

17. Strategic objectives, priorities and measures of revitalization and continuous progress of industry in the Federation of Bosnia and Herzegovina

The project "Development of industrial policy in Federation of Bosnia and Herzegovina, is based on full conformity with the commitment to manufacture advanced society.

We are now creating the future of our environment for the next 10-20 or 50 years, where we are to live in harmony and pleasant atmosphere of connecting young generations with generations of experience.

During the transition, we should focus on preparing and achievement of a full concept eco social-market model of sustainable development and advanced society. Output should be looked for in a new product, new technology and, above all, in the new philosophy of economy.

Maintainable development implies a form of human behavior and action that allows long-term development of economic activities and society and peaceful coexistence with the purposeful use of the inherited stocks and life in nature.

Advanced society is the form of organization of co-existence on the planet Earth in which the human race puts the meaning of all existence at the service of creating new values.

Main goal is to create a framework for sustainable economic development and advanced society in the Federation of Bosnia and Herzegovina and Bosnia and Herzegovina in general. High set of goals can be achieved only by extensive scientific research, the consensus on economic strategy and regional development and acceptance of an integrated complex of eco social-market model. Only the synergistic action of diplomacy (economic diplomacy, primarily) and the holder of the development of the economy in the Federation of Bosnia and Herzegovina and in the state can achieve results.

Eco social market model is based on the fundamental determinants: ecology, society and market economy, which are organically connected to each other, to achieve competitive abilities, social justice and partnership and considerate use of natural reserves.

Sustainable development implies a form of human thought and action that enables

and ensures the long-term development of economic activities and society and peaceful coexistence with the purposeful use (no exhaustion) inherited stocks and life in nature.

Advanced society is (in contrast to the capitalist, ownership-consumer) that form the organization of co-existence in Bosnia and Herzegovina in which the human species the meaning and purpose of their existence and actions places solely at the service of creating new values, that is used for all users of all goods in the state. In this sense, the overall human activity occurs in the following seven basic processes, or areas: social and human potential, value system and values, changes in systems, information and communication, the relationship between systems and environment, structure / organization system and eco-social market economy.

The course of the implementation of the project "Development of industrial policy in the Federation of Bosnia and Herzegovina," and documents issued on the basis of the project will also be observed by submission of reports to the Government of the Federation of Bosnia and Herzegovina, which will reflect, among other things:

- the results of applied economic measures,
- improvement of industrial policy (increased competitiveness),
- implementing documents for the next years will be brought based on the results achieved by analyses.

Strategic goals include horizontal and sector priorities, measures and activities. Realization of horizontal priorities needs the space of the Federation of Bosnia and Herzegovina to make comfortable for the production, development of economy and investment.

Realization of the sector priorities should each sector lead to a level of qualification for the market competition. The bases for the sectoral priorities are:

- building the society based on knowledge;
- increasing the competitiveness of industrial companies;
- revitalization of scientific and technological potential;
- increase in exports of products with higher added value.

In our conditions, our every entity must produce, but not all, but what particular entity knows and can do the best.

17.1 Horizontal segments (the measures and activities) in the development of industrial policy in the Federation of Bosnia and Herzegovina for the period 2009 to 2018

Formulation priorities, measures and activities should point to the complexity of market laws, State, monitoring - control of industrial policy so that the same can be said to be successful. Building strategy searches for:

- political consent that the jurisdiction of the Federation of Bosnia and Herzegovina and the county do not overlap but that they effectively supplement each other,
- the formation of new institutions
- restructuring of existing institutions - the holder of support industrial development.

17.1.1 Institutions, agencies

In the process of creating favorable conditions for achieving stated goal, it is necessary:

- Establish a national institute of technology, but if it is not possible, the Institute of the Federation of Bosnia and Herzegovina should be formed.
- The mission of the institute should be support to the development based on knowledge, innovation and creativity.

This kind of Institute should be the most important part of technological and innovational state system with the mission of support for taking over existing technologies, which are still interesting for industry, directing and support of transfer and finding new technologies. Furthermore, Institute follows and predicts world technological movements, gives support in supporting participation of domestic research resources in European and World projects of research and development, which would be interesting for Bosnia and Herzegovina, follows and evaluates technological progress of Bosnia and Herzegovina and research-developing potential and it is the leading institution that suggests strategic technologic development of the country.

- Establish the Agency to achieve the policies in the field of science and technology on the adopted strategy of development and overall development of industry in particular the Federation of Bosnia and Herzegovina.

Within the Agency is needed a working body that would coordinate and foster the agreed measures, their operationalization and patronage.

- To establish the agency for the promotion of cooperation between universities and institutes with industry and SMEs. Bring a program that will, through research projects and innovative programs of lifelong learning effectively link scientific institutions and economy.

Small and medium company in the Federation of Bosnia and Herzegovina do not have research facilities or personnel who are engaged in research work. According to ranking of the World Economic Forum for the year 2008 Bosnia and Herzegovina is on the 133rd place of 134 countries ranked by the ability of company to absorb new technologies. Of the total number of personnel in the Federation of Bosnia and Herzegovina who are educated to deal with scientific-research work only 2.6% are employed in manufacturing.

- Establish an agency for the evaluation of all institutions, agencies, chambers ... which are infrastructure support for industry. The system measures and evaluation for each subject must be transparent and pre-determined depending on the defined mission of the subject.

The effect of all institutions, agencies, chambers ... should be evaluated in accordance with European Union standards. Bosnia and Herzegovina, Federation of Bosnia and Herzegovina is in the last decade in almost all segments of government and non-government sector established ministries, agencies, chambers, clusters, business incubators ... as support to the industry by the principle of how the advanced countries of the European Union operate.

The only question is the quality of these entities, or programs to achieve dynamic efficiency standards of advanced countries from the region. Therefore, it is necessary to be aware that the establishment of institutions or agencies for support of economic development by itself does not mean anything. It is illusory to expect the effectiveness of such institutions as compared with the same institutions in developed countries. However, it is important that there is a program which goal is reaching the standards of these institutions in accordance with the standards of developed countries.

