

# NATIONAL SWOT ANALYSIS ON ECO-INNOVATION – SLOVENIA



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

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## 1. SWOT analysis: National (governmental) perspective

Internal factors		
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#### **STRENGTHS**

- What are your countries strengths?
- What do you do better than others?
- What unique capabilities and resources do you possess?
- What do others perceive as your national strengths?

Slovenia is unique in terms of its rich and diverse natural environment. Slovenian terrain consist of Alpine peaks and valleys, rich karstic plateaus, Pannonian basin and smaller part of coastal area. Almost 60% of the country is covered by forests (prevention of top soil loss, flood mitigation, clean air, abundant fresh water reserves, biomass as a semi carbon-neutral energy resource, etc.). Environmental awareness of its residents is at a very high level and it has continued to improve in the past years. Slovenian consumers are aware of major sustainability issues and recognize the importance of advancing sustainable development in their own lives and in the Slovenian society, which is also to a certain point reflected in their day-to-day behaviour in their consumption practices.

The workforce of Slovenia is in general highly educated and skilled. Education is of very high quality compared against international metrics and greatly accessible to practically all citizens, even at a tertiary level.

Mentality of entrepreneurship is omnipresent in the millennial generation. International success of niche companies and renowned experts is commonplace (for e.g. companies like Akrapović, Pipistrel, Dewesoft, etc.).

The country allocates substantial funding towards improving energy efficiency, renewable energy and waste management and it will continue to do

#### **WEAKNESSES**

- What are your countries weaknesses?
- What do innovation leaders do better than you?
- What can you improve given the current situation?
- What do others perceive as your countries weaknesses?

Governmental expenditure for research and development has been substantially reduced and is currently at a very low level. Internationally renowned experts don't have the proper conditions (remuneration or otherwise) to carry out scientific research at home, either in the private or public sector.

The countries debt to GDP has grown by 300% in the past decade and the country has 830 million of annual liabilities for interest on existing debt alone. The poor financial condition of the country requires high contributions to service, increasing the price of work and reducing competitiveness.

Companies must pay very high contributions (substantial discord between gross cost for the employer and net income earned by the worker), particularly for profession that create high added value. Several companies can't afford to pay such remunerations (as the overall added value of the economy is low compared to more developed countries) and even if they would substantially increase the gross wage offered, it's unlikely that experts (for e.g. STEM fields) would be motivated for the position, given that Austria and Germany offer much more attractive conditions.

Venture capital funding of promising technologies and products is almost non-existent, putting innovative firms in a clear disadvantage compared to the ones operating in more matured markets.



so in the foreseeable future. The country is constantly working towards transposing EU Directives into national legislation, which is also apparent in national strategical documents and development orientation (DSEPS, AN-URE, AN-OVE, OP-TGP, etc.).

The most evident need for improvement is within the legislative (voting system) and judicial (effectiveness, corruption and personal liability for mistakes) branches of government.

The image of Slovenia from the perspective of foreign countries has been improved in the previous years, however, fears of political instability, controversial decisions opposed to international commitments and lack of lustration that never took place still exists.

The inexperience with potentials and pitfalls of market economies (as opposed to central planned economies, which Slovenia was subjected to until 1991) also influence the management class today, which has not evolved to be comparable to developed economies. Moreover, management in particular has had a terrible track record from when Slovenia achieved its independence and has been a major source of issues until this day. The devise between remuneration/privileges and objective as well as subjective responsibility for such positions remains apparent. The culture of management is not as developed, compared to Western Europe. Several companies increase profitability strictly by increasing the labour intensity of its staff (also at the expense of deteriorating working conditions) and nefarious business/accounting practices, contrary to investing in their personnel (skill development and additional education, rewarding above average results, providing extra benefits to employees, etc.) and equipment used by the company in their business process.

Enforcement of labour laws (labour inspectorate) remains questionable within the context of several scandals of unlawful business practice publicly exposed in the past few decades of the countries existence.



