

NATIONAL REPORT ON EXISTING STRUCTURES FOR SUPPORT OF ECO- INNOVATION – BOSNIA AND HERZEGOVINA



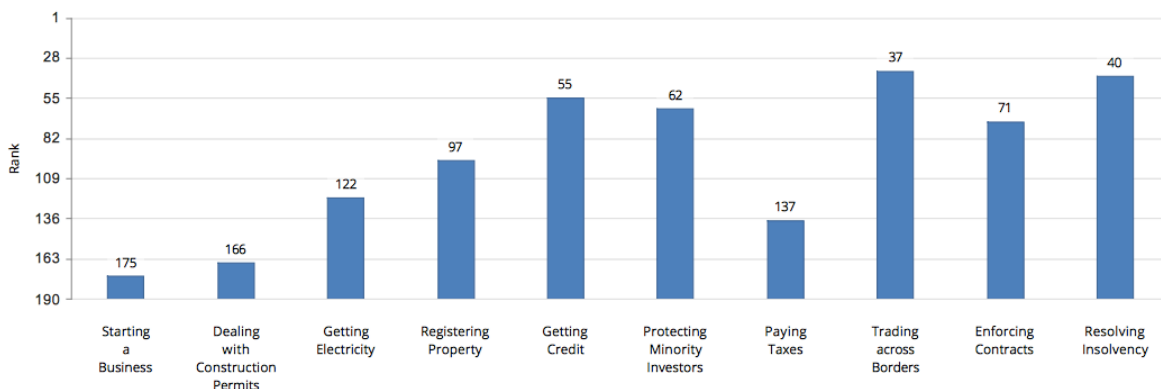
WP3	Strategy for eco-knowledge
ACTIVITY 3.2	Analysing the environment for ecoinnovation in partner countries
DELIVERABLE 3.2.3	National report on existing structures for support of Ecoinnovation

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Author	IPA PP1 Chamber of Commerce and Industry of Banja Luka Region, Vladimir Ćorda
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1. Abstract

Bosnia and Herzegovina has been, and still is, facing transitional problems in economic, social and political areas. This led to major economic decline, slow and unstable economic development, and limited job creation, high levels of unemployment and low standards of living. In addition, some of the key facts that Bosnia and Herzegovina economy is going through are process of disintegrating the old economic system, troubles facing in trade partnerships with regional partners and a significant increase of the need to adjust to the world economy and competitiveness market.

Bosnia and Herzegovina economic future, like in many developing countries, revolves around stimulating a domestic private sector largely made up of SMEs. Therefore, their development and potential to create economic opportunities should be supported through structured interventions and well-designed responds to the challenges they are facing in obtaining and implementing modern business and management skills, getting affordable business support services and funding opportunities. This reality is borne out by the World Bank’s ‘Doing Business Report for 2018, as shown on picture



Also, according to 2017 Global Innovation Index (GII) among 127 countries Bosnia and Herzegovina is on the 86th position. In comparison to previous year Bosnia and Herzegovina has dropped one the latest 2017 list. According to the Global Innovation Index 2017 Bosnia and Herzegovina had the worst ranking in the category of creative outputs (98th) which includes intangible assets, creative goods & services and online creativity.

In regards to eco innovations Bosnia and Herzegovina is still not on the development level where focused programs for development of eco innovations exists. Programs that exist are providing support to development of innovative products or introduction of new technologies but are not primarily focused on eco aspect of doing business. EU accession process brings toward Bosnia and Herzegovina set of rules and regulations that has to be adopted focusing on energy efficiency, pollution, waste management which will improve policy framework and set some standards in mentioned fields as well as create some new markets in Bosnia and Herzegovina. This process has been supported by international donor funded projects from which most active are GIZ and USAID.

2. Support structures and sources for facilitating eco-innovation

- Accessibility

All support programs in Bosnia and Herzegovina, no matter of source, are available based on public call for applications with predetermined eligibility criteria. In case of national funding for companies' formal limitations are set up in case that they have debts toward tax authorities or have done business with loss. For private persons there are no restrictions except obligation that private person is citizen of BiH. For regional support programs limitations does not exist formally but level of knowledge about application process and preparation of applications can limit number of applicants.

- Frequency

National programs for innovation development support are regular on a yearly basis. Budget availability can influence period of a year when calls are announced.

Support coming from available regional funds are set up on a regular basis. Programs funded by donor are time limited, usually for three to four years.

Trainings, events, different support programs which main carriers are NGOs are mostly ad hoc depending on donor support.

- Stability

National programs are predictable, and available on a yearly basis. Usually they are set up in a three-year government plans and they remain presents with potential changes in fund size. Also, EU support instruments are predictable in a long term period.

- Impact

Problem that exists in Bosnia and Herzegovina, at all level of authorities that are providing funding, is non existence of KPI that could measure impact of available funding. KPIs are usually set to measure number of financed projects, and they follow up financed project only in first year after funding. Later follow up is missing therefore data about long term impact are not available.

- Replicability

Bosnia and Herzegovina needs to improve support structure in the field of innovation support so it should look up on better models and good practices that could be implemented in future period. That can be done by adopting and implementing models developed through donor funded projects which are adapted to address local market needs during the project implementation.

2.1 Government support

Active or passive labour policy

Bosnia and Herzegovina is largely decentralized and comprises of two autonomous entities: the Federation of Bosnia and Herzegovina and Republika Srpska, with a third region, the Brčko District, governed under local government. The Federation of Bosnia and Herzegovina is itself complex and consists of 10 federal units - cantons.