17.1.2 Programs, strategies

In order to create a creative climate essential for a strong and dynamic process of realization set strategy it is important to:

- Introduce a program to achieve investment in research and development 1% of BDP in the Federation of Bosnia and Herzegovina over the next five years. Over 90% of these funds should be in the fund for financing research projects, scientific institutions and industry, but only those, which will produce knowledge for commercialization; Most foreign investments in Bosnia and Herzegovina were because of exploitation of natural resources and cheap labor, combined with the proximity of large markets. Natural resources are exhausted resource, while no country must not build a future on their own cheap labor, and can not achieve the desired development and competitiveness by cheap labor without relying on their own research and development. According to the commitment of the European Union, research and development, "lie at the heart of the European Union's strategy." One of the goals of the Lisbon Strategy is that the European Union set aside at least 3% of BDP on research and development.

Of this amount, it is expected that the government abstract one-third, while the rest need to abstract the business sector. It is certain that all EU members' countries and

candidate countries for accession will seek to make a program so they can achieve these goals. Therefore, Bosnia and Herzegovina, Federation of Bosnia and Herzegovina should urgently make a strategy of investment in research and development, and thereby the key to the success of the concept of market-oriented research and development is crucial.

- Introduce a program "fight against corruption" in order to encourage foreign investment and in order to give the contribution to market competition of existing economic companies;

In the world, it is not known concept of the parallel existence of a successful economy and widespread corruption.

- Adopt a program of support to the new businesses based on scientific innovation (deferral of tax liabilities, loan guarantees, company funds ...)
- Conduct a feasibility study of introducing commercial courts;

Since 2003, the project was implemented alternative dispute resolution in Bosnia and Herzegovina with the aim of mediation in order to ensure an efficient and financially cost-effective dispute resolution. From July 2007 all necessary requirements for full implementation of the law on mediation are fulfilled.

Regarding that the companies continue to stand out as a controversial problem solving business disputes, the study should show how mediation as an alternative is efficient in solving business disputes, and to point to a possible justification for the establishment of commercial courts.

- Establish procedures and systems of control release (or time delay) importation of new technologies from taxes and customs duties. Enact a law to that effect, tax relief linked to the degree of import substitution or for export volume.
- Adopt a program of measures against the underground economy. Program of measures should have indicators of effectiveness and periodic control efficiency.

According to the analysis carried out the underground economy greatly jeopardize fair competition and makes problems to many companies in the business. Instead of sporadic actions, it is necessary to adopt a consistent and permanent program of struggle against the underground economy.

- Adopt a strategy for ICT development with emphasis on e-business (e-Commerce. ..., e-Government). The strategy should covered the program reactivation BIHARNET's. Previous strategies regarding the development and application of IC technology that is a result of the Medium Term Development Strategy of the Council of Ministers (PRSP) is not implemented.

17.1.3 Laws

Institutional support to all of the above mentioned must provide the relevant laws.

Therefore it is of crucial importance:

- Enact a law on state aid,
EU has established a precise system of rules and system award grants to companies, and whose implementation supervise the European Commission. The rules are particularly restrictive to sector help because such aid distorts market competition, which does not contribute to the global competitiveness of the European Union. Unlike the sector support horizontal support (support for research and development, environmental protection, energy saving, employment, training) are considered to be welcomed because they are equally intended to all market participants. The European Commission adopted the "State Aid Action Plan" for the period 2005-2009 for diverting state aid from sector to horizontal and establishes a transparent and efficient system of authorization and control assistance. In a period of transition, it is not possible to avoid measures that do not comply with the rules of market economy. Therefore, Bosnia and Herzegovina will have the time to adjust state aid with EU regulations.
- Establish a registry of state aid in accordance with EU requirements;
This is in accordance with the ambitions and obligations of Bosnia and Herzegovina towards EU membership.
- Enact a law on business incubation. Build a new conception of science and technology parks and incubators, which is based on securing the scientific, legal, managerial and financial services;
Currently no specific legal framework would define the concept and status of incubators in the Federation of Bosnia and Herzegovina, although many incubators in Bosnia and Herzegovina have existed for many years under various existing legal framework.
- Establish a single register of investment in research and development;
Register should consolidate record of investing in research and development with local, county and federal levels. Obligations of Bosnia and Herzegovina to the EU also imply a transparent policy and an obligation in terms of investment in research and development.
- At the state level to adopt a legal framework for defining application procedures and

protection of ownership of patents. Initiate mechanisms for membership of Bosnia and Herzegovina to the European Patent Organization;

- With act to attach wage increase in public sector with the work of productivity in the industrial sector (indexing);
Bosnia and Herzegovina shows disproportion in terms of the state economy and amount of wages. Wage growth without a real base in the public sector has put pressure on companies in the industry to raise wages what makes them uncompetitive in the market and what threatens their existence for achieved level of infrastructure support and technology.
- With act to oblige the Federal Office of Statistics to adopt the methodology of EUROSTAT, and with legal measures to prescribe the updating of data in accordance with their importance and dynamics of change. Oblige the State Agency for Statistics of the measurement of scientific work in accordance with international standards, and measuring the number of patents of scientific-research institutions;
- Ensure the right of participation of Bosnia and Herzegovina on all EU funding for research and development.

17.1.4 The role of levels of government

All levels of government have their role in achieving the agreed tasks:

- At the level of local community to introduce an obligation of existence of information centers where the future entrepreneurs will get complete information about starting a business;
- On a regional basis to form a technology parks with a strict mission of supporting new technologies and new knowledge that are commercializing;
- Provide scientific support for employment in new growth industries in SMEs after the doctorate (tax-free on the salaries for the first year ...);
- Local community should adopt a program of stimulation of young cadres in order to overcome the problem of low mobility of staff (housing loans, time-limited tax reliefs);
- Make the study of natural resources in the Federation of Bosnia and Herzegovina, and establish a database of natural resources. The central database should be established based on integrated analysis of official resources by region for what regional development agencies should be concerned;

- With laws on the level of local community to provide local funding research projects of special interest for the region. To keep the concept of the commercialization of new knowledge on the federal level. Financial resources are allocated to projects that include technological innovation and are focused on future commercialization. Exceptions are the research projects of natural resources,
- To implement an analyze of existing capacity in the region for the certification of companies in terms of ISO standards, obtaining the CE mark and certification BETA agencies and if necessary to expand existing capacity.

