



**Creatin**

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## CREATIN National Report

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**EXECUTIVE SUMMARY**

An overview of the entrepreneurial state in Slovenia is given. First, Slovenia is placed within the EU norms. Then PEST and SWOT analysis are presented. Furthermore, GIS – Global Innovation Scorecard report is presented, with emphasis on Slovenia and its overall rank within EU and also global market. Following the GIS part is a focused analysis of the national innovation supporting environment, presenting the overview of government policies and practices. The section concludes with a statistics from the Global Entrepreneurship Monitor, focused mostly on entrepreneurial engagement and environment in Slovenia. The report ends with a qualitative representation of the results from the conducted interviews.

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## **1 INTRODUCTION**

In order to identify the knowledge and needs of innovative agents and managers, and according to the methodological framework from WP2, the overall picture of regional/national state of innovation is required to put the results of the questionnaires into context.

The report is structured as follows. First, an overview of the entrepreneurial state in Slovenia is given where Slovenia is placed within the EU norms. Then PEST and SWOT analysis are presented in order to provide basic information about the state of affairs in the state. Furthermore, GIS – Global Innovation Scorecard report is presented, with emphasis on Slovenia and its overall rank within EU and also global market. Following the GIS part is a focused analysis of the national innovation supporting environment, presenting the overview of government policies and practices. The section concludes with a statistics from the Global Entrepreneurship Monitor, focused mostly on entrepreneurial engagement and environment in Slovenia. The report ends with a qualitative representation of the results from the conducted interviews, giving the preliminary conclusions about the results obtained by questionnaires. We also give a quick descriptions about the incidents and problems that we encountered during the field work.

The report is a required deliverable of the task T3.2 and was produced by XLAB.

## 2 SLOVENIA – OVERALL PICTURE

Let us first present overall picture of the private sector and economic climate regarding innovation, since creativity and design are important features of a well-developed knowledge economy spurring innovation and having a favorable impact on people's well-being and business performance.

Cyprus, Estonia, Slovenia, Czech Republic, Spain, Portugal, Greece and Italy are marked as the Moderate innovators, with innovation performance below the EU average. However, in Human resources Estonia, Norway and Slovenia show above EU average performance.

A country profile is shown on Figure 1, highlighting relative strengths and weaknesses in innovation performance and its main drivers of innovation growth. For others, besides Slovenia, detailed data tables are available from the INNO Metrics website (<http://www.proinno-europe.eu/metrics>) and detailed information on policy measures and governance is available at the INNO Policy TrendChart website (<http://www.proinno-europe.eu/trendchart>).