However, the central government's power is highly limited. Federation of Bosnia and Herzegovina and Republika Srpska have largely autonomous political power, as well as the district of Brčko, which is jointly administered by both. Each of the Entities has its own constitution. Constitutional structure of BiH fully reflects in the field of science, research, development, innovation and, as such, significantly determines its development. Jurisdiction for decision making in the above mentioned areas is, in accordance with present constitutional arrangements, divided by territorial principle between several entities or levels of legislative power.

Based on Constitution of Bosnia and Herzegovina policy on research and innovation is left to the entities and is not considered as one of the responsibilities of the State. Currently, there are ministries responsible for research and innovation both at entity level and at canton level and the Ministry of Civil Affairs BiH deals with STI policy at State level.

Ministry of Civil Affairs BiH is responsible for coordination activities, cooperation with entity ministries and international cooperation in the field of STI.

For STI development in Republika Srpska responsible is Ministry of Science and Technology. It is responsible for development and implementation of the Strategy for science and technology development, legislation development, funding of research activities, support to fundamental research, support to innovations development, support to introduction of new technologies, preparation of programs and agreement on STI cooperation etc.

In Federation of Bosnia and Herzegovina STI development is under jurisdiction of cantons. Federal Ministry of Education and Science performs administrative, professional and other tasks falling under competencies of the Federation of Bosnia and Herzegovina in the areas of development of scientific activity; protection of copyrights and intellectual property; coordination of scientific-researching activities; development of the scientific-researching institutions; encouragement of fundamental applied researches; development of investment technologies and human resources in scientific-researching field; follow-up innovations; development and improvements technologies; and other tasks as laid down by the legislation governing this field.

Primary responsibility for STI is under jurisdiction of cantonal ministries: Ministry of Education and Science Canton Sarajevo; Ministry of Education, Science, Culture and Sport Canton Zenica Dobož; Ministry of Education, Science, Culture and Sport Canton Tuzla; Ministry of Education, Science, Culture and Sport Canton Una Sana; Ministry of Education, Science, Culture and Sport Canton Posavina; Ministry of Education, Science, Culture and Sport Canton Podrinje; Ministry of Education, Science, Culture and Sport Canton Central Bosnia; Ministry of Education, Science, Culture and Sport Canton Herzegovina-Neretva; Ministry of Education, Science, Culture and Sport Canton West Herzegovina; Ministry of Education, Science, Culture and Sport Canton Livno.

Ministries responsible for SME development include the following, where the coordination of SME policies at state level is the responsibility of the Ministry of Foreign Trade and Economic Relations of BiH:

- *BiH Ministry of Foreign Trade and Economic Relations* - MOFTER prepares and creates macroeconomic relations of strategic documents for economic system of the country, business environment, development and promotion of entrepreneurship;

- *RS Ministry of Industry, Energy and Mining* - the highest level of entity authority responsible for the SME sector. It defines measures of economic and development policy to support different economic activities, monitors effectiveness of measures on the industrial production on targeted sectors and companies (SMEs), adopts technical regulations and adjust them with the EU legislation. This ministry has a major role in implementation of the Strategy of the Development of SME in Republic of Srpska 2006-2010;
- *FBiH Ministry for Development, Entrepreneurship and Small Crafts* is responsible for creation and implementation of strategies for development of SMEs in FB&H, support to entrepreneurship development and crafts, technology transfer and development, trainings and education, etc;
- *FBiH Development Ministry of Energy, Mining and Industry* is a main actor in charge of creation of legislation regarding industrial activities and development in FB&H.

Following strategic documents set up a framework for development of innovations in general in Bosnia and Herzegovina:

- ☐ Science and technology strategy of Republic of Srpska 2017 – 2021
- ☐ Strategy of development of small and medium enterprises in Republic of Srpska 2016 – 2020
- ☐ Employment strategy of Republic of Srpska 2016 - 2020
- ☐ Strategy for development of Science in Federation of Bosnia and Herzegovina 2011 – 2021
- ☐ Development strategy 2016 – 2020, Canton Zenica Dobojo;
- ☐ Development strategy 2016 – 2020, Canton Tuzla;
- ☐ Development strategy 2014 – 2020, Canton Una Sana;
- ☐ Development strategy 2016 – 2020, Canton Posavina;
- ☐ Development strategy 2016 – 2020, Canton Podrinje;
- ☐ Development strategy 2016 – 2020, Canton Central Bosnia;
- ☐ Development strategy 2014 – 2020, Canton West Herzegovina;
- ☐ Development strategy 2016 – 2020, Canton Livno;

Available tax incentives

In Federation of Bosnia and Herzegovina Law on Corporate Income Tax enables the following benefits:

- The taxpayer who invests, from its own funds, in production equipment more than 50% of the total profit in the current tax period, shall be reduced of the obligation of the calculated tax for 30% of the amount in the year of investment,
- The taxpayer who in a period of 5 consecutive years makes investments from its own funds, in the total amount of 10 million €, starting with the first year when taxpayer has to invest at least 2 million €, shall be reduced of the obligations of the calculated income tax for 50% of the amount in the year of investment,
- The taxpayer is entitled to a tax-deductible expense in the double amount of the gross wage paid to newly employees if meets the following conditions: duration of the employment contract must be at least for a period of 12 months with full-time working hour, and new employee was not employed with the taxpayer or a related person in the previous five years.

