

ERENET PROFILE

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AUTUMN MESSAGE OF THE SCIENTIFIC DIRECTOR

Distinguished Readers and Friends,

The ERENET mission is to raise public awareness on fundamental issues that can so easily be discounted in international media. One is the fact that our increasing global population is using 1.6 times more natural resources than the Earth, our planet, has the capacity to renew. As is so often the case, some members of civil society became painfully conscious of the danger and organised for action. As from October 2006, they have promoted **Earth Overshoot Day**. Today, this is hosted by the Global Footprint Network (<http://www.footprintnetwork.org/en/index.php/GFN/>). Their calculations provide an annual evaluation of how far humanity's demand for ecological resources and services exceeds the possibility for natural regeneration over the previous twelve months.

Importantly, the concerns of the Global Footprint Network are now those of international governments. The United Nations Framework Convention on Climate Change (COP21) December 12th 2015 declared the intention to work to limit global temperature rise to well below 2 degrees Celsius. At the recent G20 Summit held in Hangzhou (China), the United States and China agreed to formally ratify their agreement. As both countries are major emitters of greenhouse gases, their commitment is a signal that action is and will be taken to safeguard the world environment.

At the same time, the role of business enterprise and in particular small and medium sized economic activity clearly calls for greater attention to the environment. Within the framework of the Black Sea Economic Conference and support from the Konrad Adenauer Foundation, a **Workshop on the Green Economy and SMEs** was held in Kyiv, Ukraine and promoted by ERENET. The event was privileged to hear from the newly appointed BSEC Secretary General, Ambassador Michael B. Christides.

Ambassador Christides pointed out that only a few years back the term 'green economy' had been considered a 'cliché' reiterated by specialist or committed environmentalists. Now it is increasingly recognised as a central issue for policymakers. To ensure global survival it is essential to work for harmony among the main components, which determine human existence. There has to be harmony not only in social and economic development but also within a clean, non polluting environment. Global degradation is now so great there can be no further delay to finding and implementing appropriate remedies. From this perspective the Ambassador regarded the theme of the workshop as timely and very well selected"

This ERENET PROFILE, and following issue, will highlight national papers seeking to give form and significance to the green economy. Hopefully, it will bring in many more to support the Global Network Footprint message and promote the government policies now so urgently needed to avoid the dangers..

Dr. Antal Szabó
Scientific Director of ERENET

Ambassador Michael B. Christides

Secretary General

Organization of the Black Sea Economic Cooperation (BSEC)

Permanent International Secretariat (PERMIS), Istanbul

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**OPENING STATEMENT OF THE BSEC SECRETARY GENERAL
AT THE BSEC-KAS WORKSHOP ON SMEs AND GREEN ECONOMY****ABSTRACT**

This paper is the Opening Statement of H.E. Ambassador Michael Christides, Secretary General of the Organization of the BSEC Permanent International Secretary at the BSEC-KAS Workshop organized in cooperation with ERENET on “SMEs and Green Economy” held on 14-15 April 2016 in Kyiv (Ukraine).

Keywords: green economy, SMEs, BSEC

JEL Classification: Q01, L26, F15

Dear Dr. Dürkop,

Dear Dr. Szabó,

Distinguished Participants,

On behalf of the BSEC PERMIS I wish to welcome you all to this important workshop, organized jointly by BSEC and KAS.

Allow me at the beginning of my brief salute to sincerely thank KAS and especially the Head of its office in Turkey, Dr. DÜRKOP, for our longstanding and extremely fruitful cooperation.



Michael Christides (right) and Colin Dürkop
Photo © by Bekir Öncel

I also wish to publicly thank Dr. SZABO from ERENET for his faithful, along the years, support and for his eagerness to share with us his outstanding experience and knowledge.

The theme of the workshop we are going to participate in is “*SMEs and Green Economy*”; while this term was, only a few years back, considered a “fashion” cliché used only by specialists or fanatic environmentalists, today it certainly is very relevant, given the serious problems we face in our small global village.

Not only because we have to ensure harmony among its three main components: social, environmental and economic, but also because the problems we are facing due to the degradation of our environment worldwide are acute and they cannot wait any longer for finding - and implementing - the appropriate remedies. So, from this point of view, the theme of our workshop is timely and indeed very well selected!

We, you, as the knowledgeable specialists, altogether, we have to come up with the necessary answers and provide the right solutions, especially for the benefit of SMEs in our Member States.

You are all aware that SMEs are the most important economic locomotive in our respective countries. They constitute the backbone of our economies.

We in BSEC, as a regional Organization promoting economic cooperation among its Member States and beyond, attach great importance to the principle of sustainable development. We are active in a number of issues promoting the general concept of this term, let me just name one:

- We just established the ***BSEC Green Energy Network*** among almost 50 specialized entities in our Member States, which constitutes a precious vehicle for the promotion of concrete policies and measures that will better serve the implementation of good practices in the field of Green Economy.

As you know, all countries have undertaken concrete commitments, especially after the last **World Conference on Climate Change (COP21)**, held in Paris last December, which they gradually have to implement.

BSEC, with the support of specialized partners, is already working on the formulation of projects that will promote the ever more important subjects of energy conservation, energy efficiency and the use of renewable energy sources.

In this way, we wish to be helpful to our Member States – and not only – in order to support their efforts for achieving their objectives in the existing, binding for all, timeframe.

A most valuable instrument to that end is certainly the workshop beginning today, and future similar events that will hopefully follow. We will place the findings and recommendations you will agree upon under the consideration of our Working Group on SMEs, which is holding its next meeting on 27 May, in Moscow. We thus hope that we can facilitate the Governments of our Member States to adopt the necessary policies and promote measures that will further harmonize the activity of SMEs with the Green Economy exigencies.

I sincerely hope that the findings and conclusions which will be reached at the end of our deliberations will also lead to the formulation and implementation of BSEC projects of joint interest to our Member States which can positively touch the lives of the peoples of our region and help our countries in their transition to Green Economy. In this context, I would like to make a special appeal to all participants to come up with concrete joint project ideas which can be implemented within the framework of BSEC. This will also constitute an excellent way to achieve tangible, high-impact and lasting results from our workshops.

For all the above reasons, I wish to thank you all for your presence in the beautiful capital of Ukraine that is hosting us and wish you all the best of success in your discussions and deliberations.

Dr. Antal SZABÓ

Scientific Director of ERENET
UN ret. Regional Adviser
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**ECO-INNOVATION AND GREEN SME ACTION PLAN
IN THE EUROPEAN UNION***Motto:*

*“we do not inherit the Earth from our ancestors,
we borrow it from our children”*

Native American Poverb

ABSTRACT

The paper presents the definition and concept of the green economy based on the concept of the United Nations Environment Program, which is improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. The green economy incorporates means achieving sustainable economic development in areas as improving human well-being, increasing social equity, reducing environmental risks and reducing ecological scarcities.

The author present the model of the transition to a Green Economy by Patrick ten Brink and Leonardo Mazza highlighting the current situation in the so called Brown Economy, the possible building blocks in the transition and the desirable future.

The paper highlights the eco-innovation by the European Commission DG Environment and the project aiming to compile the Eco-Innovation Observatory. The holistic approach of the eco-innovation process is presented. The “green transformation” is a significant business opportunity for SMEs themselves as important suppliers of goods and services. The European Commission has recently prepared a Green Action Plan (GAP) for SMEs, which give a clear direction and framework for aims to (i) improve resource efficiency of European SMEs and (ii) support green entrepreneurship. The GAP aims to contribute to the re-industrialisation of Europe by enhancing SMEs competitiveness and supporting green business developments across all European regions,

Keywords: green economy, model of the transformation to green economy, eco-innovation, Eco-Innovation Observatory, European Commission green action plan

JEL Classification: L26, Q56, Q57

PREFACE

United Nations defines the concept of a green economy “carries the promise of a new economic growth paradigm that is friendly to the earth’s ecosystems and can also contribute to poverty alleviation.”

The concept of Green Economy is not entirely a new concept. It was first mooted in 1989 by the London Environmental Economics Centre (LEEC). It is a joint venture created in 1988 by the International Institute for Environment and Development (IIED) & the Department of Economics of University College London (UCL). However, at that time the concept did not receive wide acceptance. With the outbreak of the financial crisis in 2007 and the failure of most countries to move onto a sustainable development path. One of the reasons of the failure was the lack of commitment from the business site to invest into the environment. In

order to encourage policy and decision makers to invest in the environment, they need to be convinced that such a transition would result in economic benefits as well.

Environment can no longer be treated in isolation from mainstream economic policy. In spite of this fact, in most cases, the environment continues to be addressed as a separate component without clear linkages to the social and economic aspects.

In 2011, the United Nations Environment Program - UNEP - has developed a working definition of a green economy as one that results in **improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities**. In its simplest expression, a green economy can be thought of as one which is **low carbon, resource efficient and socially inclusive**. [1]

The UNEP-led Green Economy Initiative consists of several components whose collective overall objective is to provide the analysis and policy support for investing in green sectors and in greening environmental unfriendly sectors.

Within UNEP, the Green Economy Initiative includes three sets of activities: [1]

1. Promoting the **Green Economy Report** and related research materials, which will analyze the macroeconomic, sustainability, and poverty reduction implications of green investment in a range of sectors from renewable energy to sustainable agriculture and providing guidance on policies that can catalyze increased investment in these sectors.
2. Providing **advisory services** on ways to move towards a green economy in specific countries.
3. Engaging a wide range of **research**, non-governmental organizations, business and UN partners in implementing the Green Economy Initiative.

Critically, the concept of the green economy is not just “greening” economic sectors; it is a means of achieving the sustainable development in the following important areas:

- Improving human well-being: securing better healthcare, faith against the new infectious diseases, like HIV, Ebola virus disease and Zika virus -, preventive drugs measures, improving the education and safeguarding the job security;
- Increasing social equity: launching poverty alleviation programs and ensuring social, economic and financial inclusion;
- Reducing environmental risks: addressing climate change, managing deforestation and desertification, melting of the North Pole and Antarctic, the release of hazardous chemicals and pollutants, and excessive or mismanaged waste; and
- Reducing ecological scarcities: securing access to freshwater, natural resources and improving soil fertility.

The Institute for European Environment Policy is an independent, not for profit institute dedicated for advancing an environmentally sustainable Europe through policy analyses, development and dissemination. The report **Nature and its Role in the Transition to a Green Economy** was authored by a team of researchers from IEEP and funded by UNEP. The report aims to clarify and help mainstream nature’s role in the transition to a green economy in the context of sustainable development and poverty eradication.

Different countries adopt policies towards a green economy tailored to their national circumstances. The mix of national policies differs from one country to another. Countries are trying to utilize a balanced approach taking into consideration both supply and demand measure and balancing between production and consumption-focused measures. The model of the transition to a Green Economy by Patrick ten Brink and

Leonardo Mazza (IEEP) highlights the current situation in the so called Brown Economy, the possible building blocks in the transition and the desirable future. [2]

The critical role of good governance in the transition and presenting six building blocks for the transition to a green economy which it usefully categorises as:

1. Minimising losses and avoiding inappropriate trade-offs
2. Investing in environmental infrastructure;
3. Active management of environmental risks
4. Proactive investment in natural capital;
5. Further eco-efficiency for relative decoupling and
6. Absolute decoupling of the economy from resource use and its negative impacts.

In connection with the green economy the other important issue is **the eco-innovation**.

WHAT IS ECO-INNOVATION?

Any form of innovation aiming at significant and demonstrable progress towards the goal of sustainable development. This can be achieved either by reducing the environmental impact or achieving a more efficient and responsible use of resources. [3]

“Eco-innovation is any innovation that reduces the use of natural resources and decreases the release of harmful substances across the whole life-cycle.” [4]

Eco-innovation projects will therefore aim to produce quality products with less environmental impact, whilst innovation can also include moving towards more environmentally friendly production processes and services. Ultimately they will contribute towards the reduction of greenhouse gases or the more efficient use of various resources. The idea of eco-innovation is very new.

In 2013, the European Commission DG Environment founded a project aiming to compile the **Eco-Innovation Observatory (EIO)**. The EIO put together a guide is a practical and comprehensive introduction to eco-innovation addressed primarily to small and medium-sized enterprises (SMEs). [5] The booklet overviews emerging business opportunities eco-innovation has to offer to companies that reconsider business models, develop new products, technologies or services, or improve production processes.

As an eco-innovation we can consider a new start-up or product or making improvements in an existing operations. Eco-innovation can focus on introduction of new technologies, but creating new services and introducing organisational changes are just as important. At its core, eco-innovation is about creating business models that are both competitive and respect the environment by reducing resource intensity of products and services.

The Figure 2. demonstrates the holistic approach of the eco-innovation process.

Figure 1. The Model of Transition from the brown to the Green Economy by IEEP

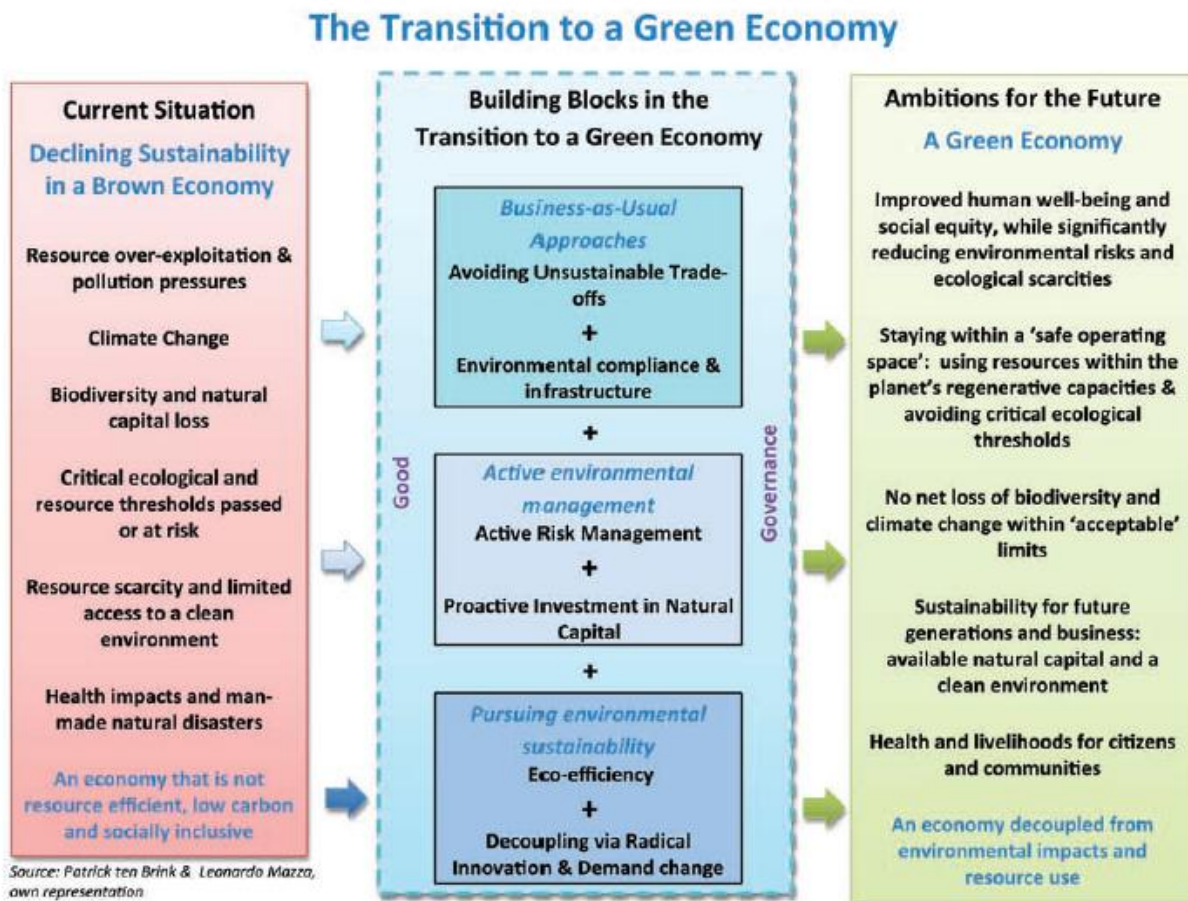
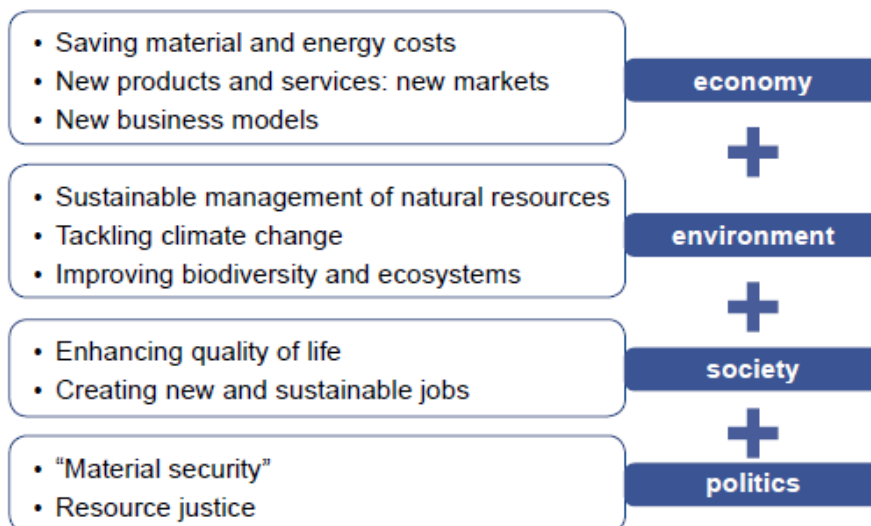


Figure 2. The Holistic Approach of the Eco-innovation process.



Source: Eco Innovation Observatory, 2013.

2. THE ROLE OF SMEs IN GREENING THE ECONOMY

SMEs account for approximately 99% of all enterprises and for 60 to 75% of employment within the EU-28 and the BSEC countries, their transition to sustainable practices, in both manufacturing and services.

The individual environmental footprint of the small enterprises may be low, their aggregate impact can, in some respects, exceed that of large businesses. The key sectors where SMEs have a significant environment impact include livestock farming, construction, metal finishing, waste treatment, food and drink industry, textile and leather manufacturing, etc.

SMEs account for approximately 64% of the industrial pollution in Europe. Sector variations are generally within the 60% to 70% range. Using employees as an indicator shows at an average of 64% of environmental impact originates from SMEs in the EU27 when looking at the four broad indicators (energy use; greenhouse gases; air emissions and waste or hazardous waste). [6]

The transition towards the green growth economy is highly demanding in particular on manufacturing firms, including SMEs, as they account for a large part of the world's consumption of resources and generation of waste

It is essential that the main barriers to green growth and eco-innovation are identified, so based on these factors SMEs and entrepreneurs could fully participate in the transition towards sustainable economic patterns. It is also crucial that consistent policy strategies are identified and implemented to encourage SME investment in eco-innovation and sustainable practices, in both manufacturing and services.

The aim and key success factor in greening economy for SMEs to the reduction of the environmental in both manufacturing as well as in. However, the willingness and capability of SMEs to adopt sustainable practices and seize green business opportunities generally face difficulties and resource constraints, which involved skill deficit and knowledge limitations. SMEs are often unaware of many financially attractive opportunities for environmental improvement. There is a widespread misperception that protecting the environment is associated with technical complexity, burdens and costs. Even when they are aware of the potential of better environmental performance to improve a firm's competitiveness, a lack of appropriate skills and expertise commonly prevents firms from acting upon win-win opportunities.

According to OECD guide for green SMEs the "green transformation" is a significant business opportunity for SMEs themselves as important suppliers of goods and services. Indeed, the principal drivers for SMEs to adopt green practices are non-regulatory and include: [7]

- The rising price of commodities and key raw materials;
- Potential cost savings and competitive advantage; and
- Market pressure from customers
- The European Union considers the small businesses as priority in its policy and pushes governments across the EU introduce better regulation initiatives. The major policy initiatives for SME greening in the EU is **The Small Business Act for Europe** (2008), which was developed to establish the "**Think Small First**" approach to policy making and regulation and to promote SMEs' growth. One of its ten high-profile principles is "**enable SMEs to turn environmental challenges into opportunities**" – a paradigm which lies at the heart of the transition to green growth.

