



# What makes Croatia an entrepreneurial country?

Results of Global Entrepreneurship Monitor  
for Croatia, 2006



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**Branko Vukelić**  
Minister of Economy, Labour and Entrepreneurship

One of the priorities of the Ministry of Economy, Labour and Entrepreneurship is the implementation of Development Program for Small and Medium-sized Entrepreneurship, where European Charter for Small Enterprises is used as a kind of a guide for identifying policies and programs needed. Since Croatia's involvement in GEM research in 2002, we have been able to measure the effects of our policies and programs using a conceptual model that emphasizes the relationship between a country's entrepreneurial capacity and its economic development, expressed through the level of employment and per capita gross domestic product.

Building entrepreneurial capacity of a country depends on various factors: from education, transfer of research and development to the business sector, incubators and entrepreneurial zones, to government programs and policies. In 2006, better scores were achieved in ALL the factors of entrepreneurial environment in relation to 2005, which has resulted in Croatia's further movement up the scale of countries with regard to the level of entrepreneurial activity measured by the TEA index. Croatia's position as the 19th out of 42 countries participating in the GEM research in 2006 provides a confirmation that efforts of the Ministry of Economy, Labour and Entrepreneurship in investing into building entrepreneurial capacity of Croatia are worthwhile.

Diagnoses and recommendations provided by GEM research are an important support for designing policies and programs, with which Ministry of Economy, Labour and Entrepreneurship, in cooperation with other key ministries, will persevere in creating an entrepreneurial and competitive Croatian economy.

Branko Vukelić  
Minister of Economy, Labour and Entrepreneurship

A handwritten signature in black ink, appearing to read 'Vukelić', written in a cursive style.

Zagreb, March 19, 2007



**Professor Slavica Singer, Ph. D.**  
**Head of GEM Croatia**

For the creation of own future, besides the vision and the goals, it is also important to know where we are now and how do we want to get from NOW to VISION. Croatia's involvement in the largest international research of entrepreneurship Global Entrepreneurship Monitor since 2002 provides answers to such questions. Annual monitoring of entrepreneurial activity tells us where we are and identifies the reasons why we are where we are. Comparison with those who are better than us tells us where we could be, if... we eliminate the reasons because of which we are where we are, and if... we learn to do some things in the way they are done by those who are better than us. At the same time, comparison with those who are better tells us, for example, that it is possible to have a simpler and more transparent regulatory framework (Iceland), that it is possible to have institutions that provide high quality support services to entrepreneurs (USA) and that it is possible to develop entrepreneurial culture (USA). And if others can do it, we can also.

Since 2005, GEM Croatia particularly monitors the changes in entrepreneurial activity of Croatia through three aspects: growing enterprises, regional distribution of entrepreneurial activities and involvement of women in entrepreneurial activities. Reasons for such a focus are based on the following standpoints:

- Self-employment is important for the creation of entrepreneurial capacity of a country, but growing enterprises are an elitist economic minority that creates the majority of new jobs and the greatest part of new value, which needs to be taken into account when creating government policies and programs.
- Entrepreneurship is the mobilizer of social integration, and differences in opportunities for entrepreneurial activity have to be removed, regardless of whether these are regional differences, or differences due to gender, age, income, ethnicity, etc.

Since 2002 to 2006 Croatia has made great progress: from the 32nd place (out of 37 countries) in 2002, to the 18th place (out of 42 countries) in 2006. GEM research results are publicly available at [www.gemhrvatska.org](http://www.gemhrvatska.org) or [www.cepor.hr](http://www.cepor.hr) or [www.gemconsortium.org](http://www.gemconsortium.org).

GEM research team from the Josip Juraj Strossmayer University of Osijek (Slavica Singer, Nataša Šarlija, Sanja Pfeifer, Đula Borožan and Sunčica Oberman Peterka) and SMEs and Entrepreneurship Policy Center CEPOR would like to thank the Ministry of Economy, Labour and Entrepreneurship and the National Competitiveness Council for their constant support in the dissemination of research results. We would especially like to thank the experts, who, with their evaluations, contribute greatly to better understanding of strengths and weaknesses of the entrepreneurial environment. Publishing of this publication was financially supported by USAID through the CroNGO program of the Academy for Educational Development, with the aim to strengthen regional entrepreneurial capacity.

Professor Slavica Singer, Ph. D.  
Head of GEM Croatia

## Summary of the most important points

Croatia has participated in the Global Entrepreneurship Monitor (GEM) research since 2002. The principal goals of the research are:

- Measuring the differences in the level of entrepreneurial activity between countries
- Determining the factors on which entrepreneurial activity is dependent
- Identifying policies that may enhance the level of entrepreneurial activity of a country

Within these three objectives the results of GEM research have a significant influence in answering two very important questions, theoretical and applicable:

- To what extent are the differences in entrepreneurial activity connected to overall economic growth of a country?
- What can governments do in order to influence the level of entrepreneurial activity of a country?

Since 1999, when GEM project included ten countries, 42 countries have participated in the GEM research in 2006, which account for about 68% of world's population and for about 97% of world's gross domestic product. The research is based on determining the entrepreneurial activity (starting a business venture, new ventures - not older than 42 months, "established" business venture - older than 42 months) in a statistically representative sample of adult population, and expert perceptions of the quality of entrepreneurial environment.

## Entrepreneurial activity of Croatia in international perspective

There are four important conclusions about the entrepreneurial activity of Croatia in 2006:

- Good news about moving away from the lower end of the scale of GEM countries with regard to the TEA index in 2005 have not been accidental. Further intensification of entrepreneurial activity has continued in 2006, and Croatia was ranked 18th out of 42 countries, with TEA index of 8.58.
- Motivation index, i.e., the TEA Opportunity to TEA Necessity ratio is an important indicator of entrepreneurial capacity of a country. While in 2005 Croatia was the only GEM country with motivation index below 1 (which shows that there are more entrepreneurs who have started entrepreneurial activity out of necessity and not because it had been their choice based on a perceived opportunity), motivation index was 1.16 in 2006, which speaks of a significant reversal, but is still way below the GEM average of 6.06.
- Rate of "maturity", which speaks about the transition to the status of "established" entrepreneurs, with entrepreneurial activity longer than 42 months, is still far from the GEM average (Croatia 0.48; GEM countries 0.81).
- Entrepreneurial activity of Croatia in European perspective is an important information for creators of government policies and programs: in comparison with the average of 16 European Union member countries that are involved in the GEM research, Croatia has the highest level of the TEA index, but also the highest level of TEA Necessity, and only four countries have less "established" entrepreneurs.

