth mentioning that the criterion for including a certain beneficiary into the beneficiary register (registers) is the participating interest in a company. This percentage varies in different countries: from 5 to 25 percent. We believe that if this criterion is above 10 percent, this increases the risk of actual owners concealing themselves.

To conclude, countries of the world have made major progress in disclosing beneficiaries. Can Azerbaijan remain on the sidelines of this process? Should it? We believe that it should not, as our countries should evolve alongside civilized countries. We believe that the following is important:

1. It is necessary to introduce amendments to the Law of the Republic of Azerbaijan “On state registration of legal entities and the state register” and ensure that information about founders (participants) of commercial legal entities and their interest shares in the charter capital is publicly available.

If such an amendment is introduced, the beneficiary disclosure requirement will apply to all companies regardless of the nature of their activity. If that is not possible and the decision is made to apply beneficiary disclosure only to extractive industry companies, then it would be possible to introduce amendments only to the Law “On subsurface resources”;

2. During talks with extractive industry companies, special attention should be paid to whether information about its beneficiaries is in the public domain. Agreements should not be signed with companies whose beneficiaries are not known;

3. Considering the fact that the concept of beneficial owner is already used in a number of legislative acts, it would be appropriate to use this term in future documents related to extractive industry transparency.

4. The media should extensively promote the importance of beneficiary disclosure;

5. Representatives of the civil society should make a call to all extractive industry companies to disclose their beneficiaries. If such a call is heard, then very good. If not, it will lead to further steps;

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29 https://register.openownership.org/
6. Steps should be taken towards disclosing the beneficiaries of the companies with which SOCAR has signed agreements starting from 2020;

7. Consider the possibility of declaring an amnesty for the beneficiaries of Azerbaijani companies who voluntary disclose themselves before 2020.

We think that all these may be important steps. Along with the sustainable non-oil economy growth, the future development of Azerbaijan also depends on the application of good governance principles (transparency, accountability, rule of law, and involvement). We must not forget that.
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INNOVATIVE ENTREPRENEURSHIP AND STARTUPS IN GEORGIA

ABSTRACT

Georgia’s sustainable economic development relies on a strong private sector. Business friendly environment, entrepreneurial opportunities and innovations create solid basis for further development. Innovations became one of the most challenging perspectives for Georgia during the last years. Positive trend is reflected in increasing number of startups in the country. The study brings together important trends of positive statistics and international ratings evaluations. This paper also highlights governmental steps in the direction of making attractive business environment, among them governmental programs and reforms. The paper gives also information about the macro-economic Statistics of Georgia, innovation Ecosystem in the country, as well as innovation and technology development priorities and about the program „Produce in Georgia“, which is implemented by three state agencies: Enterprise Georgia, Agricultural Projects’ Management Agency and National Agency of State Property.

A pilot survey was conducted on startups in Georgia in September of 2018, whereby the intention was to collect primary information, report current demands, and develop conclusions and recommendations. The aim of survey was understanding of the main characteristics and unique qualities of innovative businesses. It would also clearly show the major problems and challenges faced by startups. After investigating and analyzing existing data, collecting new information, combining existing and new information, identifying key priorities, conclusions and recommendations were made for the further development of startups.

The study results showed that 85% of innovated Georgian business started operation less than 5 years ago. Most of startups are registered as an individual enterprises (95%). 70% of startups are employing 1-2 persons and most of them (95%) were involved in training courses. Study results reflected that most of innovated businesses are getting information through internet (85%) and their desirable training program is entrepreneurship training courses. 50% of questioned startups desire governmental support in financing while 45% seek contact establishment. Identified problems involved lack of finance (80%), lack of latest technologies (10%), and lack of education (5%).

Keywords: GEL – Georgian Lari, GITA – Georgian Innovation and Technology Agency, SME – Small and Medium sized enterprises, FabLab - Innovation and fabrication laboratories

JEL Classification: L15, L16, L53

REFORMS IN GEORGIA

After gaining independence Georgia has undergone huge work accompanying with extensive reforms implementation. Converting the country’s economy from Soviet socialist system to the free market economy required a lot of hard work and energy both from the government and from business side. Plenty of economic ideas and theories have been discussed and estimated during the years. The process of altering the economy required changes in the entire public governance system as well as in people’s mentality. However, most of the successful reforms came about that made Georgia world’s top reformer country. Governmental steps
containing tax cutting and reducing business regulation stipulated attractive business environment and enhance foreign direct investment inflow. This ultimately helped to create jobs, stimulate entrepreneurial activity in various fields of the economy and increase welfare of the population. Promoting the development of private sector is one of the main goals of country’s economic policy. Therefore, the need to develop private enterprise in Georgia was at the heart of the reforms implemented in the country. In addition to developing private enterprise, creating a transparent public sector was one of the main challenges of the Georgian democracy. In summary, the liberalization of Georgia’s economy helped to create jobs, attract foreign investments, develop tourism, and improve the country’s macro-economic indicators.

Deloitte in the publication released in 2017 „Guide to Taxation and Investment in Georgia“ called Georgia as an aspiring economic center of the Caucasus. In publication is describes that the country boasts years of robust economic growth, liberal tax and labor legislation, business friendly practices, low corruption, high security and openness to foreign investment. Deloitte underlines that Georgia signed the association agreement with the EU in 2014 and an aspiration to join the EU will guide future policy decisions. Also mentions that on February 2nd 2017, the European Parliament voted in favor of visa-free travel for Georgian citizens to the Schengen Area at the plenary session and the visa-free regime between Georgia and the EU will enter into force in April 2017. Georgia has state and private investment funds that welcome foreign investments to implement large scale projects in agriculture, tourism and hydro energy generation. [11]

Georgia is the Top Improver since 2003 in EE&CA and globally with 47 institutional and regulatory reforms according to the World Bank’s report „Doing Business 2018“. In 2018, Georgia is listed among the regional leaders in the top 20 countries on the total count of reform. Economic growth in Georgia is supported by structural reforms and appropriate economic policy, which is guided by our Government’s 4-point reforms agenda. This reforms plan was elaborated for boosting economic growth and includes 4 key directions, where reforms are ongoing:

Pension reform - The draft law on „Private pensions Saving“ (Pillar 2) is approved by the Parliament. The work on secondary legislation has also finished. In August Government of Georgia adopted decree on Pension Agency, as well as development of IT infrastructure is in progress. Herewith, MOESD is actively working on the elaboration of the draft law on „Supplementary Pensions Saving“ to ensure that all components of adequate legislation framework are in place coming from II and III pillar.

Capital market development - The draft law on taxation and administration changes in Georgian tax code, needed for capital market development has been enacted. Herewith, MoESD is actively working on the elaboration of draft on „Investment Funds“.

Public-Private Partnership (PPP) - In May 2018, the law on „Public Private Partnership“ was adopted by the parliament. At the same time, working on elaboration of secondary legislation has also finished. In August Government of Georgia approved the regulation on elaboration and implementation of the Public Private Partnership projects.

Business House - For the digitalization and integration of services into unified web portal action plan has been elaborated. According the plan around 800 services will be optimized, digitalized and integrated gradually by 2020. As well, construction of physical infrastructure is ongoing. We expect business house to be operational by the end of 2019.

Mining Reform - The first phase of complex and large scale reform in mining industry, supported by EBRD will be implemented in 2018. According to the project, the new state policy and relevant strategy are planned to be elaborated at the end of this year and this will lead further to the creation of a new legislative framework that reflects the best international practice and implementation of the International Environmental Principles. Reform envisages development of modern methodology for the deposits processing, reduction of
study fees, increasing transparency, and development of commercially attractive and economically viable mining system and establishment of modern standards for the inventory estimation. Reform will promote sustainable management and rational utilization of resources, development of efficient and transparent system and simplified business procedures. [13]

In terms of simplifying business environment for enterprises should be mentioned the new tax regime, which came into force for Georgian Small Businesses from July, 2018. The new tax regime imposes a minimum tax burden (1%) for small businesses. There was changes in the law and regulations and a new definition was given to small business owners: entrepreneurs’ yearly income amounts to GEL 500,000 instead of GEL 100,000. These changes addresses about 120,000 entrepreneurs. There was also modified the definition of SMEs.

Till 2017 year size of enterprises was determined by the following methodology: Large enterprise - an enterprise with average annual number of employed exceeds 100 persons and/or volume of average annual turnover - 1.5 million GEL; Medium size enterprises - enterprises with average annual number of employed ranges from 20 to 100 persons and average annual turnover – from 0.5 million to 1.5 million GEL; Small size enterprises - all enterprises where average annual number of employed does not exceed 20 persons and average annual turnover - 0.5 million GEL. Since 2017 size of enterprises determined by the following methodology: Large enterprise - an enterprise with average annual number of employed exceeds 249 persons and/or volume of average annual turnover - 60 million GEL; Medium size enterprises - enterprises whose average annual number of employed ranges from 50 to 250 persons and average annual turnover – from 12 million to 60 million GEL and Small size enterprises are enterprises where average annual number of employed does not exceed 50 persons and average annual turnover - 12 million GEL.

GEORGIA IN INTERNATIONAL RATINGS

Reforms that were implemented and which are being implementing together with the economic policy brought results that are well reflected in various international ratings. According to „Doing Business 2018“ (World Bank), Georgia took the 9th position among the 190 countries as its position was improved by 7 steps compared to the previous year. Distance to Frontier of Georgia improved by 2.12 points and amounted to 82.04 score. In 2018, Georgia is listed among the regional leaders in the top 20 countries on the total count of reform. In 2018 Georgia takes 1st position in region – Europe & Central Asia (amongst 24 countries). Georgia is in the list of top ten countries in the following indicators: Protecting Minority Investors – 2nd position Registering Property - 3rd position, starting a Business – 4th position, Enforcing Contracts - 7th position. [1]

According to „Economic freedom of the world 2017“ (Frazer Institute), In 2015 Georgia is in the list of top ten countries and takes 8th position with the score of 8.01 amongst 159 countries with Mostly Free Group. Compared to 2013, the rating score decreased by 0.01 points. „Economic Freedom of the World 2017“ indicates Georgia’s position improvement in 3 indicators out of 5 (Government size (5th place), Freedom to trade international (5th place), regulation (28th position)).

Georgia’s position improved in the following components, such as: government spending, government enterprises and investment, protection of property rights, legal enforcement of contracts, inflation, tariffs, regulatory trade barriers, business regulation, credit market regulation, legal system, judicial independence, reliability of police, labor market regulation and etc. [2]

According to „The Global Competitiveness Index 2017-2018“ by World Economic Forum, Georgia’s position was decreased compared to previous year by 8 steps and took the 67th place out of 137 countries with the score of 4.28. Georgia’s ranking score decreased by 0.04 point. According to „The Global Competitiveness Index 2017-2018“, Georgia is in the list of top ten countries in the following 8 sub-
components among the 137 countries, such as: annual inflation (1st place), trade tariffs (4th place), time to start a business (6th place), number of procedures to start a business (7th place), strength of investor protection (7th place), total tax rate (8th position), burden of government regulation (9th place), malaria incidence (1st place). Georgia’s position has improved in the following fields: Business sophistication, Innovation, Intellectual property protection, Public trust in politicians, Country credit rating, total tax rate, ease of access to loans. [3]

According to , „Corruption Perception Index 2018“ (Transparency International), in 2017 Georgia’s position decreased by 2 positions and takes 46th place with the score of 56 amongst 180 countries. In 2017, Georgia’s score decreased by 1 point. Georgia takes 1st position amongst 19 countries in East Europe and Central Asia region. The ranking score of Georgia (56 score) exceeds both regional average (34 score) and world average scores (43 score). [4]

The World Bank’s „Fostering Entrepreneurship in Georgia“ defined a dynamic and vibrant private sector crucial to economic growth, with firms making new investments, creating jobs, improving productivity, and promoting growth. Entrepreneurial activity is pivotal to the continued dynamism of the private sector, with the generation of new businesses fostering competition and economic growth. According to abovementioned report this is particularly relevant for Georgia, whose government faces a central challenge to find sources of long-term economic growth, particularly through private sector development. [5]

In line with stable macroeconomic environment, Moody's Investors Service has upgraded Georgia's sovereign credit rating from Ba3 to Ba2.

Fitch Ratings has affirmed Georgia's Long-Term Foreign- and Local-Currency Issuer Default Ratings (IDR) at „BB-“ on August 24, 2018. The Outlook is Positive. As a key rating Drivers Fitch Rating indicates that Georgia's ratings are supported by governance and business environment indicators that are above the current medians of „BB“ category peers, and a track record of macroeconomic resilience against regional shocks. Confidence in the authorities' economic strategy is also anchored by an IMF Extended Fund Facility (EFF) programme. Rating indicates that Georgia's external finances remain significantly weaker than the majority of „BB“ category peers.

Fitch Ratings Positive Outlook on Georgia’s rating reflects favourable growth prospects and a steady improvement in the public finances. So far Georgia’s economy has been resilient against recent regional volatility. Fitch projects real GDP growth to average 4.8% in 2019-2020, compared with 3.5% across „BB“category sovereigns. Risks are on the downside due to the less favorable external environment. Large current account deficits (CAD) and low external liquidity leaves Georgia’s highly open economy vulnerable to external shocks. Vulnerabilities in external finances are also reflected by high net external debt to GDP. Despite stronger domestic activity, inflationary pressures have remained contained, reflecting a larger fading out of high base effect, as well as appreciation of Georgia's nominal effective exchange rate on imported inflation.

Georgia's public finances continue to improve. The cyclical upturn has helped boost tax revenue growth, while expenditures remain contained on the back of government priorities to reduce current expenditure in order to meet capital spending needs.

The government's fiscal strategy, anchored by quantitative targets agreed with the IMF, will help stabilise government debt in the medium term, in our view. Developments in the banking sector remain stable, with the authorities making gradual progress towards meetings structural benchmarks set out under the IMF’s EEF to strengthen the sector’s financial stability framework, and regulations on capital and liquidity requirements. [9]

The stable outlook reflects Standard & Poor's expectation that net general government debt will stabilize at around 40% of GDP over the coming 12 months, and that Georgia's large current account deficits will be financed overwhelmingly via foreign direct investment rather than debt. The ratings on Georgia remain supported by the country's relatively strong institutional arrangements in a regional comparison, and our forecast that net general government debt will remain contained, at close to 40% of GDP until end-2021. Georgia's 2017 economic performance has exceeded Ratings expectations. Preliminary official estimates indicate that output grew by 5% in real terms. S&P believes that the higher outcome was primarily driven by cyclical factors and follows two years of weaker economic performance. Georgia benefitted from a stronger growth performance across a number of key trading partners. The tourism sector fared particularly well, with arrivals growing and U.S. dollar-expressed services receipts up by over 20% in year-on-year terms.

The economy of Georgia is small and open, and consequently its dynamics remain closely correlated with those of its trading partners. Development of the country's infrastructure and prioritizing of capital spending rather than current budget expenditures; Improvements in business environment including through introducing a new private-public partnership framework, deposit insurance, land reform, and pension reform; Tax reforms aimed at easing compliance and addressing the issue of VAT refunds; and Education reform. In S&P view, Georgia's institutional settings remain favorable in the context of the region, with several established precedents of power transfer and the existence of a degree of checks and balances between various government bodies. There is indicated risks from regional geopolitical developments.

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Given our base-case expectation of a relatively modest depreciation of the Lari over 2019-2020, S&P believes the annual rise in net general government debt will slightly exceed the headline annual deficit. In S&P’s view, the effectiveness of Georgia’s monetary policy compares favorably in a regional context. Specifically: historically, inflation has remained consistently low, averaging under 4% over 2010-2017. Given the floating exchange rate regime, Georgia has promptly adjusted to changing external conditions, at the same time avoiding abrupt and damaging swings in the real effective exchange rate in either direction; the banking system remains on a relatively strong footing. High levels of dollarization continue to constrain the effectiveness of monetary policy, in S&P’s view. [10]

MACRO-ECONOMIC STATISTICS OF GEORGIA

The economic growth of Georgia was higher than was predicted during the last year. In 2017, strong positive tendencies were recorded in Georgian economic performance and according to the preliminary data of National Statistics Office of Georgia, economic growth equaled to 5.5 percent. In the 1st quarter of 2017, the economy grew by 5.3%, in the 2nd quarter - 4.9%, 4.4% in the 3rd quarter, and 5.4% in the 4th quarter. Based on preliminary estimates of National Statistics Office of Georgia the nominal Gross Domestic Product in 2017 amounted to GEL 38,042.2 million, up by 11.8% y-o-y. In 2017 the real growth of GDP amounted to 5.0% and the deflator percentage change equaled 6.5% y-o-y.

The largest shares of GDP by activity are held by Trade services (17.6%) and Industry (16.4%), followed by Transport and Communication services (10.2%), Construction (9.3%), Public administration (8.5%), Agriculture, Forestry and Fishing (8.2%), Real Estate, Renting and Business Activities (6.9%) and Health and Social work (6.0%).

