

# NATIONAL SWOT ANALYSIS ON ECO- INNOVATION – BULGARIA



<b>WP3</b>	<b>Strategy for eco-knowledge</b>
<b>ACTIVITY 3.2</b>	Analysing the environment for ecoinnovation in partner countries
<b>DELIVERABLE 3.2.4</b>	National SWOT analysis on Eco-innovation

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# 1. SWOT analysis: National (governmental) perspective

Internal factors	
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<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>- Favourable climate conditions (four seasons) for development of eco - innovations (energy sector, agriculture, etc.)</li> <li>- Unique natural resources, including nature, mineral water for development of eco-innovations (agriculture, tourism, etc)</li> <li>- Favourable geographical location of the country</li> <li>- Relatively stable macroeconomic environment and low direct taxes</li> <li>- Relatively sound and predictable fiscal policy</li> <li>- High share of the population with secondary and higher education</li> <li>- High share of the university graduates, especially in the field of computer sciences and IT technologies</li> <li>- Tradition in the fundamental research including biotechnology</li> <li>- Existence of qualified researchers in the field of natural sciences, computer technology and engineering and medicine</li> <li>- Well-developed telecommunications services such in IT, research and development</li> <li>- High level of broadband coverage and high-speed broadband with access of at least 30 Mbps;</li> <li>- High level of Internet access for the households and business on a national scale;</li> <li>- 100% connectivity of all schools in Bulgaria to the Internet;</li> <li>- Accelerated pace of development of e-governance;</li> <li>- High level of usage of public e- services by businesses;</li> <li>- Steady growth in the ICT sector (including. exports);</li> <li>- High potential for research and innovation in the ICT sector;</li> <li>- Existence of relatively good education network (Universities, degrees in the field of ecology and innovations)</li> <li>- Existence of basic infrastructure for research and development</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>- Lack of a national policy for adaptation to climate change</li> <li>- Not smoothly functioning legislation network</li> <li>- Not good cooperation between institutions</li> <li>- Unfavourable demographic trends</li> <li>- An outdated and insufficient research and development infrastructure</li> <li>- Not quick enough investments in educational infrastructure</li> <li>- Slow changes following the contemporary requirements in the educational programmes</li> <li>- Low level of participation of the population in different forms of lifelong learning training programmes</li> <li>- High level of risk of poverty and significant social problems</li> <li>- Low incomes of the population</li> <li>- Relatively low economic activity of the working age population,</li> <li>- high share of unemployed youths and discouraged people</li> <li>- Relatively low labour productivity and resource efficiency of the economy</li> <li>- Inadequate provision of facilities for treatment of potable and waste water</li> <li>- Inadequate waste treatment infrastructure</li> <li>- Depreciated energy infrastructure and high energy losses in transmission and distribution</li> <li>- High dependence of the economy on imports of resources and energy and low level of diversification of the economy import of energy resources</li> <li>- Low energy efficiency in production and everyday life</li> <li>- Low company costs for R&amp;D</li> <li>- Insufficient broadband Internet access in some country areas</li> <li>- Low level of production of high added value goods</li> <li>- Slow and clumsy administrative procedures</li> <li>- limited innovation dynamics as demonstrated by global patenting and high- tech exports;</li> <li>- Inefficient educational system and shortage of qualified work force (despite the high share of graduates);</li> <li>- Insufficient financial resources for support of eco-innovations</li> </ul>

External factors	
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<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• What trends or conditions may positively impact your country?</li> <li>• What opportunities are available to your country?</li> </ul> <ul style="list-style-type: none"> <li>- Effective use of the European funds supporting eco-innovations</li> <li>- Linking budget programs and forecasts to strategic planning</li> <li>- Improving the efficiency of public spending and ensuring redistribution of public expenditure costs to activities increasing the growth potential of the economy</li> <li>- Harmonising the cooperation between engaged institutions</li> <li>- Improving the legislation frameworks in the field</li> <li>- Launching of motivation mechanisms in the field of eco-innovations (tax incentives, privileges, etc.)</li> <li>- Broader use of electronic services</li> <li>- Developing a modern research infrastructure, wider introduction of program-project financing</li> <li>- Attracting foreign direct investment into science-intensive sectors of the economy</li> <li>- Specialization in high-tech sectors, employing a highly qualified workforce</li> <li>- Wide development of financial engineering instruments in the country and increasing the importance of public-private partnerships and concessions</li> <li>- Utilization of the country's energy production potential</li> <li>- Taking advantage of the favourable climate conditions and natural resources (mineral water) - development of alternative forms of tourism and new tourism products</li> <li>- Validating the country as a producer of organic agricultural products</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• What trends or conditions may negatively impact your country?</li> <li>• What are your competitors doing that may impact your country?</li> <li>• Does your country have solid financial support?</li> </ul> <ul style="list-style-type: none"> <li>- Delay in the economic development of the country as a result of unfavourable international conjuncture</li> <li>- Challenges to the sustainability of public finances in relation to aging population, potential energy and / or financial / economic crisis;</li> <li>- Slow-down of economic growth of trading partners;</li> <li>- Rapidly increasing competitiveness of current competitors;</li> <li>- Economic sanctions on Russia;</li> <li>- Aging of highly qualified professors and researchers;</li> <li>- „Brain drain” - Opportunities for qualified researchers to work abroad with better conditions;</li> <li>- The dysfunctional ecosystem for innovations (science-education-innovations);</li> <li>- The imposition of EU sanctions in the case of non-compliance with environmental commitments</li> <li>- Risk of high damage to natural disasters and accidents due to unsupervised infrastructure;</li> <li>- Challenges caused by climate change</li> <li>- Significant increases in food prices due to climate change and the rise of the world's biofuel industry.</li> <li>- Significant increases in the prices of resources (including energy) and their share in their cost of industrial production</li> <li>- Loss of Bulgarian companies' markets due to competition from countries outside the European Union</li> <li>- Deepening inter-regional and intra-regional differences</li> <li>- Depopulation of large parts of the territory of the country</li> </ul>