## Number of enterprises with growth potential remains low

GEM research describes growing enterprises using the level of innovativeness in use of new technologies, innovativeness in new product development, exposure to competition and the capacity for new employment. In the cluster of countries that Croatia belongs to according to the level of gross national product per capita, Croatia has more enterprises that invest in new technologies. This gives hope that investing in technology will soon pay off through creation of new or innovative products, because that is still not the case: no less than 71% of new enterprises and 70% of the "established" ones have products that are new to no-one, while in the cluster of the medium developed countries, the case is same with 51% of new entrepreneurs and 63% of "established" entrepreneurs. While 2005 was the year in which expectation of new

employment has grown precipitately in relation to previous years, precisely in the category of enterprises with 20 and more employees (to 15% in new entrepreneurs and 18% in "established" entrepreneurs), expectations remained unchanged in 2006.

### Regional distribution of entrepreneurial activity in Croatia

In the 2002-2006 period, regional differences in entrepreneurial activity have significantly decreased, due to strong strengthening of entrepreneurial activity in Slavonia and Baranja, Lika and Banovina, and Northern Croatia. However, the difference in motivation index still indicates that there are significant differences in entrepreneurial capacity, because Slavonia and Baranja and Lika and Banovina are the only two regions with motivation index lower than 1.

### Entrepreneurial environment in Croatia is becoming better

In 2006, all the components of entrepreneurial environment have received higher grades than in 2005, but still, same as in 2005, only two components have received grades above 3, but the grades are higher:

- Access to physical infrastructure (3.75 in 2006, 3.35 in 2005)
- Openness of the internal market - dynamics of change (3.47 in 2006, 3.05 in 2005)

### The lowest graded components of entrepreneurial environment, which still place us at the rear, are:

- Openness of the market - administrative barriers, 35th place out of 37 countries
- Commercial and professional infrastructure, 31st place out of 37 countries
- Cultural and social norms, 30th place out of 37 countries
- Transfer of research and development, 24th place out of 37 countries

### Recommendations for increasing the entrepreneurial capacity of Croatia

Recommendations are focused on the observed limitations in activity of individual components of entrepreneurial environment, especially in the areas of:

- Government policies for regulatory framework, education, transfer of research and knowledge
- Development of quality services for entrepreneurs, especially those who have potential and wish for growth
- Development of the financial market (informal investors, venture capital funds, guarantee funds, micro-crediting)
- Strengthening the entrepreneurial culture (education, media)
- Strengthening the involvement of women in entrepreneurial activities

## I Introduction

Conceptual framework and objectives of the research

Indicators of entrepreneurial activity

International dimension of the research

About the sample in Croatia

GEM research team in Croatia

Financing the GEM research in Croatia

Global Entrepreneurship Monitor (GEM) is the largest international empirical research venture for monitoring entrepreneurial activity in time and space.<sup>1</sup> In 2006, 42 countries have participated in the GEM research, and Croatia has been involved since 2002. The research relies on the assumption that national economic growth depends on the development capacity of the existing economy, but also on the capacity of the society as a whole to innovate, anticipate changes and use them for creating prosperity for the individual and for the country as a whole. Strong empirical component and conceptual framework of the research enable building of a consistent basis for policy interventions with the aim of improving the conditions on which entrepreneurial capacity of a country depends.

### Conceptual framework and objectives of the research

Traditionally, analysis of economic growth is focused on the framework of macroeconomic conditions and the "primary" economy, neglecting the role of new and smaller enterprises. Small and new enterprises create innovations, fill market niches, increase competitive pressure and thus promote economic efficiency.

GEM approach is focused on researching economic connections of all business forms within a national economy, including the evaluation of the contribution of new enterprises, as well as already established firms in the total aggregate level of economic growth in the country, and especially the entrepreneurial framework conditions. GEM research analyses the importance and intensity of the connections between these complementary mechanisms, viewing these connections through the role of an empowered individual, one who acts in a proactive, entrepreneurial way.

Such conceptual research framework is based on a holistic approach in defining entrepreneurship as an integral phenomenon of the interaction between an individual and his/her environment. That is why GEM research defines entrepreneurship as a complex behavioural phenomenon that exists in all social organizations, not only in economy, but also in education, research, culture, government institutions and local administration.

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<sup>1</sup> The GEM project was started in 1999 as a joint initiative of a group of researchers from London Business School, United Kingdom and Babson College, USA. That year, research included ten most developed countries (G-7 countries, Denmark, Finland and Israel), which wanted to find the answer to the question why entrepreneurial capacity in the USA is greater than in other developed countries.

The initial research questions - is the entrepreneurial activity different among countries and why, as well as what can contribute to the development of entrepreneurial capacity of a country, have been transformed into the basic objectives of the research:

- Measuring the differences in the level of entrepreneurial activity between countries
- Determining the factors on which entrepreneurial activity is dependent
- Identifying policies that may enhance the level of entrepreneurial activity of a country

Within these three objectives the results of GEM research have a significant influence in answering two very important questions, theoretical and applicable:

- To what extent are the differences in entrepreneurial activity connected to overall economic growth of a country?
- What can governments do in order to influence the level of entrepreneurial activity of a country?

GEM project provides the basis for both vertical and horizontal comparison by using a unique conceptual framework of the research and unique indicators. Vertical comparison enables each participating country to track changes in its own environment, i.e., the effects of applied policies and instruments. Horizontal comparison enables each country to make international comparisons within the same time frame, i.e., to choose an adequate benchmark.

Overview of the conceptual framework of the research and short description of the research methodology are given in Appendix 1.<sup>2</sup>

## Indicators of entrepreneurial activity

For the purposes of the GEM research, and based on the conceptual framework and holistic approach to the definition of entrepreneurship, a set of indicators that measure different aspects of entrepreneurial activity has been identified:

**Indicators of total entrepreneurial activity in the life cycle of the entrepreneurial process**, from startup to maturity of the business venture:

- Nascent entrepreneurs (who decide to start a business venture)
- New business owners (business owners whose entrepreneurial activity is measured by having paid salaries for more than 3 months, but less than 42 months)
- "Established" business owners (business owners who are entrepreneurially active for more than 42 months)

<sup>2</sup> For a detailed description of the research methodology see Reynolds, P.D., N. Bosma, E. Autio, S. Hunt, N. DeBono, I. Servais, P. Lopez-Garcia and N. Chin (2005): "Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998-2003", Small Business Economics 24: 205-231.

**Entrepreneurial activity of the nascent entrepreneurs and new business owners**, measured by the ratio of the number of such entrepreneurs (start-up) in the sample of the adult population, aged 18 to 64, is expressed through Total Entrepreneurial Activity (TEA) index.

**Indicators of motivation** for entrepreneurial activity:

- TEA Opportunity index: those who start entrepreneurial activity because they have perceived a business opportunity
- TEA Necessity index: those who are pushed into entrepreneurship by the situation they found themselves in (lost their job, could not find another job...)