Real growth was registered in Construction (11.2%), Hotels and Restaurants (11.2%), Financial intermediation (9.2%), Transport (7.2%), Mining and Quarrying (7.1%), Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods (6.6%), Real estate, Renting and Business Activities (6.3%), Manufacturing (5.0%). A decrease in the real value-added was recorded in Agriculture, Hunting and Forestry; Fishing (-2.7%) and Processing of Products by Households (-2.7%). [12]
The Ministry of Economy and Sustainable Development of Georgia expects that growth rate will accelerate for upcoming years and converge to its potential level. (As estimated Georgia closed GDP gap in the second quarter of 2018). As a result of implementation of important structural reforms, we expect that potential level of GDP growth will also increase. According to IMF’s latest estimates, Georgia will have highest growth rate among neighboring countries in 2018, as well in 2018-2023, averaging 5.2% in medium term.

Georgia’s economy has proved resilient to a significant economic and financial shocks in the region (2014-16) which was ensured by fast and efficient policy responses to the shocks, which were essential for maintaining economic growth, without prejudice to macroeconomic stability and sustainability. Moreover, economic growth in the country was supported by structural reforms, as well by growth oriented fiscal policy. [12]

New program concluded between Georgia and IMF is a clear indication of country’s prudent macroeconomic policy. It is worth to mention that the program is based on the Government’s 4-Point Plan. Moreover, International Monetary Fund fully welcomes the economic policy of the Government of Georgia, which was confirmed in its assessments in December, 2017 and in April 2018 as well.

On June 27, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Georgia. Over the medium to long term growth is expected to accelerate moderately and external vulnerabilities to decrease, thanks to the dividends from structural reforms.

- **Foreign Direct Investments**

Creation of favorable business and stable macroeconomic environment made Georgia attractive for foreign investors. Georgia is a one of the leading countries in terms of attractive investment environment. As a result, our country has attracted about USD 7 bln. FDI in the past four years and the Government is committed to encourage more qualitative foreign capital inflows into Georgian economy, which bring technologies, knowledge and contribute to productivity growth. In terms of figures, FDI inflows during 2017 reached record high and amounted to 1.9 billion USD - 20 percent growth. Reinvestments of FDI increased significantly - by 97% and amounted to 658.6 million USD. Increase of reinvestment was mainly driven by profit tax reform. [13]

Investment Incentives Object of Investment Activities and Rights of Foreign Investors The Law of Georgia “On Promotion and Guarantees of Investment” No. 473, dated November 12, 1996 determines the legal grounds of making both foreign and domestic investments in Georgia and guarantees their protection. An Investment is any kind of property or intellectual value or right to be contributed and used in the entrepreneurial activity made on the territory of Georgia for earning of possible income. An Investor is any physical or legal person, or international organization making investments in Georgia. A Foreign investor may be a citizen of a foreign country (alien), a stateless person not residing in the territory of Georgia, a citizen of Georgia permanently residing abroad, or a legal person registered outside Georgia. A foreign investor, whilst executing investment and entrepreneurship, is guaranteed and enjoys equal rights to those granted a physical and legal person of Georgia. A foreign investor, after payment of taxes and other mandatory charges is entitled to repatriate the earnings (income) gained from investments as well as other funds abroad without any limitation. This right can be limited only by law, a Court verdict in case of bankruptcy, committing a crime and violation of civil obligations. Besides, a foreign investor has the right to take abroad the property which he owns.

Investment Protection in Georgia Investment in Georgia is entirely and unconditionally protected by the applicable law. Investment may be seized in cases directly specified by the law, by the court decision or in case of emergency established by the fundamental law, provided there is appropriate compensation thereof. Compensation to be given to the investor shall correspond to the real market value of the confiscated investment at the moment of the deprivation. Compensation shall be given without any delay and shall
account for the losses incurred by the investor from the moment of deprivation until the payment of the compensation [11]

- **External Trade**

Good economic performance of Georgia is highly driven by improved external trade. According to the National Statistics Office of Georgia in 2017 external merchandise trade (excluding non-declared trade) of Georgia amounted to USD 10,707.4 million, 13.8 percent higher year-on-year. The exports equaled USD 2,728.0 million (29.1% higher), while the imports stood at USD 7,979.4 million (9.4% higher). The negative trade balance was USD 5,251.5 million in 2017 and its share in external trade turnover constituted 49.0%. Export excluding re-export amounted to USD 2,063.0 million, 24.5% higher year-on-year. In 2017 the external trade turnover of Georgia with the EU countries amounted to USD 2,844.0 million, grew by 2.0% compared to the previous year. Exports amounted to USD 646.5 million (13.0% higher), while imports amounted to USD 2,197.5 million (0.8% lower). The share of these countries in the external trade turnover of Georgia amounted to 26.6%, 23.7% in exports and 27.5% in imports (in 2016 29.6, 27.1 and 30.4% correspondingly). 29.5% of the trade deficit came to the EU countries (31.7% in 2016). In 2017 the external trade turnover of Georgia with the CIS countries totaled USD 3,541.6 million (higher by 30.2% compared to 2016). Exports stood at USD 1,180.7 million (60.0% higher), while imports equaled USD 2,360.9 million (19.2 percent higher). The share of the CIS countries in the external trade turnover of Georgia constituted 33.1%, 43.3% in exports and 29.6% in imports (In 2016 28.9, 34.9 and 27.2%, respectively). In 2017 compared to previous year, CIS countries accounted for 22.5% of the overall trade deficit (24.0% in 2016). In 2017 Copper ores and concentrates reclaimed the first place in the list of top export items, equaling USD 419.8 million, or 15.4% of total exports. Exports Ferro-alloys of totaled USD 306.9 million and its share in the total exports amounted to 11.3%. Motor cars occupied the third place. Exports of this commodity group stood at USD 234.9 million and 8.6% of the total exports. The top import commodity In 2017 were Petroleum and petroleum oils imports of which amounted to USD 696.6 million and 8.7% of the total imports. Motor cars commodity group followed in the list with USD 474.4 million, or 5.9% of imports. Petroleum gases came third with USD 350.4 million (4.4% of imports). [14]

- **Banking Sector**

Bank lending increased by 18.2% annually in July 2018, excluding effects of revaluation of credit portfolio due to exchange rate changes. Growth of credit almost entirely comes on the side of Lari loans that increased by 27.4%, while growth rate of FX loans is relatively low at 11.4%. According to number of indicators, banking sector remains sound. Basel III supervisory capital was 18.9% of Risk Weighted Assets in June 2018, while required minimum is 10.5% Plus additional buffer requirements [CICR, Systemic, GRAPE] depending on bank size, risk positions and asset structure. NPL’s based on IMF methodology represent only 2.4 percent of total credit portfolio. NPL’s have remained on low levels for many years in spite of severe external shock that hit the economy and large exchange rate depreciation. Larization At the end of July 2018, the loan dollarization declined to 54.3% from 65.2% (by 10.9 pp) at end-2016, while Individual loan dollarization decreased by 15.0 percentage points to 43.5% during the same period. Deposit dollarization declined to 60.7% (by 9.9 pp) from 70.6%. Remittances generate significant part of revenues (11 percent of total CA inflows) also had positive tendency in 2017. During the year, net inflow of foreign currency from remittances has increased by 22.3 percent. In January-July 2018 net remittances increased by 19.1 percent compared to the same period of 2017.

- **Inflation and monetary policy**

In line with stable macroeconomic environment, monetary policy stance is appropriate. The inflation targeting framework, combined with the floating exchange rate regime, has served Georgia well. From 2018,
as temporary factors exhausted, inflation converged to the potential level (3%) and in August amounted to 3.1%.

Current accounts

Economic resilience towards external shocks has increased and external vulnerability has declined. This is clearly visible from positive dynamics of current account balance observed during 2017. Current account deficit reached one of the lowest levels in recent years and amounted to 8.9% of GDP. Compared to the previous year current account deficit improved by 4.3% point – USD 543.3 million. The primary balance of current account (Current account balance excluding investment income balance) was positive and equaled to 0.5% of GDP that represents the exceptional case, as till this year in annual terms positive primary balance was not observed. [13]

Business sector

Economic growth in the country is private sector driven. The data of National Statistics Office of Georgia indicates that in four quarters of 2017 turnover of business sector has increased by 19.4%, while production grew by 19.6%. Increase of turnover and production was observed in all sectors of the economy. Positive tendencies in business performance continued in 2018 as well. In the first half of 2018 turnover of business sector has increased by 19.2% and growth rate of production amounted to 14.2%. In the second quarter of 2018, employment of business sector has increased by 4.0% (25.2 thousand persons).

Positive tendencies in business performance continued in 2018 as well. In the second quarter of 2018 turnover of business sector has increased by 19.7% and growth rate of production amounted to 12.7%. In the second quarter of 2018, number of persons employed in business sector increased by 5.3% and equaled to (656.5 thousand persons). According to the National Statistics Office of Georgia, as for as June 1, 2018, number of registered entities in Georgia equaled to 698 379, among them 61% are individual entrepreneurs. Significant increment of the private sector economic activity is indicating in the growth of newly registered enterprises. In 2017, the number of newly registered enterprises amounted to 51 965 in Georgia, which is 8.4% (4 034 enterprises) higher compared to the previous year. Growth of economic activity, creation of new enterprises and expansion of existing ones are promoting by state support programs.

Innovation Ecosystem in Georgia

According to the data of National Statistics Office of Georgia in 2016 almost 60% of enterprises had developed innovation of goods and services. Among them 13.9% of enterprise introduced new or significantly improved services and 13.1% introduced new or significantly improved goods. Almost 17% of Georgian companies developed innovations together with other enterprises or institutions and about 15% enterprises innovated by adapting or modifying goods or services originally developed by other enterprises or institutions.

In 2016 the Government of Georgia has secured support from the World Bank for a National Innovation Ecosystem (GENIE) Project in the amount of 40 million US dollars. The loan agreement was signed on March 28, 2016 and it became effective on July 21, 2106. The main objective of the project is to increase the innovative activities of individuals and SMEs in the regions of Georgia, as well as their participation in the digital economy. The project is composed of 3 main components: Innovation infrastructure, innovation services and innovation financing. Within the first component - innovation infrastructure, the locations were identified for 3 Regional Innovation Hubs (RIHs) and 10 innovation centers (ICs). Also, the preparatory works were undertaken to launch the Broadband for Development Program in 2017, with the aim to support socially vulnerable households and eligible SMEs in the adoption of the broadband internet services and advanced information technologies. The Government of Georgia’s inclusive growth agenda, defined in the
Government’s Socioeconomic Development Strategy 2020 (SDS) foresees the need to strengthen human capital, improve private sector competitiveness and productivity through a focus on SMEs, increase access to finance, support measures to increase firms’ capacity to innovate and to export, including the upgrading of broadband internet services in Georgia and strengthen the investment climate. The Government is keen to develop the capacity, services, and infrastructure for Georgia to form as an innovative, knowledge-based economy, while reducing individuals’ and businesses’ perception on the risks associated with.

In the light of building the knowledge-based and innovation-driven economy of Georgia in 2014, the Government of Georgia institutionalized the innovation support and under the Ministry of Economy and Sustainable Development, has established Georgia’s Innovation & Technology Agency (GITA). Through its mandate, the Agency is in charge of innovation policy elaboration and implementation. The Agency aims to promote entrepreneurship by improving regulatory environment, access to finance, entrepreneurial learning, consultancy services and R&D commercialization. It also aims at assisting the formation of products & services through innovation infrastructure, such as, Tech parks, Incubators, Accelerators, Innovation Laboratories (iLAB), Fabrication Laboratories (FabLab) to contribute to innovative entrepreneurship. One of the goals of the agency is to increase accessibility to the Broadband Internet throughout Georgia with the main focus on rural areas. In the framework of the GENIE project GITA has started designing the Broadband for Development (BfD) Program that will support households and SMEs by providing incentives for computers/devices, financing Internet installation costs and training in digital literacy. In addition, SMEs will be trained in e-commerce. In 2015, Government of Georgia has established Research and Innovation Council, which is chaired by Prime Minister of Georgia, it includes all line economic block Ministers, Scientists and Private Sector Representatives. GITA is a secretary of the council. The council is a tool for high level decision making process and has 4 working groups.

For the fast economic development of the country, the Government of Georgia, according to the Prime Minister’s initiative, has adopted 4 Point Plan of Economic reforms, encompasses:

1. Economic Growth oriented reforms, among them: a. Tax Reform – Profit tax will be deductible only in case of profit distribution b. Capital Market Reforms c. Pension Reform d. PPP framework e. Fostering start-ups and introducing start-up financing mechanism; particular encouragement and support of young people in this area;

2. Education and Human Capital Development, including General Education Reform and Fundamental reform of Higher Education

3. Infrastructure and regional development

4. Open Governance.

In the reform process, it is of utmost importance to ensure sufficient involvement of private sector in the decision-making process as well as in elaboration of respective legislation. [6]

Since 2014 GITA is actively involved in developing and promoting innovation-friendly environment in the country, by developing techparks, innovation centers, business accelerators and incubators. Startup creation and development, deploying high-speed internet connection throughout the country, e-commerce, distance employment, computerization and other electronic service development represents Agency’s high priority.

Technology Parks - The 1st Technology Park was established in January 2016 with business incubator-accelerator, innovation and fabrication laboratories (FabLab) equipped with high technology, co-working and training facilities. The facility works with one-stop-shop principle and provides various types of services for startups, scientists, SMEs, individuals: i) access to the high technology in FabLab (3D printers, laser cutters, PCB, CNC) ii) services: Intellectual Property Advisory (SakPatenti), Legal and Financial Consultancy
(Deloitte), Project Management and Marketing (Management Academy), iii) free access to the devices in Showrooms (Samsung, HP, Intel, Epson, Cisco); iv) conference hall for events. By 2016 TechPark welcomed more than 25,000 visitors, hosted more than 300 events, with more than 17,000 participants.

The 2nd TechPark Zugdidi was opened in western part of Georgia in October 2016, with similar concept and based on the needs of local entrepreneurial community.

Innovation and Fabrication Laboratories - After seeding the establishment of the community, GITA moved to developing the infrastructure agenda and since 2014 is opening Innovation and Fabrication Laboratories (FabLabs and iLabs) with public private academy partnership, where demand oriented products are being created. iLabs & FabLabs were established based on 500 Universities. In total there are 22 FabLabs in Georgia (9 in Tbilisi, 2 in Batumi, 2 in Kutaisi, 1 in Mestia, 1 in Gurjaani, 1 in Akhaltsikhe, 1 in Kobuleti, 1 in Tsalenjikha, 1 in Poti, 1 in Ambrolauri, 1 in Rustavi and 1 in Zugdidi). As regards the iLabs, there are 3 iLabs in Tbilisi, Georgia. Among them 1 CG Multi Lab in Georgia’s Institute of Public Affairs (GIPA) on Computer Graphics; 1 - on iOS development in Georgian American University and 1 – on Gaming development in Ilia State University. Furthermore, 3 Community Innovation Centers (CIC) were opened in Georgia (Kharagauli, Chqori, Baghdati). Massachusetts Institute of Technology, Bits and Atoms Center, nominated GITA as a country of FabLab. In this framework GITA is scaling up the project in the regions of Georgia.

Georgia is a first country in South Caucasus region to appear on global FabLabs map. GITA initiated FabLab creation in 2014 and their functional development both in Tbilisi and in the regions. FabLab is a unique place for testing creative idea and further developing startup business. FabLab provides access to high technology machines, ensuring idea generation and further commercial implementation. In 2015 international fablab conference Georgia was nominated as world’s FabCountry, meaning to develop fablab concept throughout the country, disrupt the manual work by high technology and develop creative innovative hardware startups. Innovation Centres and Regional Innovation Hubs - Infrastructure project is being extended throughout the country by creating developing „BroadBand for All“ Project – to cover the whole country with high speed fiber optic internet infrastructure, create Innovation Centres (ICs), in relatively small cities and villages based on libraries and Regional Innovation Hubs (RIH) in bigger cities in the regions. The aim of the project is to increase competitiveness of the region, develop digital literacy and identify latent innovators in the region. The project is being supported by the World Bank’s 40 Mln USD loan project – Georgian National Innovation Ecosystem (GENIE) which was signed in 2016 between the Government of Georgia and the World Bank Group. Under GITA was established a non-profit entity „OpenNet“ responsible for the implementation of the project. The project consists of 3 main pillars – i) developing infrastructure for innovation; ii) innovation services, skills development and consultancy; iii) innovation financing.