17.1.5 Education

With a commitment for the society of knowledge, it is necessary to change the role and the structure of the educational system from the ground in all its fazes:

- to create a support fund for education from the areas of management and business. The fund should be used as a support for short courses, mostly financed from the companies, but only partial co-financed from the funds. Within the fund, it is necessary to reserve the means for employees' education in companies to create necessary postulates to satisfy criteria of assurance and quality of production and products (provision of services);
- to perform reform of high school educational program with directed education. To introduced obliged subject from business and economics.
- In evaluation of educational plans and programs, especially technical ones, and all other faculties connected with industrial development should be introduced the commitment to provide employers opinion about educational plans and programs and criteria of corporation faculties with industry (number of projects, price of projects, etc.). In evaluation of courses, it is necessary to perform analysis if graduates have place on the work market.
- it is necessary to introduce one or two subjects from economics and business in educational plans of technical, and all other faculties connected to industrial development on the first year of education. (so-called "Soft skills")

17.1.6 Media promotion

Expanse and efficiency determined activities are impossible without adequate media promotion. This is why in all fazes of strategy realization should:

- determine system of media promotion of market oriented research and development;
- promote innovations in media;
- educate public about importance of knowledge and science with special accent on market orientation and commercialization by means of media;
- promote concept of all lifetime learning.

17.1.7 Control of success

Credibility of taken measures is impossible to realize without constant control of success:

- for all adopted measures of industrial policy adopt indications of progress;
- to take the longest time period for obligated periodic revision of document Strategy of development of industrial policy in Federation of Bosnia and Herzegovina.

Only if suggested measures implement with evaluation quality of work of all institutions, agencies, bars, technologic parks,...in accordance with EU norms and their mission, the result will be expected and satisfied.

17.2 Sector strategic goals, priorities and measures for period 2009-2012*

Increased contribution of industry to growth of life standard and social wellbeing in Federation of Bosnia and Herzegovina

Priorities of this strategic goal are improvement surroundings for industry, informing population of working age about activities related to production, improvement of scientific and specialized potential of Federation of Bosnia and Herzegovina and Diaspora about development of society based on knowledge. The goal is increasing contribution to effective employment, increased number of employers and increasing number of industrial subjects.

Acceleration of re-industrialization, revitalization of technologic potential

Preconditions for re-industrialization of Federation of Bosnia and Herzegovina are: support for society based on knowledge, introduction of new informational technologies,

* Situation in certain sectors, strategic objectives, priorities, and measures are detailed in the relevant chapters and are listed only general-sharing in order to ease the drafting of the program implementation.

reinvestment in research network in industry, development of institutional infrastructure for support to all economy. Motto of all those activities is: "Without technology there's no production, without production there's no progress".

The goal of re-industrialization, revitalization of technologic potential is contribution growth of industry and GDP of Bosnia and Herzegovina.

Rising level of concurrent industrial subjects

Companies need to be relied on resources of knowledge and intellectual capital that is the basic source of business strength, market concurrence, profitability and intensive growth. Paths of successful level of concurrency are: secure flow of money – capital, corporative management of public and private sector and stimulation of import of new technologies. Companies need to lean its developing strategy on reengineering, improvement of production and increased productivity. Concurrency of industry of Federation of Bosnia and Herzegovina would be stabile by increased activity for 3-4 % per year, which is practically a goal.

Increasing level of export orientation of industry

Production must become the key precondition of the social well-being, actually its survival on globalized market. In order to achieve that production must me recognizable by following: High innovative, high adjustable-flexible, with characteristic of fast reaction on changes, fluent in cluster and networks, base on knowledge and on achievements in scientific-research work.

Production that contains mentioned elements can be export-oriented with tendency of assurance of export growth of 10%, which is a goal.

More intensive, dynamic development of industry of Federation of Bosnia and Herzegovina has to ground on a few important segments:

- informational communication technologies;
- scientific research activity;
- setting of the society of knowledge;
- modern education on all levels;
- affirmation of intellectual property;
- compatibility and synchronization with areas that follow industrial development;
- protection and improvement of living quality;

In function of faster development of industry, intention has to be dedicated to:

- production, adjustment of legal infrastructure for informatics society with common prodigies;
- production of dynamic informational infrastructure;

- creation of surroundings that support economy based on use of informatics and telecommunication infrastructure, technology and knowledge;
- production of society with educated, flexible and creative people who have a possibility for permanent education and employment;
- creation of potential innovative society
- promotion of development of knowledge society;
- active participation in regional and international corporation

Key factors of the future /long term/ development of industry of Federation of Bosnia and Herzegovina are:

- macroeconomic and political stability;
- business climate;
- legal framework;
- presence of strategic investors;
- perception of risks;
- degree of integration /industry and MSP/;
- degree of development of cooperative management;
- the level of industrial development.

Strategic goals /revitalization and continual progress/ industrial policy in Federation of Bosnia and Herzegovina are:

- realization of horizontal priorities in districts of Federation of Bosnia and Herzegovina
- increased contribution of industry of growth of life standard and well-being in Federation of Bosnia and Herzegovina
- acceleration of re-industrialization, revitalization of technological potential
- increment of level of concurrency of industrial subjects
- increment of level of export-orientated industry

Realization of strategic goals would lead to Europeization of Federation of Bosnia and Herzegovina in the area of industry, and that means: larger portion of industry and insurance of GDP, higher employment, higher concurrency, higher and faster transport of knowledge and technologies, higher productivity, more products with value-added service, higher use of informational and communicational technologies, promotion of society of knowledge, reduction of perception of risk, increase of level of development of cooperative management, development of developing business as a partner to industrial businesses and promotion of life quality.

Complete implementation of this document and other which derive from "Strategies of economical development of federation of Bosnia and Herzegovina", area of Federation will be area which will, through the stable economical development, offer quality and perspective life to its citizens in all aspects of business, education, culture and sport. Basically, it will be area for comfortable life, production and investment.

Considering that long term strategic goals are defined for easier management and efficient implementation it is suggested that their realization has three phases (first from 2009-2012), which allows higher level of adjustment to crisis, negative disruptions and use of effects which are results of first phase of implementation.

Activities which were estimated for achieving strategic goals (shown in following table) can be used as bearers of industrial development, federal and district ministry for adopting right choices while dealing with real dilemmas: what to develop, in what to invest, what are the priorities in research-developing project dilemma, how to step up to implementation of informational-communicational technologies.