**Indicators that describe the profile of people** - bearers of entrepreneurial activity:

- Gender
- Age
- Education
- Financial status
- System of values

Entrepreneurial activity of adults, aged 18-64	Categories of entrepreneurial activity		
	TEA index, in % of adult population		% of adult population
	<b>Nascent entrepreneurs</b> Tries to start a new business alone or with others, self-employment	<b>New business owners</b> Owner of a business that is 3 to 42 months old	<b>"Established" entrepreneurs</b> Owner of a business that is older than 42 months
<b>Start-up entrepreneurs</b>			

## International dimension of the research

Since 1999, when project included ten countries, 42 countries have participated in the GEM research in 2006, which account for about 68% of world population and for about 97% of world gross domestic product:

### Asia and Oceania

Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, Thailand and the United Arab Emirates

### Africa

South Africa

### Europe

Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Netherlands, Norway, Russia, Slovenia, Spain, Sweden, Turkey and the United Kingdom

### North America

Canada, Jamaica, Mexico and the USA

### South America

Argentina, Brazil, Chile, Columbia, Peru and Uruguay

## About the sample in Croatia

In each country, a sample of adult population (at least 2,000) is randomly chosen, whereas the sample of experts (at least 36) is selected based on their reputation and experience.

The usual sample amounts to 2,000 adults aged 18-64, although certain countries, because of their wish to identify differences in the entrepreneurial activity within the country and to design policies aimed at strengthening the entrepreneurial activity choose to have a larger sample (like for instance United Kingdom, Germany, Switzerland, Spain, Canada, Belgium...). We especially have to point out Spain, which had a sample of about 250,000 in 2006!

In Croatia, the sample for each year of research was 2,000 adults, and 2006 was no different, which means that 10,000 randomly chosen people have so far been involved in the research. Sample selection and surveying in Croatia is carried out by PULS.

36 experts have been surveyed within the GEM research in Croatia in 2006. Selection and surveying of experts is carried out by the research team and CEPOR. Appendix 2 gives the overview of experts whose opinions have helped monitor entrepreneurial activity in Croatia in 2006 and whose views have been incorporated in the creation of this study.

### GEM research team in Croatia

The GEM research is coordinated by the Global Entrepreneurship Research Association (GERA) with headquarters in London Business School (London) and Babson College (Boston), and is conducted by national research teams. Coordination Team is responsible for the project as a whole, for collecting standardized data from international sources and for producing the executive report with a comparison of the level of entrepreneurial activity between participating countries. National research teams conduct interviews with the experts, survey the adult population and produce a national report. GEM Coordination Team and national teams are obliged to publicly promote the research results because of their importance for policy interventions in implementing national economic policy.

In 2006, Croatia participated in the GEM research for the fifth time. Head of the research project was CEPOR - SMEs and Entrepreneurship Policy Center. The research team consists of a group of researchers from the Josip Juraj Strossmayer University of Osijek: Slavica Singer (singer@efos.hr), team leader and team members: Nataša Šarlija (natasa@efos.hr), Sanja Pfeifer (pfeifer@efos.hr), Đula Borozan (borozan@efos.hr), and Sunčica Oberman Peterka (suncica@efos.hr). Mirna Oberman and Anita Buljan from CEPOR participated in the process of surveying and interviewing experts.

Appendix 3 gives an overview of members of the GEM Coordination Team and all national GEM teams, as well as their sponsors, who have participated in the 2006 research.

### Financing the GEM research in Croatia

Since the beginning of Croatia's involvement in GEM research, participation of Croatia has been co-financed by the Ministry of Economy, Labour and Entrepreneurship, Open Society Institute - Croatia (through CEPOR), and the Josip Juraj Strossmayer University of Osijek (through the Paradigm and Practice of Entrepreneurship project, financed by the Ministry of Science, Education and Sport). In 2005 and 2006, research was also financially supported by USAID, Academy for Educational Development, CroNGO Program, precisely because of the promotion of entrepreneurship at the regional level.

## 2 Entrepreneurial activity of Croatia in international perspective

Croatia is moving up the upper end of the TEA index scale

Motivation for entrepreneurial activity, more from opportunity than necessity

Entrepreneurial activity of Croatia in European perspective

Although this report uses international comparisons of certain aspects of entrepreneurial capacity of Croatia, for comparison with ALL the countries that participated in 2006, following indicators have been used:<sup>1</sup>

- Total entrepreneurial activity of those who have been active for less than 42 months (TEA index)
- Correlation between entrepreneurial activity (TEA index) and gross domestic product per capita
- Motivation for entrepreneurial activity (TEA Opportunity and TEA Necessity)
- Structure of the participants in entrepreneurial activity (nascent, new business owner, "established" entrepreneur)
- Transition rate of "maturity" of business ventures

Entrepreneurial activity, based on starting ("swarming") new business ventures (expressed through the TEA index) is an important assumption of the vitality of economic structure. New business ventures bring new ideas, new technologies, and new products, enter new markets and thus contribute to the increase of business efficiency and competitiveness.

Systematic correlation between the level of entrepreneurial activity (TEA index) and gross domestic product per capita, confirmed by the GEM research, obliges the bearers of macroeconomic policy to transform the complementarity of macroeconomic policy framework and entrepreneurial conditions framework into consistent policies in achieving economic development goals of a country.

Entrepreneurial activity can be started because of a perceived opportunity (TEA Opportunity), or owing to circumstances (TEA Necessity). Domination of TEA Opportunity over TEA Necessity contributes to the increase of entrepreneurial capacity of a country, because those who have become entrepreneurs because of a perceived business opportunity are, as a rule, more oriented towards business growth than those who became entrepreneurs because they were forced by the situation (lost their job, could not find a job, etc.). This difference in motivation for entrepreneurial activity is of exceptional importance for the bearers of government policies and programs, because efficiency of support mechanisms (and thus of use of public resources) can be achieved only if support mechanisms are differentiated and aimed according to needs of different segments of entrepreneurial activity.

<sup>1</sup> For the purpose of international comparison of Croatia, indicators from GEM Master Data Set and Bosma, N. and R. Harding: Global Entrepreneurship Monitor: GEM 2006 Results; London Business School and Babson College, 2007, were used throughout this study.

Anatomy of entrepreneurial activity, dependent on the type of participant (nascent, new business owner, "established" entrepreneur), is an important information for bearers of government policies and programs that influence the creation of supportive environment on the specific problems of individual categories of entrepreneurs.

Swarming of entrepreneurial ventures, without a strong transition rate of "maturity" of business ventures, is not enough. Higher transitional rate means better preparedness for entrepreneurial activity at individual and institutional level and speaks about the rate of surviving business ventures, which includes a range of factors (motivation, knowledge and skills, effectiveness of the entrepreneurial environment and macroeconomic policy). The rate is calculated as the ratio of "established" entrepreneurs (over 42 months of entrepreneurial activity) and the number of nascent and new business owners, i.e., start-up entrepreneurs (up to 42 months of entrepreneurial activity).