„Startup Georgia“ project - In the framework of 4 Point Economic Reform Plan, in 2016, Government introduced the start-up venture financing program Start Up Georgia. The program is run by GITA and the Partnership Fund, where up to USD 40,000 seed stage financing with USD 10,000 worth of mentorship is being provided to winner startups, for developing their globally scalable innovative projects. In this framework GITA is partnership with the experts from Silicon Valley, where the top winner startups have pitched their ideas and are raising next stage financing. The startups are developing innovation in the fields of EduTech, HealthTech, FinTech, AI/VR Tech etc.

GITA has elaborated the law on innovation with intensive involvement of public, private and international organizations in accordance to the US „Bayh-Dole Act“. The main aim of the law on innovation is to contribute in the process of developing national innovation ecosystem, to simplify innovation activities in the country and raise the competitiveness of private sector. In 2016 Law on Innovation was adopted by the Parliament of Georgia and awarded by IDFI as a law of the year in accordance to the criteria: collaboration of
policy; creation of law text; evaluation of regulations impact and spreading the information and getting feedback from the society. GITA is continuing reviewing exiting laws to provide amendments package for further adoption and simplification of startup and innovation activities. GITA has trained up to 1000 IT specialists and 135 trainers within the free training cycle. Series of free trainings were conducted by GITA in Informational Technologies. The project covered 9 thematic trainings in Tbilisi and in seven regional locations. GITA partners with international training provides. The Ukrainian training center „Skill Up“ has conducted TOT for 186 trainers, whereas 135 of them were certified within the framework of the project. Overall 1100 IT specialists were trained by the certified trainers. [7]

ENTERPRISE GEORGIA

In June 2014 the Ministry of Economy and Sustainable Development of Georgia, together with the Ministry of Agriculture, launched a new government program Produce in Georgia, implemented by three state agencies: Enterprise Georgia, Agricultural Projects’ Management Agency and National Agency of State Property. The program focuses on developing entrepreneurship, increasing the competitiveness of the private sector, enhancing the country’s export potential and attracting foreign direct investments. As the flagship organization for entrepreneurship in the country, and by actively contributing to the advancement of the private sector, Enterprise Georgia has streamlined its activities to better encourage new ventures and enterprise growth.

In April 2017, while seeking to increase the synergy and efficiency between existing private sector support programs (implemented by the State), The Ministry of Economy and Sustainable Development of Georgia decided to offer mechanisms tailored to suit different stages of SMEs development. With these services under one umbrella, Enterprise Georgia has empowered the export promotion sector, concentrated the activities of Invest in Georgia (state agency responsible for promoting and facilitating foreign direct investments in Georgia) and strengthened/upgraded the operational functions of its service center. With this restructuring, Enterprise Georgia is now responsible for business support, export promotion and invest in Georgia sectors, making the agency the key implementing partner for „Produce in Georgia“. Since then, the business division of the agency aims to increase entrepreneurship in Georgia by backing individual entrepreneurs, promoting new enterprises, and supporting the expansion or re-vitalization of existing enterprises. Whereas the export division is directed to promote the export potential of the country, the aim of the investment division is to attract, promote and develop direct foreign investments in Georgia. They also seek to increase the competitiveness of local products on international markets and increase the export volume of domestic products. While moderating communications between foreign investors and the Government of Georgia, ensuring an effective exchange of appropriate, accurate, and updated information, the investment division serves as a „one-stop-shop“ for investors before, during & after the investment process.

Enterprise Georgia – Business Division implements various support mechanisms to develop entrepreneurship in Georgia. These mechanisms include Access to Finance - tailored to suit the specific stages of development and financial needs of a business; Host in Georgia - providing incentives to the hotel industry; Micro and Small Business Support - designed to render financial support and consulting services to micro and small businesses across Georgia; and Film in Georgia providing incentives to the film industry.

Enterprise Georgia provides support mechanisms tailored to the specific stages of enterprise development and financial need. From January 2017, only those loans issued in national currency are eligible for the program. Credit terms available from commercial banks include: > 10% co-financing of the bank loan interest rate for the first 24 months; > Partial collateral guarantee - 50% - for the first 48 months (not exceeding GEL 2,500,000); > Minimum loan amount is GEL 150,000. The maximum is GEL 5,000,000. Credit terms available from the leasing companies: > 12% co-financing of the annual interest rate for the first 24 months; > The initial value of the project should be at least GEL 100,000. The maximum should not exceed GEL
Program Conditions defined that the finished product should appear on the program priority list (see below) that has been approved by the Georgian Government.

New enterprises should begin operation within 24 months from the loan/lease issuance date. Existing enterprises should begin production within 24/12 months from the loan/lease issuance date. Program Priorities includes following areas: building materials, mechanical engineering, rubber & plastics, paper & paperboard, textile production, pharmaceuticals, wood processing, electrical equipment, food products, metal products, mineral water, mineral products, chemical manufacturing, bitumen products.

Since 2015, Enterprise Georgia has successfully implemented its Micro and Small Business Support program as a vital component of Produce in Georgia. Designed to render financial support and consultations to micro and small businesses across the country, its main objectives are diversification of regional goods and services, promotion of modern business practices and the generation of increased income. Financial assistance is offered to startups as well as expanding companies in the form of grants between GEL 5,000 and GEL 15,000. At the same time, technical consultations are offered to both individuals and groups, providing entrepreneurs with business knowledge relevant to their operational stability and growth agendas.

In 2017, Enterprise Georgia organized two private sector projects that took place on the shores of the Black Sea in Batumi, as well as in the capital city of Tbilisi. Additionally, the agency organized two very successful street markets in the very center of Tbilisi, helping local companies build brand awareness and increase sales. Seeking change in existing business ecosystems and promoting an entrepreneurial spirit, these markets have united entrepreneurs from a variety of industries including clothing, accessories, jewelry, shoes, woodcraft, ceramics, furniture, home décor, art, beauty, food & grocery, and interactive to name a few. By providing multi-functional, cost-free, and alternative trading space, coupled with alluring foods, lively music and specialized entertainment zones, these events have been well-received, thoroughly enjoyed, and highly productive. With assistance from Enterprise Georgia, general managers from a variety of Georgian companies attended business development courses produced by GIZ and the Manager Training Program of the German Federal Ministry for Economic Affairs and Energy (BMWi). With its motto „Fit for Partnership“, the program prepares executives from Asia, Eastern Europe, North Africa and Latin America for economic cooperation with German companies - with successful business relationships as the mutually desired outcome. Participants develop management skills and prepare for contact with German companies through interactive and practice-oriented sessions - learning about the intricacies of German business culture while improving their business demeanor and negotiating techniques. During these sessions, groups of approximately 20 participants are connected with 60 primarily medium-sized, German companies. As part of the program, B2B meetings and visits to companies are planned. During these visits, participants obtain first-hand experience with German companies, familiarize themselves with modern German operating practices and technologies, and meet potential business partners. To date, more than 11,000 executives from 19 countries have completed the Manager Training Program. The outcomes from this program have been impressive. To date, XX managers have attended and formed strong and meaningful ties with German partners.

Enterprise Georgia - Export Division promotes the export potential of Georgian products and services in international markets. In doing so, it helps to increase the competitiveness and export volume of domestic products. The main objectives of our export support/development activities are: The coordination, organization and co-financing of international target exhibitions, helping local companies make new business connections, acquire potential partners and diversify offerings for export markets; Providing business consultations to Georgian SMEs on export related issues, including tariffs imposed by customs agencies in foreign markets; In response to international demand, connect foreign buyers with Georgian producers; Registering companies on the trading platform - www.tradewithgeorgia.com – then promote Georgian products and services on international markets; The provision of comprehensive guidelines and information related to exports from Georgia including procedures, documentation and essential internationally mandated
certifications; The provision of comprehensive guidelines and information related to tariffs imposed by customs agencies in foreign markets; Educational opportunities for Georgia-based export managers, increasing their understanding of international trade and the essential skills needed to support export programs.

Enterprise Georgia - Investment acts as a moderator between foreign investors and the Government of Georgia, ensuring access to timely information and a means of effective communication with various Government bodies. With its goal to attract, promote and develop direct foreign investments in Georgia, Enterprise Georgia - Investment serves as a “one-stop-shop” for investors - supporting companies before, during & after every stage of the investment process.

The main objectives of Invest in Georgia are: Access to Information – providing general data & statistics as well as sector-specific research; Communication – connecting investors with Government bodies and potential local partners; Organize Business Visits – prepare visits and accompany investors to potential investment locations; Aftercare – support existing investors and reinvestment activities. [8]

FINDINGS AND CONCLUSIONS

The pilot survey yielded the following results and conclusions:

✓ 90% of Georgian innovated businesses considered themselves successful;
✓ 85% of innovated Georgian business started operation less than 5 years;
✓ 95% of startups are registered as an individual enterprises (95%);
✓ 95% of startups employed attended training programs;
✓ Innovated businesses are getting information through internet (85%);
✓ 50% of questioned startups desire governmental support in financing while 45% seek contact establishment;
✓ Identified problems involved lack of finance (80%), lack of latest technologies (10%), and lack of education (5%).

As a conclusion of the study, innovations seem to be impressive opportunity in the country considering Governmental support and recent positive trends of statistics.

LITERATURE:

[6] „National Innovation Ecosystem in Georgia“, Ministry of Economy and Sustainable Development of Georgia; Georgian Innovation & Technology Agency;
[10] Standard & Poor's rating, 04-May-2018;
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SME DEVELOPMENT IN GEORGIA

ABSTRACT

The present document is designed to facilitate the development of SMEs, to implement a Deep and Comprehensive Free Trade Agreement (further as DCFTA) and requirements, to unite the efforts of all stakeholders to overcome the challenges of the transition and their solution, Exchange of information and cooperation, harmonization of Small and medium size businesses legislation in relation to EU legislation.

The Georgia-EU Association Agreement on DCFTA, based on common values and aims the approximation of Georgian standards with EU standards, has become a key issue promotion of small business, which can contribute significantly to the decline of poverty and unemployment in the country.

The past period revealed that the government successfully accomplishes a series of reforms aimed at developing MSME, fulfilling demands for the DCFTA. The 2014-2017 DCFTA implementation action plan was developed and of the SME Development Strategy of Georgia 2016-2020. This document is based on the essential principle of the Small Business Act (SBA) for Europe, which places SMEs at the forefront of policy-making and ensures that new regulations don’t increase the burden faced by businesses.

However, issues remain. The State support to SMEs is not oriented on long-term results. There are still no special programmes on entrepreneurial skills and access to education, information and modern technologies, events being implemented are not systematic, access to finance is one of the major factors hindering SME development in Georgia. There is a sheer lack in a tailor-made approach in SME support schemes for internationalization. At present there is no structured mechanism to support partnering of local SMEs with large investors operating in Georgia. Most of the enterprises are not certified and do not possess international standards.

The measures taken by the state to encourage women entrepreneurship and effective use of entrepreneurial potential are still not enough. Women-owned businesses do not receive any investment support.

In order for Georgia to successfully meet the requirements of the Association Agreement and its constituent part of the DCFTA the Government should be: • to establish a strong multi-stakeholder partnership with public and private stakeholders engaged with SMEs’ problems, constructive communication among key stakeholders for DCFTA and SME policy implementation via helping; • stimulate demand for the SME policy development via regional assistance programs; • to encourage entrepreneurship with a credit guarantee system and a cheap credit state program, and to attract private investment and venture capital funds, which could significantly improve access of small and medium-sized entrepreneurs to credit resources; • systematically apply regulatory impact analysis to assess the positive or negative impact of regulatory changes on the SME sector.

Keywords: SME support, Georgia-EU Association Agreement on Deep and Comprehensive Free Trade Area

JEL Classification: F15, L26, L53
The present document is designed to facilitate the development of small and medium enterprises, to implement a deep and comprehensive Free Trade Agreement and requirements, to unite the efforts of all stakeholders to overcome the challenges of the transition and their solution, Exchange of information and cooperation, harmonization of Small and medium size businesses legislation in relation to EU legislation.

Three years after the signing of the Georgia-EU Association Agreement on Deep and Comprehensive Free Trade Area (further as DCFTA), which aims to deepen economic relations between Georgia and the European Union based on common values and aims the approximation of Georgian standards with EU standards and development of such areas, as trade, agriculture, tourism, energy, environment, transport and education.

As we know, in the context of the Georgia-EU Association Agreement, promotion of small business has become a key issue. Its solution can contribute significantly to the decline of poverty and unemployment in the country and to inclusive and sustainable economic growth.

Programs on DCFTA adaptation and promotion implemented with EU financial and technical assistance in recent years are particularly noteworthy as they are to strengthen competitiveness of SMEs. In particular, in the framework of the EU4Business activated with the EU’s financial support, the EU provides funding, training and expert support for the Georgian companies to use new markets. Please see the results of a number of implemented programs with the support EU. By today on the screen:

- 711 EUR million (about GEL 1.78 million) were issued to companies
- 63,000 enterprises were supported (loans, training, consultations)
- 2,450 new jobs were created.

Within the framework of the EBRD Program” Supporting Women in Business” was launched. The EUR 43.4 million credit line opened for women in micro, small and medium businesses. The aim of the program is to create specific, sustainable financial products for SMEs managed by women, providing consultancy services and know-how access.

With the help of ENPARD, 1,500 cooperatives are registered today in the country. They unite 15,000 farmers. More than 280 cooperatives took advantage of EU’s direct financial and technical assistance, the total value of which amounted to GEL 13 million. As a result, income and profits of cooperatives increased by 27% and 30% respectively. In many cooperatives the job index was doubled.

The State policy on small and medium size business development support

Also very important the programs implemented by the government

The past period revealed that the government successfully accomplishes a series of reforms aimed at developing micro, small and medium enterprises (MSME), fulfilling demands for the DCFTA. The 2014-2017 DCFTA implementation action plan was developed and adopted, the Coordination Inter-Agency Subcommittee was created at the Ministry of Economy and Sustainable Development to coordinate implementation of the related part of the Georgia-EU Association Agreement on DCFTA part, strategic directions were identified in different fields.

Adoption of the SME Development Strategy of Georgia 2016-2020 and the Action Plan 2016-2018 are particularly worth noting. The documents are based on the essential principle of the Small Business Act (SBA) for Europe - Think Small First - which places SMEs at the forefront of policy-making and ensures that new regulations don’t increase the burden faced by businesses.
According to the World Bank Group "Doing Business-2017" Flagship Report - Business production rating, Georgia has improved its position by seven stages, and it has moved from 16th to 9th place and has been recognized as the leader country of the region, where the phrase "simplicity in business" is a realistic Business climate in our country. Today, our country has a positive dynamic of sales with the EU countries, which in time coincides with the DCFTA's launch. The above indicates that better opportunities for trade with the European Union have been created for medium and small businesses and in addition ways are open for EU countries to business investments in Georgia.

However, issues remain. The SME policy should give due consideration to peculiarities of each stage of economic development in the country. The State support to SMEs is not systematic and is not oriented on long-term results.

The issues of raising awareness of small and medium enterprises and their active participation in economic policy and decision-making at all stages, planning and implementation of reforms envisaged by the Association Agreement, including the implementation of DCFTA remain unsolved. This indicates that there are gaps in the dialogue between public and private sectors (PPD).

Although advisory councils consisting of business and civil society representatives were created at many ministries to involve the public in the decision-making process, the practice suggests that coordination of SME policy implementation is still unsustainable. It is advisable to improve efficiency of the activities and enhance coordination of these councils, to hold regular joint meetings. It is recommended to introduce joint discussions in the practice of the councils, to strengthen institutions that support SMEs.

Furthermore, targeted actions to raise awareness of small and medium entrepreneurs about the Agreement on Trade Area are not enough. It is especially important to strengthen the work in the regions, particularly among companies without much innovative potential and from remote region, as well as among ethnic minorities, who have virtually no access to comprehensive knowledge about the requirements of the Association Agreement, receive no guides, roadmaps and consultation services in their native languages and hence cannot satisfy their keen interest on the matter. Hopefully the regional information centers based on "the one window shop principle" would fundamentally change the situation.

There are still no special programmes on entrepreneurial skills and access to education, information and modern technologies, events being implemented are not systematic.

Events foreseen under the State Program "For Strong, Democratic, United Georgia" to support beginner micro, small and medium entrepreneurs, are not duly rolled out yet. They are needed to enhance entrepreneurial knowledge and capabilities, improve financial education and availability of financing /long-term investment resources, and strengthen export potential, innovations and access to new technologies.

Access to finance is one of the major factors hindering SME development in Georgia. The interest rates on long-term loans in commercial banks vary from 16% to 24%, which is still high for small and medium entrepreneurs. In addition, most of the entrepreneurs are not able to provide collaterals for the loans because they are set at as high as 120% of the loans. Particularly acute is the issue of start-up micro and small businesses including women entrepreneurs, as the owners of real estate are mostly men.