In Republic of Srpska a taxpayer who in the territory of the Republic of Srpska invests in equipment, facilities and real estate for carrying out production activities in the amount of more than 50% of realized profit (the tax base) for current tax period, the income tax liability shall be reduced by of 30%.

In Brčko District for a taxpayer who invests in machines and equipment for performing its own registered business activity on the territory of Brčko District, a deduction is allowed for the amount of the investment.

Accessible trainings and seminars for skill development

There are available trainings, seminars for skill development in the field of innovations, ecology, energy efficiency etc. but they are organized as a part of different projects and as a part of the portfolios of NGOs and organizations. Only skill development program organized and funded by government is Competition for Best Technological Innovation. Republika Srpska Ministry of Science and Technology, together with partner organizations, conducts Competition for Best Technological Innovation. Competition provides set of business skills trainings for people with innovative ideas aiming to support them in process of transforming their Innovative idea to business plan. Also, Ministry of Science and Technology secures financial awards for best ideas.

2.2 Domestic support funds

National scholarship funds

In Bosnia and Herzegovina each government provides scholarships through ministries of science or ministries of education. Following ministries provide scholarships:

- ☐ Ministry of Science and Technology of Republic of Srpska Government. Scholarships are awarded through “dr. Milan Jelic Foundation”
- ☐ Ministry of Education of Republic of Srpska Government;
- ☐ Ministry of Education and Science of FBiH Government;
- ☐ Ministry of Education and Science Canton Sarajevo;
- ☐ Ministry of Education, Science, Culture and Sport Canton Zenica Doboje;
- ☐ Ministry of Education, Science, Culture and Sport Canton Tuzla;
- ☐ Ministry of Education, Science, Culture and Sport Canton Una Sana;
- ☐ Ministry of Education, Science, Culture and Sport Canton Posavina;
- ☐ Ministry of Education, Science, Culture and Sport Canton Podrinje;
- ☐ Ministry of Education, Science, Culture and Sport Canton Central Bosnia;
- ☐ Ministry of Education, Science, Culture and Sport Canton Herzegovina-Neretva;
- ☐ Ministry of Education, Science, Culture and Sport Canton West Herzegovina;
- ☐ Ministry of Education, Science, Culture and Sport Canton Livno;
- ☐ Department of Education, Government of Brčko District.

Beside government, scholarships are provided to students by majority of cities/municipalities where they live.

Scholarships are awarded on a yearly basis based on a public call for applications and based on upfront determined criteria's.

Local/regional development funds

Public funding for innovation development in BiH by the state, entities and cantonal governments is composed of the following main items:

- At the State level, Ministry of Civil Affairs through its Department for Science and Culture awards grants that support innovation and technical culture in BiH. For 2018 Ministry of Civil Affairs BiH dedicated EUR 59.820 for this grants.
- In RS, the financial allocation in 2018 is planned in amount of € 200.000 channelled through the program for technological development, which includes innovators, meetings and projects for the development of new technologies.
- The total budget of the Federal Ministry of Entrepreneurship, development and craft in 2018 is planned In amount €50.000 channelled through the program for scientific and research activities. Also, ministry has a fund of EUR 1.5m to support development of SMEs which also includes development of new products, introduction of new technologies, introduction of quality standards etc.

Both, government of Republika Srpska and government of Federation of Bosnia and Herzegovina have established development banks in order to encourage investments and stimulate development in their entities. Even they are operating in different ways they are providing low interest rate credits to companies.

Also, government of Republika Srpska established guarantee fund in order to ease access to credits for business activities and to provide support to development of entrepreneurship. Also, in Republika Srpska two guarantee funds are operating within local development agencies in Prijedor and Banja Luka.

Five guarantee funds are operating In Federation of Bosnia and Herzegovina:

- Guaranty fund within North East Regional Development Agency
- Guaranty fund within Sarajevo Regional Development Agency
- Guarantee fund of Canton Zenica Doboje
- Guarantee fund of Canton Una Sana
- Guaranty Fund within development agency Link Mostar.

Government of Brcko district established Development Gurantee Fund in order to provide support to development of small and medium enterprises in Brcko district.

2.3 Transnational support funds

EU FUNDED PROGRAMS

The support from EU is provided through all different forms of funding from R&D to financing, and from small enterprises to infrastructure. Following programs are available for organizations and companies in Bosnia and Herzegovina:

HORIZON 2020

Horizon 2020 is the EU framework programme for research and innovation and it is the biggest programme ever. Funding opportunities under Horizon 2020 are set out in multiannual work programmes, which cover the large majority of support available. The work programmes are prepared by the European Commission within the framework provided by the Horizon 2020 legislation and through a strategic programming process integrating EU policy objectives in the priority setting. The main topics for the work programme 2018-2020 are:

- Excellent science pointed to - Future and Emerging Technologies and Research Infrastructures, including e-Infrastructures (i. e. The Marie Skłodowska-Curie actions (MSCA) provide grants for all stages of researchers' career and encourage transnational, intersectoral and interdisciplinary mobility).