Figure 3. Internal Barriers in SMEs that prevent the adoption of environmental improvement

Resources	Attitudes and company culture	Awareness
<ul style="list-style-type: none"> • Lack of time to investigate issues or locate support or tools • Severe time pressure in small enterprises • Lack of resource allocation to address environmental issues • Lack of investment in training • Cost constraints on investment • No employee allocated responsibility for environmental issues 	<ul style="list-style-type: none"> • Belief that SMEs have a low environmental impact and have no environmental issues to consider • Mismatch between beliefs and actions: positive attitude toward the environment is not translated into actions • Perception that environment has no relevance to the business: environment given no status as a business issue • Scepticism about the potential cost savings and market benefits • Prevalence of short-term business planning; belief that costs of environmental measures arise quickly while benefits accrue slowly 	<ul style="list-style-type: none"> • Low awareness of environmental legislation • Low awareness of support organisations and information sources

Source: European Commission, 2002

The aim and key success factor in greening economy for SMEs to the reduction of the environmental in both manufacturing as well as in. However, the willingness and capability of SMEs to adopt sustainable practices and seize green business opportunities generally face difficulties and resource constraints, which involved skill deficit and knowledge limitations. SMEs are often unaware of many financially attractive opportunities for environmental improvement. There is a widespread misperception that protecting the environment is associated with technical complexity, burdens and costs. Even when they are aware of the potential of better environmental performance to improve a firm’s competitiveness, a lack of appropriate skills and expertise commonly prevents firms from acting upon win-win opportunities.

The European Commission has committed itself to “rigorously assessing the impact of forthcoming legislation and administrative initiatives on SMEs (“SME test”) and taking relevant results into account when designing proposals”. The European Commission has recently prepared a **Green Action Plan (GAP)** for SMEs. ¹ The Green Action Plan (GAP) aims to help small and medium-sized enterprises (SMEs) take advantage of the opportunities offered by the transition to a green economy. It presents ways for SMEs to turn environmental challenges into business opportunities.

The Objectives of the GAP are:

¹ <http://ec.europa.eu/growth/smes/business-friendly-environment/green-action-plan>

- to raise SMEs' awareness of resource efficiency improvements and the potential of the circular economy for productivity, **competitiveness** and business opportunities
- to inform SMEs about EU resource efficiency actions under the **COSME, Horizon 2020** and **LIFE programmes**, and the **European Structural and Investment Funds**.

The GAP aims are to support businesses by:

- improving resource efficiency of European SMEs;
- supporting green entrepreneurship;
- exploiting the opportunities of greener value (supply) chains; and
- facilitating market access for green SMEs.

GAP is presented in complementarity with the Communication *Green Employment Initiative. – Tapping into the job creation potential of the green economy*, which proposes a roadmap for supporting green jobs creation across the EU, and with the Communication *Resource Efficiency Opportunities in the Building Sector* as well as with the Circular Economy Package and Waste Target Review.

The GAP aims to contribute to the re-industrialisation of Europe as advocated by the European Industrial Renaissance Communication (COM (2014) 14) and supported by the European Council, by enhancing SMEs competitiveness and supporting green business developments across all European regions, notably in view of the fact that, at this stage, significant differences in resource efficiency exist between sectors and Member States.

The European Commission document on Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Green Action Plan for SMEs [8] highlights why greening SMEs is important for more competitiveness and sustainability.

The Commission has set several objectives to be achieved through the following actions

Provide European SMEs with practical information, advice and support on how to improve their resource efficiency in a cost-effective manner;

1. Support efficient technology transfer mechanism for green technologies;
2. Facilitate the access to finance for resource-related improvements and energy efficiency in SMEs

The GAP aims to contribute to the re-industrialisation of Europe as advocated by the European Industrial Renaissance Communication (COM (2014) 14) and supported by the European Council, by enhancing SMEs competitiveness and supporting green business developments across all European regions.

The Action Plan builds on the Eco-Innovation Action Plan (EcoAP), which provides directions for eco-innovation policy and funding under the umbrella of the Europe 2020 strategy. [9] A number of actions and instruments of the EcoAP are highly relevant for SMEs. Examples are:

1. the European Innovation Scoreboard
2. the Eco-innovation Observatory
3. the European Forum on Eco-innovation
4. European Innovation Partnerships and financing instruments for eco-innovation under Horizon 2020.

The GAP sets out a series of objectives and lists actions that will be implemented at European level within the framework of the Multiannual Financial Framework 2014-2020.

The GAP draws up five major tasks as following:

3. GREENING SMEs FOR MORE COMPETITIVENESS AND SUSTAINABILITY

Improving resource efficiency in SMEs offers enormous potential for the reduction of production costs and for productivity gains. A better use of resources is calculated to represent an overall savings potential of €630 billion per year for European industry. [10]

At least 93% of SMEs in the EU are taking at least one action to be more resource efficient which, in most cases, is a low-cost action. However, only 42% of SMEs that implement measures to improve resource efficiency has seen a reduction of their production costs. [11] This indicates the necessity to provide guidance to SMEs on the cost-effectiveness of resource efficiency investments.

The Commission has set several objectives to be achieved through the following actions:

- (i) Provide European SMEs with practical information, advice and support on how to improve their resource efficiency in a cost-effective manner;
- (ii) Support efficient technology transfer mechanisms for green technologies;
- (iii) Facilitate the access to finance for resource-related improvements and energy efficiency in SMEs.

SMEs need a favourable business environment, in which green ideas can be easily developed, financed and brought to the market. “Green entrepreneurship should already be addressed in (higher) education, to prepare the mind-set of future green entrepreneurs. A green entrepreneur is someone who starts a business to make or offer product/service which benefits the environment. “Green entrepreneurship” should also be encouraged by helping potential entrepreneurs in identifying business opportunities resulting from the move towards a resource efficient, low carbon economy, including through new creative forms of cooperation between businesses and academia. All forms of innovation that foster green entrepreneurship should be supported.

4. OPPORTUNITIES FOR SMEs IN A GREENER VALUE CHAIN [15]

Re-manufacturing, repair, maintenance, recycling and eco-design have a great potential to become drivers of economic growth and job creation while, at the same time, making a significant contribution to addressing environmental challenges. Through innovation and the redesign of products and of production and business models companies can reduce the use of expensive primary raw materials and create less waste. According to the Eurostat Waste Statistics (2011) 60% of total waste in the EU which is not recycled, composted or re-used, offers economic opportunities for SMEs to capitalise on cross-sectoral value chains that make more efficient use of resources.

The Commission has set several objectives to be achieved through the following actions:

- 4.1 Address systemic barriers to cross-sectoral and cross-national value chain collaboration and business creation and cooperation, by facilitating the **creation of service business models**

and the **re-use of materials, products and waste**;

4.2 Analysis of the systematic barriers impeding the deployment of circular business models by SMEs

Facilitate cross-sectoral collaboration in view of promoting the circular economy:

- 4.3 The forthcoming action on **“Cluster facilitated projects for new industrial value chains”** under Horizon 2020 will allocate at least 75% of the total budget to support innovation in SMEs. It seeks to support cross-sectoral and cross-regional collaboration and innovation projects driven by SMEs by better integrating them into clusters and different value chains;
- 4.4 The European Cluster Observatory will provide regions with a better mapping of geographic concentrations of competences in eco-industries;
- 4.5 The LIFE programme will promote the take-up of circular economy models and showcase their benefits for SME; and
- 4.6 Create an expert group to highlight the systematic approach to eco-innovation.

5 ACCESS TO THE MARKETS FOR GREEN SMEs

The EU has a strategic interest to adequately tackle the major global environmental challenges such as climate change. With high economic growth and, in some cases, early stages of industrialisation, environmental depletion and emissions are growing at a high pace in many countries of the world.

The EU makes up roughly one third of the world market for environmental industries and is a net exporter. This world market is growing by 5% a year and is expected to triple by 2030, thus offering important opportunities for EU businesses. [12] However, few SMEs in the EU offer their green technologies, products or services in countries outside the EU. 87% of SMEs in the EU only sell in their national markets. [13] This lack of SME internationalisation is usually explained by the absence of a supportive framework that can help SMEs access foreign markets.

5.1 Promote a greener European internal market

European Standardisation Organisations will be encouraged to take into account circular economy objectives when creating standards in order to continue the Commission's previous efforts to integrate environmental aspects into European standardisation.

5.2 Facilitate access to international markets for green entrepreneurs

- Establishment of European Strategic Cluster Partnerships fostering alliances between clusters from different sectors, with a view to develop a joint strategy for internationalisation. Alliances in the field of green technologies and eco-innovation will be encouraged.
- The financial instruments under COSME will specifically support SMEs to internationalise, by promoting their cross border-development.

5.3 Facilitate the uptake of resource efficiency technology in partner countries through cooperation with European SMEs

- A Low Carbon Business Action will provide technical assistance for the establishment of Cooperation Partnerships between EU businesses and clusters and businesses and other counterparts in middle income countries, and for the elaboration of joint bankable proposals.
- Building of new entrepreneurial activities based on green technologies in South

6 GOVERNANCE

The actions linked to this Green Action Plan for SMEs will be regularly monitored, including the dedicated financial resources, in dialogue with SME stakeholders, and the effectiveness of the programmes will also be evaluated. Updated information on the actions will be provided through the Commission website.

The SME Performance Review monitors and assesses countries' progress in implementing the Small Business Act on an annual basis, including their performance in relation to its principle IX “enabling SMEs to turn environmental challenges into business opportunities”, thereby complementing the Green Action Plan monitoring. [14]

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**HARMONIZATION OF GREEN ECONOMICS DEVELOPMENT INDICATORS EU,
UN, OECD AND UKRAINIAN****ABSTRACT**

This research is important as Ukrainian and EU indicators of green economics development have to be harmonized according to The Ukraine–European Union Association Agreement. The second reason is the improvement of indicators of the environmental policy for SMEs green modernization. The main problem is the destruction of soviet system data collection about brown economy development and necessity of creation of a new system of indicators of green economy that is harmonized with EU, UN, OECD methodology of data collection. The author of the research methodology presupposes the comparison of Ukrainian indicators of green economy development and the indicators used by UNECE, EEA OECD Sustainable Development Goals UN UNEP, extracting the similar and harmonized with Ukrainian legislative data. The key findings of the researcher are suggested 16 Ukrainian indicators of green economy development harmonized with EU and other international indicators. The 16 indicators of green economics development were suggested for the Ministry of Environmental Protection and Natural Resources of Ukraine as a part of the governmental environmental policy assessment system. We hope that indicators implementation will be supported by green modernization of SMEs.

Keywords: harmonization, green economics, indicators, EU, UN, OECD, Ukraine

JEL Classification: Q58

1. THE AUTHOR OF THE METHODOLOGY

After signing The Ukraine–European Union Association Agreement in 2014 and full introduction of economic part of the Agreement appeared an urgent need for the development of green economics indicators which simultaneously meet the Ukrainian regulatory and legal framework, and are based on statistical multi-year researches as well as meet current indicators of the EU, UN and OECD organizations. The author (Potapenko V.G., 2015) has developed the special methodology. The result of the work is the indicators analysis of the EU and UN environmental policies and their harmonization with the statistics and official figures of Ukraine and the development of indicators of public administration efficiency. The algorithm of several stages was created:

1. The basis is a list of goals and objectives of the environmental policy of the draft amendments to the Law of Ukraine On the Basic Principles (strategy) of environmental policy. These goals and objectives are analyzed, first of all in terms of the draft of the National Action Plan on Environmental Protection for 2016-2020 years and indicators of environmental policies that have been adopted in the Law on Basic Principles (strategy) of Environmental Policy in 2010.
2. The analysis of indicators of environmental policies used by the EU institutions, the UN and the OECD, is performed, namely:
 - EEA indicators of green economy;

- OECD “Green” indicators;
 - SDG UN indices;
 - UNECE indexes of “green” growth;
 - UNEP indicators of “green” economy.
3. The assessment of the informational content of international indices is made according to the assessment of goals and objectives of the environmental policy of the draft amendments to the Law of Ukraine On Basic Principles (strategy) of environmental policy.
 4. Selection of indices of the EU and the UN to assess environmental policy under the draft amendments to the Law of Ukraine On Basic Principles (strategy) of environmental policy and their comparison with informational support and statistics from official sources of Ukraine, which are of multi-year observation.

The methodical approach to indexes development is based on the conceptual requirements for harmonization of Ukrainian and international quantitative indicators according to the official information. To harmonize Ukrainian and international quantitative indicators according to the official information methodological approaches were developed to analyze the environmental policy and develop a system of indicators. Thus the proprietary methodological approaches allow to analyze the international indicators of environmental policies and harmonization of indicators OECD, EU, UN and Ukraine on environmental policy.

2. THE GREEN ECONOMICS INDICATORS ANALYSIS

The international indicators which we analyzed with the aim to harmonize with the Ukrainian ones are the green economy indicators of European Environment Agency, green indicators of the Organization for Economic Cooperation and Development, the United Nations sustainable development index, green growth indexes of the United Nations Economic Commission of Europe, indicators of “green” economy of The United Nations Environment Programme.

Green Economy Indicators of the European Environment Agency are suspended and describe both state of the environment and the level of human impact.

Green indicators of Organisation for Economic Cooperation and Development describe the problems of resources, industry and business development. Unfortunately most of the OECD indicators have no relevant equivalents among the Ukrainian ones.

The indexes of sustainable development of the United Nations have the frame nature. Those ones, describing the environmental policies are detailed, but they mostly qualitative rather than quantitative. Moreover, it is difficult to find the correspondence among the Ukrainian indicators.

In the result of analysis and comparison with Ukrainian indicators we succeed to determine sixteen indicators that are identical to the international ones, characterizing green growth and environmental policy.

Green Growth Indexes of the UN Economic Commission for Europe is the most detailed in all aspects of environmental policy both in natural and in the industrial spheres.

Indicators of “green” economy of the United Nations Environment Programme describe environmental aspects and, although they are not detailed, but have maximum number of relevant equivalents among the Ukrainian indicators.

3. GREEN ECONOMICS INDICATORS DEVELOPMENT HARMONIZATION

The system of indicators of Environmental Policy of Ukraine was developed basing on quantitative indicators of the EU. It was suggested 16 indicators of green growth from 31 current indicators of environmental policy in accordance with applicable law of Ukraine "On the Fundamentals (strategy) of environmental policy", which may be the first step in measuring progress of green branch modernization of Ukraine's economy.

1. Indicator of Natural Reservations

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Coverage of land and marine conservation areas (ha)	Total areas under protection (1000 km ²)	Nationally designated protected areas (km ²)	Protected areas overlay with biodiversity (national level) (ha)	Arable and cropland, % total land area (%)	Area of nature reserve fund, % of state area

Remark by the Editor. On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development — adopted by world leaders in September 2015 at an historic UN Summit.

2. Agricultural Land Indicator

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
-	Land uptake for technical infrastructure (1000 km ²)	-	-	Pastures and meadows, % total land area (%)	Share of agricultural land, % of the total territory of the state

3. Forest Coverage Indicator

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Forest coverage (ha)	Total forest area (1000 km ²)	Forest growth (km ²)	Area of forest under sustainable forest management as a percentage of forest area (%)	Forest, % total land area (%)	Forest area

4. Fresh Water Access

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Water scarcity (%)	Total freshwater use (million m ³)	-	Percentage of urban population using basic drinking water (modified MDG Indicator) (%)	Water stress, total freshwater abstraction as % total available renewable resources (%)	Fresh water use in total of available renewable freshwater resources

5. Land Reclamation Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
-	Land uptake in the country area (1000 km ²)	Land take (%)	Annual change in degraded or desertified arable land (% or ha)	Pastures and meadows, % total land area (%)	Recultivated and renewed lands exposed to technogenic pollution

6. Land Use Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
-	Land uptake in the country area (1000 km ²)	Land take (%)	Annual change in degraded or desertified arable land (% or ha)	Pastures and meadows, % total land area (%)	Recultivated and renewed lands exposed to technogenic pollution

7. Energy Consumption and Waste Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Coal consumption intensity (ton/GDP)	1000 ktoe Production of energy (ktoe)	index 1990=100 Energy intensity	-	Energy productivity, GDP per unit of TPES (%)	Energy productivity GDP Amount of waste to GDP

8. Environment Related Technologies Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
R&D investment (% of GDP) EGSS investment (%/year) CO ₂ productivity of government operations (ton/\$) Expenditure in sustainable procurement (USD/year and %) Training expenditure (USD/year and % of GDP)	-	-	-	Development of environment-related technologies, % inventions worldwide, % all technologies (%)	Financing of scientific and scientific and technical works to GDP

9. Environmentally Related Taxes

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Fossil fuel, water and fishery subsidies (USD or %)	-	-	-	Environmentally related taxes, % GDP (%)	State budget funds for environmental protection
					Environmental taxes

10. Green Enterprises Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
-	-	-	-	The share of "green" enterprises in the total number of state enterprises, % (ISIC 25.12; ISIC 37; ISIC 41) Employment in the EGS sector (in % of total employment)	Registered number of enterprises by NACE 2010: 22, 36, 37, 38, 39 that can be attributed to the green economy

11. Renewable Energy Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Renewable energy incentive (\$ or %)	1000 T H.E. Total primary energy supply (ktoe)	Renewable electricity (%)	-	Renewable electricity, % total electricity generation (%)	The share of renewable energy in state energy consumption

12. Access to Sanitation Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Access to sanitation (%)	Population connected to water supply industry (million)	-	Percentage of urban population using basic sanitation (modified MDG Indicator) (%)	Population connected to sewage treatment %	The share of population with access to central sewage

13. Access to Water Indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
Access to water (%)	Population connected to water supply industry (million)	-	Percentage of urban population using water supply industry (modified MDG Indicator) (%)	Population with sustainable access to safe drinking water, %	The share of population with access to centralized water supply

14. Emissions of Pollutants into the Atmospheric Air indicators

Indicator UNEP	Indicator UNECE	Indicator EEA	Indicator SDG UN	Indicator OECD	Indicator Ukraine
	Emissions of pollutants into the atmosphere (1000 t/year)	Emissions of pollutants into the atmosphere (1000 t/year) Specific air pollutant emissions (1000 tonne/year)	-	-	Emissions of pollutants (excluding CO ₂) into the atmosphere

It becomes possible to implement the green growth indicators in the legal field of Ukraine as a part of national environmental policy evaluation system. Being aware of the shortcomings of this approach, we believe that this is the first step towards the implementation of green growth strategy in Ukrainian realities of state administration.

Thus in the result of the analysis represented in the tables of the section “Harmonization of International and Ukrainian Indicators of Environmental Policy in Accordance with the Goals of Environmental Strategy and National Plan of Actions” we identified 16 Ukrainian relevant indicators of green growth and environmental policies which have correspondent indicators of UNECE and other international organizations.

CONCLUSIONS

Thus, as a result of the work carried out by us, the following results were obtained:

1. Elaboration of methodology of harmonization of Ukrainian and international indicators of green economics development
2. The analysis was conducted on the correspondence of indicators of the Organisation for Economic Cooperation and Development, the UN sustainable development index, indexes of green growth of the United Nations Economic Commission for Europe, indicators of “green” economy of the United Nations Environment Programme.
3. Defined relevant Ukrainian indicators of green economics development, provided with long-term databases.
4. Suggested system of indicators of green economics development was officially proposed to the Ministry of Ecology and Natural Resources of Ukraine and to the Parliament for changes in the Ukrainian legislation.

5. The use of existing traditional environmental and economic indicators of Ukraine harmonized with the international indicators and legalized via the regulatory framework of the Ministry of Ecology and Natural Resources of Ukraine, and due to the updates of laws by the Parliament it will be the first realistic step to the introduction of indicators of green economics development in Ukraine.

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Withered leaves
Photo © by Antal Szabó

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PROMOTION OF GREEN PERFORMANCE OF SMEs IN ARMENIA**Motto:**

<i>A green economy is about a different way of doing things. It is about recognising that our economies need to be guided by different goals, they need to be sustained by different activities, and they need to deliver different results.</i>	We believe it is possible. We know it is necessary.
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ABSTRACT

Majority of SMEs lack information about environmental issues and financially attractive green business practices. They also tend to lack the in-house capacity successfully address this issues. Governments can therefore play crucial role in facilitating access to environmental information and expertise and suggest incentives to adopt them.

Many EU and other OECD countries have addressed this challenge by implementing information-based tools and regulatory and financial incentives to encourage SMEs to improve their environmental performance, to comply with and go beyond regulatory requirements.

This paper includes an analysis of SME sector in Armenia and existing instruments to support the implementation of environmentally friendly production practices.

The paper focuses on main opportunities for, and obstacles to, improving the environmental performance of SMEs in Armenia, including the deployment of resource and energy-efficient technologies and business practices.