Strategic goal 1: Realization of horizontal priorities in counties of Federation of Bosnia and Herzegovina

Mark	Priority	Measure	Carriers of realization	Time of realization
1.1.	Ensure basic assumptions for creation of environment that ensures market competition	1.1.1. Physical planning with built infrastructure /business, entrepreneurial, industrial zone /		
		1.1.2. Development of business zone		
		1.1.3. Development of institutions that provide transfer of knowledge and technologies in full capacity		
1.2.	Affirmation of development carriers in counties	1.2.1. Establishment of priorities of first and second class in counties		
		1.2.2. Establishment of support to further development of industrial sector		
		1.2.3. Development of institutional infrastructure / technological parks, business incubators etc./ as a support to priorities of first and second class		
1.3.	Defining of priority of first and second class	1.3.1. In project Development of industrial policy, priorities of first and second class are given in each county		
		1.3.2. Priorities has to be confirmed or modified by local strategies		
		1.3.3. All infrastructure /legislative, financial, institutional, educational etc./ has to be put in service to priorities		
1.4.	Institutions of institutional infrastructure for support to all economy	1.4.1. Forming of institutions of infrastructure for economy needs		
		1.4.2 In selection of institutions has to be optimal: -existence of technologic park in academic centers -existence of excellence centers in county centers which do not have academic institutions - existence of certified laboratories in each county center for areas of first and second priority of industrial development -insurance of industrial ecology laboratories in academic centers with accent on priority industries		

Strategic goal 2: Increased contribution of industry to growth of life standard and social- well being in Federation of Bosnia and Herzegovina

Mark	Priority	Measure	Carriers of realization	Time of realization
2.1.	Improvement of environment for production	2.1.1. Distribution of publications and media promotion		
		2.1.2. Promotion of domestic products on international Fairs		
		2.1.3. Promotion of production as only activity that creates new value		
2.2.	Informing of all working population about activities related to production	2.2.1. Extension of publishing activity, literature for production use, quality system, manuals, etc.		
		2.2.2. following and informing about production which substitutes imported products		
		2.2.3. Introducing significant achievements in industry		
2.3.	Establishment of institutional framework for finance market	2.3.1 Adopting legislative regulations for establishment of risk capital funds specialized for medium businesses and small industrial businesses		
2.4.	Agency for coordination EU pre-accession funds	2.4.1. Coordination of corporation: local authorities, county authorities, Federation and economic diplomacy with industry businessmen and managers with goal of using EU funds		
2.5.	Support to researches which are concurrent on international level	2.5.1. research projects /realization/		
		2.5.2. Promotion of young researches /doctoral and post-doctoral studies/		
		2.5.3. Promotion of young scientists /junior researchers and junior assistants /		
		2.5.4. Development of scientific system in Federation of Bosnia and Herzegovina		
2.6.	Support to projects which creates new values in industry in Federation of Bosnia and Herzegovina	2.6.1. Purchase of research equipment		
		2.6.2 Short term and long term study-expert visits / mobility of teachers, associates and experts /		
		2.6.3. support to innovations and intellectual property		
2.7.	Supporting projects that encourage the development of scientific infrastructure in the Federation of Bosnia and Herzegovina	2.7.1. entrepreneurial activity based on high technology		
		2.7.2. Evaluation of work quality of faculties, institutes and accredited and certified laboratories		
		2.7.3. Scientific meetings and conferences		

Strategic goal 3: Acceleration re-industrialization, revitalization of the technological potential

Mark	Priority	Measure	Carriers of realization	Time of realization
3.1.	The establishment and development of scientific - research infrastructure network	3.1.1. Decisively and significantly increased investment in laboratory equipment		
		3.1.2. Computerization of research network in accordance with applicable international standards		
		3.1.3. Enrichment and expansion of library holdings literature and software		
3.2.	Reinvestment in the research network in the industry of Federation of Bosnia and Herzegovina	3.2.1. Procurement of equipment for applied and developing researches		
		3.2.2. Evaluation of quality of work in line with EU norms		
		3.2.3. To ensure sufficient degree of use / provide that equipment can be used by students, graduates, masters of science and doctors of science /		
3.3.	Training a new generation of scientists at universities in Bosnia and Herzegovina	3.3.1. Start a spectrum of postgraduate doctoral studies		
		3.3.2. Use stays in the developed countries in the neighborhood and EU for specialization		
		3.3.3. Do doctoral thesis from applied research for the needs exactly specified industrial subjects		
3.4.	Stronger, more powerful and dynamic affirmation of specific subjects of institutional infrastructure	3.4.1. Develop a system of standardization and accreditation (BATA)		
		3.4.2. Develop a register of researchers, institutions / specially specific equipment in them /		
		3.4.3. Put into operation Research Network BIHARNET		
		3.4.4. Expand the network of scientific institutions and technology parks and to ensure preconditions for the harmonized development of all parts of the Federation of Bosnia and Herzegovina		
3.5.	Promotional activities	3.5.1. economic diplomacy in the service of economy / consulates, embassies and diplomatic representative bodies should be economical windows of Federation of Bosnia and Herzegovina		
		3.5.2. Recruitment of diplomats as top managers regarding the promotion of the entire wealth of the Federation of Bosnia and Herzegovina		
		3.5.3. Presentation of significant achievements in innovation and exports		
		3.5.4. Organizing consultations on the revitalization and modernization of industry		
3.6.	To improve the function of the Development Bank of the Federation	3.6.1. Raise funds on capital markets		
		3.6.2. The implementation of priority development programs of emerging small industrial enterprises		
		3.6.3. Cooperation with commercial banks for realization of credit programs		
3.7.	Improve the function of commercial banks	3.7.1. Complex programs of cooperation with the Development Bank of Federation of Bosnia and Herzegovina regarding loans		