- Leadership in Enabling and Industrial Technologies pointed to - Nanotechnologies, Advanced Materials, Biotechnology, and Advanced Manufacturing and Processing (NMBP), and Information and Communication Technologies.
- Innovation in SMEs (i.e. EUREKA/Eurostars-2 - it is joint programme of European commission and EUREKA funding and support programme to be specifically dedicated to research- performing SMEs).
- Access to Risk Finance - helps companies and other types of organisation engaged in research and innovation (R&I) to gain easier access to debt and equity finance.
- Societal Challenges pointed to – Health, demographic change and wellbeing; Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy; Smart, Green and Integrated Transport; Climate Action, Environment, Resource Efficiency and Raw Materials.
- [SEP] Spreading Excellence and Widening Participation.

COSME

The COSME is the EU programme for the competitiveness of enterprises and small and medium- sized enterprises. COSME support SMEs in the following areas:

- Facilitating access to finance – in all phases of the business cycle (creation, expansion, or business transfer). EU ‘financial instruments’ (The Loan Guarantee Facility (LGF) and The Equity Facility for Growth (EFG)) are channelled through local financial institutions in EU countries
- Supporting internationalisation and access to markets - helps businesses to access markets in the EU and beyond. It funds the Enterprise Europe Network (EEN) that helps SMEs find business and technology partners, and understand EU legislation.
- Creating an environment favourable to competitiveness - supports actions to improve the framework conditions in which enterprises operate, in particular SMEs, by reducing unnecessary administrative and regulatory borders.
- Encouraging an entrepreneurship - mobility exchanges, research, best practices diffusion and pilot projects in areas such as entrepreneurship education, mentoring or the development of guidance and support services for new and potential entrepreneurs, including young, women and senior entrepreneurs.

COST

COST is and EU-funded programme that enables researchers to set up their interdisciplinary research networks in Europe and beyond. COST provide funds for organizing conferences, meetings, training schools, short scientific exchanges or other networking activities in a wide range of scientific topics. COST's interdisciplinary bottom-up networks are effectively bridging the innovation divide and participation gaps in Europe and are providing a large spectrum of opportunities for young generations of researchers and innovators.

COST has defined three priorities for its positioning in the next Framework Programme for Research and Innovation:

- Promoting and spreading excellence,
- Fostering interdisciplinary research for breakthrough science,
- Empowering and retaining young researchers and innovators.

EUROPEAN INSTITUTE OF INNOVATION AND TECHNOLOGY

The European Institute of Innovation and Technology (EIT) is a unique EU initiative that boosts innovation and entrepreneurship across Europe with one simple idea: through diversity, there is strength. It

supports the development of dynamic pan-European partnerships between leading universities, research labs and companies. Together, they develop innovative products and services, start new companies, and train a new generation of entrepreneurs. They bring ideas to market, turn students into entrepreneurs and, most importantly, they innovate.

The EIT's support helps innovators and entrepreneurs across Europe to turn their ideas into products and services for the market. This is crucial to fulfilling the mission of the EIT: delivering the jobs and sustainable economic growth opportunities that Europe is seeking. The EIT is playing a vital role in helping to increase economic growth and create jobs.

EIT creates Innovation Communities that bring together businesses (industry and SMEs), research centres and universities as partners, creating a favourable environment for creative thought and innovation to flourish, allowing innovative products and services to be developed in every area imaginable, including climate change, healthy living and active ageing, new companies to be started, and a new generation of entrepreneurs to be trained. They carry out a whole range of activities that cover the entire innovation chain – including training and education programmes, reinforcing the journey from research to the market, innovation projects as well as business incubators and accelerators. Innovation Communities have been conceived so that they are able to react in an effective and flexible way to new challenges and changing environments.

Currently there are six EIT Innovation communities:

- EIT Climate
- EIT Digital
- EIT InnoEnergy
- EIT Health
- EIT Raw Materials
- EIT Food

All Innovation Communities have the objective of decreasing the average time to market of innovations and they have established specific activities to fulfill this objective such as the EIT Climate-KIC Market Accelerator, the EIT Digital Business Development Accelerator, the EIT InnoEnergy Highway, EIT Health Accelerator, the EIT Raw Materials Start-up Booster and EIT Food Start-Up Club TheRisingFoodStars.

INTERREG IPA CBC

Interreg IPA Cross-border Cooperation Programme Croatia-Bosnia and Herzegovina-Montenegro 2014-2020 is a new trilateral programme envisaged to be implemented during financial period 2014-2020.

The overall objective of the Interreg IPA Cross-border Cooperation Programme Croatia-Bosnia and Herzegovina-Montenegro 2014-2020 is to strengthen the social, economic and territorial development of the cross-border area through the implementation of joint projects and activities to be supported within four priority axes:

- Improving the quality of the services in public health and social care sector.
- Protecting the environment and biodiversity, improving risk prevention and promoting sustainable energy and energy efficiency.
- Contributing to the development of tourism and preserving cultural and natural heritage.
- Enhancing competitiveness and developing business environment in the programme area.

INTERREG DANUBE

The Danube Transnational Programme promotes economic, social and territorial cohesion in the Danube Region

The cooperation programme is structured across four priority axes that intend to develop coordinated policies and actions in the programme area reinforcing the commitments of the Europe 2020 strategy towards the three dimensions of smart, sustainable and inclusive growth.