Keywords: Green economy, SMEs, environmental compliance, environmentally friendly production practices, Armenia

JEL Classification: L26, O12, Q56, Q57

1. SMEs AND GREEN ECONOMY IN ARMENIA**BACKGROUND**

The role of SMEs in Armenia as in other European countries is significant as well, having great influence in almost all elements of the country's economic structure. SMEs are considered to be the backbone of the economy and major source of entrepreneurial innovation and skills. Currently SME sector contribution to

GDP is about 25%, and about 98% of all registered legal entities are SMEs, comprising around 74,366 SME units (as of 31 December, 2014) ², which is twice as high as in 2002. SMEs contribution to the employment of Armenia is about 32.7% (370.381 employees), of which 64% are concentrated in Yerevan (capital city).

Number of institutional and policy reforms have been carried out towards formation of enabling business environment in Armenia. Progress has been made in terms of effective restructuring economy by putting more emphasis to productive tradable sector and shifting gravity power of economic growth from non-tradable sector to export oriented tradable sector.

Since 2000, the Armenian Government has pursued a pro-active approach to supporting SME growth, with a particular emphasis on reducing the administrative burden on small businesses and increasing their competitiveness. Armenia's Law "On state support to small and medium-sized enterprises" of 5 December 2000 for the first time defined small and medium sized enterprises in Armenia and laid the basis for the Government's SME support programmes.

One of the key developments were creation of an SME Support Council chaired by the Prime Minister and the establishment of an SME policy implementation agency in 2002 (The Fund "Small and Medium Entrepreneurship Development National Center of Armenia).

Another major step is the adoption of the new Small and Medium Enterprise Development strategy (2016-2018) In October 2015. The strategy outlines the objectives of the SME sector development for the next three years, appropriate toolkits and best practices are defined.

SME development strategic goal over the next three years is to ensure a competitive environment for small and medium business activity, through promotion of enterprise development and dissemination of knowledge in entrepreneurship, access to finance, simplifying the tax system and improving the mechanisms for dialogue with the private sector, as well as through promotion of innovation and sustainable development.

SME state support annual programs are being elaborated and implemented in Armenia since 2000, and are based on the fundamental principles of state economic policy of Armenia and contribute country's economic development, especially in rural and remote areas, overcoming regional disparities, which is one of the strategic priorities of the economic policy pursued by the Government of the RA.

Starting from 2015 SME greening issues also become a part of the national policies and were embed in the Small and Medium Enterprise Development strategy (2016-2018), outlined also in the SME support annual programs. However, institutionalized specific instruments to promote green practices, to encourage SMEs to go beyond compliance and adopt green technologies and management practices are not introduced yet.

This is a significant gap, given the potential of green practices to improve the efficiency and competitiveness of Armenian businesses.

2. MAIN CHALLENGES OF REGULATING GREEN PERFORMANCE OF SMEs

Usually SMEs, particularly micro and small ones are categorized as low risk facilities in regarding of environmental impact. Numerous SMEs, particularly micro and small ones doesn't fall under the environmental regulations. Separately their impact on the environment is low but taking into consideration the number of enterprises they may have comprehensive cumulative impact on the environment.

²"SMEs in figures, 2013-2014", SME DNC, 2015.

Green practices and efficiency are closely related. Green practices look from the businesses costs and drive innovation in solving them, it is a significant business opportunity for SMEs themselves as important actors in green technology innovation and production.

Increasing Environmental performance of SMEs has become a priority for EU countries. The Small Business Act for Europe (2008) was developed to establish the “Think Small First” approach to policy making and regulation and to promote SMEs’ growth. One of its ten high-profile principles is enable SMEs to turn environmental challenges into opportunities for more competitiveness and sustainability.

There is a lack of specific institutions which will help business and industry to understand their environmental responsibilities, to comply with legislation and good practice and to realize possible economic and financial benefits of good environmental practice.

In order to fill this gap, a number of international donor-funded programmes have been engaged in efforts to promote environmentally-friendly production practices across the SME community. For example, the United Nations Industrial Development Organization (UNIDO) has provided assistance in developing and implementing a cleaner production programme targeting the mining, chemical and food processing sectors. The German Society for International Cooperation (GIZ) has implemented several projects to promote environmental management, efficient use of resources and waste minimisation in private enterprises, with a focus on SMEs. These and other similar initiatives rely primarily on audits and training of volunteer companies. However, these fragmented efforts have not institutionalised specific instruments to promote green practices and have not had any tangible impact on the environmental performance of Armenia’s business community.

The main challenges of regulating SMEs can be categorized as follows:

- The diversity and complexity of SMEs’ activities both within and across different sectors, affecting the type and degree of environmental problems in a particular sector or group of businesses as well as the way in which this sector should be regulated;
- The substantial number of operators and the related lack of information available to the regulator about their levels of compliance or the factors that affect their compliance;
- The potentially limited capacity (lack of resources, time and expertise) of small businesses to absorb regulatory requirements and to comply with them; and
- The low awareness of small business owners of the need to address their environmental impacts and hence to comply with respective regulations.

3. CURRENT IMPLEMENTATION OF GREEN PRACTICES

Aiming to identify the main opportunities for, and obstacles to, improving the environmental performance of SMEs in Armenia, including the deployment of resource and energy-efficient technologies and business practices a survey of 416 SMEs was conducted in the first half of 2014.

The survey has been conducted in the frames of the pilot project “Promoting better environmental performance of SMEs in Armenia”, which is part of the European Commission’s initiative “Greening Economies in the Eastern Neighbourhood” (EaP GREEN) implemented by the OECD in partnership with UNEP, UNIDO and UNECE, had the following objectives:

- To strengthen government policies in Armenia to promote better environmental performance (voluntary environmental compliance and green business practices) of SMEs; and
- To promote government-to-business and business-to-business dialogue on the benefits of green practices and increase the role of business/trade associations in SME greening.

The project was launched in December 2013 following a preliminary review of Armenia’s current environmental legal framework affecting SMEs and existing instruments to support the implementation of environmentally friendly production practices.

Survey covered the following activity sectors:

- Agriculture, fisheries and forestry;
- Mining and quarrying;
- Food and non-food manufacturing;
- Construction; and
- Hotels and restaurants.

The statistical sample also reflected the percentage of micro-enterprises (65.4%), small (25.2%) and medium-sized (9.4%) in the country. The sample covered all regions (marzes) of Armenia and mirrored the distribution of SMEs in the target sectors across the country.

According to the survey, 56.7% of SMEs declare not to be subject to any environmental requirements, and 22.6% say that they must comply only with general (sometimes referred to as “duty of care”) obligations. Thus, only about 20% of SMEs report having an environment-related permit or licence, although this figure is higher in activity sectors with significant environmental impact (40% in mining and 25% in manufacturing). Less than 10% of SMEs report having several environmental permits (for air emissions, wastewater discharges, waste disposal, etc.). The share of SMEs with environment-related permits is unsurprisingly the highest among medium-sized businesses (56.5%) and the lowest among micro-enterprises (11.7%).

There is an obvious lack of proactive dissemination of regulatory information to SMEs on the part of the Armenian government. The principal sources of information on environmental regulations are the website and the telephone hotline of the Ministry of Nature Protection, but very few SMEs use them. The Ministry’s Information-Analytical Centre elaborates and disseminates educational manuals, newsletters, digests and other information materials, but they are disseminated to businesses mainly at occasional training events. The Ministry sometimes organises press-conferences and publishes press-releases on specific environmental issues, but not to promote environmental compliance and good practices.

Very few Armenian SMEs contemplate going beyond environmental compliance: only 4.1% of the total number of surveyed SMEs stated that going beyond compliance was their priority (12.8% of medium-sized businesses).

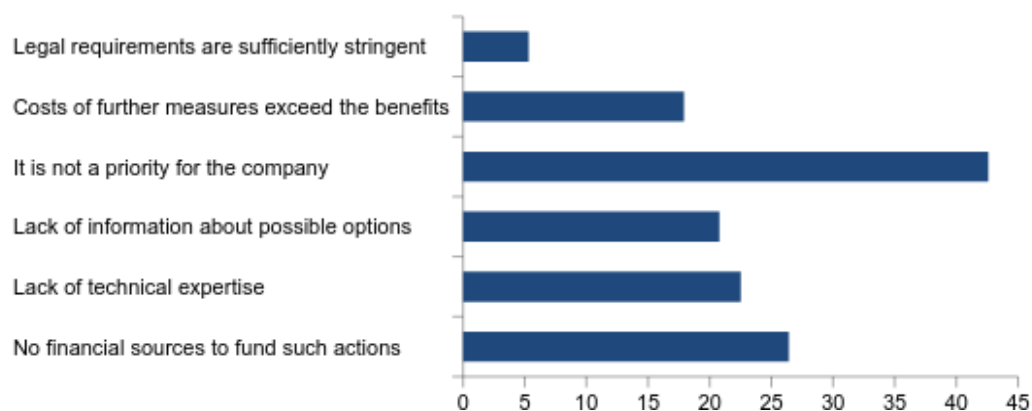


Figure 1: Reasons not to go beyond compliance

Less than 2% of the surveyed SMEs have a certified ISO 14001 EMS, and another 9% have adopted a less onerous national environmental management standard (33% of medium-sized enterprises claim to have implemented an EMS). Those businesses mostly quote commercial reasons for doing so: demand from suppliers and customers as well as efforts to improve the company’s image in the eyes of clients, business partners or the general public.

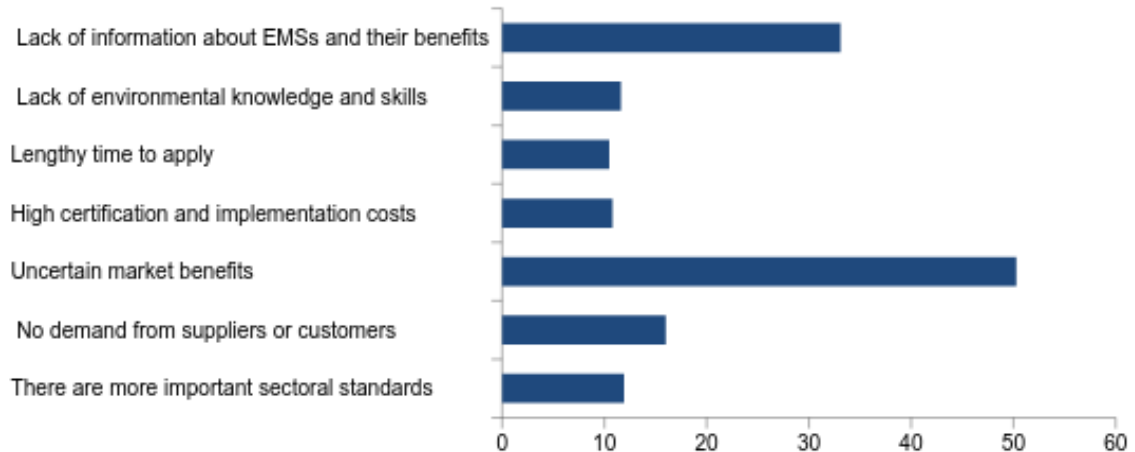


Figure 2: Reasons not to apply EMS - Environmental Management System

Over half of the surveyed Armenian SMEs undertake resource efficiency measures, mostly to save water, energy or raw materials, or plan to do so in the future. About 10% of surveyed Armenian SMEs declare that they offer green products or services (2% claim to have been awarded an eco-label), and another 9% are planning to do so in the next two years.

According to the SME survey, 88% of the companies that undertake resource efficiency measures receive no technical or financial support. Less than 5% receive technical assistance from government authorities: this figure is 9-10% among small and medium-sized businesses, but micro-enterprises do not benefit from government support at all. Among the key obstacles to engaging in green practices Armenian SMEs quote costs and poor access to finance (for all sizes of SMEs), their own lack of capacity, and different bureaucratic barriers such as complex administrative procedures and obsolete technical requirements.

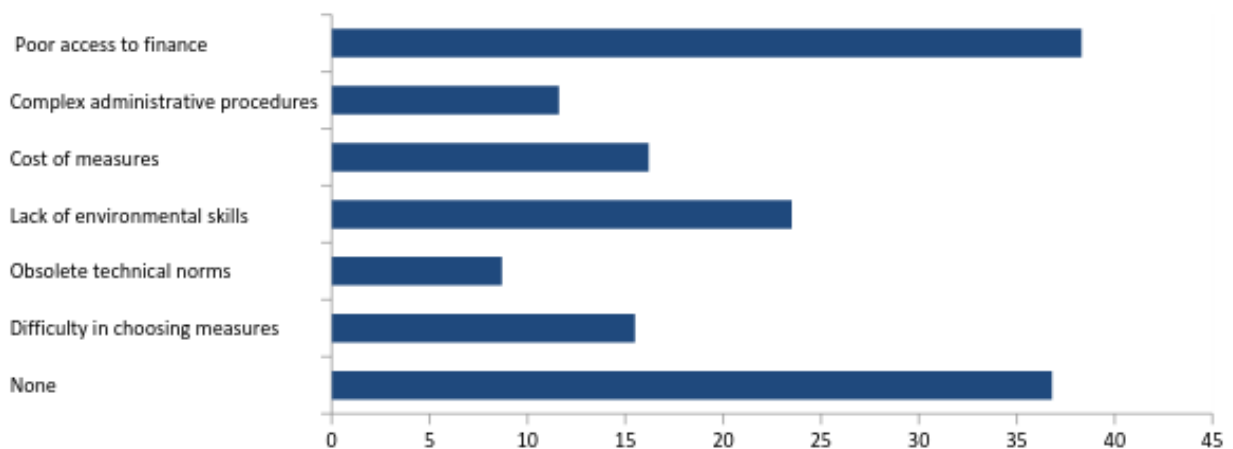


Figure 3: Main barriers to environmental actions

4. MECHANISMS AND TOOLS TO PROMOTE GREEN PRACTICES AMONG SMEs

There is a great variety of strategies and instruments to promote environmental compliance and green business practices, including:

- Information provision: advising individual businesses directly or disseminating guidance to a wide audience in the printed and, increasingly, electronic form;
- Promotion of good environmental management: offering regulatory incentives and financial and technical support for the establishment of environmental management systems, introducing sector-specific certifications and eco-labels as well as other environmental recognition awards;
- Market signals: good environmental performance can be driven by supply chain pressure from larger companies and by green public procurement; and
- Financial incentives: grants, low-interest loans and tax incentives for businesses willing to go beyond compliance and invest in greener technologies.

Based on the analysis of OECD countries' good practices, and on the recommendation provided to the Government of Armenia in the frames of the pilot project "Promoting better environmental performance of SMEs in Armenia" (2013-2015), following tools could be successfully applied in Armenia with respect to the SME community:

- **Awareness raising on compliance-related requirements**

Providing compliance-related information to SMEs that are subject to environmental regulatory requirements can reduce compliance costs to businesses by allowing them to achieve and maintain compliance as efficiently as possible.

Most small businesses seek clear and consistent information on the minimum requirements for compliance. Interpretation of text-heavy guidance can be difficult for an SME: there should be a simple message about the problem, its solution (step-by-step guidance) and where to go for more information. To avoid excessive or unnecessary costs for businesses, environmental guidance should also make a clear distinction between the minimum legal requirements and good practice.

The simplest tool to disseminate regulatory information is a "regulatory watch" – a (paid or free) subscription service sending regular e-mail or mobile phone updates on relevant legislative developments and new applicable regulatory requirements. Such service could be offered by the Ministry of Nature Protection or by national business association (e.g. the Chamber of Commerce and Industry) receiving up-to-date information from the government. Environmental guidance on compliance and good practices can also be delivered through the MNP's own website or another specialised site that could be co-funded by the government and one or several business associations.

However, designing and launching an online guidance tool is not enough: there needs to be an effective communication strategy to ensure that businesses continue to use and benefit from it. Web-based tools should be supplemented by other instruments which can add significant value. For example, industry magazines, newsletters and business or community events are also helpful information delivery methods, particularly to some small or rural businesses which may not have access to the internet.

Government bodies should work with trade association and business support organisations to elaborate and disseminate environment guidance. Guidance should be concise and clearly distinguish between legal environments and good practices in order to avoid constly over-complacence of mall business.

- **Green practices as a business opportunities**

The small size of SMEs means that their managers have many different responsibilities, so environmental issues suffer from the lack of attention compared with core business decisions. SMEs are often unaware of many financially attractive opportunities for environmental improvement. There is a widespread misperception that protecting the environment is associated with technical complexity, burdens and costs. Even when they are aware of the potential of better environmental performance to improve a firm's competitiveness, a lack of appropriate skills and expertise commonly prevents firms from acting upon win-win opportunities. The fact that most SMEs have not integrated environmental issues into their business decisions makes it difficult to persuade them of economic benefits of environmental improvements.

Economic benefits of improved environmental performance (in terms of improved efficiency and competitiveness, new market opportunities, etc.) should be the main „selling point” of environmental outreach to SMEs.

Since by far the biggest concern of SMEs is the short-term financial profitability, selling the idea that environmental management can save money, reduce costs and increase efficiency is usually well received by business owners. Therefore, environmental information targeting small businesses should make the “business case” and illustrate the financial benefits of environmental improvements. In making the “business case”, it may be particularly useful to present examples of other similar companies receiving commercial benefits as a result of the environmental management improvements in question.

Targeted, concise, user-friendly publications can be very useful in delivering a message that adhering to environmentally friendly practices (and thereby complying with the law) is a smart way to do business. Workshops, training seminars and industry fairs (particularly those organised by trade organisations and other business groups) can also be effective in conveying information or generic advice on how to implement green practices.

- **Creating market demand for green practices**

It may be difficult to persuade SMEs to act upon environmental information, even when it is obviously in their own financial interest. Other considerations are at least as critical, primarily the need to strengthen market incentives for environmental improvements by directly (green public procurement) and indirectly (green certifications and eco-labels) increasing the demand for improved environmental performance and green products and services.

Green public procurement: Government policy can play a significant role in creating demand for green products and services and boosting the market where private consumer demand for them is insufficient.

Governments should develop and implement green public procurement policies as a way to encourahe potential SME suppliers to offer enviironmentally fiendly goods and services.

Green certifications and eco-labels: Ultimately, the primary goal of green certification or eco-labelling programmes is to increase the market share of their members. Although supply chain pressure in some sectors is a powerful driver for some SMEs to adopt an environmental management system (EMS), small businesses face serious obstacles, including a lack of resources, knowledge and technical capacity, the fact that most EMS-related costs are upfront and benefits are medium-term, as well as low public visibility. Therefore, it is necessary to tailor EMSs, both in terms of their content and delivery, to the particularities of SMEs. The key, at least for smaller businesses, is to focus on simple, accessible improvements in management practices, rather than the introduction of a formal, administratively complex EMS. Those “simplified” EMSs could be developed and promoted by business associations and should also be recognised by the environmental authorities, which may offer additional incentives: regulatory (e.g. reduced inspection frequency) or financial (e.g. reduced administrative fines in case of minor offences).

In order to make environmental management credentials more relevant to specific economic sectors, business associations should collaborate with the MNP to develop sectoral certification brands, many of which target SMEs, as well as guidelines on how businesses may “earn” the right to display appropriate signs (stickers, posters, etc.) to highlight their environmental practices to their customers. It is also important to communicate to a broad audience to raise the recognition of the label or certification, starting at a very early stage of the scheme’s development.

Environmental recognition awards: Governments can use positive public relations incentives to promote environmentally friendly business behaviour. The main benefits of environmental awards are that they help companies gain recognition for their good environmental performance. To be effective, environmental awards need to be widely promoted in business and industry media.

- **Improving access to financing**

There are several financial mechanisms available to private companies, particularly SMEs, willing to go beyond compliance and invest in green technologies, including grants, low-interest loans and tax privileges.

Grants and free consultancy services: Grants or direct subsidies can be provided to SMEs as a percentage (e.g. up to 50%) of consultancy costs for the identification and implementation of resource efficiency and other environmentally oriented measures.

Loans: The existing financing mechanisms, including “green loans” of Inecobank and Araratbank, “renewable energy loans” of Ameriabank, etc. that use credit lines provided by international financing institutions, are not sustainable in the long term. Public financial institutions may offer reduced interest loans for environmental investments by SMEs. Such loans are usually conditional on the planned measures going beyond regulatory requirements and the use of best available techniques and/or best environmental management practices, and applications need to be certified by the competent environmental authority.

Institutional aspects of greening small businesses: Small businesses get environmental advice and guidance from a multitude of sources, including regulatory agencies, local authorities, special business support organisations, trade or professional associations, consultants, banks and accountants, other business owners and even personal networks. Capacity building of these institutions is of crucial importance.