It is highly desirable to encourage entrepreneurship with a credit guarantee system and a cheap credit state program, and to attract private investment and venture capital funds, which could significantly improve access of small and medium-sized entrepreneurs to credit resources. Innovative non-lending financing channels such as private equity, venture capital or crowd funding although being targeted by the SME initiative are still underdeveloped. It is necessary to implement legislative amendments to simplify financial
accounting rules and procedures for small and medium businesses, and create more solid legislative support for its development.

The SME development strategy underlines the urgent need in the update of the SME definition to reflect the current social and economic conditions of the country. As the 2016-2017 years report indicates, following the analysis and review, the recommendation was adopted about definition criteria, which are based on the Eurostat methodology, Georgia's economy and according to the company's development indicators and is in compliance with the European criteria, namely the number of employed and the amount of turnover.

In order for Georgia to successfully meet the requirements of the Association Agreement and its constituent part – DCFTA – there should be cooperation among large, medium and small business. Otherwise only big businesses would be able to benefit from advantages of the agreements because they have appropriate resources to ensure fulfillment of obligations under the Association Agreement in a relatively short period of time.

At present there is no structured mechanism to support partnering of local SMEs with large investors operating in Georgia. It is also necessary to provide targeted assistance to small and medium-sized exporter enterprises and improve quality infrastructure, in order to enable these enterprises to enjoy the opportunities offered by the DCFTA.

There is a sheer lack in a tailor-made approach in SME support schemes for internationalization. The State support is necessary so that SMEs have a working capital to finance export operations, since many costs are fixed, SMEs face disproportionately high costs in comparison with larger enterprises. It is also important to encourage exports and direct foreign investments. Most of the enterprises are not certified and do not possess international standards. Standards and IPRs are still not attractive to SMEs mainly because their benefits are not well communicated, costs are high and rules seem complicated.

The measures taken by the state to encourage women entrepreneurship and effective use of entrepreneurial potential are still not enough. Women-owned businesses do not receive any investment support. There is no policy and program development that will allow a wide range of advancement of women at all levels and in all spheres of business, their promotion and encouragement to start and expand their businesses, which at the same time would help them strengthen private sector competitiveness and growth of export potential.

However, it should be noted that as per the Strategy of Small and Medium Entrepreneurship 2016-2020, in February 2018, the Advisory Council for Promoting Private Sector Development, operating at the Ministry of Economy and Sustainable Development, formed the Women's Entrepreneurship Development Sub-Commission. The work have been initiated with involvement of all stakeholders to develop a special strategy and action plan for the promotion of women entrepreneurship development in the country. We hope that the strategy will focus on improved use of entrepreneurship resources by women and elaboration of the women entrepreneurship development policy oriented towards long-term results.

The Association Agreement and DCFTA are instruments of approximation of Georgian legislation with EU legislation, which should ensure inclusive growth of the economy. Many countries of the European Union have the Law on Small Business, which defines the status of small businesses and regulates all legal issues related to them. The law does not have an alternative and should be adopted in Georgia as well.

**Recommendations**

Development of small entrepreneurship requires a uniform policy and the following results-oriented support measures by the State:
• Legislative reform; It is necessary to implement legislative amendments that will simplify the procedures for financial accounting for small and medium businesses, and create more solid legislative support for its development;

• It is crucial to establish a strong multi-stakeholder partnership with public and private stakeholders engaged with SMEs’ problems, constructive communication among key stakeholders for DCFTA and SME policy implementation via helping them in developing the needed skills, tools should be translated to the language of business in order to be fit for their purpose to promote growth and employment;

• Stimulate demand for the SME policy development via regional assistance programs;

• Raise awareness on perspectives and demands of DCFTA and conduct large-scale campaigns of communication;

• Improving business promotion services to assist in access to international markets, developing a strategic approach in entrepreneurial education, based on market requirements, study of entrepreneurial skills using best practices of foreign countries;

• In order to solve the problem of restrictions in the financing of the SME, for a small business development and promotion, a comprehensive approach should be developed, including providing start-up entrepreneurs with cheap credit resources;

• Create an SME-friendly environment at the policy framework, to meet the requirements EU Small Business Act Assessment by adopting the new Law on the 'Small Business", which ensures protection of small business interests;

• Systematically apply regulatory impact analysis to assess the positive or negative impact of regulatory changes on the SME sector;

• Develop a systematic approach to tracking small business skills for a more efficient and responsive training market, provide access to markets and internationalization for "Benefiting from EU open market;"

• Improvement and practical implementation of women's entrepreneurship development policies, in order to strengthen the role and engagement of women entrepreneurs;

• Identify the most efficient approaches towards cooperation with international financial institutions to promote innovative business development;

• Adopt a more strategic approach to the development of SMEs by identifying strategic directions and objectives for future development taking into consideration specific SME needs in important sectors of the economy, such as agribusiness, light manufacturing and tourism;

Statue of Mihály Zichy, Hungarian painter and graphic artist in Alexander’s park in Tbilisi. Zichy is admired for his paintings Shota Rustavel’s King in the Panther Skin. The sculptor of the Statue is Sándor Kiss. The statue was given as a gift to Tbilisi by the Hungarian State in 1987.

Photos © by Dr. Antal Szabó
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REFORMS OF RESEARCH AND INNOVATION SYSTEMS IN EAP COUNTRIES: 25 YEARS OF EXPERIMENTS IN GEORGIA

ABSTRACT
This article mainly analyses problems of R&I development in Georgia, but readers interested in development of R&I systems in the post-Soviet countries will find many analogies with other EU Eastern Partnership countries as well (Armenia, Azerbaijan, Belarus, Moldova and Ukraine). The components of R&I system are considered: governance, funding, personnel issues, enterprises and research organizations. It has been shown in the paper that the problems of elaboration of relevant R&I policy are neither economic nor related to lack of knowledge, but are linked to a political will. The attempt to analyze problems in the highlight of the European Integration process is maid.

Keywords: R&I policy, research, innovation, European integration

JEL Classification: O38, I23, P21

1. INTRODUCTION
This article mainly describes Georgia, but readers interested in development of R&I systems in the post-Soviet countries will find many analogies with others as well. The reason for the mention of the EaP countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) in the heading also is that this article is the first in a planned series of articles on R & I systems in these countries. The difference between this article and other articles on the subject (e. g. Shatberashvili, O. 2011; Bregvadze T. at al, 2014; Gzoyan E.at al, 2015) is that it is based on a qualitative rather than a quantitative description of the state of affairs and, to a large extent, on personal observations by the author who is a participant in the development of events.

25 years of independence have passed and we can summarize development results in Georgia’s R&I sphere. In the country economy there is a slow progress, though Georgia is still far from the GDP per capita of 1980s when it was about 40% of that of USA, while in 2017 it was only 17%. However, the R&I system is in a long stagnation on the very low level in terms of GERD (0.2% of GDP), resulting into its permanent declining in terms of the number and age of people engaged into R&I activities. The absence of the GERD growth to the acceptable level prevents infusion of youth to the R&I system on one hand, and stimulates instead drain of the highly qualified personnel on the other. This process is observed in all post-Soviet countries. The recent study shows (Shatberashvili, 2018), that 50% of the most qualified Georgian researchers are working abroad and they are on average 25 years younger than those working in Georgia (whose age is around 70 years). Thus, we can conclude that state of Georgian R&I system is close to critical. It happened despite of Georgia’s declaring the course to European integration since 1996 and signing in 2014 the Association Agreement with EU where R&I is one of the key issues (including research, innovation, higher

GERD – General Expenditures on Research and Development as percent of Gross Domestic Product.
education, intellectual property, metrology, etc.) and preconditions in the further European integration process. In this article, I'll analyze qualitatively how the R&I system development in Georgia responds to the declared goal.

According to one of the possible graphical representations of the country R&I system that is handy for my purpose (Figure 1) it rests on 7 pillars which I will consider one by one highlighting where appropriate their interaction.

An important note should be made in the context of the post-Soviet space. The situation in Georgia is not unique, as R&I systems in the majority of post-soviet countries are in more or less similar position. Some are more advanced/lagging in particular components, some in others. Georgia’s difference from others is that it is especially lagging in the research system component (World Bank, 2014; H2020 PSF, 2018). We can say that many observations regarding Georgia are valid for other post-Soviet countries as well.

1. R&I SYSTEM GOVERNANCE

The Georgian Government as any democratic country government takes responsibility for the country’s innovative development, elaboration of an appropriate R&I policy and ensuring support to the process. The formal scheme of R&I system governance in Georgia is as follows:

1. The highest governing body is Georgian Research and Innovation Council (GRIC) chaired by the Prime Minister. Its members are ministers of: Education, Science, Culture and Sport (MESCS); Economy and Sustainable Development (MESD); Environment Protection and Agriculture (MEPA); Health, Labor and Social Affairs (MHLSA); Regional Development and Infrastructure (MRDI); Defense (MD) and some others. Members are also: President of National Academy of Science (NAS); Chairman of the Parliamentary Committee for Education, Research and Culture; Chairman of the Parliamentary R&I Council; Director of Shota Rustaveli National Science Foundation (SRNSF); Director of Georgian Innovation and Technology Agency (GITA) and several leading scientists.

2. The Ministry of Education, Science, Culture and Sports (MESCS) elaborates research priorities to R&I system, as well as distributes about 70% of all public funds for research, both institutional and project based (the last one through SRNSF). All public universities and the great majority of research institutes are subordinated to MESCS.
3. The MESD funds innovation projects in SME (through GITA).
4. GITA manages innovation infrastructure entities (Technopark, several mini-technoparks and regional innovation centers) and the grant scheme supporting innovation startups. It also serves as a working body for GRIC.
5. The MD manages amalgamation DELTA uniting 6 research institutes, sets their research targets and distributes to them funds (about 30% of all funds for research in the country).
6. MEPA and MHLSA set research targets to subordinated research institutes (one to each). MEPA also manages the network of agriculture consultancy services.
7. NAS advises the Government on the R&I policy issues and evaluates research results by universities and institutes: the only function left to NAS after 2006 when about 40 subordinated institutes were taken from NAS and transferred to universities.

Formally the overall governing scheme is not very far from common in many EU countries. The differences become evident when we consider it in details. The R&I is an interbranch issue usually coordinated in EU countries by a dedicated governmental body, but also reflected in the statutes of all ministries as well, because practically all of them are responsible for R&I in their sectors of economy. It is not like this in Georgia where many ministries have no formal responsibility for R&I as the corresponding issues are not reflected in their statutes. The R&I policy related activity of these ministries emerges from time to time when international donor projects invite them (often attracting their staff through appropriate incentives) and fades away as the projects are completed. It happens even with the activities prescribed by the EU-Georgia Association Agreement Action Plan items which often are supported by the EU projects. Decisions by these ministries related to development of the sectors of their responsibility are not research based because they neither have their own research institutes nor funds for commissioning research at universities or other research organizations.

In 2017-2018 the Policy Support Facility (PSF) mission (H2020 PSF, 2018) requested by Georgian Government had studied Georgian R&I system. The mission had found that the overall R&I governance and management lacks coherence and competence. I would add to this the lack of the political will, giving examples of it below.

Many recommendations elaborated by the PSF mission were as well repeatedly submitted to Georgian authorities in the past years by other groups of researchers studying R&I processes in Georgia (e.g. IncoNet EECA 2009; CSO Coalition ‘Innovative Georgia’, 2013; World Bank 2014; IncoNet EaP 2015). The recommendations, especially those elaborated by the local researchers, were based on the European and World experience adapted to the local conditions. The problem is that they were either ignored or fulfilled selectively and often formally.

<table>
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<th>The recommendations fulfillment by the Government</th>
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<td>From the recommendations of CSO Coalition ‘Innovative Georgia’ (2013) only three were implemented: 1. Establishing of the Innovation Council chaired by the Prime Minister; 2. Establishing of Georgian Innovation and Technology Agency and 3. Establishing of the Technopark. The rest 10 were ignored. The recommendations were implemented in such a manner that have acquired to the large extent a symbolic character or lacked logic. Namely, the Innovation Council gathered only twice in 4 years. GITA operates in isolation from the research sector and, therefore is not able to be a reliable working body for the Innovation Council. The Technopark instead of being placed near university campuses is constructed outside the city in a picturesque place and serves to a great extent for the venue of conferences. Even recommended ‘Law on Innovation’ was adopted before elaboration of the innovation strategy (as it was advised) so cannot be considered as a recommendation fulfillment.</td>
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An example of a surprising attitude of the MESCS to its responsibilities is the research priorities setting assigned to MESCS since 2004 (statute of MESCS). In 13 years MESCS has not elaborated any set of priorities. In fact there were not even attempts to do it. I will allow myself in the Box 1 to dwell on my personal observations on the discussion of the issue of prioritization, since they are very relevant in this case.

Box 2

The research priorities discussion

In 2016 at the meeting on the Black Sea Horizon project in Vienna, senior representatives of the MESCS claimed that MESCS is carrying out the projects financing scheme on the basis of 83 priorities that the NAS determines to them and they are not entitled to reduce their number. It turned out that this is not true. In January 2018, at a meeting in the Parliament of Georgia in which the same representatives of MESCS participated, the vice president of NAS said that MESCS has to determine 5-7 priorities, instead of finance projects on more than 80 ‘priorities’. The representative of MESCS had nothing to answer because could not repeat in the presence of the NAS representative that NAS determines the priorities.

Knowing these facts, the government's request to the EC formulated in 2017 as ‘Support in identification of promising research fields (prioritization)’ (H2020 PSF, 2018) can only be explained by the desire just ‘to mark activity’ in this becoming stumbling-stone direction, because the 13 years delay cannot be excused by the absence of the external support.

Another issue on which the Government addressed the EC for assistance is very sophisticated area of ‘Performance Based Funding of research entities’. The PSF mission (2018) pointed at the wide complex of measures which should forerun implementation of sophisticated mechanisms, namely, research priorities setting, clear definition of management responsibilities at all levels, establishment of the R&I activities recording and analyses system, etc.

The PSF mission recommendations (as well as all recommendations submitted to the Government in the past) represent a coherent set of measures. Selecting arbitrary some of them for implementation as was mentioned above, while ignoring others Government makes to R&I system more harm than good.

Thus, we have to conclude that the Government is informed on the problems of R&I system, but does not react to them except the cases interesting for its own purposes, which are not clear for other stakeholders. Some recommendations can be used as loud slogans beneficial to the Government for the PR purposes (e.g. establishment of RIC), while others for attracting some funds in the form of grants and loans from international financial organizations (e.g. for construction of Technopark or the network of innovation centers. I should confess that in Georgia (and in the majority of the post-Soviet countries) R&I policy is limited to that. Otherwise, one cannot explain very frequent referring by the Governments to importance of innovation process and, at the same time, keeping research activities at a very low level. Even if the governmental strategy is a technological catch-up based on the technology absorption (non-R&D-based innovation) the processes’ research support is needed urgently. It is evident that an efficient R&I policy is not the Government’s real/priority target, despite of its reflection in the Association Agreement Action Plan. Therefore, the declared integration in the European Research Area (ERA) became de facto spontaneous process stimulated only from the EU side.

The H2020 PSF mission (2018) had also pointed out at the high level of bureaucracy in Georgian R&I system’s operation related in the first place to the procurement rules. I can add to their observation additional bureaucratic hurdles (missed in the PSF report), which were created by the depriving the research institutes of the legal entity status and brought even worth results than the procurement rules do.
The most adequate description of the governance quality of R&I in Georgia was given by the World Bank mission (2014): ‘Although major structural reforms in Georgian science and education were undertaken over the past 10 years, a 2007 EU Commission study found that overall results were largely negative, and since then, deterioration has continued’.

Based on the foregoing, we can conclude that, despite the formal similarity of the R&I management system with the European one noted at the beginning of the chapter, the poor quality of regulations, as well as of decisions made the governance ineffective. Against this background, the request by the Government for assistance from the EC in such complex issues as 'Performance Based Funding of Research Entities', and 'Measures for narrowing the gap between research and industry/business' looks not corresponding to the most urgent current problems of R&I system governance. More basic issues have to be solved first and that was pointed out by the H2020 PSF mission (2018).

2. FUNDING
The main funding institution for research is MESCS allocating funds for universities and governmental research institutes. The funds consist of two parts: allocated for institutional funding of the research institutes and allocated for the project based funding. The institutional financing is implemented directly by the ministry, while the project grant scheme is implemented by SRNSF (the agency subordinated to MESCS). One more governmental support to innovation activities is the grant scheme for innovation projects in small enterprises (mainly start-ups) implemented by the MESD through GITA.

The most important shortcoming in R&I funding practice in Georgia has been mentioned above: the lowest level of GERD among EaP countries (0.2% of GDP) which themselves have rather low level of GERD. The low level is kept for more than 20 years and already led to outmigration of the most qualified part of researchers who were not too aged to leave. However, there are more problems. In 2005 according to Presidential decree the Shota Rustaveli National Science Foundation (SRNSF) had been established with aim to finance research through the competition based project grants. For this purpose half of the funds allocated annually in the state budget for the institutional funding of research institutes had been transferred to the SRNSF not having itself any experience of project funding (12 years later, in 2017 the SRNSF with letter signed by the Deputy Minister of MESCS asked EC DG R&I support in elaboration of a sound scheme of financing).