### SLOVENIA

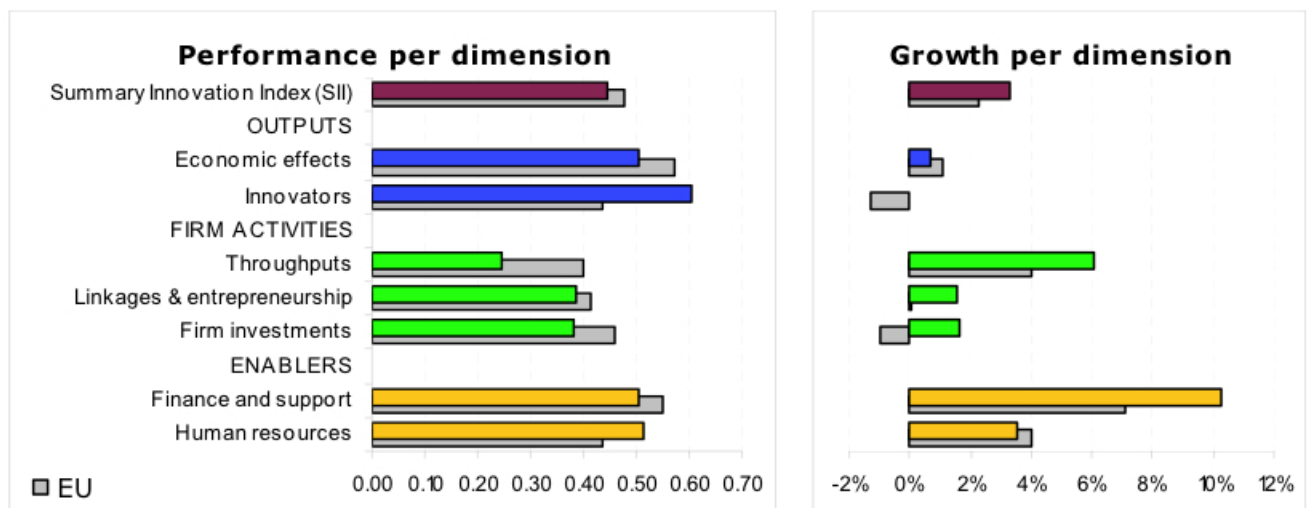


Figure 1: Slovenian profile

For Slovenia, one of the Moderate innovators, innovation performance is just below the EU27 average but the rate of improvement is above that of the EU27. Relative strengths, compared to the country's average performance, are in Human resources, Finance and support and Innovators and relative weaknesses are in Throughputs. Over the past 5 years, Finance and support and Throughputs have been the main drivers of the improvement in innovation performance, in particular as a result from strong growth in Private credit (17.3%), Community trademarks (7.5%) and Community designs (8.6%). Performance in Firm investments, Linkages & entrepreneurship and Economic effects has increased at a lower pace.

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## 2.1 PEST analysis of the Slovenian economy

### Political:

- positive effects on innovation provided by the numerous worldwide actions and by having access to the EU R&D funds. Having a stable monetary system is one of the preconditions for successful execution of innovation policies.
- the state still owns shares in major companies – blocking rapid development and innovation.
- slow and ineffective removal of administrative obstacles are important inhibitors of innovative activities
- taxes are major inhibitors for startups and innovation
- ineffective jurisdiction is another obstacle in development of innovative and hi-tech environment

### Economic:

- economic growth has provided positive environment for the innovative activities, however, there's a lack of policies for long term productivity growth
- relative high inflation
- exporting of goods is based mostly on cars and chemicals, export of products from other sectors is low
- the lowest rate of foreign investments in the EU

### Social:

- inflexible work market, prohibiting business initiatives and restructuring of companies
- problems with old population growth
- regional inequalities, also due to lack of primary/secondary or national support elements
- on one hand, higher average education is a positive factor in growth of innovation, while on the other hand, the education is ineffective. Exclusion of elderly population from the innovative process also represses the innovation.
- being an entrepreneur is not a value, major administrative obstacles in creating new companies are only now being removed

### Technological:

- environmental challenges represent hi costs, however, they also represent new innovative opportunities
- low budget for R&D
- support of the state, mostly to SMEs, improves innovation potentials

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## 2.2 SWAT analysis

### Strengths:

- stable economic growth, monetary system based on Euro, stable banking system, part of the EU and world financial networks and activities
- strategic location, part of transeuropean corridors
- rich in natural resources, like water and wood

### Weaknesses:

- lacking coordinated activity towards a knowledge based society
- only partially realized government plans and innovation policies
- lack of entrepreneurial culture
- slow response of educational system to the needs of the business sector
- low technological requirements of products, low foreign exchange of most of private sectors, restructuring of companies is slow
- low rate of innovations in the service sector
- low rate of researchers in the private sector, low R&D funds, support for R&D is not properly and effectively used
- lack of risky investments, lack of foreign investments
- incomplete infrastructure
- rapid grow of costs
- regional inequalities