In promoting green behaviour of small businesses, working in partnership with business groups can be particularly useful as many SMEs do not respond to outreach activities conducted by a regulator due to suspicion and fear. Business and trade organisations are in a good position to provide regulators with practical support in designing regulatory approaches and developing and improving compliance assistance programmes to address sector-specific needs. Business organisations can also have a role in providing sector-specific technical assistance to companies introducing green practices.

5. CONCLUSIONS

Based on the analysis of current situation of SMEs in Armenia, development trends and OECD countries' good practices, the paper suggests following ways to promote green performance of SMEs:

- Green practices among SMEs should be coordinated at the national level and be a part of the ***SME development and support state policy/programs using comprehensive toolkit including available specific funding.***
- Specific ***institutions*** should be established and/or existing business support agencies should introduce new ***specific instruments*** to promote green practices among SMEs in a ***systematic way.***
- Provide ***environmental advice and guidance*** to promote green behaviour, helping business to understand their environmental responsibilities, to comply with legislation and good practice and to realize possible economic and financial benefits of good environmental practice. Economic benefits of improved environmental performance (in terms of increased efficiency and competitiveness, new market opportunities, etc.) should be the main “selling point” of environmental outreach to SMEs.
- Creation and promotion of ***green business models***, illustrating the financial benefits of environmental improvements.
- Publication of ***sector-specific SME pocket guides.*** User-friendly publications can be very useful in delivering a message that adhering to environmentally friendly practices.
- Establishment of ***effective collaboration among key stakeholders***, engaging relevant government bodies, environmental authorities, business support institutions, as well as business associations to promote SME greening.
- Launch specialised website/portal to provide environmental guidance on compliance and good practices (linked to relevant government websites).
- Introduction of green public procurement. Government should gradually include environmental criteria in its purchasing decisions.
- Introduction of ***financial incentives:*** grants, subsidies, low-interest loans, loan guarantees, etc. for the identification and implementation of resource efficiency and other environmentally oriented measures.
- Introduction of ***tax incentives*** for businesses willing to go beyond compliance and invest in greener technologies.
- Development of a ***mentorship scheme for SMEs*** to learn from successful experience of large companies.
- Introduction of ***simplified green certification scheme*** and ***environmental recognition awards.***

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Family Photo with the Participants of the BSEC-KAS Workshop on SMEs and Green Economy

Photo © by Bekir Öncel (left on the photo)

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SMEs AND GREEN ECONOMY - ENERGY FOR THE SMEs IN THE 3RD MILLENNIUM**ABSTRACT**

In most economies, small and medium-sized enterprises (SMEs) are seen as the drivers of growth and economic success and their role is of fundamental importance for the overall economic prosperity of any country. Bulgaria does not make an exception. Nearly 99 % of the economic actors in Bulgaria are SMEs (more than 310 000) and they contribute to the extent of 60% of its Gross Domestic Product (GDP).

Any economic activity requires energy – energy measured by the efforts involved and the degree of ambition and motivation of the actors. However, most of all and literally speaking, energy is required for production purposes and in the daily processes – the one seen and paid every month on the bills and the one that companies have to consider while calculating their costs in order to remain competitive. Energy has to be affordable and reliable. Reducing the costs is depending on many factors such as innovation, the available energy mix and the geopolitical side of energy dependency affecting prices. One of the main issues lies in the redistribution and in equal use of resources, minimising costs and in utilizing natural resources in an innovative and cleaner not polluting way, respectful of the environment and efficient.

In this context, Europe has begun to draft its Climate and Energy Policy ever since the early 2000s, fixing some targets in the short, mid and long term. In the year of the signature of the Paris Agreement reached during the COP21 Conference on Climate Change, the European Union and its Member States have been important stakeholders in its adoption and will be major actors in its progressive implementation. European policies themselves align with it and have been conceived in order to reach particular targets respectively by 2020, 2030 and 2050. These targets join the efforts for a constant and sustainable economic development by utilizing natural and other resources thoughtfully, in a way to achieve and support a decarbonised economy.

Europe's Climate and Energy Policy by 2020 has three main goals implied in the figures "20/20/20" - meaning 20% CO2 emissions reduction by 2020 compared to 1990 levels; 20% of renewables used in Europe's energy mix; and 20% achieved saved energy (energy efficiency). All EU countries should also achieve a 10% share of renewable energy in their transport sector.

The 2030 targets include a 40% cut in greenhouse gas emissions compared to 1990 levels; at least 27% share of renewable energy consumption; at least 27% energy savings compared with the business-as-usual scenario (source: EU Commission website).

Keywords: Green economy, SMEs, clima and energy policy

JEL Classification: L26, Q41, Q48

1. BULGARIA ABIDES TO EUROPE'S CLIMATE AND ENERGY POLICY

1.1. The National Support Strategy for SMEs 2014-2020

The "National Strategy on SME Promotion 2014-2020", also called "Small Business Act" (SBA or Strategy from now on) is a political document with mid-term nature by which the Government of the Republic of Bulgaria has demonstrated its vision of government policy to support small and medium-sized enterprises (SMEs) in the country and to harmonize their policies in this area with the policy of the European Union.

It is known that SBA is a key policy document of the European Union in support of SMEs. As recommended by the European Commission, its principles should be applied in each Member State. With this strategy Bulgaria makes a major step towards convergence of national and European policy to support SMEs in the period up to 2020. There will be no difference in the priorities set in the European document and the Strategy.

The SME Strategy is justified by the Law for SMEs (Article 5, paragraph 1); the application of the Strategy is based on an Annual program approved by the Minister of Economy and Energy (Article 5, paragraph 2, item 4). The Annual program contains proposals for measures based on the results of Bulgaria, published in the SBA Fact Sheets for the preceding year. The main financial instrument of the formulated measures remains relevant operational program of the Ministry of Economy and Energy.

1.2. Strategic environmental goals by 2020

Bulgaria is a country, in which SMEs invest in energy efficiency, developed and marketed, and used in the production of "green" products. The state provides financial incentives for this purpose and informs entrepreneurs about all the possibilities on the way to "green" technologies.

The criteria in the priority area "Environment", together with the operational goals, are as follows.

1. Innovations with environmental benefits.
2. Share of SMEs with measures of resource efficiency.
3. Share of SMEs that have received public support for the introduction of measures to resource efficiency.
4. Share of SMEs satisfied with public support in the field of environment.
5. Share of SMEs, offering "green" products or services.
6. Share of SMEs with a turnover of over 50% generated from "green" products or services.
7. Share of SMEs that have received public support for the production of "green" products or services.
8. Share of SMEs satisfied with public support for the production of "green" products or services.

Table 1: Operational Goals

Criteria	Goal	Change
1.	> 0.04%	At least 60 SMEs more (no micros)
2.	> 93.00%	28,000 SMEs more
3.	> 9.00%	25,000 SMEs more
4.	> 56.00%	88,000 SMEs more
5.	> 26.00%	18,000 SMEs more
6.	> 22.00%	18,000 SMEs more
7.	> 8.00%	3,500 SMEs more
8.	> 62.00%	151,000 SMEs more

1.3. State-aid support for SMEs and technological state of play

Key findings about SMEs in Bulgaria

Bulgaria is a country where SMEs have a free and competitive access to public procurement system which is fully electronic. State aid for SMEs is available. All the rules of the legislation in the field of competition are explicitly designed to promote more innovative and entrepreneurial business environment.

- Technology transfer and improvement of cooperation networks between SMEs, universities, educational institutions of all kinds, regional authorities, research centers and development, science and technology parks, etc.
- Support for R&D carried out in particular SMEs, including access to R&D - services research centers.
- Support to SMEs for the promotion of non-destructive environmentally friendly products and production processes.
- Measures to stimulate entrepreneurship and starting a business
- Measures to promote e-commerce, education and training, networking and cooperation etc.
- Measures to improve SME access to more efficient use of ICT

The presence of Bulgarian SMEs in the Single Market can be promoted further in different directions - as support for the introduction of new standards, and through more awareness about the opportunities on intellectual property - businesses to be protected by using the services of both national patent authorities and the community - especially in the field of protection of patents or registration of Community trademarks and community designs.

The presence of Bulgarian firms in the market may continue to be encouraged through participation in international exhibitions and fairs.

Information security is of key importance. It can be ensured both by the administration and by network organizations such as Europe Enterprise Network.

A strengthened competitiveness is needed

For analytical purposes, a comparison was made between the shares of SMEs (taken from all sectors) in different sectors in Bulgaria and six EU countries, closest in population to Bulgaria. The goal was to compare the sectoral structure in countries with a similar number of workers because before talking about labour productivity and employment, we should pay attention to the unit that generates employment and productivity respectively, namely – the enterprise.

Share of the number of SMEs from the sectors of all SMEs in %

	Bulgaria	EU-6 ^x
High-tech manufacturing ^{xx}	1	2
Low-tech manufacturing	10	8
Knowledge intensive services	14	23
Less knowledge intensive	68	51

service		
Other sectors	7	16
Total	100 %	100 %

Remarks

- x Sweden, Finland, Denmark, Austria, Hungary and Slovakia
- xx The classification of technological intensity of Eurostat is used. In this part of the analysis high-tech manufacturing means high and medium high tech manufacturing, and low-tech: medium low and low tech manufacturing.

Although the share of knowledge intensive services in Bulgaria is growing in recent years, growth is slow, and new enterprises during the crisis appeared again mostly in the less knowledge intensive services. A realistic explanation would be - lack of qualified staff able to perform tasks with high demands. Among the industries, in which there is growth of labour productivity is the production of computers, electronics, optics, the automotive industry, other vehicles, etc. However, this is mainly due to the redundant staff and to a lesser extent due to optimization and innovation in the production.

The growth of wages per employee is in excess by BGN 1,400 per employee per year in SMEs for all sectors for the period 2008-2011. There is a high wage growth especially in the film industry (50%), information technology (20%) and air transport (25%).

If we compare Bulgaria with other nine Member States of the EU from Eastern Europe, Bulgaria currently has the lowest proportion of firms in high-tech manufacturing – less than 1%. Bulgaria had the second lowest share in knowledge intensive services - 14% of the SMEs in these sectors compared to around 32% for Estonia. Bulgaria has the highest proportion of less knowledge intensive services – around 70% compared to around 55% in Hungary. The latter definitely showcases the need for strengthening competitiveness by promoting innovation and more profitable approaches.

2. APPROACHES & OPPORTUNITIES TOWARDS A GREENER ECONOMY

2.1. Innovation-driven investments in more efficient solutions and approaches

The main source of funding to support SMEs in the previous seven-year period was the Operational Programme "Competitiveness" at the Ministry of Economy and Energy. Obviously, simplifying application procedures will be one of the most important tasks for the new and ongoing programming period. Aside from the contracted funds program JEREMIE, the largest financing schemes for technological innovation – a total of 515 contracts worth over BGN 370 million and another 659 contracts for the introduction of internationally recognized standards worth BGN 65 million (by the editorial completion of this part of the Strategy) - insufficient for significant impact on any of the priorities of the Strategy. Therefore the main task of programming the period 2014-2020 should be measures with greater multiplier effect – following the example of the JEREMIE program or creating business incubators and other innovation infrastructure in the country, which will continue to make impact post-public funding.

Innovation measures

Strong incentive for innovation culture of SMEs can be an example of fast growing SMEs, as most of their progress is thanks to a new product, service, energy efficiency, better marketing approach, better management structure or other innovation.

Back on SBA data, the introduction of new products and services created in the enterprises themselves need at least:

46,000 more SMEs;

76,000 more SMEs must implement organizational or marketing innovation;

102,000 more SMEs should start training their staff;

This can be driven both by strengthening the role of the National Innovation Fund and by the mass-scale of the innovation voucher scheme and the demarcation of the Operational Programme "Human Resources " and " Innovation and Entrepreneurship", the creation of enterprises and entrepreneurship education should be left to "Innovation and entrepreneurship " and retraining required 90,000 employees in item a fully "Human Resources".

Crucial here is the introduction of enterprise education in schools and the expansion of the training firms in all schools, including the School of the Arts (where lay the groundwork in preparation employed in the creative industries that are part of most intense of knowledge services).

Green technologies measures

The results of Bulgaria show that:

18,000 more SMEs need to generate at least 50% of their turnover from green products and technologies;

28,000 more SMEs to achieve efficiency in resource use

In the case of energy efficiency measures and technological innovation, and related "green technology" innovation can be fully committed to improving the ecological orientation of companies.

In order to be effective, we created this Strategy adapting it to the Small Business Act, looking for a balance between reasonable administrative reforms when necessary and direct funding where it is needed.

Each year, according to the Law for SMEs, the Ministry of Economy and Energy will create an Annual program, which will describe the most urgent measures needed to be taken according to the results of the Small Business Act. By measurability and comparability of these results, we can always be sure whether the measures are working or not. Improved performance is related to the full implementation and development of e-government: an electronic service for entrepreneurs and exchange of data between institutions. The rules for the introduction of new fees or amending existing must be clear and well known. Reducing the number of charges and their sizes can be linked to the creation of a single point of contact where one can obtain information and to signal the disproportionate fees or procedures hindering SMEs.

The administrative burden for growth

Nevertheless, Bulgaria is not far from the EU average in this priority area. Therefore the next target is that the country should stand in the top ten in EU by easing the administrative burden for small businesses.

The main task is to introduce the "SME test" - it serves as a comprehensive assessment of the impact of future legislative and administrative initiatives on SMEs and taking account of the results in the preparation of proposals for legislative changes. The test must accompany each draft legislative change, as well as financial statement and clearly and specifically summarizes how the rules will affect small businesses. If the test finds that the measure prevents SMEs, brings additional administrative burden, but it turns out that the measure cannot be implemented, it must be the exclusion of SMEs (especially microenterprises) from the scope of this measure.

Making better use of the public consultation is essential before the introduction of any legislative changes.

A research was conducted on what are the 10 most severe administrative burdens encountered by businesses - whether legislative norms, rules or procedures – followed by an assessment of their current impact and a transition to alleviate or eliminate them. The following results were shown.

2.2. Opportunities for SMEs under the HORIZON 2020 framework

Where are we?

The following indicative targets for alignment with the EU average in the relevant indicators of the areas of the Small Business Act (the document that is based and future national strategy for the promotion of SMEs in Bulgaria from 2014 to 2020) in which Bulgaria is lagging behind most:

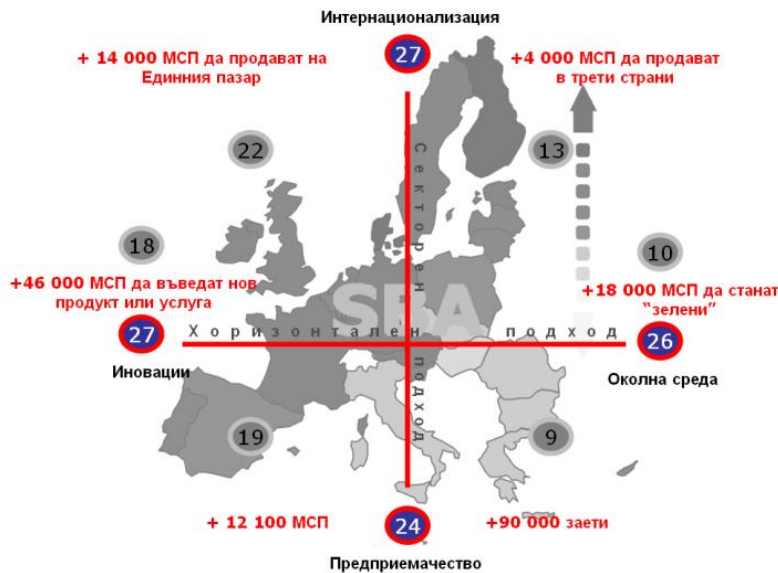


Figure 1.

Bulgaria = Entrepreneurship (24th in the EU), environment (26th in the EU) internationalization (27th in the EU), innovation (27th in the EU)

Measures for the creation of new businesses and promote entrepreneurship

Goals: 12,100 more new SMEs and 90,000 new employees

Start-ups should be mainly from the following sectors:

- Computers, optics and electronics
- Cars and other vehicles
- Metal products
- Machines
- Printing and recorded media industry
- Textiles
- Information Technology
- Films and TV productions, sound recording
- Information services
- Publishing
- R&D

Creation of new businesses and fostering entrepreneurship is the key to restructuring the sector. According to regional specialization enterprise creation can be oriented according to the concentration of the workforce and SMEs in the respective districts of the country. The participation of the SMEs in HORIZON 20/20 will also facilitate the clustering of these sectors. The fact is that in Bulgaria there is no critical mass of businesses, leading to a quantum leap in the production of relevant sectors. Enterprise creation can be stimulated in a combination of grant and revolving tools using the network of entrepreneurial and business centers in the country. Key is entrepreneurship education to people with business idea to create a sustainable business that will remain on the market and after the first 5 years.

2.3. SMEs in Bulgaria

Group of medium high and medium low technology industries covers economic activities of C19 through C30 under CEA-2008 (NACE) without high-tech economic activities and C33 "Repair and installation of machinery and equipment".

Green energy implementation is among leading approaches of the SMEs.

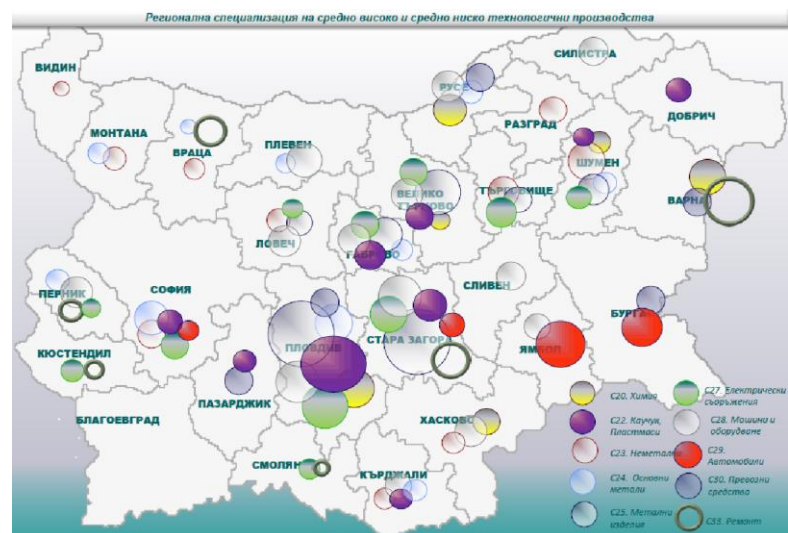
The group employs over 184,000 people, of which over 110,000 (60%) of SMEs. Typical is a high degree of specialization and concentration at the district level, as 69% of workers in this group are characterized by regional specialization coefficient above 1.2 ($LQ > 1.2$ - Figure 5).

The highest concentration of the group of medium-high and medium low tech manufacturing is in the central regions of the country and in particular in the districts of Plovdiv, Stara Zagora, Gabrovo and Veliko Tarnovo.

The combination of regional specialization and enterprise density yields the following conditions for clustering by sector:

- C20: Chemical industry - Varna, Ruse and Plovdiv
- C22: Rubber and plastic - Plovdiv and Gabrovo
- C23: Non-Metal products - Gabrovo, Vratsa and Shumen
- C25: Metal products - Gabrovo, Stara Zagora and Plovdiv
- C27: Electrical equipment - Gabrovo and Sofia
- C28: Machines - Gabrovo and Stara Zagora
- C29: Automobiles - Lovech, Yambol
- C30: Other vehicles - Ruse and Varna

Figure 2.



Low tech manufacturing

Group of low-tech industries covers economic activities of C10 to C18 by CEA-2008 (NACE) and C31 economic activities "Manufacture of furniture" and C32 "Other manufacturing".

The group employs over 307,000 people, of which over 232,000 (75.5%) in SMEs. This is a group of production sectors, which employ the largest number of employees. Total group is characterized by an average level of specialization, as 56.7% of the employed are in areas with pronounced regional specialization due to the relatively even distribution of manufacturing enterprises of the food industry.

The highest concentration of the group of low-tech industries is observed in the Southwest and South central, and Northern and Central region.