### Croatia is moving up the upper end of the TEA index scale

2005 was a year of satisfaction for Croatia, because of the significant change of position from the lower end to the middle of the scale of GEM countries, and there are even more reasons for satisfaction in 2006 (Table 1)

	2002	2003	2004	2005	2006
TEA	3.62	2.56	3.74	6.11	8.58
Rank	32/37	29/30	29/34	19/35	18/42
TEA Opportunity	2.18	1.74	2.04	2.92	4.41
Rank	35/37	29/30	32/34	32/35	28/42
TEA Necessity	0.85	0.59	1.57	3.09	3.81
Rank	25/37	22/30	12/34	6/35	9/42

Table 1  
TEA indexes  
- Croatia and all  
GEM countries

Satisfaction from 2005, caused by the fact that Croatia has become "unglued" from the rear, has been confirmed by further movement to the upper end of the scale in 2006, which is the result of intensified activity of both those who enter entrepreneurial activity because they have perceived a business opportunity and those who do so out of necessity. Satisfaction is even greater since Croatia has become "unglued" from the rear according to the TEA Opportunity indicator, because that is the indicator of change in motivation for starting entrepreneurial activity.

However, satisfaction will be complete only when entrepreneurial activity transforms into creation of new value, i.e., growth of the gross domestic product per capita. GEM research has confirmed that countries with similar levels of gross domestic product per capita have the tendency of achieving similar levels of entrepreneurial activity, and that there are significant differences between countries with different levels of gross domestic product per capita. Three patterns appear:<sup>2</sup>

- Starting very small, less costly business ventures is more intensive in countries with lower levels of gross domestic product per capita (Peru, Columbia, Thailand...)
- Early-stage entrepreneurial activity is relatively low in countries with high gross domestic product per capita, like for instance European Union countries and Japan
- Countries with highest levels of gross domestic product per capita show increasing early-stage entrepreneurial activity due to perceived opportunities (USA, Iceland, Australia...)

Croatia has every right to be satisfied with its entrepreneurial activity of 8.58% (TEA index), but is still far away from transferring this entrepreneurial activity into prosperity measured by GDP per capita (Figure 1 and Figure 2).

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<sup>2</sup> Bosma, N. and R. Harding: Global Entrepreneurship Monitor: GEM 2006 Results; London Business School and Babson College, 2007, page 12-13

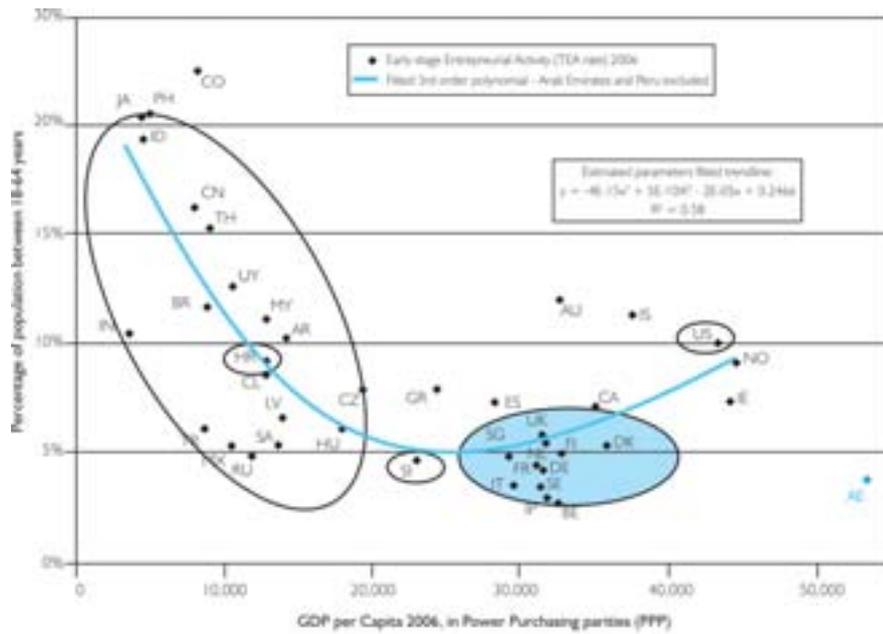


Figure 1  
Start-up  
entrepreneurial  
activity (TEA indexes)  
and GDP per capita

Source: Bosma, N. and R. Harding: Global Entrepreneurship Monitor: GEM 2006 Results; London Business School and Babson College, 2007, page 12

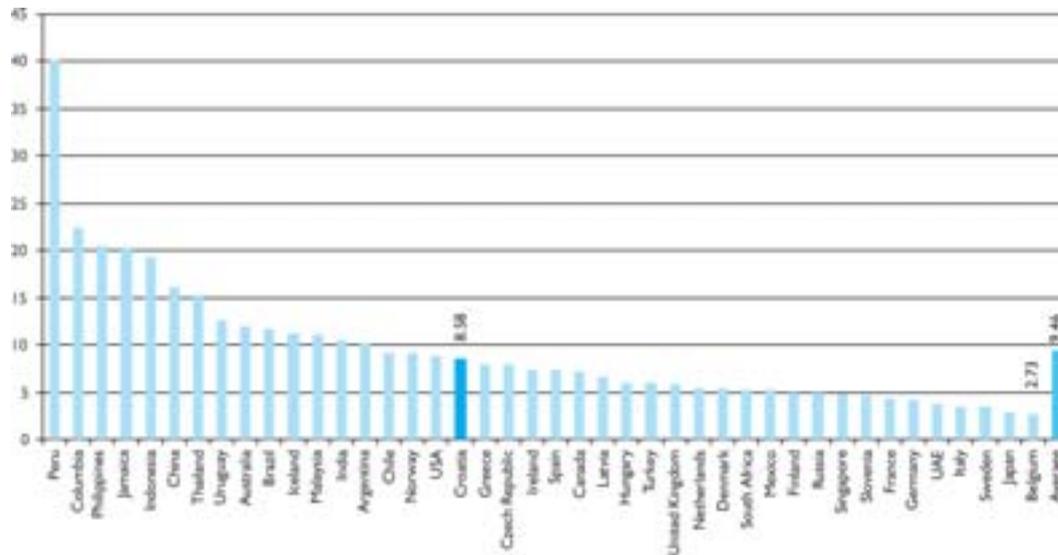


Figure 2  
Entrepreneurial  
activity of  
Croatia in  
international  
perspective  
TEA indexes,  
2006

Structure of participants in entrepreneurial activity also provides an answer of sorts to the challenge of transferring the entrepreneurial activity into growth of the gross domestic product per capita. Strong entrepreneurial activity in the sphere of starting business ventures must be followed by a higher rate of "maturity" of business ventures and stronger participation of growing enterprises in the economic structure of Croatia. Croatia is particularly lagging behind in the rate of entrepreneurial activity of "established" entrepreneurs (active for more than 42 months) (4.12% compared to 6.97% in all GEM countries). Observing the rates of entrepreneurial activity according to individual categories of entrepreneurs, Croatia's greatest deviation from the average rates of all GEM countries is precisely in the category of "established" entrepreneurs (only 59%), whereas the rate of entrepreneurial activity of nascent entrepreneurs and new business owners is at the 90% of the GEM average (Table 2).