Strategic goal 4: increase the degree of competitiveness of industrial companies

Mark	Priority	Measure	Carriers of Realization	Time of realization
4.1.	To ensure a steady flow of capital - money	4.1.1. Encourage savings of citizens of Federation of Bosnia and Herzegovina		
		4.1.2. Provide a higher level of foreign investment in industry of Federation of Bosnia and Herzegovina		
		4.1.3. Part of the funds from privatization - direct to the industry		
4.2.	Corporate management in conjunction public and private sector	4.2.1. Completing privatization and the implementation of the bankruptcy in industrial enterprises		
4.3.	Stimulate the introduction of new technologies that do not pollute the environment	4.3.1. Securing affordable credit		
		4.3.2. Reducing administrative barriers		
		4.3.3. Adopting support programs for extinguishing the old and introducing new technologies		
4.4.	The introduction of e-business	4.4.1. Adoption of Law on Electronic Business		
		4.4.2. Program design of electronic services for medium businesses, interest networked small businesses and small industrial facilities (e-VAT, e-education, e-law, e-health, etc)		

Strategic goal 5: Increase the degree of export orientation of industry

Mark	Priority	Measure	Carriers of realization	Time of realization
5.1.	Increasing the volume of production, which is classified in the high-tech industry	5.1.1. Modernization of production by importing new technology and equipment		
		5.1.2. Interesting network of industrial enterprises		
		5.1.3. Manufacture of products at European standards		
		5.1.4. Market insurance with the help of economic diplomacy		
5.2.	Well provide transfer of technology , knowledge and skills	5.2.1 Equipping institutions with research equipment to support industrial subjects		
		5.2.2. To adopt EU standards on the quality of products for security		
		5.2.3. To enable (make) laboratories and certify them to attest and certificates were valid in the EU		
5.3.	Creating an environment that supports economic development based on the use of IT and telecommunications infrastructure, new materials, technologies and knowledge	5.3.1. Building a society of educated, flexible and creative people who want to permanent educate and to employ		
		5.3.2. Creating a simulative innovative environment		
		5.3.3. Promoting the development of a knowledge society		

17.3 Influence of global economic crises on industrial policy in Federation of Bosnia and Herzegovina

In conditions of economic crisis, whose basis characteristic is droop of economics activities whose outcome is decrease of production, and that again means jeopardizing of vital functions of society. Basic question is how to lead economical policy.

Economical policy has to be led in a way it deals with fewer consequences. If there is opportunity crisis should be taken advantage of, and good developing base should be created.

Real sector of economy in Bosnia and Herzegovina is caught with financial crisis through difficult conditions of capital use (growth of interest, reduced terms and harder insurance of guarantee), decreased needs for goods (decreased demand) on domestic and other markets, but with increased concurrency on all markets.

Work places are seriously jeopardized, investment is decreased (new employment too), social sector is also jeopardized. If rate of growth of GDP falls from 4-4.5% from current 7% development of Bosnia and Herzegovina, that means recession.

In first faze companies which are globalized the most will be struck, like metal and construction sector which are numerous. Other sectors will be struck next. Simple reduction of invested activity in metal and construction sector will pull other sectors. Changes droop of income on domestic market cause other requests. It causes first changes of request of goods of permanent use, while the most stable requests will be in agronomical and food sector. Governments, depending on situation, have to give maximal effort in neutralization of degradation of situation. It is suggested to governments to review consciences of crises on economy and to take strong measures to restrain consciences on economy.

Those strong measures could be defined in a following way:

- 1) To improve money offer for economy trough opening new credit lines, especially for export-oriented economy, metal, electrical and construction sector, activation of development bank of Federation of Bosnia and Herzegovina in its full capacity undertaking actions on improvement of saving conditions (increasing the level of insured deposit), decrease of public use in order to keep more money in real sector – performers of Government on all levels;
- 2) To intensify prevention of disloyal concurrency, imported goods trough quality control of imported goods and evaluation of releasing goods on market of Bosnia

and Herzegovina as well as use of protection measures from subvention goods and dumping – government and control bodies of all levels;

- 3) To increase the beginning of public investments in road building and generally in traffic infrastructure and energetic – Government on all levels;
- 4) To increase process of evaluation of goods equivalence of Bosnia and Herzegovina, increased activity of national system of product safety as a precondition for realizing goods on market and opening Bosnia and Herzegovina market for direct foreign investments – The Council of Ministers;
- 5) To increase activities on project buildings that are financed from EU funds, World Bank, EBRD, as well as from other international developing sources – All levels of Government and Chambers in Bosnia and Herzegovina;
- 6) To release Raw material, repro-materials, equipment for production and spare parts from paying custom duties – The Council of Ministries of Bosnia and Herzegovina and Parliament of Bosnia and Herzegovina;
- 7) Not to collect Budget deficit from assets selling and foreign indebtedness, but from decrement of expenses in Budgetary expenditure – Government of all levels;
- 8) To involve all capacities of diplomatic missions, government chambers and media promotion of domestic goods alluding the consumers on advantage on buying and consuming domestic goods.

In present situation, Bosnia and Herzegovina has only one real solution: immediate activation of new investing cycle in electric- power and traveling infrastructure in order to partially compensate droop of demand of domestic market on international markets.

Immediate and prior solutions that have to be solved:

- developing program for network of motorways and highways,
- developing program for gas network in Federation of Bosnia and Herzegovina,
- developing program for electric-power sector with priority prepositions.

Source of financing public investment in period of time 2009-2012 will primary relate to:

- a) means of privatization (60-70%) which needs to be placed by Developing bank of Federation of Bosnia and Herzegovina;
- b) means of public companies (which need to be under higher supervision and in process of planning and using);
- c) needs of domestic inventors;
- d) FDI- direct foreign investments;
- e) loans from foreign banks, associations and other financing institutions.

17.3.1 World economic crisis and its implications on developing countries with special reference to Bosnia and Herzegovina and the Federation of Bosnia and Herzegovina

History teaches us one of its characteristic, features, properties, and that is to be repeated. Or at least repeats to some extent. As John Kenneth Galbraith noted and outlined in his book "Money" (JK Galbraith, 1975, 35) ... *"from the seventeenth century hither, in parallel with the development of banking were developing ... and cycles of euphoria and panic"*. He continues (JK Galbraith, 1975., 35):" *They are roughly correlated to the length of time that people needed to forget the last disaster - and that was enough time to die disgraced financial geniuses of one generation and to compensate them for the new masters and simple people believed, a certain time even justified, that everything they touch turns into gold. "*

At the time of world financial crisis, or rather at the time by some, it began to slacken, while the others have not yet felt the worst (and this polarization is important to emphasize in order to better highlight the seriousness of the task that lies ahead), the previously mentioned words are always interesting Galbraith's work as an omen. It is difficult, almost impossible to escape the impression that this crisis, however had its peculiarities, looks like something we've been through, to a lesser or greater extent. Of course, maybe not "we" in this generation, but surely "we" as the human race.