The combination of regional specialization and enterprise density yields the following conditions for clustering by sector:

- C10: Food - Plovdiv, Yambol and Sliven
- C13: Textiles - Gabrovo and Sliven
- C14: Clothing - Blagoevgrad, Rouse, Haskovo
- C15: Leather and Shoes - Kyustendil, Blagoevgrad, Pazardzhik
- C16: Wood - Smolyan and Lovech
- C17: Paper - Sofia, Plovdiv, Pazardzhik and Veliko Tarnovo
- C31: Furniture - Lovech, Pazardzhik, Ruse, Gabrovo

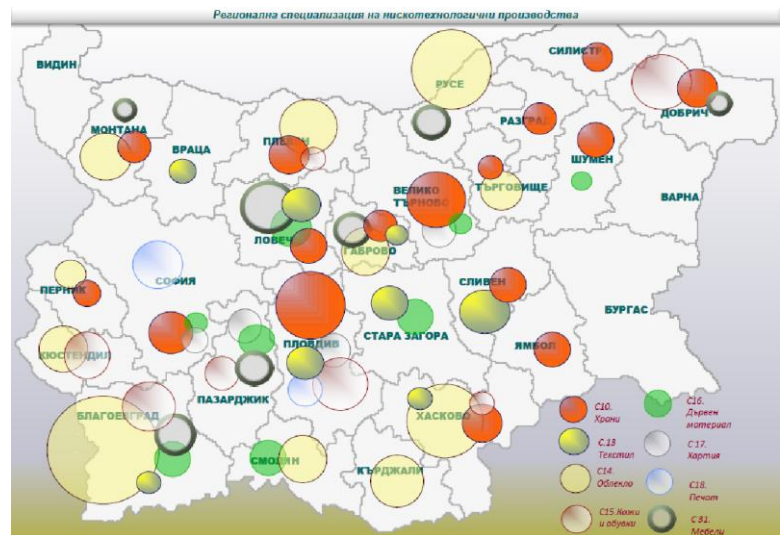


Figure 3.

3. REGIONAL SPECIALIZATION MAPS

Figure 4.

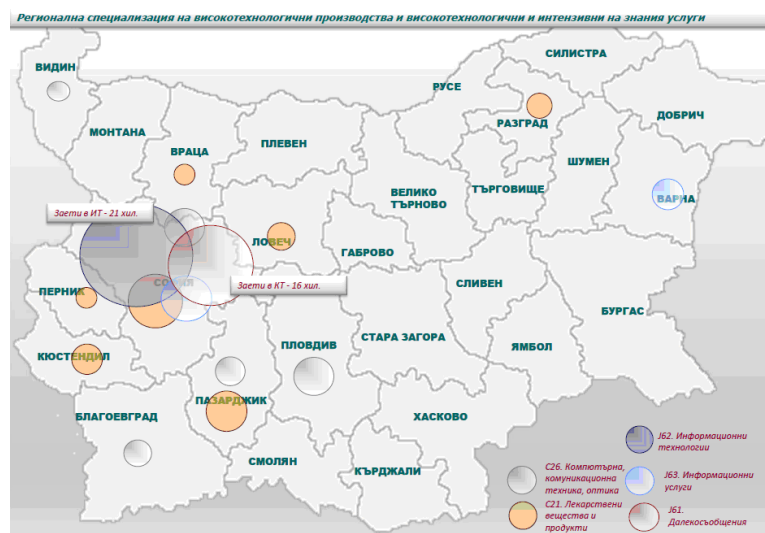
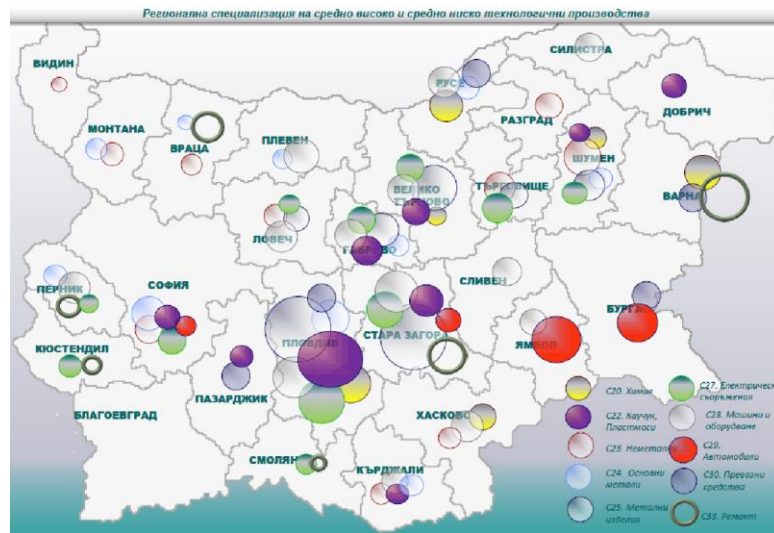


Figure 5.



CONCLUSION

The combination of regional specialization and enterprise density can be a good basis for the formulation of more precise measures to support the creation of energy efficient enterprises, the clustering of existing businesses and the creation of technology parks and business incubators for the relevant sectors.

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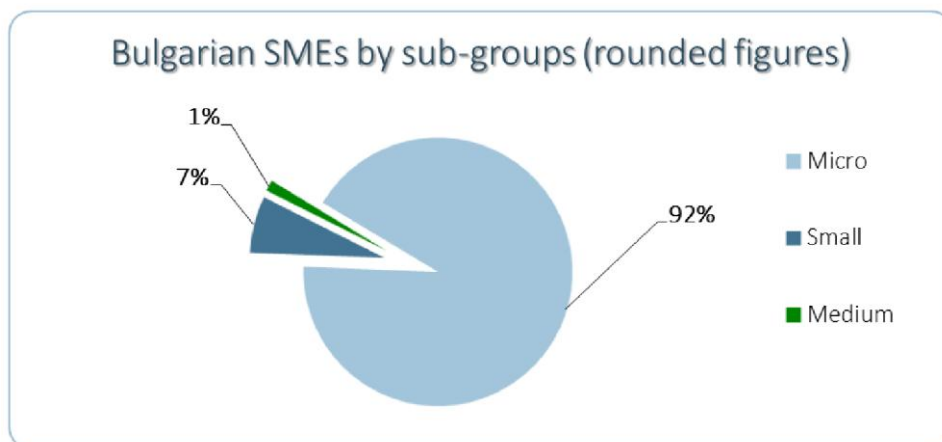


Figure 6. Subgroups of the Bulgarian SME Sector

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STUDY ON INNOVATIVE CAPACITY OF SMEs AND CLUSTERING EFFORTS ACROSS REGIONS BARRIERS AND FUTURE CHALLENGES IN CASE OF ROMANIA

ABSTRACT

This study presents the role and significance of clusters in EU, emphasizing the situation in Romania. In the paper, topics like: the role of SMEs in the national economy, the entrepreneurial performance (quantity vs. quality) and the business environment in Romania will be detailed.

It will be presented the actual situation of already existing, and also potential clusters in Romania, and their characteristics. The analysis will be made across regions.

Research studies confirm a strong positive relationship between productive entrepreneurship and an economy's innovativeness. Productive entrepreneurship generates economic wealth through innovation. In this respect, the innovation capacity of enterprises in Romania will be studied. The clusters being considered key-factor of innovation enhances the fact that cluster policies needed a special place in the EU general policy. In this respect, EU cluster policies, their role in general EU policies and the cluster policies in Romania will also be presented.

The findings of the study can be useful for policymakers to formulate policies in concordance with priorities.

Keywords: innovation, cluster, development, entrepreneurship, EU, Romania

JEL Classification: C38, O1, O3, O52

1. RESEARCH BACKGROUND

Globalization is one of the major trends worldwide, which imply increased international competitiveness. The technological changes request qualified employee. The way these challenges being faced by Member States, by economies worldwide depend mainly on their national socio-economic and cultural background, framework.

It is widely acknowledged that the main driver of growth is innovation. The clusters are considered the key-factor of innovation. This enhances the fact that cluster policies needed a special place in the EU general policy.

A study on the clustering efforts in the case of Romania presents a challenge and can be approached by two ways: from a theoretical point of view or through a practical one. In this paper, to have a real image of the cluster development both theoretical and practical approach will also be used.

In the case of Romania, to intensify the clustering efforts, it is essential to implement on mid and long term carefully formulated strategies. The policies must be scientific based because on one side its effects can be seen only in 15-20 years and in a same time must facilitate the fulfillment of the Europe 2020 strategy requirements. The main question for the policymakers is how can be identified the most suitable policies, and how the policy options can be prioritized in order to implement those with a greatest impact on the development. Romania lags behind the Member States in many respects, on different fields. (WEF 2015, IUS 2015) The position of Romania in international rankings shows that it is a necessity to be identified the main barriers toward the development.

Concerning the cluster development, we have to note that in Romania before 1989, there were already industrial districts.

It is important to mark that the changes in 1989, the realignment efforts to the market economy were more difficult than in other Central and Eastern European countries. (Vasile, 2002). "At the beginning, the government tried to reduce the social costs of the transition and for this reason it hesitated to introduce the tightening of financial system and it started the privatization of a big non profitable enterprise. The result was a negative economic growth; the poverty level from 20% in 1996 decrease to 41 % in 1999.

From 2000 the Government started to implement macroeconomics policies to help and to encourage the economic growth. A tightly controlled financial policy was followed by monetary policy which created a financial discipline in the enterprise sector and a solid base of public finance and fiscal system." (Szabo, 2011)

In Romania the industrial concentration again can be observed only after 2001. The definition of the clusters by law, the cluster policies have been implemented after 2000. The government sustained the clustering efforts and claimed initiatives, projects having the aim of the identification of the existing clusters and potential clusters. From 2008 the Ministry of Economy, Commerce and Business Environment (MECMA) have been deeply involved in the identification process of the existing and emerging clusters. (Clusterro)

2. ROLE AND SIGNIFICANCE OF CLUSTERS IN EU

Nowadays, it is widely accepted that clusters are drivers of change, are drivers for the economy development (Figure 1).

From historical point of view, the main events which helped and accelerated the general recognition of the clusters, are the followings: the European Commission analyzis on the transnational dimension of clusters in Europe (EC, 2006); the Article 13 of Decision No 1639/2006/EC which stated the „important role of clusters for competitiveness and innovation as instruments for closing the gap between business, research and resources” ; the creation of the European cluster observatory in 2006 (in 2007 its homepage was launched) which gives data, reports on clusters (clusterobservatory.eu); the European Commission Comunicate 652/2008 adopted that the clusters can be considered as the engine of the economic development. (Towards world-class clusters in the European Union; COM(2008) 652 final)

The impact of these activities was the collection of high number of national measures from European countries for cluster development and a call for strategic policy orientation and cooperation which was launched by EC concerning cluster development.

The clusters were recognized as key-factor of the national strategies for innovation and Member States started to be encouraged to implement cluster policies on national level and to formulate and implement measures to promote and develop clusters.

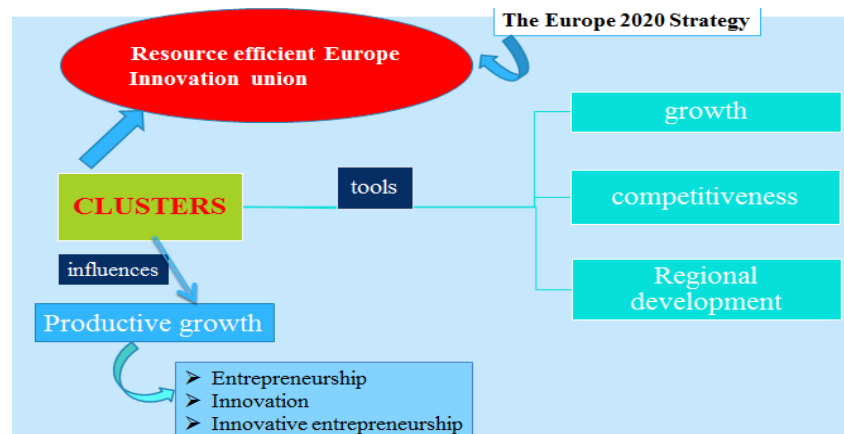


Figure 1

The role and significance of clusters

Recource: Own construction

EU Policy for Clusters

„Cluster specific policies aim at mobilising the inherent capabilities of clusters and spurring their upgrading over time.” (EC, 2006) But, policies which sustain the cluster development are not only explicitly „cluster policies”. The innovation policies, the regional policies, the research policies, the industrial and SME policies, all have significant impact on clusters.

The basic principle for EU must be the sustainable development strategy (Szabo, 2011) but the political agenda is dominated by the competitiveness (Lisbon Agenda). The Europe 2020 Strategy has been formulated in order to assure for Europe a place in top in international ranking and to assure social wellbeing (to create workplaces, high life standards, measures to fighting the crisis (see Figure 2)).

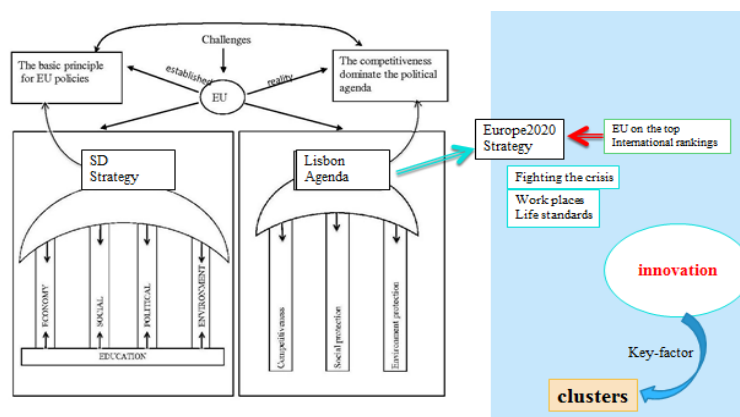


Figure 2

EU general policy and clusters

Recource: Own construction

To innovation, admitted as the engine of growth, was allocated an important role in Europe 2020 Strategy. The clusters, as key-factor of innovation, have a special place in the general policy of EU. The European Cluster Policy Group was created by Commission Decision on 22 October 2008 in order to analyze the cluster policies across Europe for the period 2008-2010. (European Cluster Policy Group; 2008/824/EC)

The cluster policies are enrolled in one of the following categories: cluster development policies, cluster leveraging policies, cluster facilitating policies. (Cluster policy in Europe, 2008)

3. CLUSTERS IN ROMANIA

A research study on cluster development in Romania (Pislaru & Aristide, 2005) outline that the clusters as „an agglomeration in space of the companies” can be „natural and public”. The Romanian government, promoting the cluster development through public policies, in order to emerge the firms agglomeration, created the „public clusters” which by law are stated as industrial parks, research and technology parks. The natural clusters can be identified through statistical and quantitative analysis. These two types of clusters are recommended to be analysed segregated.

3.1 Research studies and projects on Romanian cluster existence

The Government encourage the initiatives, research projects which are focused on the identification of the potential clusters in Romania.

The first study was elaborated in 1998 for the World Banks’ Institute for economic development, coordinated by the International Center of Entrepreneurial Studies (CISA) from Bucharest. Three clusters were identified in incipience form: in software manufacturing, nautical industry, and wood industry. („Avantajul Competitiv al Regiunilor: Evaluare a Competitivitatii de tara”, 1998)

The second study, elaborated by Marco Riccardi Ferrari from Bocconi University of Milan, was published in 1999, and identifies three „proto-districts” in the wood, pottery and textil industry. (Ferrari, 1999)

In 1999, the study of Ionescu Valentin appeared, who analysed the previous publications and noticed the methodological differences and the fact that the notion of cluster is not clearly defined. In conclusion, the existence of two proto-clusters in the pottery industry and software manufacturing were confirmed.

The first European projects on clusters (see Figure 3) have started in 1999: the INTERREG II C- CADSES (VICLI -Virtual Clustering Identification and Dissemination of Strategic Territorial Planning Best Practices for certain countries of Danubian and Southern Europe), followed by INTERREG III B CADSES (INCLUDE- Industrial cluster development); the WIED – West-East Industrial districts (2001-2004)- FP5 program; CURAS –Clustering and Upgrading Romanian Automotive Suppliers (2003-2004). A detailed presentation can be found in the research paper published in 2012 by Reviu. (Reviu, 2012)

3.2 Map of identified clusters

The *definition of cluster* was given by law, GO 918/2006 – Program “Impact”- as a group of producers, beneficiaries and/or customers in order to put in application the European best practices to increase the competitiveness.

The cluster Associations in Romania was founded in 2011, by 15 founding member clusters and later other 6 clusters joined. The Association is member of Enterprise Europe Network. The aim of the association is „advertising Romania and the country’s economic recovery and development, by supporting the creation, development and cooperation between clusters at regional, national and international level.”(<http://clustero.eu/romanian-cluster-association/>) A clusters which follow the “Triple Helix” model completed eventually with catalyst organization can join the association. The Association is a cross-sectorial organization. The main industries which can be distinguished within the association are: textil, automotive, wood and furniture, electrotechnical and energy.

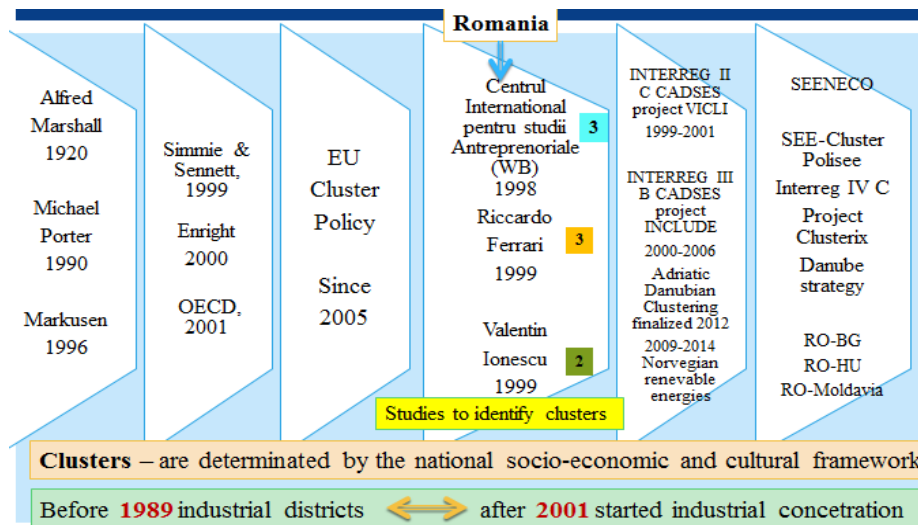


Figure 3

Short review of the literature on the potential cluster identification in Romania

Recource: Own construction

A detailed presentation of the Romanian experiences, general considerations and a map on existing clusters can be found in the report elaborated in the frame of a bi-lateral cooperation agreement between the German Government (represented by the GTZ) and the Romanian Ministry of Economy published in 2010. (Guth & Cosnita, 2010)

The cluster concept used for identification was a modified Triple Helix approach. The drivers for the success of the clusters were also determined: concentration, R&D units, labour force, cooperation and service suppliers. 55 clusters were identified, but the lack of cooperation and the lack of the availability and utilisation of innovation services reveal a slowdown of the development.

Finally, the report recommends a three layer policy approach (elite clusters on national level, to support regional clusters in order to become nationally recognized and to facilitate the cooperation among partners to create environment for cluster creation).

A study report published in 2011, makes a detailed presentation on existing and potential competitiveness poles and clusters in Romania. (Analiza situației existente privind polii de competitivitate existenți și potențiali din România, 2011)

In the case of Romania, the term of “cluster” and “pole” means different aspects. The *clusters* are used for industrial agglomerations, as Marshall defined, and not necessary follow the “Triple Helix” model. The “*competitiveness pole*” is used in the case of association of enterprises, research centres and institutions which cooperate in order to implement a common development strategy. A comparative analysis between cluster and pole can be found on the pages 25-26 of the Report.

The used qualitative indicators in the analysis were: importance, size, concentration, field of activities, export and innovation (based on innovation Scoreboard methodology).

The used quantitative indicators were: geographical concentration, R&D, labour force, cooperation, internationalization and catalyst institutions. The qualitative analyses results were the identification of 35 clusters and potential competitiveness poles (pages 73-75). 12 clusters were identified having potential to become competitive pole on national level. Final conclusions of the study: in Romania the clusters were formed spontaneously –“bottom up”; since 2009 the Ministry of Economy, Commerce and Business

Environment, the Directorate of policies for industry had an acceleration role in the clusters' and pole creation. The catalyst organizations, institutions have a significant role in the cluster development process.

A study published in 2013 on the competitiveness of Romanian clusters (Cosnita & Iorgulescu, 2013) notice that at the Directorate for Industrial Policy, at the Ministry of Economy are listed 47 clusters. Only the clusters which have signed documents and can prove cooperation activities, „the four clover models” were registered. From these, only 21 are member of the Romanian Cluster Associations (<http://clustero.eu/asociatia-clusterelor-din-romania/>).

Regarding the development level of clusters (creation, development, excelency, internationalization) a huge gap can be identified between west and east Europe. In west Europe, the majority of the clusters achieved excelency, recognized by gold medal but in Romania, there are only on the first level, the clusters have been started to be created. The study used the same methodology as the previous report regarding the quantitative and qualitative analysis.