## 2. SWOT analysis: National business perspective

Internal factors	
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<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>- Macroeconomic stability and low taxes;</li> <li>- Well-developed distribution network and good relations with neighbouring countries;</li> <li>- High level of SMEs which come out after the crises</li> <li>- Dynamically developing SMEs and acting as drivers of economic growth</li> <li>- Well-developed telecommunications services such in ICT, research and development with high potential for research and innovation;</li> <li>- Availability of a few enterprises with high growth;</li> <li>- Active presence of leading multinational companies, with research centres and BPO centres in the country;</li> <li>- Positioning the country as location for the detection of near-shore centres;</li> <li>- Traditionally good educational system in the field;</li> <li>- Availability of local investment</li> <li>- Availability of EU competitive funds and performance reserve towards improving the innovation;</li> <li>- Development of the industry in the towns outside Sofia</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>- Bureaucracy for investments (licenses and permits);</li> <li>- Limited innovation dynamics as demonstrated by global patenting and high- tech exports-;</li> <li>- Inefficient educational system and shortage of qualified work force (despite the high share of graduates);</li> <li>- Limited business-academia cooperation;</li> <li>- “Brain drain”;</li> <li>- Uneven broadband coverage (regional imbalances) with low penetration of broadband access in remote, sparsely populated and rural areas;</li> <li>- Small number of public e-services that are offered only online;</li> <li>- Lack of cross border interoperability of the information infrastructure for services with major economic and social importance;</li> <li>- Falling behind in the implementation of e-procurement;</li> <li>- Low level of digital literacy of the population compared to the average for EU;</li> <li>- Low level of usage of the Internet and Internet-based services by the population, 41% of the population have never used the Internet;</li> <li>- Low-skilled labour, which is not able to create added value in high-tech manufacturing and services.</li> <li>- Lack of enough training programmes in the fields of technology, research, development and innovations</li> </ul>

External factors	
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<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>- Access to EU markets;</li> <li>- Access to non-EU markets such as Russia, CIS and the Middle East;</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>- Not enough for administrative support to business</li> </ul>

<ul style="list-style-type: none"> <li>- New electronic administrative services;</li> <li>- Potential of cluster externalities;</li> <li>- Emerging strengths can attract investments in leading high-tech sectors;</li> <li>- Innovation and entrepreneurial culture of the young generation;</li> <li>- Bulgarian Diaspora scientists and potential of brain circulation;</li> <li>- Increasing global research collaboration trends;</li> <li>- Effective use of the available funds for business support;</li> <li>- Next-Generation Access networks(NGA)</li> <li>- Potential of e-governance and mainstreaming ICT in enterprises</li> <li>- Increased demand of software products and services in the world</li> <li>- Penetration of the markets in the region</li> <li>- Taking advantage of the favourable climate conditions and natural resources for business development</li> <li>- Development of business based on Innovations with environmental benefits.</li> <li>- Increase the share of SMEs in the field of environment, resource efficiency, “green products and services”</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of linkages between strategy and financial instruments to support SMEs</li> <li>- Rapidly increasing competitiveness of current competitors;</li> <li>- Increasing negative demographic trend;</li> <li>- Ineffective absorption of EU structural and national funds and other financial instruments;</li> <li>- Increasing competition from third world countries in the Balkans and Asia;</li> <li>- Rapidly changing environment.</li> <li>- Digital "exclusion" of remote, sparsely populated and rural areas and disadvantaged people;</li> <li>- Stagnation in the development of ICT infrastructure and e-governance;</li> <li>- The dysfunctional ecosystem for innovations (science-education-innovations);</li> <li>- Inability of the education and training system to cover the needs of ICT</li> <li>- Failure to stimulate the demand in the public sector</li> </ul>
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