Although the task of this text is not to deal with the causes and phases of which the crisis began and through which he passed, but rather to reflect on the implications and consequences that it brings, and it is primarily for the underdeveloped world or developing countries, we will only touch on some of its causes and origins. Also, the idea is not only present the current, obvious situation, but try pass beyond "today" in a sort of "tomorrow", and thanks to the analysis and forecast of domestic and foreign experts, the opposing point of view or not, to get to the possible scenarios that await us in the near future.

17.3.2 Crisis-Causes and Beginnings

In 2009, it is difficult to find two economic experts who will agree about the causes and the result of the Great economic crisis in the late twenties of the last century or the 70 crisis. Even harder to be detected in the sea present answers to the question of why and how something happened that was unthinkable (though at least a few dozen times before, also has happened), and highlight of the challenges was a commitment-which

medicine among all is the best to exit the crisis.

Bad and superficial diagnoses are the most important prerequisite for a comprehensive and perfectly wrong disastrous economic policy as a solution to the problems. In this context, is indescribably important not to succumb to the pressures of current finding the causes at any cost. Experience teaches us (from Wall Street and 30's, to Southeast Asia, 90s) that there are no one or a primary cause. It is mostly a complex whirl of relationships, appearances, actions, conditions, and participants who, each in its way, are leading to the critical state. The importance is even greater if we know that the current moment is one of the few in the economic history when many things of the system will be considered again and when the process of building a new or perhaps no less important, re-engineering existing systems will start.

When we talk about the current crisis, the problems in subprime mortgage lending market in the U.S., or subprime loans, mostly chronologically categorized as the beginning of global financial problems. An identical situation as regards the causes of the crisis. There the story really comes down to security which is a process in which the debit illiquid financial instruments (credits, loans, and receivables) are converted into liquid, easily marketable securitization that can be traded in financial markets.

Unfortunately, the security is neither a cause nor an explanation of the problems the world economy is facing. It would be far better and easier that it is, because then it, would be unambiguously identified cause and proper medication and therapy that could lead to recovery.

However, its role and the place is probably among the trigger group, or a detonators that triggered the avalanche. Due to the aforementioned fact that the goal of this text is not to exhaust the issue of cause of the crisis, here we will keep the consensus that everything started from securitization.

Before, there had been a complete collapse of the pillars upon which the entire financial system lays, things looked really great. Market of loan stocks was constantly rising. Banks are due to its advanced liquidity were in the position to seek customers by offering them mortgage loans.

There is no doubt that during the first few years of securitization proved as useful work, both for banks and for investors, but also all the agents involved in this process. If the banks had been satisfied and stopped on that, we could really talk about a brilliant example of how financial innovation can bring benefits to all parties involved in this process - to the banks through increase of their credit potential, the credit users to whom means become more accessible, intermediaries through their commission, and again to the banks through increase of their profits due to increased credit potential.

And then things are headed in the wrong direction. Banks are realizing all the benefits of securitization and the opportunities it offers, believed in the infallibility of mechanism, which they created. It started the era of moral hazard, from which will burst panic after euphoria, as we can see from the things that are happening around us today.

With regard to securitization, in addition to release the long-term assets related to the bank, at the same time terminate mortgage credit risk from bank balance sheets and spread them across the SPV¹ and the loan stock sold on the market, investors, banks slowly start to lose interest in the rigorous observation of their creditworthiness and risk customers. The criteria for getting a mortgage loan are significantly reduced, and many, until than "low quality" and "risky", so called. "Subprime" customers got a chance to become homeowners.

It has further spurred the demand for both loans and real estate. However, at this step in the encouragement of demand actually was already talking about flatulence of balloon. But this time no one even noticed, or carried to report and tries to broaden awareness of this problem and with all certain consequences that it bears, primarily increasing the systemic risk. The rest is history.

17.3.3 The problems that Bosnia and Herzegovina and Federation of Bosnia and Herzegovina are faced

Predict economic trends are never grateful task. This is particularly true for regions and areas with a disordered or at least insufficiently regulated systems and mechanisms of economic planning, and one such is certainly the Federation of Bosnia and Herzegovina. Of course, in our case, an important obstacle is the lack of, inadequate access and / or lack of reliable statistical data regarding industry trends and overall trends in the economy.

At the beginning it is important to emphasize that our country, including the Federation of Bosnia and Herzegovina as an integral part, is among the developing countries and hence the interest that we are dealing with evaluation of the possible implications and consequences of the crisis in this category of countries. Due to this fact, no matter how much we may think of ourselves that we are a specific case, precedente in economic history, but also to our reality can apply some general principles and forecasts trends for the period that followers and which are reserved for the society and developing

¹Specijal Purpose Vehicle - SPV establishes the issuer of the loan (e.g. commercial banks) or the underwriter or investment bank, which is sponsored and distributor of the emission of securities. Role of the SPV is to assume the balance of its assets and based on pool of assets and transmitting securities associated investor and borrower. This is a legal entity, usually in a legal form of a trust, which ensures a more favorable tax treatment. SPV is the formal owner of the assets and holder of liabilities to the investors.

countries or country of low to medium income.

If it is possible to identify some common implications for all developing countries, it is possible to identify and joint industrial and other policies to deal with issues of anti-crisis prevention and treatment of its effects, or at least the common foundations on which this policy was based in various countries and regions.

Although economical history is full with examples of policies of economic development and growth, which gave almost perfect results in some regions, and the other proved to be a complete failure, it is possible to identify some basic guidelines as an important step on the path to better preparation for the coming period. Although industrial policies are not a guarantee of success, just as it is impossible to identify countries that had achieved any success without them. In fact, (D. Rodrik, 2009, 8) what separates the successful from the unsuccessful is not the existence or absence of industrial policy, but the skills with which this policy was implemented.