This extraordinary abrupt dropping of the institutional funding had caused great difficulties in the research institutes’ operation that had not been overcome since then. So the necessary new financing mechanism was created in such a way that caused irreparable harm to the R&I system. The established ratio of institutional funding to project funding equal to 50/50 is not appropriate for Georgia. According to Steen (2012) the ratio 50/50 or more of the grant (project) funding to the institutional one is observed only in several well developed countries with high level of GERD (New Zealand, Korea, Belgium, Finland and Ireland), while the most common value is 40/60 or less. In contrast with Georgia, in all countries the ratio is changing gradually via redistribution of the annual increase of the total funding.

In the absence of thematic research priorities, competition for grants is reduced just to scoring awarded by international reviewers for each project. The projects with the highest scores are financed regardless of the research discipline, i.e. projects in thematically distant disciplines compete with each other. As time passes, this evidently leads to thematic biases in the research system, since those disciplines that were well developed during the Soviet period continue to grow, while the rest, regardless of their relevance, lose the chance to compete with them. One of the main objectives of competitive financing is lost: to promote the restructuring of the thematic profile of research in accordance with the country social needs.

R&D funding by the private sector/industry in Georgia is negligible. Enterprises lack their own research facilities and have very limited contracts with universities and research institutes. In this regard
changes made by the Georgian government in legal statuses of research institutes play a negative role. I’ll come back to this in the chapter ‘Research Organizations’.

The privat sector financing of R&I activities are not encouraged by the Government, as far as no incentives for investments in R&I are envisaged by the Georgian law.

3. PEOPLE

Considering people working for R&I system it is necessary to distinguish a large number of involved groups that must have appropriate competence: political decision makers; high level R&I managers; programme and project managers; researchers; R&I technical personal; consultants; etc. In absence of sophisticated R&I statistics (H2020 PSF, 2018) it is difficult to judge all groups, though in some of them the situation in Georgia is clear.

First of all, the dramatic drop of the total number of researchers should be noted. In this regard Georgia is no exception from the trends in other post-soviet countries, though process in Georgia is more acute (Table 1). Another alarming circumstance is aging of researchers, especially of their most qualified part. A special comparison (Shatberashvili, 2018) of the number and age of Georgian scientists having high bibliometric characteristics (equal to the average level of leading western university professors) working in the country and abroad shows that their number is equal, but the diasporans are 25 years younger (their average age is about 45 years).

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of employees</th>
<th>Reduction, N1985/N2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1985</td>
<td>2017</td>
</tr>
<tr>
<td>Armenia</td>
<td>30,000</td>
<td>3,800</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Belarus</td>
<td>107,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Georgia</td>
<td>40,000</td>
<td>3,200</td>
</tr>
<tr>
<td>Moldova</td>
<td>25,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Ukraine</td>
<td>440,000</td>
<td>100,000</td>
</tr>
</tbody>
</table>

Table 1. Reduction of number of employees in research organizations

One of the factors hindering development is the high mobility of leaders at the upper level of the R&I system management. In the period 1992-2017 years 13 prime-ministers, 17 ministers of MESCO and 9 ministers of MESD had changed. Each time for a new minister of MESCO the R&I sphere was absolutely unknown area. That was complicated by a change, simultaneously with the minister, of his deputies as well. In the absence of any long-term formal strategies such rotation did not facilitate quality of the R&I system higher level management.
The PSF mission (2018) pointed out as a shortcoming of R&I system that the rectors of Georgian universities are not innovation leaders, but just managers. Their bibliometric indexes also show that they have not sufficient academic level from European point of view. It is so because in Georgia there are no well-thought-out rigorous rules of nomination and election of rectors. The frequent trajectories of people becoming rectors of the large public universities are as follows: ‘politician → deputy minister of MESCS → rector’ or ‘head of NGO → deputy minister or minister of MESCS → rector’. This is a serious shortcoming, especially in situation when tenth of research institutes of various profiles are suddenly merged with universities and problem of their adjustment to the existing university research and academic process has to be solved. This could not yield a positive result. All the more strange is the requirement of the PSF mission to ‘complete the merger’, which, most likely, will lead to the destruction of the remnants of institutes.

The age is the main problem related to people in the positions of heads of university departments, faculties and chairs, as well as leading professors, directors of the research institutes and heads of departments in the institutes, who cannot be substituted by ‘managers’. The majority of highly qualified researchers (of the level of PhD from the western university and higher) in Georgia have the age above 65. The younger generation of highly qualified researchers is mainly abroad forming Georgian scientific diaspora. There is now an acute shortage of the younger highly qualified researchers in Georgia. Together with the problem of the not the best use of the still available human resources it leads to the drop in the level of both the teaching and research.

The researchers’ age evidently is the highest danger for Georgian R&I system giving now less time for experiments like those of 2005 when institutes where reorganized (see below the chapter ‘Research Organizations’). A special study has shown (Shatberashvili, 2018) that the diasporan researchers may be addressed to save the situation. There are enough high quality researchers having the highest productivity age in diaspora for selection of several tenths of them aimed at their return to Georgia for appointment to the key positions in R&I system. This is feasible though not a trivial task requiring a special governmental policy.

Two important notes should be made related to almost all post-Soviet countries, including Georgia. In these countries there has been an increase in the number of annual publications in international scientific journals, which in itself is a positive development. However, it is not an indicator of the growth in the quality of researchers, as interpreted in national reports. This interpretation is misleading, since the growth is due simply to adaptation to the international system of scientific communication, the availability of which was limited in the Soviet era. The growth is the result of foreign languages learning, the expansion of international collaboration, the emergence of ‘circular migration’, and the decrease of publications in Russian-language journals.

There is also an increase in the number of annually defended doctoral thesis, which, in the face of a decline in the volume of research, is a negative phenomenon, indicating a decrease in the qualifications of doctors.

4. R&I SYSTEM RELATED DATA
The data on the Georgian R&I system allowing follow its time changes and elaborate its development policy is rather scarce. Researchers studying R&I processes in Georgia have to use mainly data of international organizations (WB, UNESCO) and individual projects. R&I data provided by Georgian Office of Statistics is very limited.

Another sort of data necessary for R&I management are DBs on scientific publications (domestic and international), R&D reports, dissertations, patents, as well as data on research organizations and teams, research programs, international projects with Georgian participation, Georgian local and diasporan scientists, etc. It is evident that without availability of information on R&I system its rational management cannot be carried out, let alone perfect management. The lack of this information in Georgia was underlined repeatedly
without success in publications (Shatberashvili, 2011; Gogodze, 2013; Bregvadze et al., 2014) and recommendations to the Georgian government. H2020 PSF mission (2018) has to repeat it again.

Unfortunately, organizations maintaining currently existing DBs are left without proper support, nothing to say about support of their proposals to develop new ones. In spite of their long experience in scientific information processing and, even more important, their vision based on this experience they have no chance to do the job.

Information on research outputs and products
In 2018 the USAID supported project team wrote (Bregvadze et al., 2014):

‘The main Georgian research institutions generally try to compile and maintain a track record of their research output. For example, the Georgian Technical University has a dedicated interdisciplinary scientific center (Techinformi) which performs this task among others. But even in this latter case, databases are incomplete because they depend on the willingness of the institutes to update.’

TECHINFORMI (The Institute of Scientific Information and Analyses of Technological Sphere) was a leading Georgian organization in developing DBs. It was a leading organization of the Soviet Union in developing search software for WIPO retrospective patent DB CAPRI. TECHINFORMI in Georgia pioneered the distant work with DBs long before emergence of Internet, as well as long ago introduced to Georgia citation analyses and other bibliometric studies. It kept all research project reports of Georgian research organizations (except classified ones) since 1980s. It maintains database on all scientific publications by Georgian researchers published in Georgia and publishes Georgian Abstract Journal. It also maintained an instrument of technological information exchange between enterprises and research organizations on the bases of printed bulletins which should be transformed into an on-line form. Being well known institute it represented first the Soviet Union and then independent Georgia in a number of international organizations (International Federation for Information and Documentation, International Center for ST Information, UNESCO). TECHINFORMI systematically organized and published comparative analyses and recommendations on innovative development of Georgian economy sectors. Only NGOs do it now in Georgia and only in the cases when they have an international donor supported projects, making an important state function 100% donor-driven, thus leaving large thematic lacunas.

Half of TECHINFORMI’s financial resource was provided by the Government as the institutional funding, while another half was earned on the basis of contracts with industrial, agricultural and other organizations.

The reader may notice that a past tense is often used above. It is because TECHINFORMI was deliberately weakened. In 2005 it had been deprived of a legal entity status and, in spite of its interdisciplinary functions, subordinated to one of universities, which has no formal responsibility for its activities.

Note: In contrast with Georgia, Belarus and Ukraine not only preserved their institutes similar to TECHINFORMI, but even strengthened analyses functions and international cooperation of the institutes.

The TECHINFORMI case characterizes also the current conditions for research institutes in Georgia in general.

5. RESEARCH ORGANIZATIONS
In 1990 there were about 200 autonomous research organizations having legal entity status in Georgia. As in all Soviet republics, they were grouped as follows:

- 50 research institutes of the Georgian Academies of Sciences (National Academy of Sciences and Academy of Agricultural Science);
- 30 research institutes of the Georgian ministries (among them 20 of the Ministry of Health);
- 2 research institutes of Georgian universities;
• About 50 research labs, experimental farms and experimental enterprises of Georgian universities and institutes;
• 10 research institutes of the USSR Academies of Sciences (e.g. Academy of Medical Science, Academy of Agricultural Science, etc.);
• 50 research and design institutes (notably large) of the different ministries of the USSR (federal).

These entities counted to 40,000 personnel which is a large figure for a Republic with 5 million inhabitants. All research institutes were legal entities fully responsible for the ‘people’s property’ entrusted to them (including buildings, plots of land, equipment, etc.), having bank accounts and right to sign contracts. Contracts with other research organizations and enterprises especially for research, consultancy and any sort of knowledge transfer were encouraged by the Government. Only the labs into universities did not have these rights having to do administrative operations through the university administrations. Despite the fact that contract money could not be spent on permanent staff salaries, contract work was an attractive tool for institutes. Some of them managed to attract amount of funds equal to institutional ones provided by the Government.

After obtaining independence, in Georgia as in all post-Soviet countries the general process of privatization had been started. In 2005 it was accelerated in relation to research institutes and universities. The acceleration was stimulated by the interest of speculative business emerged throughout the post-Soviet space toward the property assigned/entrusted to research organizations. All the located in Georgia institutes subordinated to the USSR ministries and academies of sciences (federal) were closed and their buildings and equipment were sold. The 22 medical institutes of the Georgian Ministry of Health were privatized and turned into ordinary clinics having no research activities. The agricultural research institutes were merged with Agricultural University and bought out together with it by the former Prime Minister of Georgia thus left without both the status of legal entities and the institutional financing. Institutes subordinated to the Georgian NAS (which was organizationally a close analogue, e.g. of the German non-university research associations like the Max Planck Society, the Leibniz Association or the Helmholtz Association), as well as institutes subordinated to Georgian ministries were deprived of the legal entity status and merged with universities. Their buildings’ ownership was mostly transferred to the MESD and then either sold (privatized) or used for the governmental administrative purposes.

The merger with universities was made in a hurry as a one moment action. There were no clear principles of making decision about the hosting universities choice. As a result the choice was in the most cases made on a bases of personal relationships of an institute’s and a university’s management. So the merger was an arbitrary process hindering their real cooperation and cross-fertilization. Institutes had lost the legal entity status and, accordingly, the bank accounts and right to communicate directly with the potential contractors, donors, etc., though the amount of an institutional funding allocated to them before the merger was preserved to each of them through the universities. This reform led to negligible funds received by institutes from contractors and donors, practically ending their work for the non-governmental sector. I failed to find analogues of such action in the world publications on the organization of research. The popular world practice is creation of institutes in universities for solving interdisciplinary problems more administrative and financial rights then the faculties have.

Research institutes and the Policy Support Facility mission of 2017-2018 (I)

Today for the smallest purchase the directors of the institutes have to address university administration sitting far away from the institute’s location for permissions and signatures. In one of universities for 3 years in a row the institutes had no Internet connection in the first quarter of year because the university administration had to make contract with the Internet provider for all of them together. Such a large contract got to the procurement regulated range and became very slow.
The case refers to the state of research institutes (and to the R&I governance in Georgia as well). The ‘Recommendation 2. Overcome bureaucracy’ by the PSF mission addresses such cases directly. In its justification (H2020 PSF 2018, p. 34) we read: ‘... in Poland, the institute directors can decide on spending on R&D-related goods and services, and are responsible for public procurement’. Indeed, if the director does not have these rights then it is no institute.

Since the reform did not have a rational basis, it has not given any positive result in 13 years. The slogan under which the ‘reform’ was carried out was the strengthening of universities and the research system as a whole, but as the figures show, the Georgian research system fell into disrepair. As it was mentioned the leading personnel’s age at the institutes is critical while the younger highly qualified researchers are working abroad. These give Georgia very short time for rescuing the research system from the complete ruining and no right for the additional experiments. In this complicated situation H2020 PSF mission ‘Specific Support to Georgia’ had to make analyses and submit recommendations.

Research institutes and the Policy Support Facility mission of 2017-2018 (2)

The H2020 PSF mission submitted 23 recommendations related to all aspects of R&I in Georgia, most of which if implemented in the right sequence may benefit the R&I system in Georgia. However, in relation to research institutes status there are some contradictions. The missions’ Report sais (p.29): “... meeting with the university rectors indicated the following: University leadership appeared to have little leadership experience. Most of their activities are better described as ‘administration’ rather than ‘leadership’.”

In this situation, also taking into consideration notes in the Box 5, the recommendation by the PSF mission (2018) to ‘finish merger with universities’ (p.57) without any explanation what it means, looks somewhat vague. To entrust about 20 research institutes to each ‘administrator’ who in 13 years proved to be unable to find solution looks contradictory to anyone, but the PSF mission. At the same time, the solution could be recovering legal entity rights of institutes leaving them in universities. That is allowed by the Georgian law, was allowed by the Soviet law and is practiced in the World. In this case institutes would not lose their capacity to work with private sector, while universities together with institutes would have time to improve cooperation. Not doing so means that the purpose of the merger was not efficiency growth, but introduction of research governance scheme handy for the Government while harmful for R&I.

It is worth recalling here that the government’s attacks on the existing ‘USSR-type’ schemes of science management were undertaken in all post-Soviet countries (except, perhaps, Belarus) under the pretext of ‘optimizing under new conditions’ and ‘convergence with world practice’. Under the greatest pressure were the National Academies of Sciences, as the largest single property managers: of prestigious buildings and large plots of land in the centers of the state capitals. In general, on closer examination the ‘reform’ proposals in fact suggested the reducing research activity, using the property for commercial purposes, increasing control of flows of funds by administrators who are non-professionals in the field of research, and ultimately bring negative results to R&I systems. The reforms are suggested on the background of reducing or freezing of research expenditures, i.e. the most needed actions are replaced by the most profitable for the interested groups. Georgia in this direction was ahead of all, and has got therefore the most negative results. In other post-Soviet countries, the resistance of scientific communities, and perhaps also the healthy conservatism of societies, has delayed ‘reforms’. In Russia, the taking away of the property of the Academy of Sciences (which, unlike other national academies, was a scientific organization of global value) became only possible in 2014. In Moldova the process has been launched actively in 2017 and in Ukraine the disputes around the issue are still ongoing. The desire to carry out ‘reforms’ is so great that even the 13-year-long Georgian experiment with negative results does not stop the rest of the countries.
6. ENTERPRISES

In Georgia acquiring more freedom by enterprises after privatization was accompanied with stopping of production in those of them which intensively consumed and developed technology. Among large traditional production industries practically only mining is operating. In parallel, services like in tourism, trade, transport, communication, etc. are developed quickly. As a result, the profile of demand for the research and research services has changed dramatically leading to a need of the profile change in the research system, which, unfortunately, due to the lost of freedom by the institutes mentioned above (e.g. legal entity statuses) became even less thematically mobile than in the soviet period.

The innovation process in the business sector is based mainly on the use of imported ready-made technologies. The in-house research in industry sector is very rare even in high-tech companies (e.g. in communication sector). Nevertheless, there are not numerous examples of very successful research-based SMEs which are either remains of the closed research and design institutes or new spin-offs from research institutes and universities. Their personnel often work at enterprises and universities in parallel.

Georgian legislation does not provide incentives for either in-house or contracted research by companies. The private sector is not eligible to apply for research grants of SRNSF either. The only sources of the governmental support to enterprises is GITA’s support to innovation start-ups and a scheme called ‘Produce in Georgia’ which supports SMEs (not necessarily innovative) covering bank interest on their loans from the governmental budget. R&D financed by enterprises is negligible.