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#### External factors

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#### **OPPORTUNITIES**

### What trends or conditions may positively impact your country?

What opportunities are available to your country?

The country has a strong tradition of engineering and production of specialized products (for e.g. vehicles) that was in a large part destroyed (and now rebuilt to cater to the needs of international industry) after the brake-up of Yugoslavia and loss of the former market. Slovenia also has an extensive knowledge base in the pharmacy and biochemistry sector (Sandoz/Novartis, Krka).

The countries strategic location makes it an important transport hub connecting Western/Central Europe to the Western Balkans. The personal ties, cultural resemblance, similar languages, common history, etc. with countries of the former Yugoslavian Republic, distinguish Slovenia as an optimal starting point to reach market of Western Balkan countries.

Abundant opportunities remain for the foreseeable future in international donor/funding programs, that Slovenia was unable to optimally absorb in the programming periods. Moreover. networking and clustering of national companies in terms of joint undertakings (that would allow more effective presentation on the international level) have not thus far not been utilized to any notable extent.

Slovenia has excellent opportunities for further advancements particularly in the fields of ICT (for e.g. IoT) as well as mechanical and electrical engineering due to extensive tradition with the sectors and high accessibility to internationally relevant education. The considerable mobility of employment seekers in highly economies demonstrate high quality. Taking into account the relatively inexpensive living costs compared to develop countries as well as the mobility of persons, capital and goods (and the

#### **THREATS**

- What trends or conditions may negatively impact your country?
- What are your competitors doing that may impact your country?
- Does your country have solid financial support?

Aging population and poor demographics mitigated by immigration. The high number of pensions is increasingly hard to fund from the perspective of smaller generations and low wages of the current workforce.

The next economic downturn could cause havoc on public finances (loss of GDP, increased interest on debt with tighter monetary policy), that could further reduce expenditures on science and education (research development) as well as to force the country to sell more assets to international predatory funds.

The continuation of the brain-drain effect, whereby (mostly) highly educated citizens leave the country for better life abroad could worsen the demographic trend and put additional strains on the public budget (for e.g. pensions). At the same time, the replacement of highly skilled workers (nationals) with poorly educated, unskilled workers from the south will also mean that industries with high added value will not be able to find the right personnel with relevant capabilities within the country and will terminate their business in Slovenia. This will leave the country without one of its main assets (educated, flexible, innovative citizens) and continue the downward spiral toward a lowcost, high labour intensity colony for international corporations, which is already happening in several areas (for e.g. Revoz).

Slovenia adopted the Euro in 2007 and with it, gave away a large part of its sovereignty in respect that, it can't increase competitiveness by devaluing the currency, but must adapt to



capacity for long-distance work via the internet), Slovenia is in the position to substantially increase international competitiveness in the near future, provided that systemic hindrances are resolved.

whichever economic policy Germany (also the main importer of Slovenian products and other goods) will enforce.

The preservation of the natural capital of Slovenia by including economic and physical issues is essential.