If we apply manager logic on the story of industrial policies and strategies and their implementation, it is clear that the policy actually played the role of vision, and strategy the path to achieve its vision. In this scenario, the statement of our leading people at the end of 2008, the people who should have and play the role of visionaries, clearly illustrate the fact that one of our biggest problems is at this level - this country simply is not run by the people with manager optics, or with "big picture" in their mind.

Saying that the crisis will pass us, and how we will stay untouched thanks to our own isolation, today are shown a remarkably irresponsible or at least naive. Antirecession measures came too late in relation to the beginning of the story about the crisis (almost six months), and some analysts evaluated them too global, noting that these measures should be less selective.

Although the predictions for the previous period were considered to be blacker than they are today, it appears that we are still stuck in the zone of fear of what tomorrow brings. Similarly, nor the entire world economy. Many local analysts (FCA dr. Boris Tihi) feared (and still fear) of the great social riots, which partially came true: we had and we have riots, but still not one of great proportions. However, even this option is not excluded. If the overall situation adds an arrangement with the International Monetary Fund, which provides a radical reduction in public spending is becoming very clear that new and possibly greater social riots and strikes follow.

Among analysts, there are more people who recognize the transformation of the economic crisis to social crisis which will lead to a decrease in industrial production (according to World Bank estimates about 22% of the GDP of Bosnia and Herzegovina creates industry op.a.) and workplaces, and to the fall of demand and the threat to

exporters. Same group of analysts claims that our crises attacks from two sides: internal, because of falling demand due to reduced purchasing power, external, because of the important exporters like Mittal, Aluminij, Power Industry, which now "import" a crisis after their clients abroad significantly reduced demand.

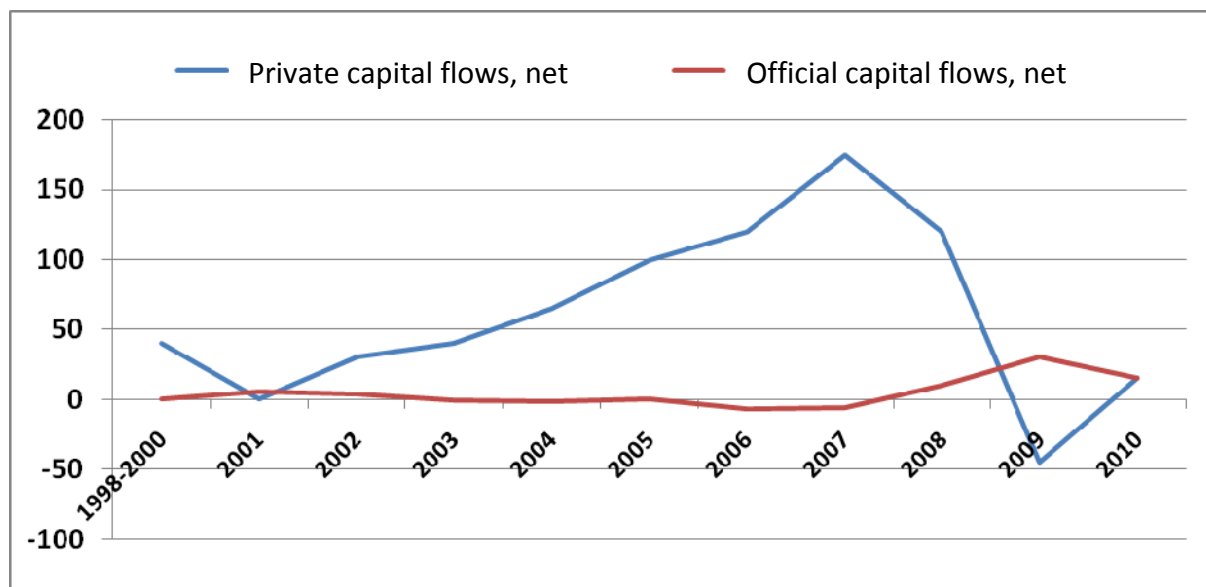
17.3.4 Implications of the global economic crisis on developing countries, with special emphasis on the Federation of Bosnia and Herzegovina

Even though we are daily "dashed" with black announcements and forecasts of various analysts, it seems that there are those who consider the implications of this crisis on developing countries largely indirect. Previously cited authors from the Harvard Kennedy School, Dani Rodrik, in his work entitled "Growth after crisis," in May 2009 argues that (D. Rodrik, 2009., 11), when the rich nations grow more slowly (or not) the total level of knowledge and technology that is available to firms in poor countries is not reduced. The potential to improve productivity and catching up remains untouched.

What may be the reason for concern are the following effects of slowing growth in rich countries to developing countries (Rodrik D., 2009, 11):

- the reduced cross-border loans
- slower growth in world trade
- less tolerance toward large debalances of Foreign Trade.

The first of these consequences (which we shall deal with) mentioned by prof. Domljan who says that (Domljan V., 2009) concomitant phenomena of financial crisis is capital flight in national waters. Net private capital flows to emerging economies and countries with low income have dried up. Capital flows to European transition economies will be twice smaller than in previous years (2004th, 2005th and 2006th), and will return to the level that they had at the beginning of this century.



Source: "The long, polar night," column in the magazine "Global", Domljan V., 2009.
 Figure 17.1. The inflow of foreign funds in European transition economies 1998-2010
 (based on IMF estimates)

Due to difficult situation in countries with high income, capital flows to countries outside the group, including the European transition economies, which include the Bosnia and Herzegovina, will be at a very low level.

In fact, says prof. Domljan, there is a complete reversal of capital flows in the banking sector. Situation in which (Domljan V., 2009) during the 2000s, until the global crisis, the daughter-banks imported capital from their mother-banks, because it fecundate by higher rates in Bosnia and Herzegovina and other transition economies than in the countries of mother-banks, has no more justification for the extra profit whose time has passed.

If in this story is included a report on global competitiveness of the World Economic Forum it can be seen the potential consequences with which Bosnia and Herzegovina could face (including the Federation of Bosnia and Herzegovina) due to these changes in capital flows. This report defines that the measurement of competitiveness of countries lies on the assumption that economy of countries go through three phases of competition, and (Sala-i-Martin X., J. Blanke, Drzeniek Hanouz M., T. Geiger, Mia I., F. Paua , 2008., 7):

PHASE 1: Factor driven economics - the dominant basis on which rests a competitive advantage and exports are low cost labor and natural resources. Companies imports, supplying agreements, foreign direct investment or imitations. Companies are competing with price, and generally have no direct access to foreign clients, and in value, chains

have a limited role, focusing on assembly, labor-intensive production and extraction of raw.