Based on the presented studies above, we can observe that in Romania, 55 clusters and potential clusters were identified. The identified clusters have activities in 28 different fields, cluster themes. (see Figure 4) This heterogeneity shows that the clusters are really local initiatives.

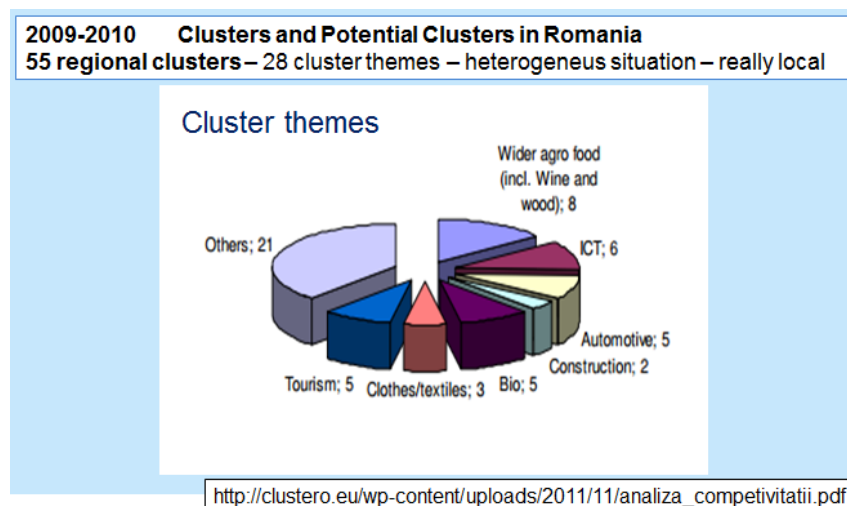


Figure 4

Cluster themes

Resource: Own construction

Next the distribution by regions of the identified clusters will be presented.

Figure 5 presents the total number of identified clusters in each region and their field of expertise.

On Figure 5 to each region we associated two numbers. The numbers at the left side represent the total number of identified clusters and the numbers on the right side show how many are innovative from the total number of clusters. In NE region 8 clusters were identified but only one passed the criteria of actual *cooperation* and availability/usage of *innovation* services, thus only one can be considered innovative cluster.

In the North-East (NE) region 8 cluster were identified, in the South-East (SE) region 5, in the South (S) region 8, in the region of Bucharest-Ilfov 8, in the South-West (SW) region 6 in the West (W region) 8, in the North-West (NW) region 7 and in the Center (C) region 5 clusters.

It is important to keep in mind that only 19 clusters from 55 passed the criteria of actual *cooperation* and availability/usage of *innovation* services and their distribution by regions can be seen on Figure 5 (NE-1; SE-2; S-3; B-I 4; SW-3; W-2; NW-1 and C-2).

The lack of cooperation is a general characteristic of the Romanian clusters. From 55 identified clusters only 38 clusters have signed documents on collaboration with universities or R&D units, research centers.

In 2015, at the national Conference of Cluj-Napoca 75 clusters submitted their participation. Based on that, it can be stated that the number of existing and potential clusters achieved the number of 75, fact which underlines that the cluster creation is an ongoing process which evolves, increases over time, and that the clustering efforts have a central place in general policies, and this shows results.

Moreover, as a positive result it can be noted that in 2015, 12 cluster were certified by EU, and other 5 clusters started the recognition process.

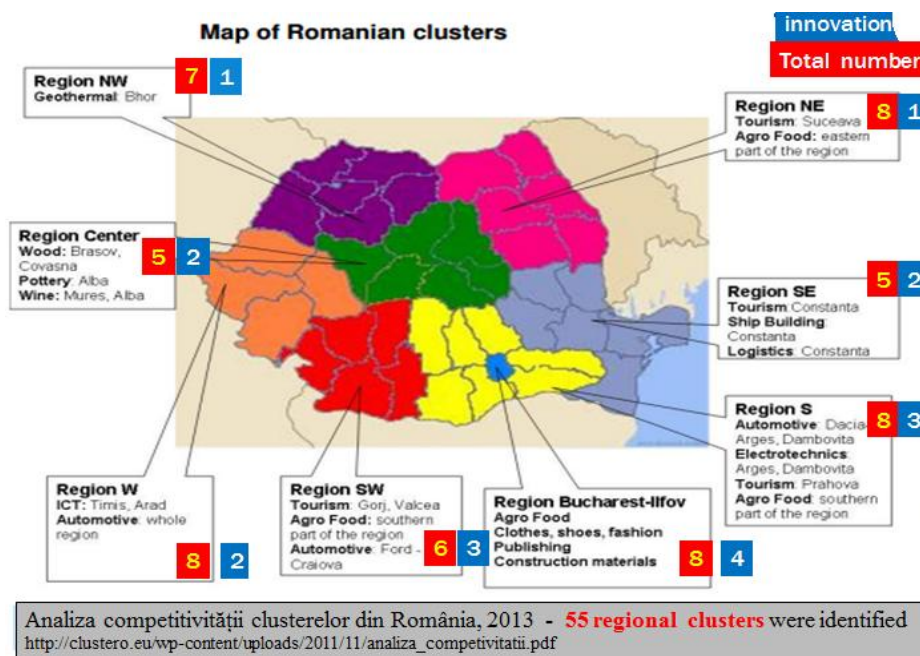


Figure 5

The map of Romanian clusters by regions

Source: http://clustero.eu/wp-content/uploads/2011/11/analiza_competitivatii.pdf

3.3. INDUSTRIAL AND TECHNOLOGICAL PARKS

Furthermore, the situation of industrial and technological parks in Romania will be examined, to better understand the relation between clusters and industrial, technological parks. We are interested in the following questions: the development of industrial and technological parks have impact on cluster development or cluster initiatives or they don't depend on the existing industrial parks effort; in the regions where the number of industrial, technological parks is high, the number of clusters, innovative clusters is high also?

Between 2004-2007, the National authority for Scientific Research through the INFRATECH program facilitated the creation of national network on innovation and technology transfer. After 1990, in Romania technology and research parks and incubators, centers for information were created. (Analiza situației existente privind polii de competitivitate existenți și potențiali din România, 2011, pp 20-21)

Figure 6 shows the total number of industrial, technological parks, their distribution on national level and the identified innovative clusters in the counties. 54 technologic transfer and innovation entities were accredited by ANCS based on GO 406/2003 members of National Network for Innovation and Technologic Transfer (ReNITT) and member of EEN. The presented data show that there is no connection between clustering efforts and active industrial parks. In County Brasov (BV) 10 industrial parks can be identified but only 3 clusters were detected. In county Covasna (CV) 6 clusters were recognized but no industrial parks were identified.

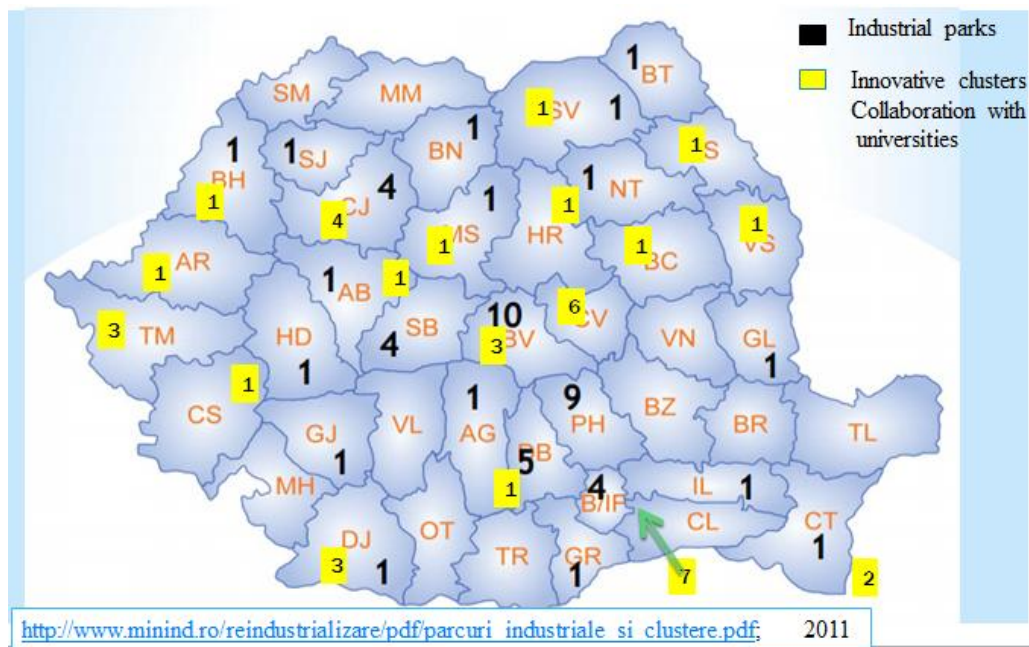


Figure 6
Industrial parks and innovative clusters in Romania

3.4. GENERAL CHARACTERISTICS OF ROMANIAN CLUSTERS AND FUTURE CHALLENGES

The most successful models for clusters are the French—the centralized type; the German—the complex model—conjunction of the flexible scheme of assistance on central and regional level and the Swedish one—the successful implementation of the theoretical “Triple Helix” (industry-research-authorities) model.

The *Romanian realities* ask for an adaptation of the “Triple Helix” (industry-research-authorities) model, because of the lack of cooperation. A catalyst organization would be needed.

In conclusion, it can be noticed that in Romania the clusters are results of local initiatives, without mid and long term strategy; they are rare on national level. The business environment is not suitable for the cluster development. For Romania the „triple helix model” is not suitable. The „four clover model” can be adapted for the Romanian cluster form.

Clusters can appear in a favorable environment. This environment which leads to the development of clusters should have functioning networks, partnerships in a prosperous business environment; qualified resources

and efficient workforce; those interested, should have unlimited access to knowledge and information and a proper infrastructure should be given where innovation could take place.

To sum up, the development of qualitative entrepreneurship, the opportunity driven entrepreneurship must be facilitated.

All these can be created if the existing barriers are identified and policies are implemented to eliminate them.

The future evolution will depend on how these challenges are faced today. It is vital in which way the technology transfer will be accelerated, how the government will sustain the innovation, how EU funds for development will be attracted, in which way cluster initiatives will be encouraged.

One of the main problems is the lack of trust, this is the biggest challenge - how should be approached this problem, what can be done to increase the confidence among people. By increasing the confidence the cooperation can be accelerated. Policies need to sustain exports and to promote cluster initiatives. National strategy and action plan must be formulated. Access to training, education is essential to encourage the cluster development efforts.

The Romanian clusters and their economic benefits are presented briefly in the research paper published in the Romanian Economic Journal. (Reveiu, 2012)

In Romania, the cluster policies are in incipient phase, and they present political engagement. Cluster policies are determined as a mix of research policies, innovation policies, industry policies, policies for SMEs. In 2009, the industry policies for 2011-2013 had a whole chapter for clusters (competitiveness and innovative clusters).

We can also say that regional potential exists, there are initiatives but the clusters aren't powerful, the clusters are without impact on education system which after all, assure for them labour force.

It is essential to take into account that not only technical barriers must be eliminated. "The most difficult challenge of the transition in the post communist countries is to change the mentality of individuals." (Kenny & Trick, 1994) (Suutari & Riusala, 2001)

This fact is underlined by statistical data. The state of cluster development is analysed and published yearly by WEF. The global competitiveness report publishes the value of this indicator calculated based on the geographic concentrations of firms, suppliers, producers of related products and services, and specialized institutions in a particular field.

The data, which permits the comparison of the economies, enroll the Eastern European countries behind developed economies. However, from other points of view, based on the countries geographical position, countries positioned closer to developed economies are ranking before those which are positioned far. Table 1 and Table 2 presents the ranking of economies on the state of the cluster development and Romania is between leaders among Black Sea region countries but lag behind West European countries.

1	Taiwan, China	5.6
2	Italy	5.5
4	Germany	5.4
12	Finland	5.1
30	Turkey	4.4
75	Azerbaijan	3.8
84	Armenia	3.6
96	Romania	3.5
108	Bulgaria	3.3
111	Hungary	3.3
116	Georgia	3.2
124	Russian Federation	3.1
128	Greece	3.0
129	Serbia	3.0
136	Ukraine	2.9
147	Moldova	2.3

Table 1

1	Italy	5.6
3	Germany	5.5
36	Turkey	4.3
70	Romania	3.8
91	Hungary	3.5
99	Azerbaijan	3.4
112	Georgia	3.2
113	Armenia	3.2
115	Serbia	3.2
118	Russian Federation	3.1
125	Greece	3.0
126	Albania	3.0
128	Ukraine	3.0
129	Bulgaria	3.0
144	Moldova	2.4

Table 2

The ranking of economies on the state of the cluster development

Source: WEF, 2013 and 2015

3.5. INNOVATIVE CLUSTERS IN ROMANIA

In the Official Journal of EU - Community Framework for State and for Research and Development and Innovation (2006/C 323) on page 9, the innovation cluster is defined as: “groupings of independent undertakings-innovative start-ups, small, medium and large undertakings as well as research organizations-operating in a particular sector and region and designed to stimulate innovative activity by promoting intensive interactions, sharing of facilities and exchange of knowledge and expertise and by contributing effectively to technology transfer, networking and information dissemination among the undertakings in the cluster. Preferably, the Member States should intend to create a proper balance of SMEs and large undertakings in the cluster, to achieve a certain critical mass, notably through specialization in a certain area of R&D&I and taking into account existing clusters in the Member State and at Community-level.”

A research study on innovative clusters published in 2011 underlines that innovative clusters don't have a commonly accepted definition in the professional literature. (Dudian, 2011) Dudian made a comparative analysis in her paper on the definitions given by Bessant and Tsekouras in 2001, OECD in 1999 and Bortagaray&Tiffin in 2000. Bortagaray and Tiffin divided the industrial clusters after their intensity on innovation in three subcategories: innovative industrial clusters, proto innovative clusters and mature innovative clusters.

The main findings of the paper regarding innovative clusters in Romania:

- in Romania exists one mature innovative cluster, in automotive industry – Dacia-Renault;
- most of the „institutional clusters from Romania are very young and they have not proved yet their growth potential and innovative character”. (Dudian, 2011)

4. INNOVATION CAPACITY OF ENTERPRISES

It is not possible to talk about clusters without innovation. To encourage and to sustain the clustering efforts the innovative capacity must be improved on national level. Furthermore, we will present the innovative capacity of Romanian enterprises and the evolution of innovative SMEs.

It is widely accepted that technology and innovation increase the economic competitiveness and have a significant role in social and economic development. Measurement frameworks of the innovation performance were elaborated on European and on international level. The Innovation Union Scoreboard is a European framework, and calculate the SII (Summary Innovation Index) based on 25 different indicators, grouped in 8 innovation dimensions, incorporated in 3 pillars, from which two are built on the innovative efforts at the level of the enterprise (firm activities and on the firm innovative activities effect - outputs). The Innovation Union Scoreboard enrolled the EU Member States in four groups based on their average innovation performance (IUS, UNU-MERIT, 2012; 2015). Romania belongs to modest innovators group.

The **Global Innovation Index (GII)** is international framework and is calculated based on 2 sub-indices, built on totally 84 indicators. (Source: INSEAD, Global Innovation Index 2011/2012; 2015).

The **NRI (Network Readiness Index)** is defined as a nation's or community's degree of preparation to participate in and benefit from information and communication technology developments. The 2012 report (Dutta & Beñat, 2012) analysed the economies through 10 pillars. It has been published since 2000-2001.

The readiness, the infrastructure, the competencies, skills, the availability, usage all have significant role in the development. The impact of NRI on innovation and competitiveness is presented on Figure 7 and Figure 8.

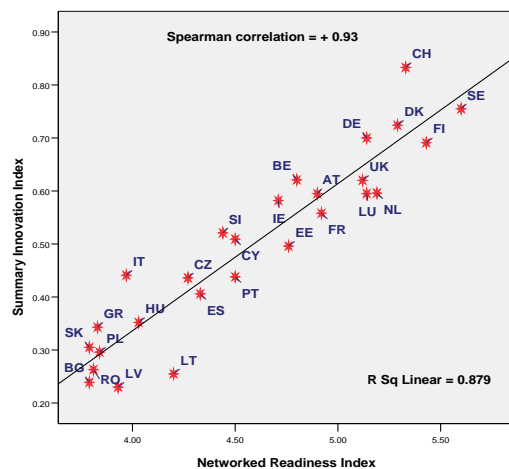


Figure 7

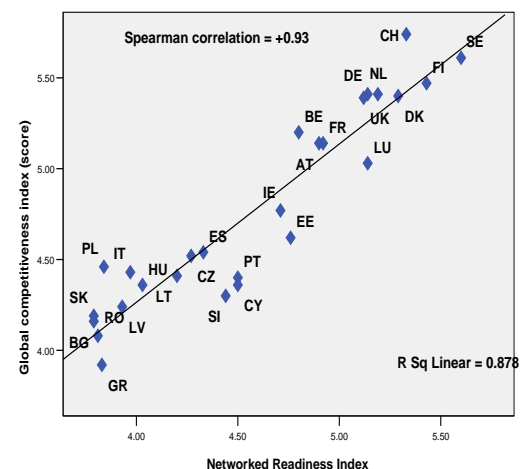


Figure 8

Source: (Szabo & Herman, 2013)

Based on publicly available databases (SII, NRI, GII, Eurostat) Romania lag behind developed economies, it was ranked on last places in EU on many indicators. A detailed comparative analysis across EU on the innovation capacity and performance of Romanian enterprises is presented in the paper published in 2013. (Szabo & Herman, 2013).

Innovative SMEs in Romania

In the last period the evolution of Romanian SMEs haven't presented significant changes, from 2005 the number of active SMEs varies around 400 thousand. The business environment based on Doing Business methodology improved significantly in 2015, compared with the data from 2013, Romania improved its position with 25 places in ranking (Table 6). The improvement in rank was obtained mainly due to the implementation of e-payment procedure. The number of SMEs/1000 inhabitants is under EU average.

YEAR	2000	2001	2002	2003	2004	2005	2006	2007
Number	308 064	311 260	315 105	349 061	394 519	433 030	461 812	499 857
Enterpr.								
SMEs	306 073	309 303	313 159	347 064	392 544	431 135	459 972	498 014

Year	SMEs	Large	Total
2010	436.508	1.527	438.035
2011	437.042	1.588	438.630
2012	441.362	1.651	443.013

Romania	DB 2009	DB 2010	DB 2011	DB 2013	DB 2014	DB 2015
	45	55	56	73	50	48

Source: INS, MEBE, ONRC

Table 6

The analysis of the innovative SMEs in Europe is in concordance with the Oslo manual (OECD, Statistical Office of the European Communities, 2005) and is realised based on the CIS Survey data.

The number of innovative SMEs in Romania shows a decreasing tendency. The motives are multiple and have also economic and cultural background. The data for Romania is presented in Table 3. The inexistent own funds for innovation, high innovation costs, and the lack of experience are considered as main barriers. Cooperation is another weakness of the Romanian innovative SMEs. 17.3 % of innovative firms between 2004 -2006 respectively 13.8 % between 2006 -2008 have signed documents on cooperation.

	2002 - 2004	2004 - 2006	2006 - 2008	2008 - 2010	2010-2012
Innovative enterprises (%)	19.9 %	21.1 %	33.3 %	30.8 %	20.7 %
The number of innovative enterprises	5136	5970	9986	8116	5968

Innovative SMEs		2002 - 2004	2004 - 2006	2006 - 2008	2008 - 2010	2010-2012
Technologic innovator	Product innovator	472	525	710	631	351
	Process innovator	1203	1169	1965	948	706
	Process and product innovator	3461	4276	3073	2054	634

Table 7

Analysis of innovative SMEs in Romania

Source: NIS, Press communication no. 124, 30.06.2008; no. 269 2010; no. 153 28.07.2010; no. 29 8.02.2012; Nr. 178. 28.07/2014, own calculations

The distribution of innovative SMEs at NUTS 1 level is presented in Table 4. Huge differences can be observed between the regions concerning the numbers of innovative SMEs.

NUTS 1	The weight and number of innovative firms 2004-2006		The weight of innovative firms 2006-2008	The weight of innovative firms 2010-2012
	Weight	Number		
N-V and Centre region	20.7 %	1236	29 %	33.2%
N-E and S-E region	34.7 %	2071	45.9 %	68.7%
South-Muntenia and Bucuresti-Ilfov	16.8 %	1003	34.2 %	35.8%
S-Vest- Oltenia and V	12.1 %	722	22.6 %	34.2%

Table 8

Figures 10, 11 and 12 show the differences across counties. Comparing each county’s economic development level measured by GDP value and the number of innovative clusters, it can be observed that where the level of innovation is higher there the county is more developed economically. Table 5 presents an overview of GDP value evolution on development regions, and it can be observed easily the share of each region in total GDP.