### Opportunities:

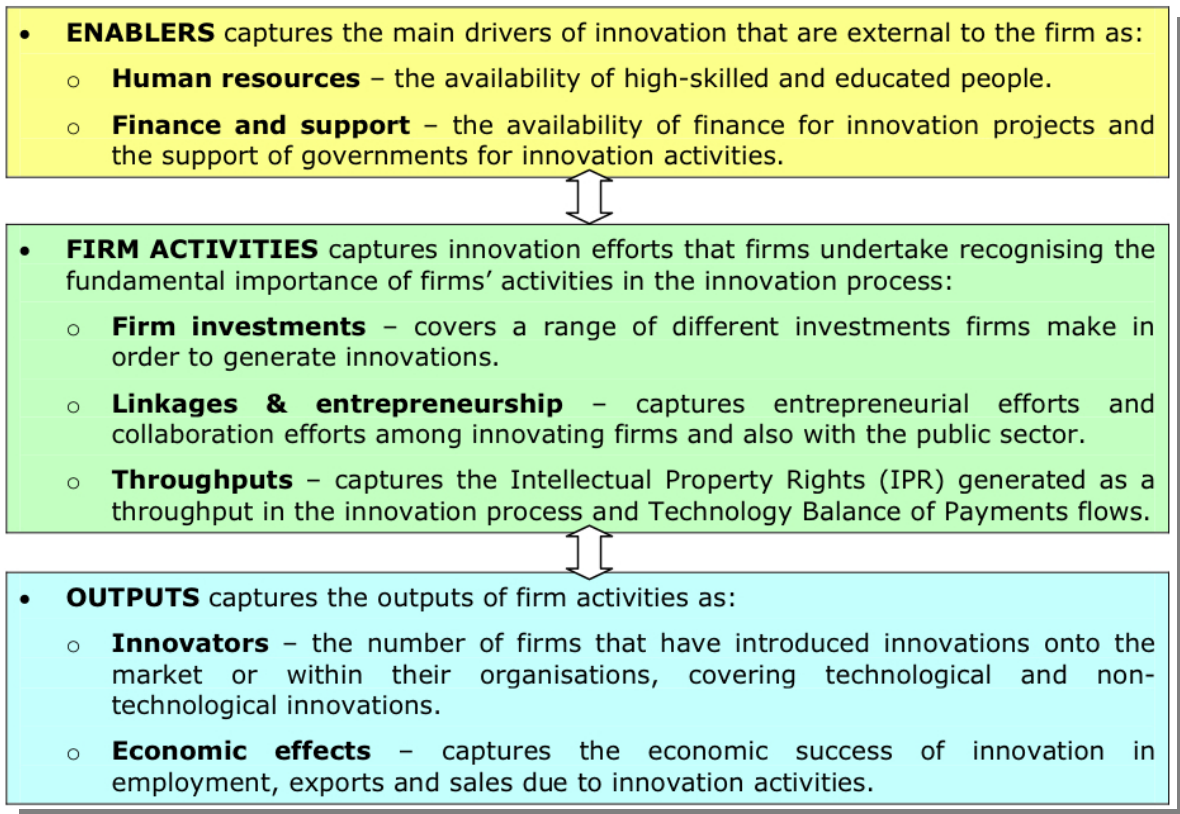
- restructuring in order to produce hi-tech products with hi added value
- being open to foreign investments
- increase funds for R&D
- coordinated action between products and services
- innovations in health sector, public sector, education and social security
- regional equality

### Threats:

- continuous slow growth of productivity, lack of restructuring
- lack of knowledge workers, "escape of the brains"
- lack of movement towards knowledge society
- inefficient funding from the EU
- continuous low funds for R&D
- state remaining its share in major companies
- low rate of innovation in service sector

## 2.3 Global Innovation Scoreboard

The European Innovation Scoreboard (EIS) has been published annually since 2001 to track and benchmark the relative innovation performance of EU Member States. For the EIS 2008 the methodology has been revised and the number of dimensions increased to 7 and grouped into 3 main blocks covering enablers, firm activities and outputs (Figure 2). The purpose of this revision is to have dimensions that bring together a set of related indicators to give a balanced assessment of the innovation performance in that dimension. The blocks and dimensions have been designed to accommodate the diversity of different innovation processes and models that occur in different national contexts.