# 2. SWOT analysis: National business perspective

Internal factors				
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STRENGTHS	WEAKNESSES			
<ul> <li>What are your identified strengths of companies operating on the national level?</li> <li>What do you do better than others?</li> <li>What unique capabilities and resources do you possess?</li> <li>What do others perceive as your companies strengths?</li> </ul>	<ul> <li>What are the weaknesses of companies operating on the national level?</li> <li>What do innovation leaders do better than?</li> <li>What can be improved given the current situation?</li> <li>What do others perceive as your companies weaknesses?</li> </ul>			
Slovenian companies used the HORUS Award for Corporate Social responsibility questionnaire — modelled by the ISO 26000 guidelines to improve practices in sustainability.  Several Slovenian companies have overcome the economic crisis by implementing sustainability practices into their mode of operation.  Eco-innovation in Slovenian companies is mostly driven by the mixture of the pressure of competitive companies, managerial environmental concern and consumer demand. Slovenian companies fell the need to implement production processes in the context of resource efficiency and global competition it mandates.  Slovenian companies stand to profit from the enormous potential for research and development if the full capacity would be realized. Companies have substantial capacity (and experience) in adapting to rapidly evolving market conditions.	Large majority of companies in Slovenia do not have a strategy on energy consumption and other sustainability issues in place. Companies communicate extensively on corporate governance, while communication about environmental and other sustainability issues (from the perspective of the costumer, supplier and/or local community) is largely neglected. Administrative and judicial procedures in particular can in some instances be very slow and rigid, especially in the field of new technologies where it's common for policy development to lag existing global trends. There are evident shortcomings in terms of insufficient cooperation between researchers and industry, therefore a substantial part of R&D activities that are carried out, are not necessarily directed towards achieving excellence on the international level (non-market orientation of research).  The economic infrastructure needed for a supportive environment for innovation is unadjusted and lack a clear vision for future development.  Moreover, incentives for innovation within the public sector are not widespread. The educational system, albeit of comparable quality to more developed EU countries is not as focused to economy requirements as it should be. The exploitation of existing support mechanism on the international level is sub-optimal.			



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External factors				
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#### **OPPORTUNITIES**

- What trends or conditions may positively impact your national companies?
- What opportunities are available to your national companies?

Enterprises operating in Slovenia have never before been subjected to such widespread and potentially lucrative opportunities. These enterprises benefit from various aspects of the inclusion in the European Economic Area (freedom of movement of capital, people and goods facilitate the export oriented national economy) and EU institutions. Importance of innovation is emphasized in Europe, which has positive affect on companies that target large international markets. Opportunities exist in the area of technology and knowledge transfer between member states, that has not been even remotely utilized.

The Chamber of Commerce and Industry of Slovenia (CCIS) developed the Innovative Slovenia Programme to promote, develop and support the entire process of innovation. This way, through a variety of activities they aim to foster the spirit of innovation in the country as well as contribute to success in foreign markets. Private enterprises have opportunity of applying for EU funds (eco-innovation support is granted under Entrepreneurship and Innovation Program), whereby the growth of new innovative products, processes and services that have a lower environmental impact on the whole life cycle is encouraged. Calls are primarily aiming at small businesses (SMEs) that need support in overcoming barriers to the successful penetration of ecoinnovation projects to into the European market.

#### **THREATS**

- What trends or conditions may negatively impact your national companies?
- What are your competitors doing that may impact your national companies?
- Do you have solid financial support?

Slovenia has stagnated/declined in terms of competitiveness compared to several other national economies. Slovenia as a tiny country is not able to rely on domestic consumption to fuel its economy in any notable extent, notwithstanding the less than average purchasing power of its citizens. The national economy is thus export driven, which increases its vulnerability to natural market cycles as well as unpredictable events of grave significance.

Several other Member States have been more efficient in adopting (and even more so enforcing) legislation in the field of supporting eco-innovation and have to this date established more innovationfriendly environment supporting businesses. Although living conditions are better than average compared to the rest of the EU, the country doesn't enjoy very good reputation on the international level (it's not well known, the country is politically irrelevant in practical terms). As such, Slovenia is not in the position to attract international talent. An aggressively progressive fiscal policy for employment remunerations also hinder the companies to offer competitive terms for the personnel in employment positions that provide high added value and present the core of future development (engineers, scientists, even experience business managers). Moreover, the country was until now not able to improve the absorption of European and other international funding, which remains far from optimal in 2018. Lack of investment opportunities also forces the outflow of unproductive capital to foreign markets.



# **SOURCES**

 $\frac{https://www.rc-nm.si/wp-content/uploads/2017/02/MEDOSSIC\_Existing-situation-analysis-in-South-eastern-Slovenia-Region3.pdf$