Danube Transnational Programme is covering following four thematic priorities with its specific objectives:

1. Innovative and socially responsible Danube region
 - Improve framework conditions for innovation
 - Increase competences for business and social innovation
2. Environment and culture responsible Danube region
 - Strengthen transnational water management and flood risk prevention
 - Foster sustainable use of natural and cultural heritage and resources
 - Foster the restoration and management of ecological corridors
 - Improve preparedness for environmental risk management
3. Better connected and energy responsible Danube region
 - Support environmentally-friendly and safe transport systems and balanced accessibility of urban and rural areas
 - Improve energy security and energy efficiency
4. Well-governed Danube region
 - Improve institutional capacities to tackle major societal challenges
 - Support to the governance and implementation of the EUSDR

NON EU FUNDED PROGRAMS

EEA AND NORWAY SUPPORT

The EEA and Norway Grants are Iceland, Liechtenstein and Norway's contribution to reducing economic and social disparities in Europe and to strengthening bilateral relations with 15 beneficiary countries in Northern, Central and Southern Europe. The support provided through the Grants reflects the priorities set out in the 'Europe 2020' strategy – the European Union's ten-year growth strategy for smart, sustainable and inclusive growth. The funding period 2014-2021 represents the most ambitious effort so far by the EEA countries resulting in an agreed total budget of €2.8 billion. The following five priority sectors have been agreed between the donor countries and the European Union:

- Innovation, Research, Education and Competitiveness,
- Social Inclusion, Youth Employment and Poverty Reduction,
- Environment, Energy, Climate Change and Low Carbon Economy,
- Culture, Civil Society, Good Governance, and Fundamental Rights and Freedoms,
- Justice and Home Affairs.

The priority sectors include 23 programme areas. The EEA Grants and Norway Grants both focus on identical priority sectors and programme areas.

SWISS SUPPORT PROGRAMS

BiH is a priority country for the Swiss Cooperation in Eastern Europe. Since 1996, Switzerland has officially contributed over one billion BAM to BiH through local and regional development projects, and through contributions to multilateral programs.

The Swiss Cooperation Strategy Bosnia and Herzegovina 2017-2020 is the expression of Switzerland's renewed commitment to continue its longstanding partnership with Bosnia and Herzegovina.

The overall goal of the Swiss Cooperation Program is to provide more and better economic, social and political opportunities and perspectives to the people of Bosnia and Herzegovina. In the spirit of long term commitment and engagement, the main domains remain unchanged:

- Health,
- Economy and Employment,
- Democratic Governance,
- Municipal Services and
- Justice.

The foreseen financial commitments for the period 2017- 2020 amount to 74 million Swiss francs.

USAID SUPPORT

USAID support programs improve economic opportunities and promote a business-friendly environment by supporting BiH efforts to increase competitiveness and productivity, attract investment, and make economic policy reforms.

Efforts to improve economic opportunities target the sectors with the highest growth potential: agriculture, wood products, tourism, and light manufacturing. Assistance includes marketing BiH as a tourist destination, introducing new technologies in the agriculture sector, promoting marketing linkages, and supporting the use of IT applications to improve efficiency of small and medium-sized enterprises. USAID uses Development Credit Authority credit guarantees to improve access to finance for SMEs and capitalize on technical assistance through other programs.

GIZ SUPPORT

GIZ is supporting Bosnia and Herzegovina's efforts to increase economic and domestic stability and implement reforms. Priority areas are:

- sustainable economic development and employment
- energy sector development (energy efficiency and renewables)
- reform of the public administration.

GIZ also facilitates regional cooperation among the six Western Balkan countries – Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia.

Currently following projects provide direct/indirect support to development of SMEs in Bosnia and Herzegovina

Project name	Objectives	Donor
Diaspora invest in Bosnia and Herzegovina	USAID's Diaspora Invest project catalyzes diaspora's contribution to socio-economic development in BiH by structuring, stimulating, and supporting diaspora investment in the home country. The project has three main components: <ul style="list-style-type: none"> • Assisting in the development of the strategy framework for diaspora investment 	USAID

	<ul style="list-style-type: none"> • Expanding diaspora direct investment through technical assistance and grants to eligible early-stage small and medium-sized enterprises. • Developing a sustainable local platform to provide diaspora business services and facilitate investment. 	
Workforce and higher access to markets in Bosnia and Herzegovina	<p>WHAM is improving the capacity of high-growth, exporting, and export-ready SMEs via cost-share grants for interventions in the targeted sectors of metal and wood processing, textiles, and footwear. WHAM goals are:</p> <ul style="list-style-type: none"> • Improve the workforce, • Increase market access, • Improve product quality and use of new technology. 	USAID
Energy investment activity	<p>The main objectives of USAID’s Energy Investment Activity are to help the country attract investment and create jobs in the energy sector. Through this activity, USAID works to revise and align the permitting processes for construction of electricity generation facilities, so they are consistent, transparent and investor friendly throughout the country. The project will develop and recommend legislative measures, at all levels of government, that will stimulate investment in new power plants—especially renewable energy power plants and biomass cogeneration—in select regions of the country. It will also help establish a retail market in which electricity consumers can choose their supplier. It will work to improve energy efficiency among distribution system operators and suppliers to reduce CO2 emissions and energy costs. The project will also support the BiH Ministry of Foreign Trade and Economic Relations in its role of coordinating the country’s energy sector on its path to European Union accession. A strong public outreach and awareness program will ensure BiH citizens understand and benefit from the changes taking place in the energy sector.</p>	USAID
Promotion of renewable energy	<p>By promoting a better legislative and regulatory framework, and developing new incentive schemes, the project aims to make the renewable energy sector more attractive to private and public, local and international investors. The project works with partners, both at the state level and in each of Bosnia and Herzegovina’s two entities, including the</p>	German Federal Ministry for Economic Cooperation and