7. INNOVATION INFRASTRUCTURE

In recent years steps had been taken toward development of an innovation infrastructure under MESD:

- The National intellectual property office SAKPATENTI was established
- GITA was established
- An agriculture consultancy network covering Georgia’s territory was established
- GITA has established Tbilisi Technopark
- GITA started regular competition based support scheme for innovative start-ups
- The SME Development Agency was established, pursuing to a certain degree innovation goals.

The drawback of these activities is their almost complete isolation from the research system due to isolation of the Ministries responsible for research and innovation development (MESCS and MESD).

8. ANALYSES IN THE EUROPEAN INTEGRATION CONTEXT

Post-socialist countries can be divided into two groups: those that have joined EU and those that belong to the ENP (including those that we call EaP countries some which have signed the Association Agreement with EU). On the Figure 2 their GERDs are compared

It is evident, that the main problem of the EaP countries is the low level of research funding, aggravated by the lack of its growth (and even a decline in some countries). Under these conditions, any reform, let it be the transfer of scientific organizations from one agency to another, or the introduction of new financing schemes, is meaningless. Consequently, the less reforms are carried out under these conditions, the better. An example is the relative success of Belarus, where the governance schemes for R&I have been reorganized to the smallest extent compared to other EaP countries. In particular, in Belarus scientific organizations continue to be subordinated to the Academy of Sciences of Belarus, as well as to ministries and governmental departments, something that was quickly and radically abandoned in Georgia, but without positive results. In Belarus just the objectives of the R&I system have changed in accordance with the new economic realities.
At this stage the systematic increase in funding will be the only real sign of the serious attitude of the governments of EaP countries to the R&I issues, or in other words, to the future of their countries. In the countries which have signed Association Agreements with EU the declared European integration process should stimulate such an attitude, but positive results have not yet been observed. In this regard, it makes sense to analyze the impact of significant support rendered by the EU to the EaP countries on the R&I development throughout the post-Soviet period. We can conditionally divide the support into three directions.

**Box 7**

Inconsistency of the state and needs of the R&I system with the requested EC support

Despite the recommendations of international organizations and local experts, the Government of Georgia is keeping R&I expenses for the past 20 years at the lowest level among the post-Soviet countries, is pursuing ill-conceived reforms, and is not setting priorities for investments in R&I during this period. Unexpectedly, it is requesting assistance (H2020 PSM, 2018) in the implementation of the fine-tuned Performance Based Funding mechanism, which requires correction, according to the conclusion of the PSM mission (2018) of all the listed shortcomings as a precondition. The task also requires highly skilled executives at the management level of the R&I system, whom Government lacks.

The PSF mission in Georgia was called Improving the Effectiveness of the Research and Innovation System of Georgia through Prioritization, Selectivity and Links to Business, in contrast to similar missions in Moldova and Ukraine, where they were called modestly Peer Review of the Research and Innovation system.

The minister who had requested assistance, by the time the recommendations were ready, was already released from work. This paradoxical, if not anecdotal, situation proves that the requested assistance should not be perceived as a real attempt by the Government to correct the state of affairs.

Of course, the mission had pointed out to the Government at the numerous preconditions that need to be fulfilled in order to implement the requested recommendations. However, there are no guarantees that once again the Government will not extract from the set of recommendations for implementation only those in which it is for some reason interested, leaving the rest unheeded, as it has
already happened more than once. Arbitrary-selective implementation can aggravate the state of the R&I system. In the recommendations of the PSF missions for EaP countries there are no precautions on preventing such a scenario.

The first direction is: to familiarize researchers and industrialists in EaP countries with existing mechanisms for supporting R &I in the EU; to expand systematically the access to these mechanisms; to expand contacts with European scientists and cooperation with them. However, these mechanisms can only be used effectively by organizations that have professional knowledge, have a material base, have staff fluent in English and are legal entities. In the conditions of long-term under-financing, few organizations have this set of qualities. Considering that in Georgia most of the research institutes are not even legal entities, their participation, for example, in programs like the Horizon 2020 is insignificant and stays at a low level for many years, i.e. does not expand. Nevertheless, the positive experience gained, although limited, is invaluable.

The second direction is the support of mobility of students and young scientists, which really gives positive results.

The third direction is the provision of methodological assistance in the field of governance of R&I processes and R&I system reorganization and increasing of its efficiency at all levels, which is the main interest of this article. The above data indicate that in this, in my opinion key direction, there are no results. This circumstance requires attention, since for many years in different European projects the recommendations that are not implemented are repeated again and again.

The R & I systems in the post-Soviet countries, with the exception of the EU member Baltic countries, are in more or less the same conditions that stem from similar paradigms of economic development in these countries, namely, the orientation of ruling groups on short-term projects that yield the maximum profit for the shortest time. It is obvious that, despite the differences between countries, there should be general recommendations for the rehabilitation of their R&I systems. In order to elaborate them, it is necessary to compare not only the standard formal indicators of national R&I systems (this is not difficult to do today), but also the organizational arrangements in the countries, normative acts adopted, the relationships and attitudes of the main stakeholders, and so on. Aiming at this I hoped for reports of H2020 PSM missions across Ukraine (H2020 PSF, 2017), Moldova (H2020 PSF, 2016), and Georgia (H2020 PSF, 2018). However, it turned out that it is practically impossible to do this, despite the fact that some of the mission members were the same in all three countries. The events and the state of issues to which missions do not have comments in one country are considered in another as flaws that need to be corrected. The examples are in Box 7 and Box 8.

National Academies of Sciences or Universities?

In Ukraine and Moldova (as well as in Belarus, Armenia and Azerbaijan), formally the ‘Soviet’ model of the National Academy of Sciences is preserved, in which a significant number of institutions are directly subordinated to the Academy of Sciences, while being legal entities. In the conclusions of the missions in Moldova (H2020 Policy Support Facility, 2016) and Ukraine (H2020 Policy Support Facility, 2017), the subordination of the institutes to the Academy of Sciences is not assessed as a shortcoming, only wishes are expressed regarding the institutes financing schemes. In Georgia, where the Government took all the institutes from the NAS and handed them over to the universities, depriving them of the legal entities status, while NAS retains only the function of assessing the outputs of institutes. This action of the Georgian Government is assessed by the PSF mission as positive. Moreover, the mission proposes to deprive the NAS of this last function, and ‘to complete’ integration of institutes with universities. The question arises, which model is appropriate? Judging by the macro indicators, Georgia has the worst results. Then what is the basis for considering Georgia’s actions positive? The reader is confused. It is also well known that almost all leading countries successfully
operate non-university research systems (having different names in Germany, France, the United States and others),
which does not interfere with development of university science. There is also a world practice of university institutes
(institutes in the university structure subordinated to university management) being legal entities.

In the report on Georgia H2020 PSF (2018) mission notes, that the rectors of universities ‘are
not the leaders of research and innovation’ that they should be, but are just ‘administrators’. The
questions arise: is not the unsuccessful integration of research institutes with universities in Georgia
(World Bank, 2014) a consequence of this shortcoming? Should not the meeting of higher standards
by university rectors be required as a precondition for integration?

It is obvious that the real scientific generalization of the 25-year experience of transforming R&I
systems in post-Soviet countries is still waiting for us ahead. H2020 PSF missions could not do this because
they have to take into account the subjective opinion of the Governments for which they work, i.e. their
conclusions are a combination of objective reality and political considerations.

A lack of positive shifts in the state of the R&I system gives rise to skepticism among researchers about
European expert assistance and the European integration process as a whole, cultivating the view of the
process as a kind of purely ritual phenomenon that does not affect the R&I system. Who benefits from this
attitude of the intellectual elite to European integration? Only ruling groups in post-Soviet countries, for
which the very existence of the intellectual elite is a danger, and a perceived danger. It was very unequivocally
formulated by H. Gref (2017), CEO and Chairman of the largest Russian bank 'Sberbank': 'If we give
education to people, how then are we going to govern them?' It is not difficult to understand that the
stagnation and even the shrinking of R&I systems (and the related drop in the level of education) is not a
random process, but a manifestation of the latent resistance to European integration (covered by loud pro-
European slogans). However, this process is not beneficial to the peoples of post-Soviet countries and the
EU, since it negatively affects democracy, as well as security in the region. Therefore, the issue of cooperation
between EU and EaP countries in the development of R&I systems requires closer attention.

LITERATURES
supported by the United States Agency for International Development (USAID), through the Human and
Gogodze J. 2013. The composite ECAICI: positioning of Georgia’s innovative capacities in the Europe-Central Asia
the scientific output of Armenia, Azerbaijan and Georgia. Scientometrics, 102:1, pp 195–212
H2020 Policy Support Facility. 2018. Specific Support to Georgia: Improving the Effectiveness of the Research and Innovation System of
H2020 Policy Support Facility. 2016. Peer Review of the Moldovan Research and Innovation System. doi:
H2020 Policy Support Facility. 2017. Peer Review of the Ukrainian Research and Innovation System. DOI:
Gref H. 2017. Speech at the Sberbank Russia Forum ‘Getting out of the administrative dead end’. Saint
Petersburg (https://www.youtube.com/watch?v=RpKXYnPnijAM)
Shatberashvili, O. 2011. Innovation processes and good governance: opportunities in the framework of the EU Eastern
Partnership initiative [sainovacio protsesebi da qveknis efektiiani martrvi: shesadzeblobebi agmosavletis partniorobis}

The Svetitskhoveli Cathedral (literally the Cathedral of the Living Pillar) is an Eastern Orthodox Cathedral located in the historic town of Mtskheta, to the northwest of the Georgian capital Tbilisi. Known as the burial site of Christ’s mantle, Svetitskhoveli has long been one of the principal Georgian Orthodox churches. The present structure was completed in 1029 by the medieval Georgian architect Arsukisdze. Right below a 17th-century ciborium under which the robe of Jesus is said to have been buried. On the right photos Nino Elizbarashvili accompanying the Scientific Director of ERENET. Photo © by Dr. Antal Szabó
INFORMATION TECHNOLOGY ATLAS OF THE ROSTOV REGION

ABSTRACT

The paper presents the economy, infrastructure and the information technology situation of the sixth largest region: Rostov in Russia. The level of education of the population is high. Rostov-on-Don holds 392d place in Innovation Cities Global Index 2016-2017. In 2017 the InTech Don carried out a survey on the landscape of the IT industry. The “2020 Strategy of socio-economic development of Rostov region” provides necessary conditions of end-to-end innovation development that would range from fundamental research to promotion and sales of knowledge-based products. The paper presents the results. InTech-Don study tries to provide a first consistent view on the subject.

Keywords: InTech-Don, Information Technology in Rostov Region, Russoft

JEL Classification: M15, D83, E02, H50

1. INFORMATION ABOUT THE REGION

1.1. Population

The population in the Rostov region reaches 4.23 million according to the data of 2017. 67% of this population (2.87 million) lives in urban areas. After Moscow, Moscow region, Krasnodar, St. Petersburg and Sverdlov region, Rostov holds the 6th place in Russia in its population [1].

Workforce of the region is 57.2% of the general population. The level of education of the population in economically active age is for Russia traditionally high. The number of employed workers is around 1.97 million annually, out of them 1.3 million people are employed by enterprises without state control.

Rostov region envelopes 463 municipalities that consist of 12 city districts, 43 municipal regions and 391 rural settlements [2].

The administrative center of Rostov region is the city of Rostov-on-Don (population 1.125 million, 10th place in Russia, 30th place in Europe) which is by far one of the largest industrial, cultural and scientific center, river port and important multimodal transport junction. The city acquired an additional weight in 2002 as a capital of Russian Southern Federal District. The region has several large and mid-sized cities, such as

31 InTech-Don Association with Russoft Partnership
Taganrog (250,000), Shakhty (235,000), Novocherkassk (169,000), Volgodonsk (171,000), Novoshakhtinsk (109,000) and Azov (80,000) [3]. Rostov, Taganrog, Novocherkassk, Azov and many small settlements are sometimes called the agglomeration of Large Rostov that includes about 2.5 million people living in the area.

1.2. Economy

Rostov region holds the 15th place in Russia by its Gross Rating Points (GRP) [4]. The region does not have a clear and distinct specialization of its economy, it is sufficiently diversified. There is no a single dominating industry. The region gets maximum contribution (18.9%) into its GRP from such sectors as “Wholesale and retail trade, repairs of motorized vehicles, home and personal appliances”. In actuality, this industry has to be splitted into at least two and fundamentally can be classified as services.

Second and third place with 13.6% is held by “Manufacturing” and “Agriculture”. The region up to a certain degree can be called agricultural. On the other hand, the share of manufacturing is high together with “Construction” (9.2%), “Real estate” (9.2%), “Transport and telecommunications” (9%).

![Fig. 1 The GRP split for the Rostov region [5].](image)

The region belongs to the group of top-15 in Russia. According to the data of Russian Ministry of Economy it grew with 2.8% in 2016 while the average overall growth in Russia was found to be -0.2% [4]. Rostov region belongs to top-20 Russian regions in National Investment Rating reaching 16th place according to the data from 2017 [6]. The largest enterprises in the region are

- «Rostselmash» – manufacturing of agricultural machinery;
- «Rostvertol» – manufacturing and service of helicopters (Mi-24, Mi-26, Mi-28, etc.);
- «Novocherkassk Locomotive construction plants»;
- «Aston», «Yug Rusi», «Don Tobacco» – agricultural processing;
● "Gloria Jeans" - light manufacturing;
● "Novoshakhtinsk plant of oil products";
● "Tagmet" - Taganrog metallurgical plant; [7].

1.3. Transport and infrastructure

Historically Rostov region was called “the Gates of Russia” to the countries of Azov and Black Sea basins. Its geography dictates to build and further develop a diverse and rich net of multimodal communications such as railways, roads (federal and regional), river and sea ports. In 2017 a completely new Rostov international airport was completed becoming the first airport in Post-Soviet Russia built as a green field project. Transport infrastructure in the region is a part of Cretan and transcontinental corridors [8].

The main carrier of cargo and passengers (both national and international legs) in the region is North-Caucasus Railway which is a branch of state monopoly “Russian Railways”. The railroads connect Center, West and Siberia with Russian south. There are stations, nodes, cargo processing facilities, and other infrastructure that can move and process any kind of cargo. Total length of the railroads in Rostov region is up to 788 kilometers. For the past several years road infrastructure is one of the fast developing sectors of local economy. Today this infrastructure includes automobile roads of federal, local and municipal statuses totalling more than 35,000 kilometers. The distance from Rostov to Russian capital Moscow is 1076 km.

Air transport and infrastructure around Rostov-on-Don makes it possible to move passengers and cargo in both national and international directions. Rostov Airport (federal status) was functioning until December 2017, after that time it was replaced by new international airport “Platov” build as a green field project 30 km north of Rostov city. The second airport, Taganrog-Yuzhny is located near the city of Taganrog and has regional status [9].

1.4 Information society rating of 2017

Rostov region became 25th in the 2015 national rating of information society [10]. This rating makes it possible to derive reasons of information inequality among all regions in Russian Federation and provides basis for management of regional informatization. By 2015-2016 the region had collective WiFi access spots installed in 157 localities (cities, towns, villages, etc.) [11]. The number of active mobile users exceeds 5 million providing more than 100% penetration with mobile services. The population in the region actively utilizes services in all 2G, 3G and 4G networks. The testing of 5G services is in active stage. Total geographical area coverage of mobile networks exceeds 89%. These networks provide for all kinds of basic and value added services that an experienced user can expect.

Rostov-on-Don holds 392d place in Innovation Cities Global Index 2016-2017 [12]. (Previous version of the Index had Rostov-on-Don on 289th place, however, many Russian cities were lowered for unknown reason). Global Index totals 20 Russian cities and allows to derive city potential in generating, commercializing and promoting innovation ideas. Other world ratings do not include Rostov-on-Don (although, they include no more than 4 Russian cities). Among 20 Russian companies that are mentioned by any kind of foreign analytics and press do not have software developers in the region.

1.5 Education

Rostov-on-Don has 39 institutions of higher education. They include 6 universities, 18 institutes, conservatory, seminary and 15 branches of institutions of higher education from other regions in Russia. The largest is Southern Federal University, formerly Rostov State University that aggregated 3 specialized institutions (pedagogical, architecture and art in Rostov and radiotech in Taganrog). Today SFU has 37 departments with total of 56 thousand students studying annually. In addition to SFU Rostov-on-Don houses Don State Technical University, Rostov State Medical University, Rostov State University of Railway
Transport, Rostov State University of Economics.

Southern Federal University usually scores best in international ratings among all institutions of higher education in the region. Frequently it is the only university from the region in those ratings. However, achievements of other universities are found as well. These universities are Platov South-Russian State Polytechnic University (NPI) based in Novocherkassk and Don State Technical University based in Rostov-on-Don.