**Figure 2: Dimensions in EIS 2008 methodology**

The new Global Innovation Scoreboard 2008 (GIS 2008) aims at comparing the innovation performance of the EU27 to that of the other major R&D spenders in the world: Argentina, Australia, Brazil, Canada, China, Hong Kong, India, Israel, Japan, New Zealand, Republic of Korea, Mexico, Russian Federation, Singapore, South Africa and the United States. The GIS 2008 methodology includes 9 indicators of innovation and technological capabilities (see Figure 3). They are grouped in three main dimensions (pillars): Firm Activities and Outputs, Human Resources and Infrastructures and Absorptive Capacity.

Pillar	Indicator
Firm Activities and Outputs	Triadic patents per population (3 years average)
	Business R&D (BERD) as a % of GDP
Human Resources	S&T tertiary enrolment ratio
	Labour force with tertiary education (% total labour force)
	R&D personnel per population Scientific articles per population
Infrastructures and Absorptive Capacity	ICT expenditures per capita
	Broadband penetration per population
	Public R&D (HERD + GERD) as a % of GDP

Figure 3: Nine indicators of innovation

According to EIS, Slovenia has ranked 25<sup>th</sup>.

Country	GIS		Firm activities		Human Resources		Infrastructures and Absorptive Capacity	
	rank 2005	rank variation	rank 2005	rank variation	rank 2005	rank variation	rank 2005	rank variation
Sweden	1	0	4	-3	4	-2	1	1
Switzerland	2	0	2	0	5	-2	3	6
Finland	3	3	5	-1	1	3	2	12
Israel	4	1	3	4	3	-2	11	-7
Japan	5	-1	1	2	13	-3	9	-4
United States	6	-3	8	-2	6	-1	7	-6
Denmark	7	3	10	3	8	1	4	7
Korea, Rep.	8	4	7	5	7	10	14	-4
Canada	9	0	18	0	2	5	8	-1
Germany	10	-2	6	-1	17	-1	17	3
Netherlands	11	-4	9	1	20	-1	6	0
Singapore	12	7	15	6	10	11	10	2
France	13	-2	13	-4	18	-7	12	3
Austria	14	4	12	4	25	1	16	-8
Norway	15	2	20	-3	14	4	5	8
United Kingdom	16	-2	17	-3	12	2	13	9
Belgium	17	-4	14	-3	23	-11	18	3
Australia	18	-3	19	0	9	n/a	19	-3
Luxembourg	19	n/a	11	-3	21	19	n/a	n/a
EU-27	20	-3	16	-1	19	-4	21	-2
Hong Kong	21	n/a	32	2	n/a	n/a	15	-12
New Zealand	22	0	23	6	26	-18	20	3
Ireland	23	1	21	-1	16	7	23	1
Spain	24	6	28	0	15	10	24	4
Slovenia	25	-2	22	0	28	-4	25	-8
Italy	26	2	26	-3	32	-4	22	3
Czech Republic	27	4	24	0	29	0	28	6
Estonia	28	-2	33	4	27	0	27	-9
Russian Fed.	29	-2	27	-1	11	2	42	-3
Portugal	30	7	35	3	31	8	26	3
Greece	31	4	43	-8	24	8	35	-2
Lithuania	32	-3	41	5	30	-8	29	-3
Hungary	33	1	31	-1	38	-4	30	1
China	34	8	25	7	48	-3	31	9
Croatia	35	n/a	n/a	n/a	36	-5	43	0
Cyprus	36	5	42	2	37	0	33	5
Slovak Republic	37	-11	39	-12	34	-14	39	-12
Bulgaria	38	-5	47	-11	33	-3	37	-7
Malta	39	n/a	29	13	47	-1	n/a	n/a
Turkey	40	5	38	3	44	3	34	3

Figure 4: EIS ranking

### 3 REGIONAL ANALYSIS OF SUPPORTING ENVIRONMENT

Three types of support:

- **primary** (being dispersed, about awareness, analysis, suggestions, business plan, startup, development and deployment on the market). These are innovator associations and societies, chambers of commerce, incubators. Aiming at helping a single person or organization.
- **secondary** (need critical mass of companies and universities) Aiming at further development of the basic idea. These are technology parks, offices for technology transfers and deployments, research institutes and universities.
- **national** (for each business area, unified goals, networking) These are networks, technological platforms, financial institutions for risky investments, technology centre of excellence

The Innovator Societies, like Aktivni slovenski inovatorji (ASI), are societies of volunteers seen as a basic organizational cell for networks of innovative people in a region. They have a big role in awareness of innovative culture in companies.

As formal organizations are concerned, the first level of support comes from regional offices of Chamber of Commerce. Another services of the state are the incubators, to which anyone with a commercially viable idea can approach. Technological parks are also a service of state. Technological parks are meant for the companies with an already partially developed innovative idea.

Networks of excellence, technological platforms are well known policies and are active throughout the whole country.

There are also government agencies like TIA and JAPTI, which are meant mostly for connecting the centers of knowledge with interested companies, providing the transfer of knowledge and creative ideas into business opportunities. Another government agency, SPS, provides partial financing for the startups.

Recording to the data from 2006, there were 100569 companies in Slovenia. There are 12 regions, whereas there's more than half of the companies concentrated in three regions; Savinjska, Podravska and Osrednja. Accordingly, all three have established all three levels of support. Other regions lack either in networking organizations or research centers like universities or institutes, however, these regions rely mostly on central region.

#### 3.1 Other types of support (also from the state)

Along with a numerous magazines, sites, reports, forums and fairs, we would like to point out two items, a TV show and a portal, which we think are interesting and useful approaches of the state to increase entrepreneurship and competitiveness.

##### 3.1.1 [www.imam-idejo.com](http://www.imam-idejo.com)

Besides the formal activities, such as Chamber of Commerce, there is a portal of the Slovenian Centre for Competitiveness and Innovation (SCCI), aimed at helping the startups or anyone with an idea. SCCI is a special program run by the Public Agency of the Republic of Slovenia for Entrepreneurship and Foreign Investments (JAPTI) financed by the Slovenian Ministry of the Economy.

The Slovenian phrase - Imam idejo! - means - I have an idea! -. It's a call for innovative people.

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The website Imam idejo! is an interactive tool for innovative users, seeking financial, technical, legal and other support relating to their sophisticated invention or outline scheme. The website is designed for users, taking into account the problem they face within the innovation process. They will be supplied with information regarding available institutes and the support services they offer relating to the user's specific problem. In one word, the website is "a one-stop shop" for inventors and a tailor-made problem-solver with a substantial educational component.

### 3.1.2 prava ideja (RTV Slovenia)

Prava Ideja! (eng. the right idea) is a weekly business oriented show on a national television, targeted at people interested in creativity, innovation, business and current trends. The aim of the show is to present stories of success. The story is shown from the eyes of the entrepreneur, as a guest of the show: what can one expect from the state, politics, global markets and trends, about the atmosphere in the company and company's culture and ethics, etc.

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## 4 GLOBAL ENTREPRENEURSHIP MONITOR

### 4.1 Entrepreneurial Engagement

The Total Early-Stage Entrepreneurial Activity (TEA) index includes all individuals between the age of 18 and 64 that have started the activities to create a new company or have registered the company but haven't pay the wages for more than three months.

According to TEA index, Slovenia ranked 17th between the 24 EU states, and between the 42 states in a wider research, Slovenia ranked 33rd.

According to the research, only 3,02% of the population is engaged in startups, of which 75% are owned by males. 16.6% are aged between 18-24, 38.4% are 25-34 years old, another 19.5% up to 44 years old. Interesting fact is, that 47,6% of these startups are owned by people that finished hi-school. Also, 92,6% are placed in the middle and upper financial class (48.1% in the middle third, 44.5% in the upper third).