	Nascent entrepreneurs, active for up to 3 months	New business owners, active between 3 and 42 months	TEA index for nascent and new business owners	Established entrepreneurs, active for more than 42 months	Total entrepreneurial activity
Argentina	6.44	4.1	10.24	6.96	17.2
Australia	7.33	5.72	11.96	9.12	21.08
Belgium	1.82	1.11	2.73	2.12	4.85
Brazil	3.5	8.62	11.65	12.09	23.74
Canada	4.07	3.17	7.12	5.11	12.23
Chile	5.74	3.89	9.19	6.79	15.98
China	4.86	12	15.71	12.14	27.85
Columbia	10.92	12.55	22.48	10.41	32.89
Croatia	6.38	2.49	8.58	4.12	12.7
Czech Republic	6.41	1.98	7.85	5.41	13.26
Denmark	2.88	2.75	5.32	5.28	10.6
Finland	2.94	2.41	4.99	8.23	13.22
France	3.76	0.7	4.39	1.33	5.72
Germany	2.9	1.7	4.21	3.03	7.24
Greece	5.67	2.26	7.9	8.24	16.14
Hungary	3.18	3	6.04	6.72	12.76
Iceland	8.13	3.78	11.26	7.43	18.69
India	5.42	5.31	10.42	5.6	16.02
Indonesia	9.63	11.51	19.28	17.62	36.9
Ireland	4.46	2.93	7.35	7.82	15.17
Italy	2.23	1.37	3.47	3.03	6.5
Jamaica	11.64	9.21	20.32	10.3	30.62
Japan	1.59	1.37	2.9	4.76	7.66
Latvia	4.03	2.65	6.57	5.69	12.26
Malaysia	4.88	6.21	11.09	7.31	18.4
Mexico	4.12	1.19	5.26	2.27	7.53
Netherlands	3.56	1.86	5.42	6.59	12.01
Norway	5.25	4.34	9.14	5.98	15.12
Peru	30.01	15.14	40.15	12.37	52.52
Philippines	4.98	15.62	20.44	19.72	40.16
Russia	3.46	1.71	4.86	1.19	6.05
Singapore	2.74	2.52	4.85	3.37	8.22
Slovenia	2.91	1.79	4.63	4.44	9.07
South Africa	3.55	1.74	5.29	1.72	7.01
Spain	3.01	4.41	7.27	5.45	12.72
Sweden	2.23	1.39	3.45	4.99	8.44
Thailand	4.05	11.49	15.2	17.42	32.62
Turkey	2.2	4.01	6.07	11.45	17.52
UAE	1.71	2.2	3.74	1.39	5.13
UK	3.19	2.78	5.77	5.41	11.18
Uruguay	8.37	4.58	12.56	6.91	19.47
USA	7.47	3.26	10.03	5.42	15.45
Average	5.32	4.59	9.46	6.97	16.43

Table 2  
Rates of entrepreneurial activity in 2006, Croatia in international perspective - % in relation to 100 adults in the sample

## Motivation for entrepreneurial activity, more from opportunity than necessity

GEM research monitors differences in motivation for entrepreneurial activity through two different TEA indexes, from which the motivation index is derived (ratio of TEA Opportunity to TEA Necessity).

Motivation index above 1 means that there are more of those who start entrepreneurial activity of their own free will, because they have perceived a business opportunity they want to take advantage of.

Motivation index below 1 means that there are more of those who were pushed into entrepreneurial activity by their situation, and not because they wanted to. The higher the motivation index is, the economy is better off: greater optimism, greater readiness (knowledge) to start a business venture.

While in 2005 Croatia was the only country with higher TEA Necessity than TEA Opportunity, motivation index is above 1 in 2006, but we are still at the bottom of the scale (Table 3).

Country	Ratio TEA Opportunity TEA Necessity	Rank	Country	Ratio TEA Opportunity TEA Necessity	Rank
Norway	26.13	1	Italy	3.35	22
Denmark	26	2	Greece	3.07	23
Malaysia	19.09	3	Mexico	2.91	24
Netherlands	14.97	4	Argentina	2.85	25
Belgium	12.42	5	Peru	2.8	26
Sweden	12.04	6	Chile	2.54	27
Iceland	10.33	7	Russia	2.35	28
UAE	9.22	8	India	2.35	29
Slovenia	8.62	9	South Africa	2.3	30
Australia	8.31	10	Czech Republic	2.27	31
Ireland	8.16	11	Thailand	2.15	32
Indonesia	6.36	12	Turkey	2.03	33
Singapore	6.31	13	Jamaica	1.96	34
USA	6.25	14	Uruguay	1.72	35
Canada	5.88	15	Germany	1.62	36
Spain	5.51	16	France	1.59	37
Japan	5.44	17	Columbia	1.57	38
UK	5.28	18	China	1.53	39
Finland	5.27	19	Philippines	1.19	40
Latvia	4.86	20	<b>Croatia</b>	<b>1.16</b>	<b>41</b>
Hungary	3.49	21	Brazil	1.08	42
			Average	6.06	

Table 3  
Motivation Index  
- TEA Opportunity/  
TEA Necessity,  
2006

Low motivation index, which indicates a significant presence of people who have become entrepreneurially active owing to circumstances and not of their own will, is connected to the ability to lead a business through transformation from a new to an "established" enterprise (older than 42 months). Relationship between the percentage of "established" enterprises and start-up enterprises can be used as a rough approximation of successful transition from the start-up to the maturity phase. Low transition ratio from the start-up to the maturity phase positions Croatia to the 35 place in 2006, with transition rate that is significantly below the average of all GEM countries (Croatia 0.48, GEM countries 0.81) (Table 4).

Country	Ratios	Country	Ratios
Turkey	1.89	Chile	0.74
Finland	1.65	Germany	0.72
Japan	1.64	Canada	0.72
Sweden	1.45	Singapore	0.69
Netherlands	1.22	Czech Republic	0.69
Thailand	1.15	Argentina	0.68
Hungary	1.11	Iceland	0.66
Ireland	1.06	Malaysia	0.66
Greece	1.04	Norway	0.65
Brazil	1.04	Uruguay	0.55
Denmark	0.99	USA	0.54
Philippines	0.96	India	0.54
Slovenia	0.96	Jamaica	0.51
UK	0.94	Croatia	0.48
Indonesia	0.91	Columbia	0.46
Italy	0.87	Mexico	0.43
Latvia	0.87	UAE	0.37
Belgium	0.78	South Africa	0.33
China	0.77	Peru	0.31
Australia	0.76	France	0.30
Spain	0.75	Russia	0.24
		Average	0.81

Table 4  
Transition rates: transition from the start-up phase to "maturity" of a business venture, 2006 (ratio of the number of "established" entrepreneurs, who are active longer than 42 months to the number of nascent entrepreneurs and new business owners, active up to 42 months)

Clusters of countries with highest motivation index and highest rates of "maturity" of enterprises overlap to a great degree, which sends important signals to bearers of government policies and programs.

Strengthening the motivation index (increasing the number of people who enter entrepreneurial activity because of perceived opportunities) through better qualification for entrepreneurial activity and creation of environment that is stimulating for entrepreneurial activity (e.g. elimination of administrative barriers) will result in greater success of entrepreneurial ventures, and thus also in their "maturing".