1. Analyzing a total number of Russian graduates that hold a degree with some connection to IT, employers grading toward a number of graduates and their academic level, SFU scores only at the 22 place. This place does not seem to be very reassuring, although its position is somewhere between effective and middle level.
2. SFU reached a place between 551 and 600 in QS World University Rankings 2017 (it was 601-560 in 2016).
3. SFU holds 638th place in Round University Ranking (RUR) in 2017, whereas Don State Technical University reached the 733th place.
4. BRICS & Emerging Economies University Rankings 2017 ranged SFU at 201-250 place.
5. The Times Higher Education World University Rankings 2016-2017 did not fall into “best 800” but fell into “>800”. In other words, it scored very nearly.
6. A Superjob rating of Russian institutions of higher technical education placed Platov South-Russian State Polytechnic University at 37-42 place with an average salary of RUB 72,000 per month.
7. SFU holds an honorable 11th place in RUSSOFT rating which is compiled mostly from employers (which are software developer companies) opinions. It has been mentioned 12 times for the past 4 years.

Overall, Rostov region can be considered among first 10 Russian regions where IT professionals (developers at first) are trained best. It obviously loses to Moscow, St. Petersburg, Novosibirsk and may be Tomsk. Other regions and cities are most certainly either equal or lower.

2. **IT INDUSTRY OF THE ROSTOV REGION**

Rostov-on-Don holds 392nd place in Innovation Cities Index 2016-2017. Out of other Russian cities only Moscow, St. Petersburg, Kazan, Ekaterinburg and Nizhniy Novgorod are higher. This index ranges cities using parameters that allow to draw conclusions about achievements of local IT companies.

The Government of Rostov region reports that it continually implements policies directed toward support and further development of innovation. The “2020 Strategy of socio-economic development of Rostov region” provides for development of necessary conditions of end-to-end innovation development that would range from fundamental research to promotion and sales of knowledge-based products. All innovation based developments are regulated by a regional law #591 “About innovation development in Rostov region” on 28.11.2006. Regional programs on innovation became stimulating factors. Starting 2014 there exists a separate subprogram “Innovative development of Rostov region” to a state program of “Economic development and knowledge-based economy of Rostov region”. This subprogram introduces a set of financial, managerial and informational measures that set a goal to move the region into knowledge-based economy.

The infrastructure of innovation in the region includes:
- Non-profit partnership “Unified regional center for innovative development”, a key element in this infrastructure;
- 11 regional institutions of higher education set to develop innovations;
- 10 innovation centers;
● “InTech-Don center for innovative technology”, a specialized non-profit partnership company that manages ICT cluster of Rostov region based in Novocherkassk;
● “Southern laser center for innovative technologies”, a non-profit partnership based in Taganrog;
● 8 centers for innovative technologies based in South Federal University;
● 20 centers of collective usage under institutions of higher education providing access to modern equipment for prototyping and low volume manufacturing;
● “Regional corporation of Development”;
● IT-accelerator “Yuzhniy IT-park” a project of “Regional corporation of Development”
● Rostov branch of the “Support of Innovation Fund”

2.1 The study of InTech-Don

Some impression about the landscape of IT industry in the region can be drawn from preliminary results of a 2017 study performed by InTech-Don. It compiled data from questionnaires filled by 47 local IT-companies. These companies employ about 3,000 people. A questionnaire contained 33 questions. Among all companies that answered the questionnaire, 31 are located in Rostov-on-Don, 9 in Taganrog, 4 in Novocherkassk, 1 in Azov, 1 in Volgodonsk and 1 in Bataysk. It tells us that not all companies are concentrated in Rostov-on-Don being an administrative center of the region. A substantial number (34%) of them tell that they function in different locations quite comfortably. However, a landscape of the industry can be seen from only Rostov companies.

The InTech-Don study is certainly not complete and it should be very well realized that many IT companies did not participate in the questionnaire. Some of them probably never will. Additional information can be drawn from many specialized IT resources on the web such as www.tagline.ru, www.cmsmagazine.ru and others. Such resources produce hundreds of software development companies. However, InTech-Don study tries to provide a first consistent view on the subject, a view which can provide numbers and trends. Moreover, InTech-Don study tries to encompass a larger landscape than other studies that focus mostly on pure software development part of the industry.

The study in its first version does not include representatives from telecommunications industry (cellular carriers, backbone providers, “last mile” internet providers, etc.) as well as large federal structures both state-run or private such as North-Caucasus Railway or Lukoil. All of them have very substantial (many tens of people) IT departments, in-house software development and integration. A methodology of projecting their federal activity onto regional markets is still under development. It is clear, however, that after such methodology finalizes, the view onto Rostov IT landscape will dramatically change. IT budgets and revenues for federal structures are orders of magnitude higher than for companies in the discussed study. For example, cellular carriers generate revenues of more than about USD 35 million annually from different IT based services in Rostov region and invest millions of USD into their IT and value added services infrastructure.

The structure of the industry outlined by the InTech-Don study include:

● Digital-agencies. 13 companies out of 47 are digital agencies. An average number of employees in such companies is 25. Most clients of these companies lie beyond Rostov region: Moscow and other regions of the country. Only 31% of them told that their business interests are bound to Rostov region itself;
● Outsourcing companies. 13 outsourcing companies also employ an average of 25 people. Most of those companies in the region are concentrated in Taganrog, 95% of their sales goes towards international markets. This segment of the industry shows highest rates of generating new jobs and allows for largest size companies in terms of employment opportunities. Close ties to Engineer Academy of South Federal University (located in Taganrog) provides for a relative success of this
segment (also see the conclusion). It was impossible to precisely derive the volume of outsourcing
segment in the region because it shows a diverse degree of fragmentation: from organized companies
to a constellation of freelance individuals. Experts estimate an annual growth of 15-20% in creating
of new jobs;

- **Software developers.** This segment is represented only by 6 companies in the study, however, it has
  highest growth rates of about 30-40% annually. Product startups have on average about 6 employees,
  whereas seasoned developers have about 47. Most Rostov software developers do not have local
  clients, almost all their sales are generated from other regions, Russia or abroad;

- **Integrators and distributors.** This segment holds about 40% of workforce in the industry. On the
  other hand, the dynamics is not impressive. The segment is mostly stable. Middle size integrators lose
  jobs by a few percent, whereas large sized integrators gain a few percent. An obvious specific feature
  of the segment is that they are mostly focus towards local markets and, by a large extent, depend on
  it.

Results of the study indicate that only companies whose workforce exceeds about 30 people start to
interact with institutions of higher education. This level of development demands an influx of new employees
and resources so such a cooperation becomes viable.

Taganrog deserves a special treatment. Despite its relatively small size (about 300,000), several large
software development companies were founded there together with a cloud of small and micro-size
companies as well as a large community of freelance individuals. Almost all of this “richness” (95% of their
sales) target international markets of mobile and web development. Taganrog uniqueness breaks a general rule
that such companies usually are not located in smaller cities in Russia. This can be explained by an excess of
very qualified professionals produced by former Taganrog Radio Technical Institute (now a part of Southern
Federal University). The institution was widely known in Soviet era and after USSR broke up and economy
crumbled many of the Institute’s graduates filled the demand of the software development industry.

All in all, the study also showed relatively weak interaction between IT companies and institutions of
higher education. On the other hand, producing IT specialists of high qualification for entire agglomeration of
Large Rostov becomes a central point of the industry.

### 2.2 The study by RUSSOFT

Another study where Rostov companies are mentioned was a study done by RUSSOFT Association
in 2015-2017. This study does not try to gather information from an entire IT landscape but rather focuses on
software development. Moreover, many RUSSOFT studies tend to pay attention to those entities that have
international sales and that have more than 5 employees. It is explained by the focus of this association
towards software export.

The study was also made as a questionnaire, however, only 5 companies from the region participated
and one of them was rather a systems integration than a pure software development company. In addition,
those 5 companies happened to be not fast growing. Therefore this study can not provide any reliable
information for IT landscape in the region. But it involves parameters that were not present in InTech-Don
study as well as places Rostov region within a Russian context, and therefore it is worth discussing.

Aggregate turnover, Aggregate international sales in 2016 for the companies in InTech-Don study
<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate turnover, USD million</td>
<td>1284</td>
<td>4 (0,3%)</td>
</tr>
<tr>
<td>International sales in the turnover</td>
<td>74%</td>
<td>18%</td>
</tr>
<tr>
<td>Turnover growth (in USD)</td>
<td>+16%</td>
<td>+0,4%</td>
</tr>
<tr>
<td>International sales</td>
<td>+13%</td>
<td>-0,3%</td>
</tr>
<tr>
<td>Turnover growth forecast for 2017</td>
<td>+13%</td>
<td>+19%</td>
</tr>
<tr>
<td>International sales forecast</td>
<td>+13%</td>
<td>0%</td>
</tr>
</tbody>
</table>

An aggregate turnover of Rostov software companies exceeds USD 100 million. An adequate number reaches to about RUB 140-150 million (from expert estimates). A total share of international sales in this number is 30%-40% which lower than an average for Russia. It gives around USD 30-55 million. The changes in turnover and international sales of Rostov companies are probably better than what RUSSOFT study shows. It seems that the number reaches 10% or even larger growths.

**Share of companies with different growths (data of 2016)**

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not change</td>
<td>30%</td>
<td>80%</td>
</tr>
<tr>
<td>Grew</td>
<td>42%</td>
<td>20%</td>
</tr>
<tr>
<td>Declined</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>Can not answer</td>
<td>17%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Number of software companies and overall number of IT staff in Russian companies**

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of stable software companies</td>
<td>&gt; 3200</td>
<td>about 100 (3,1%)</td>
</tr>
<tr>
<td>Number of companies with international sales</td>
<td>&gt; 2000</td>
<td>&gt; 30 (1,5%)</td>
</tr>
<tr>
<td>Software developers working in the industry</td>
<td>465-475 thousand</td>
<td>&gt; 10 thousand (2,2%)</td>
</tr>
<tr>
<td>Software developers working in Russian industry (without international development centers located in Russia)</td>
<td>130-135 thousand</td>
<td>&gt; 3 thousand (2,3%)</td>
</tr>
</tbody>
</table>

By the end of 2017, Rostov region has 130 IT-companies that were on the database of the Ministry of information technology and communication. This is 1.6% of all Russian companies that were on such list by that same time. This number grows substantially as many companies apply to register. By the end of September of 2017 Rostov region had 87 companies applied which constituted 1.2% of all registered companies. These data place Rostov region at the 13th place among all Russian regions. However, one must realize, that not all companies register and not all IT-companies can be software development companies.
Fig. 2. Growth in registering of Rostov companies at the Ministry’s database by year. Expert estimates provide for about 190 software companies working in Rostov region [13].

**Distribution of listed companies by regions in Russian Federation by 18.09.2017**

<table>
<thead>
<tr>
<th>Companies total</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moscow</td>
<td>2762</td>
</tr>
<tr>
<td>St. Petersburg</td>
<td>951</td>
</tr>
<tr>
<td>Novosibirsk</td>
<td>235</td>
</tr>
<tr>
<td>Ekaterinburg</td>
<td>231</td>
</tr>
<tr>
<td>Moscow region</td>
<td>219</td>
</tr>
<tr>
<td>Kazan</td>
<td>176</td>
</tr>
<tr>
<td>Samara</td>
<td>126</td>
</tr>
<tr>
<td>Nzhniy Novgorod</td>
<td>125</td>
</tr>
<tr>
<td>Perm</td>
<td>116</td>
</tr>
<tr>
<td>Krasnodar</td>
<td>96</td>
</tr>
<tr>
<td>Cheliabinsk</td>
<td>95</td>
</tr>
<tr>
<td>Ulianovsk</td>
<td>91</td>
</tr>
<tr>
<td><strong>Rostov-on-Don</strong></td>
<td><strong>87</strong></td>
</tr>
</tbody>
</table>

*Source:* Data from the Ministry of information technology and communication.
Distribution companies by their age (data of 2017)

<table>
<thead>
<tr>
<th>Year of creation</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>After 2009 (including 2009)</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>2004-2008</td>
<td>22%</td>
<td>60%</td>
</tr>
<tr>
<td>1999-2003</td>
<td>24%</td>
<td>20%</td>
</tr>
<tr>
<td>before 1999</td>
<td>31%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Distribution of companies by their specialization (data of 2017)

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Custom software development</td>
<td>68%</td>
<td>80%</td>
</tr>
<tr>
<td>2 Mobile applications</td>
<td>44%</td>
<td>60%</td>
</tr>
<tr>
<td>3 Web development</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>4 Computer games</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>5 Built-in software (hardware based, etc.)</td>
<td>21%</td>
<td>0%</td>
</tr>
<tr>
<td>6 Navigation systems</td>
<td>9%</td>
<td>0%</td>
</tr>
<tr>
<td>7 Geoinformation systems (GIS)</td>
<td>12%</td>
<td>0%</td>
</tr>
<tr>
<td>8 Integration of enterprise management software, workflow automatization, etc.</td>
<td>32%</td>
<td>0%</td>
</tr>
<tr>
<td>9 Information security software</td>
<td>14%</td>
<td>0%</td>
</tr>
<tr>
<td>10 System level software development (operating systems, RDB, office applications, etc.)</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>11 Research and Development</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>12 Other</td>
<td>28%</td>
<td>0%</td>
</tr>
</tbody>
</table>

In comparison to other Russian companies, Rostov developers tend to specialize more on custom software development, mobile application development and web development. In other words, these are the market segments that do not require very substantial capital investments and large staff.

Distribution of companies by their international sales (data of 2016)

<table>
<thead>
<tr>
<th>Share of international sales in the turnover</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 10%</td>
<td>43%</td>
<td>40%</td>
</tr>
<tr>
<td>11% - 25%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>26% - 50%</td>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>51% - 75%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>more than 75%</td>
<td>22%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Distribution of surveyed companies by their total turnover (data of 2016)

<table>
<thead>
<tr>
<th>Total turnover</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 1 USD million</td>
<td>47%</td>
<td>60%</td>
</tr>
<tr>
<td>1 - 5 USD million</td>
<td>33.5%</td>
<td>20%</td>
</tr>
<tr>
<td>5 - 20 USD million</td>
<td>14.5%</td>
<td>0%</td>
</tr>
<tr>
<td>more than 20 USD million</td>
<td>5%</td>
<td>20%</td>
</tr>
<tr>
<td>20 - 100 USD million</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>more than 100 USD million</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>
3. GENERAL TRENDS FOR SOFTWARE DEVELOPMENT INDUSTRY

The 2017 RUSSOFT survey shows a rather specific distribution of the number of specializations per company. Data for Russia provide 2.07 whereas the same parameter for Rostov region is 1.6 which suggests that Rostov companies have fewer directions of their business. Such a difference probably shows a poor survey statistics than a reality. * - companies could make more than one choice.

Two out of five companies target international sales, although, it is not strong at the time of survey.

Corporate development paths for companies (data of 2017)*

<table>
<thead>
<tr>
<th>Path</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be more active on Russian internal markets</td>
<td>68%</td>
<td>40%</td>
</tr>
<tr>
<td>Increase internet sales</td>
<td>39%</td>
<td>40%</td>
</tr>
<tr>
<td>Foreign sales/Expand marketing activity abroad</td>
<td>66%</td>
<td>60%</td>
</tr>
<tr>
<td>Certification of internal development procedures</td>
<td>16%</td>
<td>20%</td>
</tr>
<tr>
<td>Start development centers in other regions</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
<td>0%</td>
</tr>
</tbody>
</table>

3.1. Attracting Investment

A fraction of companies that attracted investment (data of 2017)

<table>
<thead>
<tr>
<th>Year of the survey</th>
<th>last year</th>
<th>current year</th>
<th>next year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>11%</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>Rostov region</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Two of the Rostov companies attracted investments in 2016 by the volume of USD 1 million. There were no plans to do so in 2017-2018.