	<p>respective ministries of energy, and the electricity regulatory commissions. It also works with renewable energy operators in both entities, and with the Brčko district government.</p> <p>Together with these partners, the project is attempting to establish a conducive environment for the increased use of renewable energy in Bosnia and Herzegovina, and for the fulfilment of the country's obligations under the Energy Community Treaty. To this end, its activities focus on four main areas:</p> <ul style="list-style-type: none"> • Improvements to the general framework for the renewable energy sector • Development of the bio-energy sector and introduction of related innovative technologies • Promoting the sustainable use of small hydropower plants • Support schemes for renewable energy sources 	Development
EU ProLocal	<p>EU ProLocal is a joint programme of the European Union and the German Government for local self-government and economic development in Bosnia and Herzegovina.</p> <p>The Programme supports the development of innovative products and services that enable companies to operate more efficiently and to integrate into international value chains. At the same time, it helps local administrations to improve business environments and to provide services needed by companies.</p>	<p>European Union</p> <p>German Federal Ministry for Economic Cooperation and Development</p>
Youth Employment Project	<p>YEP promotes and supports through investment fund creation of new job opportunities linked to social entrepreneurship models</p>	Swiss Development Cooperation

Investable projects in the field of energy efficiency, renewable energy can be financed through following financial/support programs:

Organisation	Description	Contact
Western Balkans Enterprise Development & Innovation Facility (WB EDIF)	WB EDIF aims at improving access to finance for small and medium-sized enterprises (SMEs) in the Western Balkans.	www.wbedif.eu

	WB EDIF focuses on: boosting the participation of private sector actors, addressing the needs of the Western Balkans SME market, building up a local venture capital market, widening the scope for SME finance, increasing available funding and financial instruments	
Western Balkan Sustainable Financing Facility	The Western Balkan Sustainable Financing Facility is a financing facility under which the EBRD provides credit lines to partner banks in the WB to on-lend to business and municipalities wanting to invest in energy efficiency and small scale renewable energy projects	www.webseff.com
Western Balkans Investment Framework (WBIF)	Western Balkans Investment Framework (WBIF) supports socio-economic development and EU accession across the Western Balkans through the provision of finance and technical assistance for strategic investments, particularly in infrastructure, energy efficiency, and private sector development.	www.wbif.eu
Green for Growth Fund	Green for Growth Fund aims to contribute to enhancing energy efficiency and fostering renewable energies in the Southeast Europe predominantly through the provision of dedicated financing to businesses and households via partnering with financial institutions and direct financing.	www.ggf.lu

2.4 Business incubators

Business incubators

Business incubators play a significant role in providing development services for innovations in the areas of high-tech, R&D, support for companies to attract direct foreign investment and accessing venture capital markets. Their role is to assist and accelerate the development process for companies located in these centres through the provision of services, training, infrastructure and other necessary support.

The list of Business incubators/ accelerator that provide support to development of innovative ideas are:

Incubator	City	About	Contact
Innovation Centre Banja Luka	Banja Luka	Innovation Center Banja Luka was founded in and it is only business incubator in Bosnia and Herzegovina that is established and funded by entity government. It is organized as combined centre consisting of business incubator and training centre. ICBL offer support to its tenants through pre-incubation, incubation and virtual incubation programs. Depending of a program INTERA provides support from 6 months to 3 years.	www.icbl.ba
Business Innovation and Technology Park Tuzla	Tuzla	Business Innovation and Technology Park Tuzla is formed in 2005. BIT Center has a main goal to provide opportunity for young prospective experts and entrepreneurs to start and develop their businesses. Beside 2700m2 of office space the BIT Centre offers professional help in finance, marketing accounting and law. BIT Center has Seed Capital Found on which residents of BIT Centre can apply.	www.bit.ba
Technology Park INTERA	Mostar	Technology Park INTERA started in end of 2012 aiming to introduce incubation services in Mostar region. Same as ICBL, INTERA offers pre-incubation, incubation and virtual incubation programs. Depending of a program INTERA provides support from 3 months to 2 years.	www.intera.ba
Technology park SPARK	Mostar	SPARK is an advanced digital technology acceleration platform dedicated to regional startups. SPARK startup program offers access to space, education, mentoring and collaboration with corporates.	www.spark.ba
Networks	Sarajevo	Networks is a business center and a co-working community For its startups Networks provides access to educational events, mentoring	www.networks.ba

		and access to money through network of investors.	
Burch Incubator	Sarajevo	Burch incubator is student incubator with an idea to create a sustainable innovation platform through education, and market experimentation to support the formation of new companies leveraging existing university-enterprise partnership.	www.incubator.ibu.edu.ba

Mentorship programs

Mentorship program for micro, small and medium enterprises has been introduced through project “Establishment and Promotion of Mentoring Services for Small and Medium Enterprises in the Western Balkans” financed by Japan International Cooperation Agency.

Mentoring service can include following support services:

- assessment of current state of development of the company,
- support during preparation of development plans,
- education,
- support in partner search activities,
- support in access to funds,
- counselling.

Carriers of mentoring programs for micro, small and medium enterprises are Republic of Srpska Agency for Development of Small and Medium Enterprises – RARS (www.rars-msp.org) and Sarajevo Development Agency – SERDA (www.serda.ba). Mentoring services are limited to 50 hours per company. Companies apply for mentoring services based on public call.