PHASE 2: The economy based on the investment - benefits of these countries comes from the production of a slightly advanced products and services with high efficiency. However, products and services generally are not globally differentiated, and the technology and design still largely come from outside. To the technology, we come through licensing, joint investments, foreign direct investment and imitation. Although the countries that belong to this phase are sensitive to financial crises and external shocks of demand, competitiveness is more stable than in factor-led economies.

PHASE 3: The economy based on innovation - the ability to produce innovative products and services on the limits of global technology, using advanced methods becomes the dominant source of competitive advantage. At this level, companies must compete with innovations.

Between these three phases, there are two interfaces, so called the Transition from Phase 1 to Phase 2 and Transition from phase 2 to phase 3.

Table 17 1: "Threshold" income as the basis for the establishment of phases

PHASE OF DEVELOPMENT	GDP per capita (in US\$)
PHAZE 1: factor driven economies	<2.000
<i>The transition from Phase 1 to Phase 2</i>	<i>2.000 – 3.000</i>
PHASE 2: The economy based on investment	3.000 – 9.000
<i>The transition from Phase 2 to Phase 3</i>	<i>9.000 – 17.000</i>
PHASE 3: The economy based on innovation	>17.000

Source: "Competitiveness of countries and regions of Eastern Europe 2008-2009", Lagumdžija Z., 2008.

As per capita GDP of Bosnia and Herzegovina is about U.S. \$ 3700, we are the doorstep of Phase 2 that belongs to the so-called economy based on investment. If we put that fact in the context of the above-mentioned changes in capital flows towards the European transition countries, including our country, it could mean that our future path, from the economy based on investment to the next intermediate, and finally approaching the economy based on innovation is further extended.

But such things can carry also some positive moments. In fact, there is no doubt that we are still at least partially so called aid-driven economy or economy dependent on aid. Reduction of these funds forced the country to find alternative solutions and, conditionally speaking, behaves as an entrepreneur. However, this of course remains at the level of thinking.

Each of these, eventual or obvious danger, or, generally, the implications for the economy of the Federation of Bosnia and Herzegovina is explaining the true nature and scope of the problem based on reduction of external financing of our economy. Rodrik and Domljan only points out some of relevant characteristics, and methodology of the Global Report on competitiveness, taking the logic model of Porter's diamond with selection of criteria for ranking country into the given phase (high GDP countries), does not offer us more of the aggregate results of all the forces and the weakness of the given economy. To cover what our primary interest are, and these are precisely answers on questions like - why is the GDP in a given level, not higher or lower, it is necessary to watch the original Porter's model, according to that our country (or the Federation of Bosnia and Herzegovina) should be is in the Phase I, factor led economy. A particular problem in this is that a factor that stands out as too important for the economy of the Federation of Bosnia and Herzegovina is the capital. More accurate to say is that the problem is actually in his absence and, consequently, in reliance to its acquisition by external sources. We should take into consideration the specificity of our banking sector (in this respect to recall the analysis of prof. Domljan) and many other specific indicators, which on the most direct way consultates undoubtedly incorporates recognition of this attitude, and this is instantaneously decision for getting the needed arrangement of IMFs. The last part of the mosaic is the concept of the aid driven economy, which until the end strictly, in the frame of the phase factor driven economy, actually points to the fact that the economy of the Federation of Bosnia and Herzegovina, in the context of the dependency to the factor of equity, is less affecting in terms of lack of foreign direct or portfolio investment, or even aspects of short-term movements of foreign capital, for which the evidence is found in data from the Bulletin of the CBBH, which speaks of a constant moderate, at best, the inflow of foreign capital in the Federation of Bosnia and Herzegovina. Capital that comes in the Federation of Bosnia and Herzegovina is actually more leaning on the so-called informal capital flows, types of remittances from abroad, donations, etc.

The logical conclusion is that if the Federation of Bosnia and Herzegovina is at the stage of development identified by Porter, Global Competitiveness Report and locally adapted diagnosis of the concept of aid driven economy, then in the spirit of the identified symptoms and flow course of the crisis (Rodrik, Domljan, Kešetović), which as a common contents have reduce capital inflows to developing countries, it is clear that it will follow a blow to one of the main pillars of the economy of Federation of Bosnia and Herzegovina.

17.3.5 Concluding remarks

What has been possible to hear since the story about crisis has become part of everyday life of average citizen, is cynical statement that we do not care does the world financial and economic crisis comes in our country or not because we are certainly many years in crisis. There is no doubt that we had many more problems before the crisis and that we will have many more when the crisis passes. Nevertheless, it is clear that it deepened the existing problems (except that the crisis brought some new ones) and additionally complicated our situation.

However, we have progressed through the crisis. True, very slow, but... In the context of this progress, it is certain that today in the Federation of Bosnia and Herzegovina no one seriously claims that we will avoid the crisis. That is, for start, a good sign: we are aware that there is a problem and that we have to face with that problem. Forms of crisis are in fact already here and are reflected in the reduced number of jobs, reduction of industrial production (in Federation of Bosnia and Herzegovina in the first quarter of 2009 year is for one-tenth lower than the production in the first quarter of last year), and increasing prospects that we will encounter with serious social riots.

Whatever antirecession measures were, they have been adopted. However, it may not be enough. We must go one-step further. There are more and more economic experts who agree that the crisis in our country will last and in the most optimistic forecasts the end of the crisis is mostly not visible before the end of 2010 year - it is too long period to gamble with. Sufficient are only three consequences that prof. Kešetović notes - tens of thousands of workers were left without a job, returning from abroad dismissed, and the remittances of our Diaspora will reduce- the situation becomes very serious.

Everything is not as bad as it seems, as Rodrik concludes (D. Rodrik, 2009, 27), there is room for optimism when the future of developing nations is in stake. The good news is that developing countries can continue to grow rapidly even if it happens sort of deceleration in world trade. The bad news is that the desired result will not happen by itself, as a result of the magic of market forces. Will we choose the path of creating the desired results? Will the politicians who have the power, use managerial skills?

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