2012	2013	2014	2015	2016	2017	Years
587,5	625,6	658,6	692,2	730,3	771,6	Total economy
63,9	67,6	71,1	74,6	78,7	83,1	NE
62,8	66,1	69,5	73,2	77,3	81,6	SE
73,4	79,1	83,3	87,4	92,3	97,5	S
47,8	52,3	55,1	58,0	61,2	64,7	SW
59,9	63,9	67,2	70,5	74,3	78,5	W
62,6	66,7	70,1	73,7	77,7	82,1	NW
67,5	72,6	76,5	80,4	84,7	89,6	C
148,8	156,4	165,0	173,6	183,2	193,6	B-I

Table 9.

GDP by development regions for the period 2012-2017

Source: National Institute of Statistic, <http://cursdeguvernare.ro/evolutia-pib-pana-in-2017-si-lipsa-coeziunii-interne.html>

The government support on the equipment attainments decreased in the last period, the knowledge transfer is not sustained and not encouraged sufficiently. (Table 10)

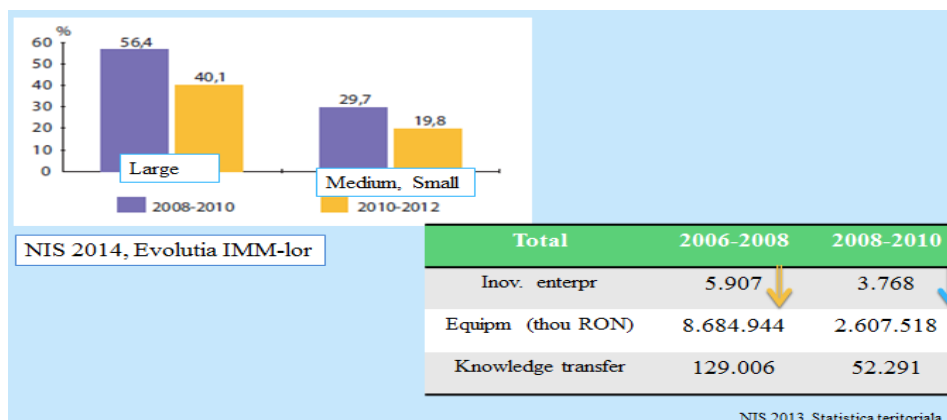


Table 10.

The sources of information are universities for 4.1 % of innovative SMEs in the period of 2004 -2006, and for 5.1 % of SMEs in the period of 2006-2008. 3.5 % of innovative SMEs used research centres to obtain information between 2004 -2006, and 3 % of between 2006-2008. Data underline the lack of cooperation.

So again, we can see that Innovation is a key-factor of economic development. In developed economies with high SII score the GDP is also very high and the level of competitiveness is also determined by the level of innovativeness (the calculated Spearman correlation was 0.89).

Research studies, European reports show that in Romania the innovative clusters are not sufficiently developed. Comparative analysis on EU level shows that Romania lags behind EU countries on innovation and also its number of innovative SMEs is very low.

Based on data from Global Entrepreneurship Monitor Report, in post communist countries the number of necessity driven entrepreneurial activities is very high. In developed economies the necessity driven entrepreneurial activities are on very low level (Figure 9), and the level of opportunity driven entrepreneurial activities is high (Figure 10) - this is a characteristic of innovation driven economies (stage of development after WEF).

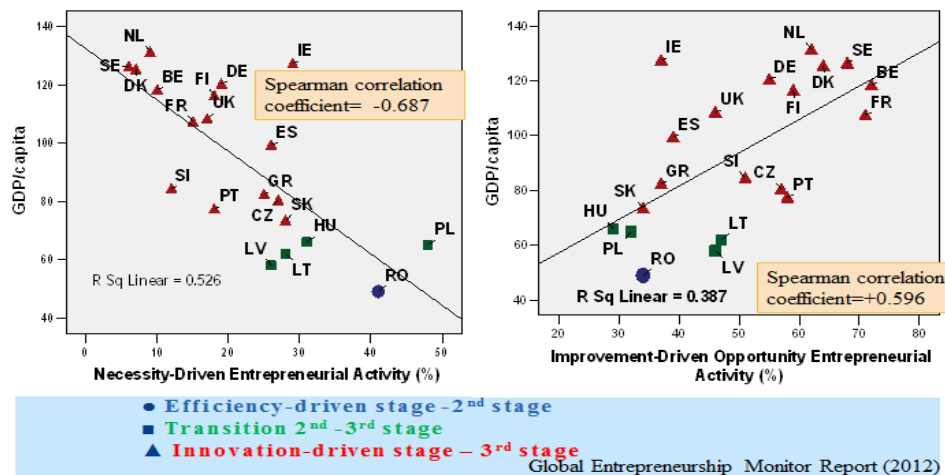


Figure 11.

Figure 12.

Framework to measure the quality of entrepreneurial activities was introduced. The indicator is named GEDI-Global Entrepreneurship Development Index. A brief analysis across Europe was published in Szabo & Herman, Productive Entrepreneurship in the EU and Its Barriers in Transition Economies: A Cluster Analysis, 2014.

5. CONCLUSIONS

The clusters recognized as drivers of change, drivers for economy and development present a priority in general policy of EU.

Policies must follow priorities such as: creating a favorable business environment for growth and innovation, diffusion of the knowledge, enlargement of the innovation support, mission oriented strategies, upgrading human resources, access to skills and competencies, abilities to learn, promotion of organizational change, technological change, productivity and competitiveness.

Country reports, presented in this study, on cluster development, recommend a three layer policy approach for Romania. Policies are needed to create and to sustain elite clusters on national level. In the same time, it is important to have policies that support regional clusters in order to become nationally recognized.. In this

respect, policies are needed to facilitate the cooperation among partners in order to create a favorable environment for cluster creation.

Romania lag behind developed economies in many respect such as: innovation, competitiveness, readiness to use ICT, productive entrepreneurship. *The Europe 2020 Strategy* flagship initiatives: innovation, education, information society, climate, competitiveness, labour market which represent challenges for Romania. Short and long term strategies are needed in order to increase the innovative capacity of enterprises (the value of SII), policies must encourage to enhance innovation. These present the starting point for innovative cluster creation.

The local particularities must be identified and must be encouraged clusters which can leverage them.. In this respect, suitable local, regional and national strategies are needed in correlation with the local particularities.

To sustain and encourage the cooperation, policies are needed which stimulate the technology transfer and the commercialization of the academic research; which improve the partnership between universities and SME sector, between regional government, high schools and SMEs and enable students to achieve practical experience in small enterprises during their study.

To increase economic competitiveness, the development of the innovation infrastructure and the dissemination methods of research results for industrial and commercial applications shall be encouraged. The national R&D and Innovation Plan shall encourage companies to take part in corporations and to initiate innovation projects. To increase the competitiveness of human resources employed in SMEs, financial measures shall be instituted to support researchers' mobility to investments in the business environment.

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The color of the Autumn in Balatonalmádi

Photo © by Antal Szabó



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**SME CLUSTERING: HOW TO FIND THE RIGHT BUSINESS PARTNERS/
IMPROVING THE BUSINESS ENVIRONMENT FOR SMES IN RUSSIA****ABSTRACT**

The article is devoted to the implementation of cluster policy and the creation of innovative regional clusters in the Russian Federation. Within the frames of the Concept of long-term socio-economic development of the Russian Federation, which will be implemented until the year of 2020, government of the Russian Federation defines goals and priorities for achieving sustainability of the economy and socio-economic indicators, as well as improvement of the quality of life of the population. Currently, in addition to these strategic objectives, is set up a program of state support with the goals to modernize and stimulate innovation in Russia. Improvement of innovation development and management had become an integral part of economic activities of enterprises, regions and countries. Therefore, the operation of innovative regional clusters in the regions of Russia is not only an issue of creating highly efficient and highly competitive economic activities but also an issue of improving the quality of life in the country and development of society in general.

The article considers also the impact of regional clusters infrastructure on the country economy and covers the issue of SME performance evaluation in innovative clusters and perspectives of clusters development in Russia.

Keywords: Clusters, Russian Federation, regional economy, innovations, policy, state program, small business.

JEL Classification: C38, O25, O31.

1. ENTREPRENEURIAL ACTIVITY, SME AND CLUSTER DEVELOPMENT

The Russian economy is currently going through hard times; the economy is experiencing deflation, which is caused by a number of external and internal factors. It was affected by a slowdown of the world economy, the fall in oil prices, as well as the political circumstances: sanctions against Russia and food sanctions taken by Russia itself.

Certainly, difficulties in the economy in the first place are hit by the weakest link, the small and medium enterprises, which, unlike large-scale industry is not among the priorities of the economy and do not receive adequate state support.

However, according to the Russian government's analysis of current economic situation, it should only strengthen the economy, as there are even more opportunities for development.

The structural reforms that were initiated in the mid-1990s have not been brought to fruition and market mechanisms have not work in full force. One of the main obstacles was the monopoly of big business.

Russia's economy has gone through a process of deep transformation in the last twenty years. At first it was mainly the development of market institutions and the progressive dissemination of market rules. Despite its huge natural resources and large domestic market, Russian economy now declines with the low oil prices and introducing of food embargo.

In that sense, there is no key receipt to improve competitiveness of a national economy. In particular, recent theoretical research and empirical studies point to the key input of innovation and the role of small and medium firms (SMEs) in boosting economic development. Convincing contributions to the analysis of the role of SMEs can be found in particular in a whole range of studies published by the international financial institutions such as the United Nations Conference on Trade and Development (UNCTAD), or the World Bank. It is also a particular topic of attention in the European Union (EU) and in most of national economies. [1]

Although precise data is unavailable, World Bank research across the world's economies has estimated that SMEs consistently form around 95 % of existing businesses and employ approximately 60 % of private-sector workers. They are also believed to contribute about 50 % to world gross value added (GVA). [2]

Moreover, because of their dynamism and flexibility, they are crucial for the creation of jobs and, in many countries; they are in fact practically the only source of new jobs. It is the case in developed countries, where big firms tend to downsize and delocalize their labor force, as well as in emerging countries. [3]

Currently, with the orientation on innovative way of economy development, highlighted by Russian Government, there are three important factors of Russian economy diversification and regional development:

- Entrepreneurial activity of innovators
- SMEs
- Cluster development.

2. SME PERFORMANCE IN RUSSIAN ECONOMY

2.1. Statistical overview

The number of SME in Russia has not really grown since the mid-1990s and the existing 2 million of SMEs generate only about 20% of GDP. [4]

Here we are faced with the peculiarities of Russian statistics, which in spite of the developed criteria for classifying enterprises in the category of small or medium-sized can also count individual entrepreneurs in this category. According to official statistics, the number of SMEs is more than 5 million. [5] Out of these, more than three million are individual entrepreneurs.

It needs to be mentioned that the number of SMEs grew throughout the 2000s, but then after the economic crisis of 2008 their number has been reduced, and there has been a particularly strong reduction from 2014, with the increased tax burden on entrepreneurs.

Therefore, the vast majority of Russian SMEs are very small firms and individual entrepreneurs, engaged mostly in trade, construction or services. Even a quick observation leads to an obvious conclusion: the specificity of Russia is the lack of small and medium firms specialized in intensive technology transfer activities and innovation.

Since 2012, the government has developed a program to support the development of SMEs and regional innovation clusters. There is a serious concern whether the clusters created by the state (not private business) initiative can become the flagship of innovative development of industry in Russia and whether they will be able provide a decent level of competitiveness, as well as economic and social well-being of the regions in which these clusters are located.

2.2. Innovation management

The innovation process, including activities of small and medium-sized enterprises, depends to a large extent on the management of these enterprises. Implementation of innovation process is long, tedious and requires the ability of managers to evaluate the prospects of a new technical solution. Even with some experience, you

can not always say with certainty whether the planned effect of the introduction will be achieved, and would it ever have any effect. Of course, innovation should be implemented in the fixed period time. Therefore, the organizers need to have the sense of timeliness of innovation, the ability to recognize innovation, and predict its positive effect for the future. Innovation management covers all strategic and operational objectives of management, planning, organization and control of innovation processes in the enterprise.

Usually innovation is still the prerogative of large enterprises, but small businesses have the option of cooperation with large enterprises in implementing or testing innovative ideas or invent it themselves from start to finish in solving innovative tasks, passing the whole cycle from the development of innovative product to its production and bringing it to the market. Of course the second option is more difficult, requires more serious management decisions, but if successful, it becomes possible to rapidly enter the market and increase its capitalization. Certainly in this process an important matter is finding partners, sometimes from the related industries, to avoid competition and find ways of mutually beneficial cooperation. Thus innovation management for SMEs provides an opportunity not only to recognize innovation, but also the ability to find partners in this process.

The main elements of the infrastructure to support entrepreneurship are technology parks and business incubators. This category can also include industrial parks, technology development centers and other facilities, although in recent years these types of infrastructure are often combined under the general name of "industrial park". In Russia first business incubators were established in 1990s, funded by foreign grants. Mainly business incubators are situated in Central Russia region, the less developed incubator structure is in the Far East.

Comparative analysis of innovative business support entities is complicated because of different purposes of these structures. Thus, in accordance with Russian legislation, a business incubator should have a total area of non-residential premises of more than 900 m², and not less than 85% of the usable area of incubator should be allocated to business structures (but not more than 15% for each tenant) [6].

Business Incubator needs to provide the following core services:

- lease (sublease) premises of the business incubator to small businesses;
- implementation of the technical operation/maintenance of a business incubator building;
- provision of postal and secretarial services;
- advice on tax, accounting, credit, legal protection and enterprise development, business planning, training and education;
- provision of access to information databases.

Business Incubator (except for business incubators and agricultural production purposes) must meet the following basic requirements for technical equipment:

- presence of at least 70 workstations equipped with office equipment and furniture;
- availability for each workstation computer, the printer (individual or collective access) and telephone with outside line and long-distance calls;
- presence of at least one equipped (furniture, board, and telephone) meeting room;
- presence of at least one equipped (furniture, whiteboard, projector, phone) rooms for lectures, seminars and other training activities;
- presence of the Internet channel for at least 80% of the working places of business incubator;
- availability of office equipment for public access: fax, copier, scanner, color printer, telephone.

However, in practice, business incubators in Russia often have a much smaller area, especially when it comes to university incubators aimed at supporting student entrepreneurs. Business incubators are created for different purposes (promotion of regional economic development, job creation, technology commercialization, support of various social groups, etc.) and are designed for different audiences (young scientists, students of technical and liberal arts colleges, women etc.) and, therefore, conduct their activities differently to meet their goals. Therefore, establishing of strict criteria and standards in this regard appears to be incorrect.

3.8.2.3. The success of innovative SMEs

Creation of innovative regional clusters has become a tool planned to increase the effectiveness and competitiveness of the Russian regions. The urgency of cluster policy implementation has increased considerably in 2014, due to the tension in the political and economic relations between Russia, European countries and the United States. The government has set a new goal - development of industrial sites and related sectors that would reduce Russia's dependence on imports of products from Europe and the United States. This goal was reflected in the Concept of long-term socio-economic development of the Russian Federation until 2020. On the way to achieve this goal, an introduction of a large-scale regional clustering in Russia becomes a very important issue. [7]

In these circumstances, however, the activities of innovative SMEs are mainly linked to factors like scientific knowledge, intellectual property, and economic application of innovative ideas. They are almost impossible to be valued properly, which makes it even more difficult to assess the quality of a project. Their success is relying on human skills factor, as innovative SMEs do not have valuable assets to offer as collateral to investors. Also innovations mean inventing new, untested products, with a high percentage of failures.

Speaking very globally, there are two kinds of SMEs regarding the approach to innovation and knowledge: the ones that create innovation and the ones that use it. The first category is obviously a very little minority while the second represents the overwhelming majority.

However, any firm, be it of the smaller size and engaged in the most simple activities, can take profit from technological progress and innovation. In that sense, and apart from the access to financing, access to new technologies represents a key factor for the competitiveness of SMEs. They are necessary for them to adapt to the requirements of global markets, to lower their costs of production and to generate strong growth.

3.8.3. IMPACT OF SMEs IN CLUSTERS ON REGIONAL ECONOMY

The impact of SMEs in the innovation clusters on the socio-economic situation in the regions can be seen through the analysis of the gross regional product (GRP) and its dynamics. It influences unemployment rate, real disposable income of the population, volume of attracted investments, spent on research and experimental development (R&D), development of infrastructure and social facilities in the region.

Five kinds of clusters in Russia:

- 1) Informal - result of a spontaneous agglomeration of firms in a limited territory without support from the state or other economic agents (big firms), or by historically established economic ties
- 2) Organized - have gone through a process of collective structuring, sometimes supported by the state, sometimes resulting from the initiative of businesses only
- 3) Innovative - tend to be centered on knowledge-intensive activities
- 4) Technology parks and incubators - usually designed and supported by state or universities programs

5) Special economic zones - government-created and government supported clustering. They are usually aimed at attracting foreign investors, delocalizing their production and selling it abroad afterwards.

3.8.4. PERSPECTIVES OF SME INNOVATION CLUSTERS DEVELOPMENT IN RUSSIA

3.8.4.1. Concept of long-term socio-economic development

Creation of innovative regional clusters has become a necessary step of the federal government towards the realization of the Concept of long-term socio-economic development of the Russian Federation until 2020. According to this concept, in the period between 2015 and 2020 years, Russia must enter the list of the top five leading countries in terms of gross domestic product (GDP).

To achieve this goal, six priority areas were identified in the concept:

- 1) development of human potential in Russia;
- 2) creation of a highly competitive institutional environment to encourage entrepreneurship;
- 3) structural diversification and development of the economy based on innovative technological development;
- 4) consolidation and expansion of global competitive advantages of Russia in traditional areas (energy, transport, agriculture, processing of natural resources);
- 5) expanding and strengthening the external position of Russia, increasing its participation in the international division of labor;
- 6) transition to a new model of territorial economic development.

3.8.5. GOVERNMENT SUPPORT PROGRAMS AND CLUSTER SPECIFIC BARRIERS FOR SME DEVELOPMENT

As was already mentioned, Ministry of Economic Development of the Russian Federation has highlighted priority fields for development of science and technology as new drivers of innovation growth of the Russian economy and in 2015 the Russian regions, applying for federal support to finance pilot clusters, were obliged to approve a special local comprehensive program to support innovation.

The main directions of state support:

- State subsidies to the budgets of subjects of the Russian Federation for the implementation of activities under the programs of development of innovative regional clusters;
- Support for the implementation of the programs for the development of innovative regional clusters in the framework of the federal target programs and state programs of the Russian Federation;
- Involvement of state development institutions in programs of innovative regional clusters development
- Encouraging participation of large state-owned companies, implementing programs of innovative development in regional clusters.

Currently, the state support for the development of clusters and territories, where they are based, is carried out within the framework of several initiatives at the federal level, including programs of the Russian Ministry of Economic Development, Ministry of Communications and Ministry of Education.

3.8.6. CLUSTERS IN THE RUSSIAN REGIONS

Research of distribution of Russian regional clusters by industry specialization, was conducted by the experts of the Ministry of Economic Development of the Russian Federation, who evaluated the submitted regional applications for participation in the federal cluster program. [8]

They had indicated key activities for innovative development: medicine, pharmaceuticals, shipbuilding, spacecraft manufacturing, nuclear industry, oil refining and gas processing, information and communication technologies, electronics, manufacturing of equipment, and chemical industry. Clusters within the industry were selected by experts according to the largest capital funds and investment for further development (oil and gas processing, nuclear industry), as well as according to industries that had a strong industrial base in the Soviet period (space industry, chemical and pharmaceutical industry).