Co-working spaces

Co-working is a growing worldwide phenomenon that gives its followers a real sense of independence while offering an ideal environment for sharing common goals. It is a cost effective dedicated work space. Following co-working spaces exists in Bosnia and Herzegovina:

Centre	City	Contact
Qlab	Banja Luka	www.qlab.space
SmartOffice	Banja Luka	www.smartoffice.ba
1stCoworking	Banja Luka	www.blcoworking.ba
CODE Hub	Tuzla	www.code-hub.eu/code-hub-tuzla
CODE Hub	Mostar	www.code-hub.eu/code-hub-mostar
Technology park SPARK	Mostar	www.spark.ba
Networks	Sarajevo	www.networks.ba
HUB387	Sarajevo	www.hub387.ba
SSBH Hub	Sarajevo	www.aabh.ba

2.5 Support by companies (internal and external)

Private scholarships/fellowships

Looking the source of scholarships for students in Bosnia and Herzegovina we could list them as follows:

- Entity and cantonal ministries of science and ministries of education,
- Cities and municipalities,
- Erasmus +,
- Foreign government scholarships (Germany, Turkey, Romania, USA, UK, Thailand, France, Italy...),
- Foreign universities scholarships,
- Foreign companies and foundations,
- Domestic companies and foundations.

Following private companies and foundations scholarships were available for students in Bosnia and Herzegovina in 2017:

Company/foundation	Business Area
Intercom Ltd	Not specified
Mtel	Computer science, electrotechnics
Scholarship foundation Mostar	Geodesy
Hastor foundation	Not specified
Walter Ltd (Walter Architectural BIM scholarship)	Architecture
Fonns foundation	Not specified
Huawei	Not specified
Bosnia and Herzegovina Futures Foundation	engineering, manufacturing, computer sciences or information technology
Bosnia Banka International	Not specified
Heinrich Boll Foundation	science, technology, engineering, mathematics, environmental protection, renewable energies, climate
Foundation Konrad Adenauer	Not specified
Lanaco Ltd	Informatics

Organizations of hackathons

Together We Achieve More

Together We Achieve More is a series of a three hackathons organized in Sarajevo, Banja Luka and Mostar gathering young IT people in 72 hours event to ideate and develop socially responsible IT solutions from following fields:

- Human rights
- Education
- Environment/green technologies
- Youth engagement
- Improving local communities

D4STARTUPS

D4STARTUPS is a hackathon organized in Mostar during which software solutions for real problems faced by local companies in agriculture, tourism and metal industry are developed by 30 young people from throughout Bosnia and Herzegovina.

CITYOS Mostar

hackathon, where developers, engineers, makers, architects, UI/UX designers and others apply everything they learned and join forces to build the best smart city solutions for their challenges using IoT and robotics technology.

Inspire and Innovate Hackathon

Hackathon was organized by Technology park SPARK form Mostar. Hackathon was prganized as 24 hour event aiming to develop mobile and web application form following fields:

- Health, fitness, smart wearables
- Augmented reality
- Smart homes

2.6 Crowdfunding

Regarding national crowdfunding platforms, Bosnia and Herzegovina does not have any active platforms at this moment. In past 4 years two national crowdfunding platforms were developed but haven't succeed in it operations. Latest activity on www.IdeaFunders.net and www.katapult.ba was in 2016.

Awareness about crowdfunding, as a source of financing, start to raise in second part of 2017. Two initiatives contributed to raised interest for crowdfunding financing. Firs one was Global Crowdfunding Academy which was supported by UNDP and www.pocni.ba as education platform for crowdfunding.

First Global Crowdfunding platform supported development and campaign for 12 ideas focusing on ideas in field of energy efficiency, environment protection, social entrepreneurship, IT and hardware solutions, production design.

All enrolled project from Bosnia and Herzegovina are enrolled on two international crowdfunding platforms:

Platform	Link
Kickstarter	www.kickstarter.com
Indiegogo	www.indiegogo.com

2.7 Events and networking

Local workshops

Event	Date	Place	Content
VI Council of Energy in BiH	28 – 29.09.2017	Neum	Energy efficiency and renewable energy in Praxis
Third Energy summit	04 – 06-04.2017	Neum	Dialogue of key stakeholders aimed at improving the regulatory framework, removing

			obstacles to investments and creating a more favorable market-oriented environment.
Energy nights	February and March 2017	Banja Luka, Mostar	Energy night for citizens covering subjects energy efficiency, air pollution, climate changes
YEP/IEEE Innovation Challenge 2017	June – December 2017	Bosnia and Herzegovina	Student innovation competition offering education and mentoring support

International seminars

Event	Date	Place	Content
RENEXPO 4 th International Trade Fair and Conferences on Renewables, Energy Efficiency, Environment protection and Water treatment in Bosnia and Herzegovina	08-09.11.2017	Sarajevo	RENEXPO gathers more than 80 exhibitors from 20 countries with 1500 international visitors. The countries Bosnia and Herzegovina, Croatia, Montenegro, Albania, Serbia and Macedonia are presented in conferences, B2B meetings and 2.000 m ² exhibition area. The subjects Hydropower, Wind Power, Biomass, Energy Efficiency, Water and Waste Water Treatment, Water Supply System and Solid Waste are in the focus of the exhibition, conferences, round tables, workshops and the side programme. Investors Business Lounge - Owners of 100+ investment projects meet investors from entire Europe in B2B meetings.
Sarajevo unlimited	02-04.11.2017	Sarajevo	Regional innovation forum including workshops, panels on startups, innovation development.
INOST	19-21.04.2017	Banja Luka	International Innovation fair
LIST	11-13-05.2017	Lukavac	International tourism and ecology fair
EKOBIS	14 – 16-09.2017	Bihac	International ecology fair
ENERGA	06-08.06.2017	Sarajevo	International trade fair for energy, industry and mining