4. BUSINESS CLIMATE IN ROSTOV REGION

Average grading (5 point scale) for business climate (data of 2017)

<table>
<thead>
<tr>
<th>Path</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>State support for IT industry (changes for the past 2 years)</td>
<td>3.16↑</td>
<td>3</td>
</tr>
<tr>
<td>Protection of intellectual property (changes for the past 2 years)</td>
<td>3.14↑</td>
<td>3</td>
</tr>
<tr>
<td>Staffing and system of education</td>
<td>2.83↑</td>
<td>2.6</td>
</tr>
<tr>
<td>Tax system</td>
<td>2.95↑</td>
<td>2.8</td>
</tr>
<tr>
<td>Bureaucratic barriers</td>
<td>2.67</td>
<td>2.6</td>
</tr>
<tr>
<td>Modern infrastructure</td>
<td>3.13↓</td>
<td>2.6</td>
</tr>
<tr>
<td>Financial support for SOHO and start-ups</td>
<td>2.85↑</td>
<td>2.8</td>
</tr>
<tr>
<td>State support for international marketing activity</td>
<td>2.51↑</td>
<td>3</td>
</tr>
<tr>
<td>State support for certification by international standards</td>
<td>2.62↓</td>
<td>2.5</td>
</tr>
<tr>
<td>R&amp;D financing</td>
<td>2.7↑</td>
<td>2.33</td>
</tr>
<tr>
<td>General grading for business climate</td>
<td>2.86↑</td>
<td>2.72</td>
</tr>
</tbody>
</table>
Looking at the study of Rostov companies, an average business climate in the region is somewhat worse than a Russian average grading. Most of the deviations are on the “Modern infrastructure”. Two of the companies gave this parameter a lowest rating, whereas three indicated a “fair” grade. It is hard to conclude how accurate these estimates are due to the size of the study. In most of the rating Rostov region is defined as an average among 10-20 regions where software development occurs.

Rating of the existing infrastructure (2017 study)

<table>
<thead>
<tr>
<th></th>
<th>Fail</th>
<th>Fair</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>19%</td>
<td>48%</td>
<td>33%</td>
</tr>
<tr>
<td>Rostov region</td>
<td>40%</td>
<td>60%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Rating of the state support for international marketing activity (2017 study)

<table>
<thead>
<tr>
<th></th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail</td>
<td>60%</td>
<td>0%</td>
</tr>
<tr>
<td>Fair</td>
<td>30%</td>
<td>100%</td>
</tr>
<tr>
<td>Good</td>
<td>10%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Comparing the parameter “State support for international marketing activity” was rated in Rostov region higher than in Russia on average. However, this parameter probably does not mean anything because only one company indicated this, while others had difficulties estimating this subject. This situation most probably indicates that very few companies are aware that such a support exists. Such state programs were only actively launched in 2017. Several dozens of software companies utilized these programs participating in international expositions and business missions with the help of Russian Export Center and RUSSOFT Association. The study was conducted before that.

4.1. Structure of expenditures

It seems difficult to figure out a precise structure of company’s expenditures from the study. A high value for telco services was indicated by only one Rostov company and this company is not fully software oriented. Deleting this company from data lowers this point by a factor of two, from 14.5% to 7%. This number is also somewhat high probably because of the size of the study.

Structure of expenditures (data of 2016)

<table>
<thead>
<tr>
<th></th>
<th>Telco services</th>
<th>Marketing</th>
<th>Office rent</th>
<th>R&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All companies</td>
<td>3.3%</td>
<td>3.7%</td>
<td>8.3%</td>
<td>11%</td>
</tr>
<tr>
<td>Without the data of large company with diverse international business</td>
<td>3.6%</td>
<td>6.6%</td>
<td>9.2%</td>
<td>11%</td>
</tr>
<tr>
<td>Rostov region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All companies</td>
<td>14.5%</td>
<td>11.4%</td>
<td>4.9%</td>
<td>15%</td>
</tr>
</tbody>
</table>

4.2. Offices

Companies with different recent changes in office rent (data of 2016).
All Russian companies had an office rent raised in 2016 by an average of 4% (calculated in RUB). On the other hand, due to currency rate variations, it lowered by 5% in USD. Rostov region showed a much lower change of only +1% on average that was due to one large company in the sample that did not pay more for office space. Two other companies showed a pay hike by 15% and 12%.

4.3. External factors influencing business

Thanks to a new question introduced in 2015 a possibility to estimate external factors had appeared. Those factors are economic crisis in Russia, sanctions against Russia and anti-sanctions towards external markets as well as currency rate fluctuations, etc. The questionnaire suggested choosing a number between +3 (most positive effect) and -3 (most negative effect). The result of 2015 study shows that most companies did not indicate any substantial effect of those factors, neither positive nor negative. One year later an average influence rose to -0.44 (negative influence) over the three factors investigated in 2015. Because one more factor was added in 2016, an average over four factors gave -0.42. If one looks at the crisis alone, their negative influence rose from -0.5 to -0.95 from 2015 to 2016. On the other hand, an influence from sanctions fell which is indicated by a gradient from -0.40 to -0.27. An impact of the currency deviations did not both change and become substantial (-0.1 against -0.09). This factor highly correlates with the markets a company is working on. For a larger company oriented towards international markets, devaluation of a ruble played a positive role, whereas smaller companies working on domestic markets indicated a negative its role. Due to a simple fact that usually larger companies have exports in their operations, one might suggest that devaluation was in general more positive.

Estimates for influence of external factors (average)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restrictions to use foreign software when a Russian analogue exists</td>
<td>0.12</td>
<td>0.80</td>
</tr>
<tr>
<td>Western sanctions against Russia</td>
<td>-0.66</td>
<td>-0.40</td>
</tr>
<tr>
<td>Export stimulus via Russian Export Center programs, etc.</td>
<td>0.13</td>
<td>0.40</td>
</tr>
<tr>
<td>Negative attitude towards Russia in foreign media</td>
<td>-0.58</td>
<td>0</td>
</tr>
</tbody>
</table>

The last factor shows almost no influence: 3 companies indicated “no influence”, 1 showed slight positive and 1 indicated slight negative. Rostov companies are on average more positively affected by restrictions to use foreign software when there is a Russian analogue because they are mostly oriented towards internal markets. This is also an obvious explanation why media factors have a zero effect on them.

4.4. State support measures

State support measures (2017 data)
These data are much harder to comment because of very small size of data.

5. GEOGRAPHY OF RUSSIAN SOFTWARE DEVELOPMENT

Presence on different markets (from 2016 data)

According to the data, Rostov companies target the markets of Russia and former USSR countries. There is also a presence on the markets of Western Europe and USA.

6. HUMAN RESOURCES

Rostov software companies employ not less than 3 thousand specialists in software development. It grew by about 10% in 2016 thanks to graduates from higher education institutions and an influx from abroad. This growth for 3 companies in the survey was 15%, one of them had 5%. There were plans to expand the staff by 14% by the end of 2017, although these plans were somewhat corrected downwards.

6.1. Migration

20% of Rostov software companies indicate that migration of their developers abroad is a problem for them. This number is not far from an average Russian statistics which results in 18%. The statistics of
2016 is 14%. On the other hand, 60% of the companies in the region employed developers from abroad and such developers constitute 16.1% of their newly employed staff.

6.2. Rotation of human resources (churn rate)

An average staff churn rate in Russian software companies started to rise to 6.3% in 2015 because the industry increased its activity on the job market. It lifted up to 9.5% in 2016 which is substantiated by a 59% of companies in the study (9% had difficulties to provide an answer). Rostov software companies exhibit a much lower (i.e. 4.5%) churn rate than a Russian average. University graduates that were granted a job in the industry constitute 6% which is identical to a Russian average. All 5 Rostov companies in the study hired recent graduates.

6.3. Wages

All the companies participating in the RUSSOFT study indicated a salary raise in 2016 by 10% in average. This is more than twice the amount of official inflation rate 5.4% for that period. Other industries also provides some raise but it outpaced inflation only symbolically. With such raise completed, an average salary in the industry of Russian software development reached 82-84 thousand roubles per month. Looking at the preliminary data for 2017 one might expect the same raise as in 2016, i.e. 10%. It provides an average Russian software developer with a salary of about 90 thousand roubles per month.

Because Rostov companies expanded their developer’s force in 2016 more aggressively than on average in the country their salary raised by 26%. An average Rostov software developer in 2016 was granted by a salary of about 60 thousand roubles. It will also increase by about 10% in 2017 in correlation with data for Russia as a whole. Comparing these developers with their colleagues in Moscow one might find their salary less by a factor of 2 (about 52%), although comparing to other industries in the region, the IT sector can definitely be considered as a highly paid one (by a factor of 2.5).

Average salaries for software developers in Rostov, Moscow and St. Petersburg (2016 data). The data in thousands of roubles for a junior level developer.

<table>
<thead>
<tr>
<th></th>
<th>Moscow</th>
<th>St. Petersburg</th>
<th>Rostov-on-Don</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-developer</td>
<td>85</td>
<td>68</td>
<td>45</td>
</tr>
<tr>
<td>PHP-developer</td>
<td>92</td>
<td>81</td>
<td>48</td>
</tr>
<tr>
<td>Mobile developer</td>
<td>132</td>
<td>98</td>
<td>66</td>
</tr>
<tr>
<td>Java-developer</td>
<td>132</td>
<td>107</td>
<td>62*</td>
</tr>
<tr>
<td>Android developer</td>
<td>131</td>
<td>109</td>
<td>60</td>
</tr>
<tr>
<td>iOS developer</td>
<td>136</td>
<td>108</td>
<td>69</td>
</tr>
<tr>
<td>C++ developer</td>
<td>110</td>
<td>93</td>
<td>77</td>
</tr>
<tr>
<td>C# developer</td>
<td>104</td>
<td>78</td>
<td>57</td>
</tr>
</tbody>
</table>

*Source: HeadHunter
* - data from ru.jobsora.com

6.4. Training

Major forms of training and collaboration of software companies with institutions of higher education (by 2016 data)
Students are not collaborating with institutions of higher education only. The survey includes companies that have more than 3 years of experience, and the software development companies are concentrated in Rostov.

7. Technologies

Major operating systems (data of 2017.)

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Russia</th>
<th>Rostov region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS Windows</td>
<td>84%</td>
<td>100%</td>
</tr>
<tr>
<td>GNU Linux family</td>
<td>57%</td>
<td>60%</td>
</tr>
<tr>
<td>Android</td>
<td>39%</td>
<td>0%</td>
</tr>
<tr>
<td>Mac OS</td>
<td>37%</td>
<td>60%</td>
</tr>
<tr>
<td>iOS</td>
<td>36%</td>
<td>20%</td>
</tr>
<tr>
<td>MS Windows Mobile</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>MS Windows Phone</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Oracle (Sun) Solaris</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>Open/Free/NetBSD</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>Tizen</td>
<td>7%</td>
<td>0%</td>
</tr>
</tbody>
</table>

GENERAL CONCLUSIONS

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Rostov region</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban population, %</td>
<td>67.8%</td>
<td>74%</td>
</tr>
<tr>
<td>Unemployment (end of 2016)</td>
<td>5.6%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Average salary across all industries (per month)</td>
<td>25.8 th RUB</td>
<td>35.8 th RUB (Russian Bureau of statistics)</td>
</tr>
<tr>
<td>Fraction of companies present on the market for less than 3 years</td>
<td>0%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Share of software development companies among all companies participating in the survey</td>
<td>6%</td>
<td>33.6%</td>
</tr>
<tr>
<td>Share of foreign sales</td>
<td>18%</td>
<td>74%</td>
</tr>
<tr>
<td>Growth of turnover in USD for all software companies (2016 data)</td>
<td>+0.4%</td>
<td>+16%</td>
</tr>
<tr>
<td>Growth of international sales (2016 data)</td>
<td>-0.3%</td>
<td>+13%</td>
</tr>
<tr>
<td>Number of business directions per one company (2017 data)</td>
<td>1.6</td>
<td>2.07</td>
</tr>
<tr>
<td>Average grade (5 point scale) for business climate (2017 data)</td>
<td>2.72</td>
<td>2.86</td>
</tr>
<tr>
<td>Share of companies which consider emigration of developers a problem</td>
<td>20%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Contribution of Rostov companies to a Russian software industry

<table>
<thead>
<tr>
<th></th>
<th>Fraction in Russia</th>
<th>Absolute value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population of Rostov region</td>
<td>2.9%</td>
<td>4.23 million</td>
</tr>
<tr>
<td>Population of Rostov-on-Don</td>
<td>0.8%</td>
<td>1,125 million</td>
</tr>
<tr>
<td>Number of stable software companies</td>
<td>3.1% of all Russian software companies</td>
<td>about 100</td>
</tr>
<tr>
<td>Software developers</td>
<td>about 2.3%</td>
<td>more than 3,000</td>
</tr>
<tr>
<td>Aggregate turnover of software companies</td>
<td>0.8-1.2%</td>
<td>USD 0.1-0.15 billion</td>
</tr>
<tr>
<td>Number of companies registered in the Ministry’s list (on 18.09.2017)</td>
<td>1.2%</td>
<td>87</td>
</tr>
</tbody>
</table>

1. Rostov region falls within the top 10 Russian regions where high quality software specialists are taught by different institutions of higher education;

2. General population is distributed over several cities. Rostov-on-Don been an administrative center contains only a quarter of all population. IT companies are concentrated mostly in Rostov-on-Don, however, about 30% of them (mostly software development) are located in other cities of the region (i.e. Taganrog). Other Russian regions show a much higher concentration of IT companies onto an administrative center;

3. Taganrog has a unique status in the entire Russian software development industry. Despite its relatively small size (about 300,000), several large software development companies were founded there together with a cloud of small and micro-size companies. Almost all of them (95% of their sales) target international markets of mobile and web development;

4. Government of the region pays high attention to innovations in general and information and telecommunication sector in particular. The region has a well formed stack of institutions of development;

5. Rostov-on-Don has a large bias towards service model in IT sector. On the other hand, its product leg grows steadily during past several years;

6. An aggregate turnover of Rostov companies reaches USD 100 million, although a correct estimate is closer to USD 140-150 million;

7. A share of international sales in the region is 30%-40%, lower than generally in Russia, and it constitutes USD 30-45 million;
8. A degree of specialization in segments of “Mobile development”, “Custom development” and “Web development” of Rostov based companies is higher than generally in Russia;

9. The data provided from both InTech-Don and RUSSOFT studies provide a very approximate view on the IT industry in the region. One should judge the numbers either as a lower limit or very approximate because of numerous biases of both studies. It is absolutely clear that further research is required.

LITERATURE
17. http://russoft.org/
INSTITUTIONAL PROFILE

SMALL AND MEDIUM ENTREPRENEURSHIP DEVELOPMENT NATIONAL CENTER OF ARMENIA

Based on https://www.smednc.am/en/

VISION OF THE SMEDNCA:

Entrepreneurial opportunity for all.

MISSION OF THE SMEDNCA:

Inform, inspire, and empower Armenian SMEs to create self-sustaining businesses that contribute to both individual economic stability and the Armenian economy as a whole.

The Ministry of Economy of the Republic of Armenia is authorized to elaborate SME development policy and strategy in Armenia as well as it’s considered as responsible body for elaboration of programs for development and state support of SME sphere in Armenia.

Within the scope of the Program for State Support of SME for 2002, upon the decree N282 of the Government of RA dated March 19, 2002 as a program measure the Fund “Small and Medium Entrepreneurship Development National Center of Armenia” (SME DNC of Armenia) was established. It is considered as the main body responsible for implementation of state policy for SME sphere in Armenia as well as programs directed towards the development of SME sphere.

SME Development National Center is authorized to provide state support to small and medium entrepreneurship (SME) in the country. The support is provided through implementation of annual SME State Support Programs with resources allocated from State budget.

Since 2002 thousands of SMEs benefited from various support programs designed for start-up and operating companies.

SME Development National Center of Armenia’s activities are targeted at:

- Ensuring a dialogue between SMEs and state
- Increasing efficiency and competitiveness of SMEs
- Ensuring availability of business development services for SMEs
- Expanding the financial opportunities for SMEs
- Promoting innovations and R&D activities of SMEs
- Assistance for establishment of new SMEs
- Supporting internationalization of SMEs’ activities
THE REPUBLIC OF AZERBAIJAN MINISTRY OF ECONOMY NATIONAL FUND FOR ENTREPRENEURSHIP SUPPORT

DIRECTIONS OF USE OF THE FUNDS


The National Fund for Entrepreneurship Support of the Ministry of Economic Development gives methodical recommendations and shows directions for doing business properly. I highly appreciate the activity of the National Fund for Entrepreneurship Support to watch the development of entrepreneurship.

Ilham Aliyev

PRODUCTION OF AGRICULTURAL PRODUCTS:

- Establishment of meat and dairy oriented modern cattle breeding complexes.
- Establishment or reconstruction of modern poultry farmings.
- Establishment of large scale grain or seed-growing farms.
- Development of vine-growing and vine-making.
- Establishment of greenhouse complexes.
- Intensive horticulture and seedling farming.
- Intensive development of tea growing and citrus fruit growing.
- Expansion of productive potato and onion planting.

Production of competitive and export oriented food and other industrial products with usage of modern technologies:

- Establishment of fruit and vegetable processing units.
- Establishment of bakeries.
- Establishment of slaughter houses.

Establishment of modern cold storage complex

- Establishment of enterprises producing and processing industrial products using modern technologies.

Development of small entrepreneurship

- Involvement of young people, internally displaced persons and women to entrepreneurship activity.
The address of the ERENET Secretary sees below:

Dr. Antal Szabó, Scientific Director
Helga Matussek, Secretary

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ERENET PROFILE

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