Region	Specialization	Number of participating businesses
Altai region	Biomedicine	
Archangelsk region	Shipbuilding	
Moscow city	New materials, laser technologies	
Kaluga region	Pharmaceuticals	
Kemerovo region	Complex processing of coal	
Krasnoyarsk region	Space technology and telecommunications	
Moscow region	Biotechnology and pharmaceutical	
Moscow region	Cluster "Fiztech XXI": Information, communication and space technology; energy efficiency, new materials and equipment	
Moscow region	Nuclear physics	
Nizhny Novgorod Region	Industrial automotive cluster	
Nizhny Novgorod Region	IT technology, energetics	
Novosibirsk region	IT technology, Medicines and Biotechnology, Pharmaceuticals	
Perm region	Mechanical engineering	
Republic of Bashkortostan	Petrochemical	
Republic of Mordovia	Energy-efficient lighting technologies	
Republic of Tatarstan	Automotive industry, Extraction of natural resources, oil and gas	
Samara Region	Rocket and space production	
St. Petersburg	Information technologies	

St. Petersburg/Leningrad region	Radiation technologies. Medicine and Pharmaceutics	
Sverdlovsk region	Titanium processing	
Tomsk region	Pharmaceuticals, medicine	
Ulyanovsk region	Consortium: Research, Education and Aviation production	
Ulyanovsk region	Nuclear physics	
Khabarovsk region	Aircraft manufacturing and shipbuilding	

Table1. Cluster Specialization in Russia

7. LESSONS FOR CLUSTER POLICY

7.1. Concept of cluster

The concept of a cluster in Russia is settled in the scientific papers and in official government documents. Thus, government officials gave in 2012 the following definition of innovative territorial cluster. [9]

By "innovative regional clusters" means a set of placed in a limited area enterprises and organizations (cluster members), which is characterized by:

- a/ uniting members of the cluster in scientific and production chain in one or more fields (the key economic activities);
- b/ existing mechanism for coordination and cooperation of cluster members;
- c/ synergies expressed in improving economic efficiency and effectiveness of each company or organization due to their high degree of concentration and cooperation.

7.2. Examples of Russian clusters

However, the term "agro cluster" is still quite freely interpreted by the authorities. For example, in 2014 near Moscow was announced the creation of agro cluster and Mayor of Moscow attended its opening ceremony.

In reality, "agro cluster is a two-storey building with the area of 246,000 square meters and combines office and hotel buildings, warehouses, production of ice, parking, banks, restaurants and more.

Also on site are located trade pavilions with total area of 50 thousand square meters, designed for wholesale of food products directly from the trucks."

In fact, it can hardly be called agro cluster, because it is just a huge wholesale food market. [10]

In contrast, Krasnodar agro cluster was founded in 2003 and by resolution of the Governor was adopted a sub-program for the development of agro-industrial cluster. In fact it had strengthened the existing system of the cluster, as traditionally Krasnodar region had been developed as a regional informal cluster, with all elements of classical cluster, including academic institutions (Kuban agro university), agribusinesses (large, small and medium-sized enterprises, food processing companies), transportation companies, and financial institutions. High agricultural potential the Krasnodar region, where are concentrated about 2% of world reserves of black earth, also contributes to the development of agro cluster. [11] In the region is grown the entire crop of Russian tea, 25% of grain (including more than 80% of rice), and produced 30% of sugar and vegetable oil. [12]

In the period of transformation of social and economic relations in the framework of the regional economic system of Krasnodar region were defined prerequisites for the development of sectoral and cross-industrial markets. Regional structure of the ecosystem was formed as a system of territorial distribution of goods and

services for which consumers have intraregional demand. This allows the cluster to use market mechanisms of balancing supply and demand to take into account local specificities and interests of economic actors.

7.3. Krasnodar cluster as an economic system

Cluster conditions

The Krasnodar agro-industrial cluster is a territorially localized economic system that meets the following conditions:

- 1) it can act as a single entity;
- 2) its members are companies - independent participants of business relations (joint stock companies, limited liability companies);
- 3) one company (the core of the cluster) determines the decisions made by other economic entities - participants in the same cluster;
- 4) it is possible to pursue a common policy within the cluster (investment, technological, industrial, economic, financial decisions).

Agriculture cluster of regional economic system of Krasnodar region is formed within its territory and is characterized by collaboration of all relevant enterprises and infrastructure in the region, with specialized production and economic ties.

Enabling environment for agro and processing cluster in Krasnodar region

It is possible to identify factors of internal and external environment that influence the activity of individual business entities in the cluster, in order to adjust their plans to maximize profits and increase the efficiency of territorial control of localized economies.

These factors include: [13]

- A. Access to the market and competition
 - a/ Availability and quality of raw materials
 - b/ Distributors and efficiency market channels
 - c/ Market power of buyers (consolidation)
- B. Human capital
 - a/ Availability of skilled workers
 - b/ Availability of engineers and related specialists
 - c/ Availability of business development educational programs
- C. Financial resources
 - a/ Availability of short-term financial resources (less than 1 year)
 - b/ Availability of long-term financial resources (more than 5 years)
 - c/ Availability of leasing services
- D. Infrastructure
 - a/ Quality of logistic infrastructure
 - b/ Availability of production (industrial) real estate
 - c/ Availability of land

E. Technological capacity

- a/ Availability of new process technology and equipment
- b/ Improved technological level of companies
- c/ Improved technological level of suppliers

F. Administrative barriers and regulation

- a/ Level of administrative barriers
- b/ Quality of tax administrative process
- c/ Customs procedures

The basis of the cluster formation is the exchange of information about the needs and technologies between enterprises of related industries, as well as customers and suppliers. A key instrument of cluster formation is a market mechanism of mutually beneficial cooperation between enterprises located in the same area, due to a decrease in number of transaction costs and the emergence of positive feedback, ensuring intensive development of all the organizations, as well as mutual industrial and economic relations within the cluster. The positive side of the cluster approach is not only the reduction of transaction costs, but increase the efficiency of production specialization due to the concentration of consumers and providers in a single economic space.

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Goals for cooperation in agro and food processing in Krasnodar Region

- Joint promotion on national market
- New product development
- Human capital
- Quality improvement and cost reduction
- Joint procurement
- Joint promotion on internal market

8. LESSONS FOR SME POLICY

The main problem for SMEs is financing. The current discount rate of the Central bank in Russia is 11% per year. Commercial banks offer loans to SMEs at the level of 20-22%, in some cases, the rate rises to 30%. In addition, loans are usually provided for a short period, up to one year.

In 2013, before the introduction of sanctions, when Russian banks could easily borrow abroad, the Central bank rate was 8.5%, while the commercial banks provided loans at 15-20% per annum. Government artificially curbs inflation and, therefore, it is very difficult for small businesses to find a niche in the market that would make the cost-effective production to be able to pay a bank loan at a rate of more than 20 percent per year. [14]

8.1. Development of SME policy

Generally, development of SME policy, aimed on innovations and cluster enhancement, needs to consider the following factors:

- Differences in enabling environment across Russian regions and clusters are key challenge for national SME policy.
- Some of regional differences can be explained by efficiency of SME policy of regional administration
- Regional and local governments will play more important role in SME development.

Regional SME policy (short and medium term) can be focused on some important issues: infrastructure (i.e. industrial/suppliers park) availability of financial resources, regional innovation, infrastructure and administrative barriers, while national SME policy should be more focused on stimulating and supporting regional SME policy.

8.2. Key elements that are necessary to foster the development of dynamic and fast growing SMEs:

- Favorable tax environment;
- Sound and stable macroeconomic environment;
- Favorable legal environment based on a strict application of the rule of law and right of contracts;
- Large and easy access to financing;
- Minimum of bureaucratic interference, allowing easy entry and exit in the market.

8.3. Key barriers to the market of technologies:

- Lack of information about the needs of business,
- Lack of confidence in the Russian business for the transfer of the patent for the implementation,
- Lack of tools for patent transfer in a business project for attraction of investments,
- Lack of resources for a wide promotion.

9. CONCLUSIONS

In the period of global economic crisis and following post-crisis development of the regional economy there is a need of improving the existing model of social and economic relations. It can be done on the basis of cluster governance mechanisms to ensure the connection of enterprises in various sectors of the economy, which are mutually contributing to the growth of competitiveness of the regional economic system. This mechanism is able to provide the most effective concentration and related economic activities in various sectors of the economy that can enable higher economic indicators of business entities.

In this connection, it will be useful to highlight a number of areas that will help achieve synergies for the development of clusters.

- Technical and technological re-equipment of enterprises based on the use of the latest scientific and technical developments, and nanotechnology;
- Promotion of scientific and educational institutions and innovative, high-tech centers, as an important component of regional economic system designed to ensure the formation and implementation of high-tech industries;
- Implementation of long-term regional plans and programs aimed at the development of innovative potential of the cluster;
- Restructuring the industry and design institutes in the form of business organization with developed financial, marketing and commercial business structures;
- Creation of favorable conditions for investment and innovation in the development of agricultural and industrial cluster forms of entrepreneurship in rural areas;
- Optimization of promising conditions for the functioning by improving human and scientific information support, promoting innovation;
- Improving the forms and conditions of management: promoting cooperation and integration of all types of enterprises of different organizational forms in the production, processing and marketing of products, service maintenance, trade and lending; the formation of unions and associations of producers.

Thus, the status of the cluster involves obtaining synergies and increasing competitiveness of the Russian economy.

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Growing red berries

Photo © by Antal Szabó

NEWS



FIVE FATAL TRAPS FOR START-UPS COMPANIES

There is **no single recipe for successful businesses**. During the last few years more businesses have been start-ups than before. The Széchenyi Investment Loan system in Hungary provides a long-term HUF investment loan with a favourable interest rate and with a state subsidy so it allows you to bring forward and implement your ideas to develop your business and it allows you strengthen the market position of your business.

The British statistics shows that between 2013-2015 more start-ups has been launched than before. It is a good sign of a healthy economy, which is very important prior the BREXIT will take place. The British Independent in its January 2016 issue draws attention of the start-up entrepreneurship to avoid mistakes while creating and expanding their businesses. The most important traps for start-ups are the following:

First, don't miss the bigger picture. When you're involved in the minutiae of launching and then running a small firm, it's very hard to see the wood for the trees – fundamental questions such as whether there's a market for your venture, whether you can turn a profit and what you can do with the business next need to be asked almost continually.

Second, you must plan effectively. That means setting clear targets for your business to achieve, with detailed plans for how it will do so. It also means measuring progress against those targets on a regular basis, adjusting your plans where necessary.

Third, you need to understand how to evaluate your business. Far too few owners know exactly which numbers are crucial to their firm. Study your business plan and your trading carefully and you'll be able to identify key metrics by which you will stand or fall – anything from e-commerce traffic to profit margins. Learn how to measure these in order to work out whether your business is succeeding.

Fourth, be vigilant about cash. There are countless stories about strong firms with great ideas failing simply due to cashflow problems. For example, companies routinely go bust because customers fail to pay them on time. On paper they may be solvent, but without the cash to pay their bills, that's not enough.

Fifth, don't stand still. If you've turned your start-up into a successful venture, congratulations. But unless you continue to develop the business, it won't stay successful. That doesn't mean you have to reinvent the wheel every six months, but you will need to keep finding new customers and exploring new opportunities – or risk rivals copying your business model and crowding you out.

Extract for the <http://www.independent.co.uk/news/business/sme/small-talk-start-ups-that-steer-clear-of-the-five-fatal-traps-have-got-a-fighting-chance-a6795171.html>

INSTITUTIONAL PROFILE

TTIP - TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP



The EU is negotiating a **trade and investment deal with the US** - the Transatlantic Trade and Investment Partnership - or **TTIP**.

The aims of the TTIP are: Better access to the US market — *Market access*

This first part of TTIP would work in the same way as **other EU trade deals** already in place. That means **helping EU companies** - however small or large, and whatever they sell – get **better access** to an overseas market outside Europe.

With TTIP, European firms could:

- **export** more to the US and **win government contracts**
- **import** more of the goods or services they need to make their final products
- **determine** more easily when a product counts as being '**Made in Europe**' (or the USA)
- **invest** in the US more easily.

The negotiations are going in a very closed circuit and neither the EU members States, not the public authorities and associations do not put their cards on the table. The 14th Round of Negotiation for TTIP just finished in July with 400 stakeholders, but there is now information neither about their names nor their mandates and authorizations. A short Report on this Negotiation is available on

http://trade.ec.europa.eu/doclib/docs/2016/august/tradoc_154837.pdf

Beside the confused situation and idleness behaviour of Brussels concerning the situation of the mass migration connotated also by terrorism a possible successful conclusion of the TTIP is a warning signal in Europe. Trade is a good tool for development and for increasing our prosperity, but frankly speaking, TTIP has nothing to do with trade. As Tiziana Beghin, an EP Parliamentarian said that “TTIP is an attack on the legislation and standards that protect us. The commission says it will be good for citizens and small and medium-sized enterprises, but those that support this deal the most are multinational corporations....TTIP will result in one million European citizens losing their jobs and a lowering of EU health and environment standards”.

Helmut Scholz (Germany) a GUE/NGL shadow rapporteur „feels that the negotiating mandate received by the commission from member state governments in charge at that time goes too far and that many of those regulations dubbed obstacles to trade are actually societal and democratic achievements. Consultancies and corporate lobby organisations are pushing for TTIP. Infamous structures like EuropaBio see their chance to finally pave the way for biotechnological products, such as GMOs, into the EU.” In Germany 70% of the people asked believe that TTIP has more disadvantage than advantage.

It is a great responsibility of the European Governments, National Assemblies and the civil society to follow the negotiations like a hawk and make all necessary steps to defend the interest of the European citizens

NEW COMING EVENTS AND CALL FOR PAPER



International Conference

IMPACT OF ECONOMIC POLICIES ON ATTAINING RESILIENT GROWTH

Belgrade, 27th October, 2016.

Institute of Economic Sciences, Belgrade, Serbia

The event will be structured to provide participants with the opportunity to listen to keynote speakers from leading universities, participate in round table discussions, present original research and enjoy great networking opportunities. Scholars and practitioners are invited to submit for consideration works related to topics including but not limited to, the following themes, focusing on the Impact of Economic Policies on Attaining Resilient Growth.

TOPICS

- Evaluating Effects of Economic Policies
- Building Risk-Resilient Environment for Economic Growth
- Policy Challenges of New Realities in the E(M)U

IMPORTANT DATES FOR AUTHORS

- Submission of paper title, topic and names of authors: 02.09.2016.
- Extended abstract submission: 30.09.2016.
- Information of acceptance: 07.10.2016.
- Power Point Presentation submission: 24.10.2016.
- Conference day: 27.10.2016.

INTERNATIONAL SCIENTIFIC COMMITTEE

- **Prof. Dr Jovan Zubović**, Institute of Economic Sciences, Belgrade, Serbia
- **Acad. Prof. Dr Mirjana Radović-Marković**, Institute of Economic Sciences, Belgrade, Serbia



Centre International d'Investissement NGO

*associated with the UN Department of Public Information (UN
DPI)*

VII International Conference

" International Cooperation: Innovation as a Tool for Social and Economic Changes"



Geneva, Switzerland

CERN

Palais des Nations

WIPO

November 22-24, 2016

Organized by:

International Investment Center/Centre International d'Investissement and the Russian-Swiss
Science Association

Supported by:

Russian Ministry of Foreign Affairs, CERN, NGO Liaison Service, Office of the Director-
General , United Nations Office at Geneva, Interregional Association of Innovators (Russia),
ERENET

Conference operator: Centre International d'Investissement (Switzerland)

CONCEPT OF THE CONFERENCE

The conference is devoted to 70th Anniversary of the United Nations Organization and adoption of Sustainable Development Goals (SDGs).

At the United Nations Sustainable Development Summit on 25 September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030.

The modernization of society demanded changes of the innovation system in all areas of life, from areas such as education and culture to the industrial and social infrastructure, investment policy, regulatory and legal framework, etc

Innovative potential is a key condition for the development of the modern state. Social innovations, widespread today in the states of vanguard economy, not only form new type of people, but also define a new environment to live and work.

International cooperation is the basis of sustainable development and better future for all. The future belongs to young people, and they are consistently at the forefront of innovation.

The aim of the conference is to create a communication platform for:

Sharing of best practices in social and economic spheres of human activity;

Ensure the timely incorporation of innovation in the modern model of education, improving international mobility of universities;

Identify favorable conditions for the realization of various forms of international cooperation.

Participants: Representatives of universities, innovation and research centers, governments, financial institutions, industrial and promotional organizations, chambers of commerce and business associations.

Working languages of the conference - English and Russian, translation will be provided

PRELIMINARY PROGRAM

November 22, Tuesday, CERN

9.00-13.00 Plenary Session: UN Sustainable Development Goals, International Cooperation and Innovations

Moderator: Andrei Generalov, president, International Investment Center

Welcome Address: Permanent Mission of the RF to the UN and other International Organizations in Geneva

Speakers:

Dr. Yury Ermolin, Russian-Swiss Science Association (Switzerland), Dr. Antal Szabó, ERENET scientific director, Corvinus University and former UN regional adviser (Hungary), Mr. Gianpaolo Gansi, Prime Key Ltd (Italy), Dr. Riccardo Crestani, Padova University (Italy), Dr. Andrei Kuznetsov, Interregional Association of Innovators (Russia), Dr. Zsuzsanna Szabó, „Petru Maior” University of Tîrgu Mureş (Romania), Mr. Sergey Lesin, Gubkin State Oil and Gas University (Russia), Mr. Alexandre Poltorak, IP-Max SA (Switzerland)

13.00-14.00 Lunch

14.00-17.00 visit to CERN

November 23, Wednesday, Palais des Nations

Round Table

“The new UN post-2015 development agenda and Sustainable Development Goals (SDGs)”

10.30 – 11.30 UNCTAD Presentation

11.30 - 12.30 UN system and NGO involvement

Speaker: Ms. Lidiya Grigoreva, NGO Liaison Officer, Political Affairs and Partnerships Section, Office of the Director-General United Nations Office at Geneva

12.30 – 13.30 Lunch break

13.30 – 18.00 visit to STOP-TB Partnership

Discussion: Sustainable development goal #3 “Ensure healthy lives and promote wellbeing for all at all ages” - Leading the Fight Against TB

Panelists: Ms. Maria Paola Lia, Global Health Programs, Eli Lilly Export S.A. (Switzerland), Mr. Mikhail Volik, Central Asia TB Control Program, Project Hope (Uzbekistan)

November 24, Thursday

10.00-13.00 Visit to Geneva University

Discussion: Sustainable development goal #4 “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”

Panelists: Dr. Vlada Lisenco (Moldova), Dr. Ivan Brink (Russia), Ms. Johanna Mitchell (Great Britain), Ms. Elena Ustinova (Russia)

13.00-14.00 Lunch break

14.00-16.30 Visit to the World Intellectual Property Organization (WIPO)

The new UN post-2015 development agenda builds on the Millennium Development Goals (MDGs) and targets that the world committed to achieving by 2015. Enormous progress has been made on the MDGs, showing the value of a unifying agenda underpinned by goals and targets. The members of the United Nations had defined Sustainable Development Goals (SDGs) as part of a new agenda to finish the job of the MDGs, and leave no one behind. This agenda was adopted by Member States at the Sustainable Development Summit on September 25, 2015. **What are the SDGs?**

more at <https://sustainabledevelopment.un.org/topics>



CALL FOR PAPERS

FIKUSZ '16 - SYMPOSIUM FOR YOUNG RESEARCHERS

25 November 2016 • Óbuda University • Budapest, Hungary

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FIKUSZ is an annual conference organised by the Óbuda University – Keleti Faculty of Business and Management for young researchers: advanced Masters Students, PhD students and young PhDs.

The conference program will consist of a number of invited lectures and contributed papers. Contributions from all over the world are invited and solicited. The meeting is set out to attract scholars with different backgrounds and interests covering all aspects of the business sciences, management, economics and related sciences. The language of the meeting is English.

PAPER SUBMISSION

The submission deadline is 15 September 2016. Papers go through a refereeing process; accepted papers will be (optionally) published in a conference volume with an ISBN number and will also be made available online. Revised papers of no more than 10 pages must arrive no later than 31 October and must follow the conference guidelines. Acceptable file formats are doc or rtf. Papers should be written and presented in English. Whether you wish or not to be considered for the conference volume, must also be indicated at the time of the first submission.

REGISTRATION

Registration is possible via the conference website; papers must be sent directly to Conference secretary as an email attachment.
registration fee: 100 EUR

IMPORTANT DEADLINES

Paper submission:.....15 September 2016
Submission of revised manuscripts:.....31 October 2016

kgk.uni-obuda.hu/fikusz

BOOK



SMEs AND SMALL FARMS IN AGRIBUSINESS IN THE BLACK SEA ECONOMIC COOPERATION REGION

Published by

Konrad Adenauer Stiftung e.V.

Ankara, 2015

ISBN: 978-605-4679-11-9

This publication includes the presentations of the workshop, that was organized in cooperation with the Black Sea Economic Cooperation (BSEC) in Moldova on 15th-18th April 2015 .

**The whole book can be downloaded from the web-site as
<http://www.kas.de/tuerkei/en/publications/4352>**



The address of the ERENET Secretary see below:

Dr. Antal Szabó, Scientific Director

Padányi Emese, Secretary

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