2.8 Promotion and marketing

In 2017 most of activities in regards to promotion of Bosnia and Herzegovina in the field of innovations, energy efficiency, and ecology are carried by Foreign Investment Promotion Agency. Agency presented investment opportunities in Bosnia and Herzegovina at following events:

Event	Date	Place	Content
4th International Economic Fair EXPO RUSSIA - BALKAN 2017	15 – 17.03.2017	Belgrade	Foreign Investment Promotion Agency presented investment opportunities in Bosnia and Herzegovina at the forum "The Economic Development Perspective of the National Economies of the Balkans Region and Russia".
Trilateral Forum Saudi Arabia-Serbia-Bosnia and Herzegovina	29 – 30.01.2017	Kingdom of Saudi Arabia	Presentation on investment opportunities in Bosnia and Herzegovina with an emphasis on the sectors of wood industry, agriculture, metal sector, energy and tourism.
International fair of technics and technical achievements	15 – 19.05.2017	Belgrade	15 technology companies from Bosnia and Herzegovina presented at the fair
Fair for Renewable Sources of Energy in Agriculture and Forestry - BIOMASS	08 – 12.04.2018	Brno	Visited by trade delegation from Bosnia and Herzegovina

In order to promote new ideas, innovation development and to raise awareness about importance of entrepreneurship for country development Republic of Srpska Ministry of Science and Technology broadcast finals of the Competition for Best Technological Innovation. In this way finalist get opportunity to promote their products toward wider audience and from other side audience has opportunity to get insights about development process.

3. Support structures and sources for energy efficiency, renewable energy and environment conservation

Both of entity governments have established funds that are main carriers of support for energy efficiency, renewable energy and environment conservation. Both funds are established by law and got authorized to collect fees from:

- fees paid by polluters of the environment,
- charges for burdening the environment management,
- water protection fee paid by owners of vehicles,
- other sources according to law.

Fund for Environment Protection and Energy Efficiency of the Republic of Srpska

Fund for Environmental Protection and Energy Efficiency of the Republic of Srpska, was established as a legal entity with public authority, whose rights, obligations and responsibilities are determined by law on Fund for Environment Protection and Energy Efficiency of the Republic of Srpska (Official Gazette of the Republic of Srpska No. 117/11)

The activity of the Fund include activities related to fundraising, as well as financing the preparation, implementation and development of programs, projects and similar activities in the field of conservation, sustainable use, protection and improvement of the environment, and on energy efficiency and use of renewable energy sources.

For 2017 Fund awarded EUR 1.35m for projects in he fields of waste management and water protection to companies, NGOs, and local communities.

Fund for Environment Protection of Federation of Bosnia and Herzegovina

Fund for Environment Protection is non profit public institution established by law (Official Gazette of Federation of BiH No. 33/03). Activities of fund includes fundraising, preparation, implementation and development of programs, projects and similar activities in the field of environment protection, and use of renewable energy sources. On a yearly basis Fund support project in the fields of environment protection, energy efficiency, water protection either through awarding grants or awarding loans through specific credit lines.

In 2017 Fund awarded grants in value of EUR 3,55m and approved loans in amount of EUR 2,2m with interest rates ranging from 0 to 2%. Loans are approved for a period of 7 years with grace period of 12 months. Allocated fund are awarded based on public call for application for companies, local communities, and NGOs.

4. Summary

It is evident that R&D capabilities in both the public and private sector are weak and R&D undertaken at universities has a weak relevance to industry. Therefore, base for development of innovations is a fairly poor.

The field of technological development is characterized by the low awareness of decision-makers about the importance of innovation and the necessity of using modern technology. At the same time, there are a small number of large companies investing in innovation.

Also, a marginal government funding does not initiate and encourage R&D which in conjunction with much bigger problems that private sector face, results with a situation where R&D activities are left aside.

We have to make clear that eco innovations, as a sub sector, are not recognized separately by strategic documents that create framework for innovations development. Each strategic document includes measures for support of innovations development which off course includes eco innovations. Even strategic framework is present problem exist in slow implementation mainly due to budget restrictions.

Currently, activities in the field of innovation development support are mainly supported through donor funded projects. Donor funded projects provide support in time limited period, and even transferred, after project ends good practices are, in majority of cases, no longer implemented by local stakeholders.

Regional funds that invest in energy efficiency, renewable energy are present and very active but they are mostly focused on usage of existing technologies in order to improve current situation not providing direct funding for new innovative products developments. What is very important for these funds is that they are creating companies and market that could serve as future lead in eco innovation support ecosystem.

In order to fight all the listed obstacles and problems, there is a long and hard road in front of BH innovative population but chances are available. Bearing in mind the significant energy potential, it is necessary to encourage special research in the areas of maximum energy consumption, with a strong emphasis on renewable energy sources and their protection. Eco-innovations have potential to be the specialization of Bosnia and Herzegovina.