Slovenia ranked 9th based on its motivation index (8.62 times more TEA Opportunity than TEA Necessity) and 13th based on the "established" businesses to start-up businesses ratio, so it can continue to serve as a good benchmark for Croatia in its search for adequate policies and programs that will change and strengthen these two components of its entrepreneurial capacity more significantly.

In strengthening entrepreneurial capacity of a country it is important to ensure the same opportunities in deciding whether to enter entrepreneurial activity for everyone. GEM research monitors and analyses the differences in entrepreneurial activity of men and women. Involvement of women in entrepreneurial activity depends on cultural, but on many other assumptions as well (e.g. access to education, access to financial resources, supply of services that help with organization of family life, etc.). Croatia is at the rear of GEM countries according to the gap between involvement of women and involvement of men in entrepreneurial activity (37th place out of 42 countries), which means that there are huge reserves for strengthening entrepreneurial capacity through equalization of access to entrepreneurial opportunities for women and men (Table 5 and Figure 3):

Country	TEA women	TEA men	Country	TEA women	TEA men
Argentina	6.55	13.93	Japan	2.6	3.2
Australia	9.87	14.02	Latvia	3.92	9.41
Belgium	1.04	4.39	Malaysia	11.13	11.05
Brazil	9.61	13.74	Mexico	4.48	6.1
Canada	5.99	8.25	Netherlands	3.6	7.2
Chile	7.02	11.38	Norway	5.87	12.31
China	15.73	15.7	Peru	39.27	41.02
Columbia	17.3	27.97	Philippines	22.45	18.4
Croatia	4.87	12.35	Russia	2.57	7.33
Czech Republic	4.93	10.75	Singapore	3.75	6
Denmark	3.3	7.31	Slovenia	2.29	6.93
Finland	4.04	5.92	South Africa	4.83	5.79
France	2.53	6.26	Spain	5.7	8.83
Germany	2.58	5.79	Sweden	2.43	4.44
Greece	4.69	11.12	Thailand	14.18	16.25
Hungary	4.05	8.09	Turkey	3.53	8.53
Iceland	5.73	16.65	UAE	0.29	5.87
India	9.16	11.6	UK	3.61	7.88
Indonesia	18.73	19.84	Uruguay	8.6	16.61
Ireland	4.2	10.51	USA	7.36	12.73
Italy	3.06	3.87	Average	7.51	11.38
Jamaica	18.14	22.58			

Table 5  
Differences in entrepreneurial activity, based on gender, 2006

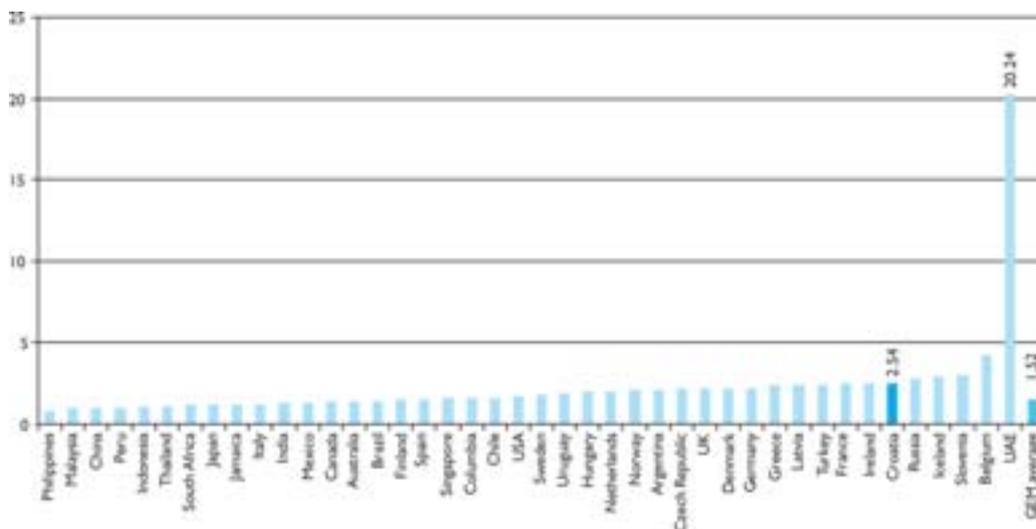


Figure 3  
Ratio TEA men to TEA women, Croatia in international perspective, 2006

## Entrepreneurial activity of Croatia in European perspective

Process of Croatia's accession to the European Union obliges Croatia to perform continuous evaluation of its policies, programs, regulatory framework and instruments aimed at increasing the country's entrepreneurial capacity, in relation to initiatives that are happening in the European Union. Using several selected indicators of entrepreneurial activity (TEA; % of entrepreneurs, active for more than 42 months; motivation: TEA Opportunity and TEA Necessity; TEA in relation to gender), Croatia has been positioned in relation to European Union countries involved in the GEM research (Table 6).

Indicator	Croatia		All GEM EU countries			
	Rank	Value	Average	Highest	Lowest	
TEA entrepreneurs, active for less than 42 months	1 out of 17	8.58	5.46	7.9 Greece	2.73 Belgium	
Motivation	TEA Opportunity	10 out of 17	4.41	4.25	6.2 Ireland	2.36 Belgium
	TEA Necessity	1 out of 17	3.81	0.96	2.4 Czech Republic	0.19 Denmark
Gender	TEA men	1 out of 17	12.35	7.42	11.12 Greece	3.87 Italy
	TEA women	3 out of 17	4.87	3.5	5.7 Spain	1.04 Belgium
"Established" entrepreneurs, active for more than 42 months, %	13 out of 17	4.12	5.24	8.24 Greece	1.13 France	
Business angels, %	10 out of 17	2.12	2.59	5.29 Latvia	0.72 Hungary	
Expect to start a business venture within 3 years, %	6 out of 17	11.12	9.79	15.99 Latvia	5.64 Netherlands	
Ceased business activity within last 12 months - sale of the business does not count, %	9 out of 17	1.81	1.85	3.8 Czech Republic	0.84 Netherlands	

Table 6  
Croatia in European perspective, selected indicators of entrepreneurial activity, 2006

16 EU countries were involved in the GEM research in 2006: Czech Republic, Greece, Ireland, Latvia, France, Netherlands, United Kingdom, Hungary, Spain, Finland, Slovenia, Germany, Denmark, Italy, Sweden and Belgium. The average was calculated based on values of those countries.

Croatia's rank within the group of countries from the European Union that are involved in the GEM research opens the "weak" points of Croatia's entrepreneurial capacity more clearly and is almost a directive for government policies and programs:

- Although Croatia is the first based on the level of TEA index (nascent entrepreneurs and new enterprises), it also holds the 1st place based on the level of TEA Necessity
- Croatia has a lower percentage of "established" entrepreneurs (active for more than 42 months) than the average of GEM EU countries, which points to the need for creation of assumptions for the stimulation of development of growing enterprises (adequate knowledge, innovative activities, venture funds...)
- Croatia has less business angels than the GEM EU countries average, which points to the need for development of informal financial sources for supporting entrepreneurial activities

Further homogenization of the sample using the cluster of countries that Croatia belongs to according to the level of GDP per capita makes these comparisons even more useful (Table 7).