Regarding the motivation, 55% do it due to personal freedom and independence and 34% due to higher income. 21% of the companies are plan to increase the numbers of employers for more than 50% in first few years, while only 1% plan to expand the clientele in the foreign countries.

Regarding the innovation, 16,6% are involved and oriented towards a completely new product, 12.6% are oriented towards markets without competition and 6.9% towards technology that has been available less than a year.

The figures for the category "new company", which includes all companies and their owners that have been able to pay wages up to 3 years, are very similar to the figures presented for the startups.

### 4.2 Entrepreneurial Environment

In a study, conducted in 2007, 53 experts were included in order to determine the properties of the supporting environment for startups and entrepreneurship. The conduct targeted many topics like, availability of financial sources for startups, state policy and execution of its programs, intellectual properties, legal support, etc.

According to the experts, the entrepreneurial culture in Slovenia is not fully developed and incorporated into the society. The average grade was 2,81 (out of 5), placing Slovenia in the lower half of the EU countries.

Only 6 out of 19 categories had better grades than the average (at 3). These are:

- accessibility to the infrastructure (3,65)
- positive gender issues policies (3,51)
- utilization of new business opportunities (3,22)
- intellectual property handling (3,11)
- business and professional infrastructure (3,06)
- relationship to the investments (3,05)

The worst categories are:

- government policies regarding regulations (2,04)

- 
- education in basic and hi-schools (2,30)
  - transfer of research into products (2,31)
  - cultural and social norms (2,32)
  - government policies regarding startups (2,44)
  - other government policies and actions (2,59)

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## 5 QUALITATIVE RESULTS FROM THE INTERVIEWS

In this section, we'll present a quick and qualitative analysis of the results obtained by the interviews. All of the interviews were conducted using internet, either by e-mails or online surveys.

We've separated target companies into two groups. The first group consisted of random companies that suited the profile described in the DoW and Methodological Framework document. For the second group, we've chosen the companies that received rewards for innovative products.

There were virtually no replies from the first group. Only 3 were returned, even though the companies already agreed to participate in the interviews before they were sent the questionnaires. On the other hand, the out of 8 companies that received a reward for being innovative (Slovenian Innovation Forum), 6 replied in a matter of hours and were also interested in the project.

We can only speculate about such low ratio of involvement from the first group. Our hypothesis is that the companies in the first group simply do not have the innovative process incorporated into their business or that their business does not require anything innovative to stay in shape.

As for the other group, the results vary. Some of the companies have strict policies and creative processes, and the others have a loosen approach to either the process, the group being involved in the innovation and interaction or even both.

Another observation from the questionnaires comes from an random error, where we sent the interviews to different people in the same company. The ones involved were CEO, senior project manager, very close to the CEO, project manager in charge of the product and a creative agent. The views were completely different. CEO and senior manager marked the questionnaires with the average at around 2, while the creative agent at 3.5. Such differences are quite common, since management usually holds different perspective and are more oriented how the company SHOULD function, while the people lower on the scale know how it DOES function.

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## 6 CONCLUSIONS

Slovenia lacks in socially rooted innovation environment, that would provide long-term reform and rebuilding of the private and also public sector, laying down the basis for the advances in technological, economical and social development. The ground for such environment is based on the change of concepts of current policies. Until now, these were focused mostly on adoption to EU markets, achieving the openness and competitiveness of the global economy under the EU umbrella. With the new reforms, Slovenia needs to establish a complete infrastructure on a national level, that provides reinforced transfer of knowledge, new technologies and other development potentials into a synergy between a state, infrastructure and the private sector. Although the supporting environment for the innovative society has been established, there is a sense of lacking of innovation being a core part of the business, since most of the emphasis is still on production and labor.

However, there are major advances in the loosening up of the bureaucratic procedures for registering the new companies. The legislation is loosening up, also the startups need less finances, and the whole procedure is a matter of minutes rather than days or weeks as in the past. Such reforms should provide the ground for an agile market, since it is well known that small and new companies are the true force of innovation.

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