Country	Nascent entrepreneurs, active for up to 3 months	New business owners, active between 3 and 42 months	TEA index for nascent entrepreneurs and new business owners	"Established" entrepreneurs, active for more than 42 months	Total entrepreneurial activity
Cluster of EU countries involved in GEM with GDP below 20,000 USD per capita	4.13	2.36	6.27	5.57	11.84
Croatia	6.38	2.49	8.58	4.12	12.7
Slovenia	2.91	1.79	4.63	4.44	9.07
Hungary	3.18	3	6.04	6.72	12.76
Latvia	4.03	2.65	6.57	5.69	12.26

Table 7  
Differences in entrepreneurial activity based on economic strength of the country, 2006

It is interesting that Croatia and Slovenia are located on the opposite ends of the East European cluster (Figure 1), where Croatia is described with 8.58% of entrepreneurial activity (TEA index) and 8,722 USD GDP per capita, and Slovenia with 4.63% of entrepreneurial activity (TEA index) and 17,400 USD GDP per capita. Although Latvia and Hungary have lower levels of entrepreneurial activity, they have higher levels of GDP per capita.<sup>3</sup> Values of gross domestic product per capita have been recalculated into purchasing power parity.

<sup>3</sup> Bosma, N. and R. Harding: Global Entrepreneurship Monitor: GEM 2006 Results; London Business School and Babson College, 2007, page 13

## 3 Entrepreneurship in Croatia

Entrepreneurial capacity of Croatia continues to increase

Number of enterprises with growth potential remains low

Sectoral distribution of entrepreneurial activities

Regional differences in entrepreneurial activity continue to decrease

Entrepreneurial demography of Croatia

What drives entrepreneurs in Croatia?

Entrepreneurial environment in Croatia is improving

Entrepreneurial capacity of Croatia, seen through the definitions of the GEM research (nascent entrepreneurs, new business owners, "established" entrepreneurs) is analysed from the viewpoint of demographic and economic characteristics of the population, system of values that forms (non) entrepreneurial behaviour and experts' perception of individual components of the entrepreneurial environment (access to financial resources, education, government policies, government programs...). Integrative character of entrepreneurship requires knowledge of all the components of interaction between the individual and the environment in order to design efficient policies and programs that improve this interaction and make it sustainable, i.e., competitive in conditions of globalization. Sustainability of entrepreneurial capacity of a country is based on the increase of the share of enterprises with growth potential, because of which growth potential from the aspects of innovativeness and new employment is especially analysed.

### Entrepreneurial capacity of Croatia continues to increase

Entrepreneurial capacity is the result of the intensity with which business ventures are started and their vitality. Intensity with which business ventures are started is measured using the level of TEA index and the motivation index (i.e., ratio between TEA Opportunity and TEA necessity), while vitality of business ventures is expressed by the "maturity" index and the share of growing enterprises in the structure of enterprises.

In 2006, a further increase of the TEA index has been recorded (from TEA 6.11 in 2005 to TEA 8.58 in 2006), as well as increase of the motivation index (from 0.95 to 1.16), which speaks about the greater share of entrepreneurs who enter entrepreneurial activity because of a perceived opportunity and not out of necessity. Although motivation index is still fairly low, it is still a sign of good changes. However, the "maturity" index has remained at the previous year's level, i.e., it is even somewhat lower (0.48 in 2006 vs. 0.60 in 2005) (Table 8).

		2006
Motivation index <sup>(1)</sup>	Croatia	1.16
	GEM	6.06
"Maturity" index <sup>(2)</sup>	Croatia	0.48
	GEM	0.81

Table 8  
Entrepreneurial capacity of Croatian economy, 2006

<sup>1</sup> TEA Opportunity to TEA Necessity ratio

<sup>2</sup> Ratio between categories "established entrepreneurs" and "nascent entrepreneurs + new business owners"

Although entrepreneurial activity is increasing measured by all categories of the TEA index (overall TEA, TEA Opportunity, TEA Necessity - Table 1), the distance from the GEM average in motivation index and "maturity" index is alerting.

## Number of enterprises with growth potential remains low<sup>1</sup>

Investments in technology, but still no new products

Strong competition based on the same products

No changes in expectation of new employment

Importance that growing businesses have in creation of new employment has been confirmed by various studies, which have concluded that great minority of such businesses (usually below 10% of all businesses of a national economy) is responsible for more than 50% of employment (e.g. Storey, 1994; Kirchoff, 1994). These earlier studies have been confirmed in GEM 2007 Global Report on High-Growth Entrepreneurship, with the conclusion that high growth enterprises account for only 6% of all businesses, but provide 60% of employment. Through its Competitiveness and Innovation Framework Programme 2007 - 2013, European Union emphasizes its political and financial readiness to increase competitiveness of the economy through creation of such entrepreneurial environment (education, financial market, protection of intellectual property...) that will provide support for strengthening the growing enterprise segment.

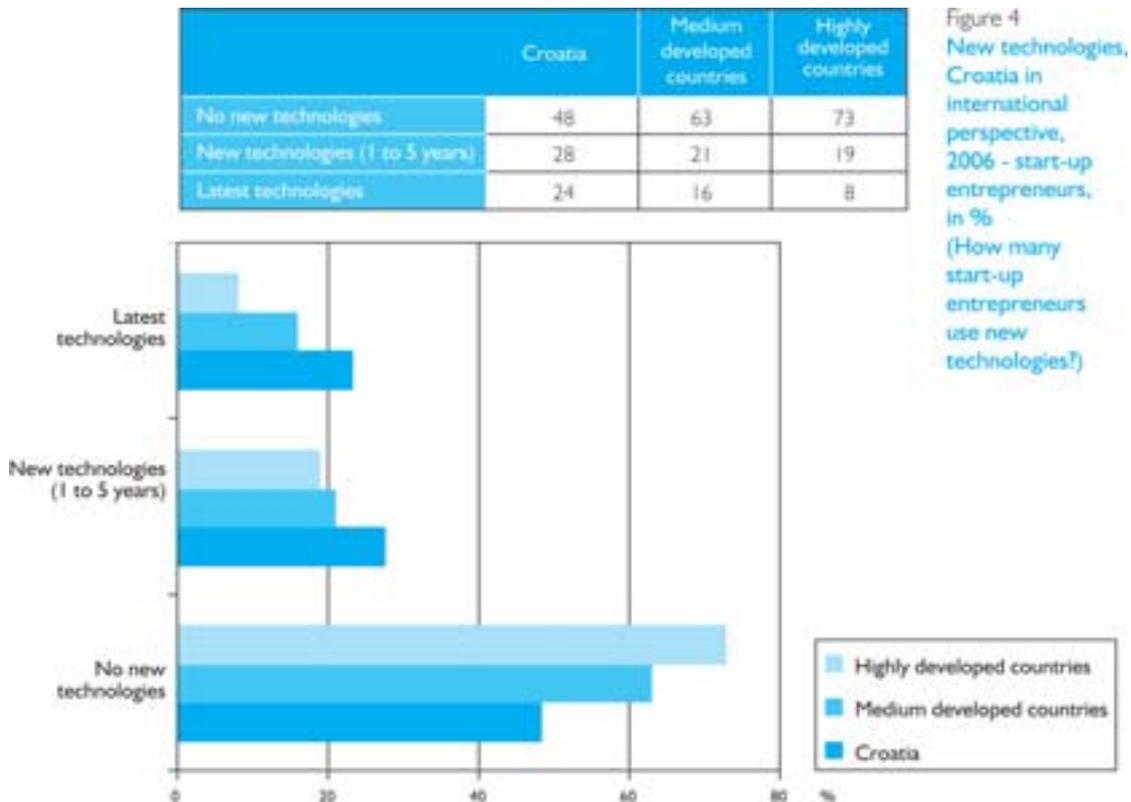
In the GEM research in 2006, growing enterprises are observed based on the following four criteria:

- Innovativeness in using new technologies (latest technologies - up to 1 year old, technologies 1 to 5 years old, no new technologies)
- Innovativeness in the development of new products (products are new to everyone, to some, to no-one)
- Exposure to competition (the same product is offered by everyone, by some, by no-one)
- Capacity for new employment (expected new employment in the period of 5 years: no new employees, 1-5, 6-19, more than 20 employees)

<sup>1</sup> Thanks to the fact that Croatia has been involved in GEM research since 2002, and also because of interest in better understanding of correlation between the segment of growing enterprises and the level of gross domestic product per capita, Croatia has been included in GEM 2007 Global Report on High-Growth Entrepreneurship, which will be presented to the public in April of 2007.

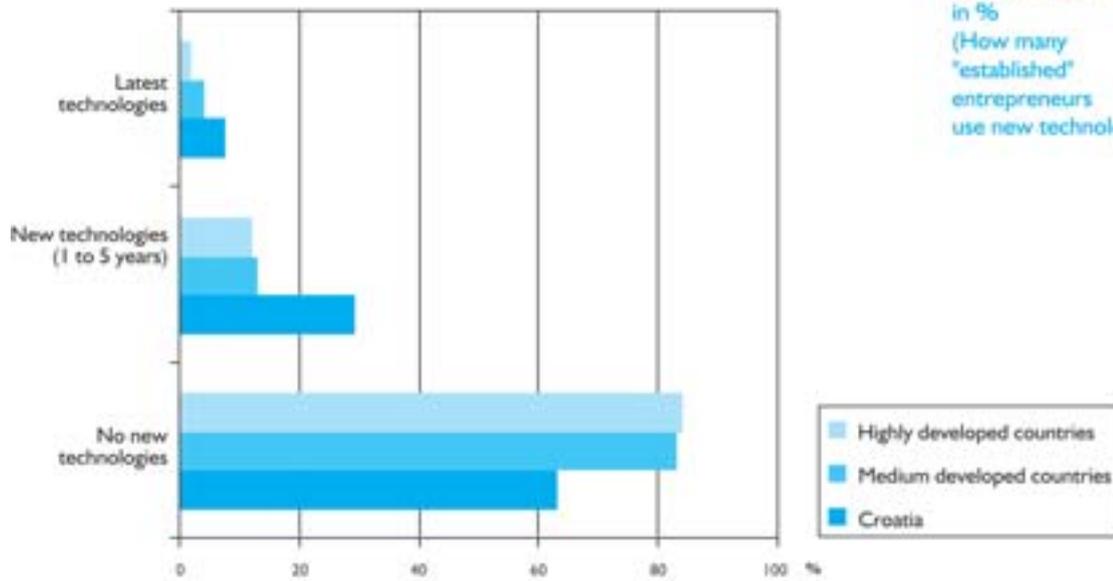
## Investments in technology, but still no new products

Assessing that application of new technologies and capacity for creation of new products are the principal assumptions for creation of growing enterprises, figures 4 to 7 describe differences in the structure of enterprises in Croatia, in comparison with the cluster of medium developed and highly developed countries. The dividing line between these two clusters is gross domestic product per capita, expressed through purchasing power parity, at 20,000 USD. Especially compared are the differences between entrepreneurs who have been active for up to 3 months (start-up entrepreneurs) and those who have been entrepreneurially active for more than 42 months ("established" entrepreneurs).



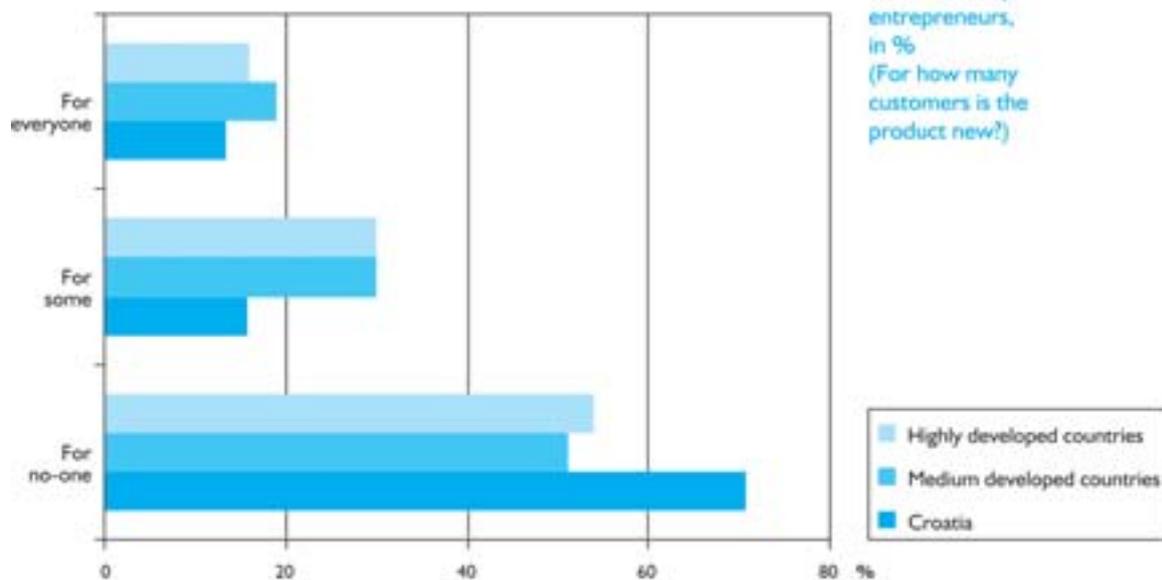
	Croatia	Medium developed countries	Highly developed countries
No new technologies	63	83	84
New technologies (1 to 5 years)	29	13	12
Latest technologies	8	4	2

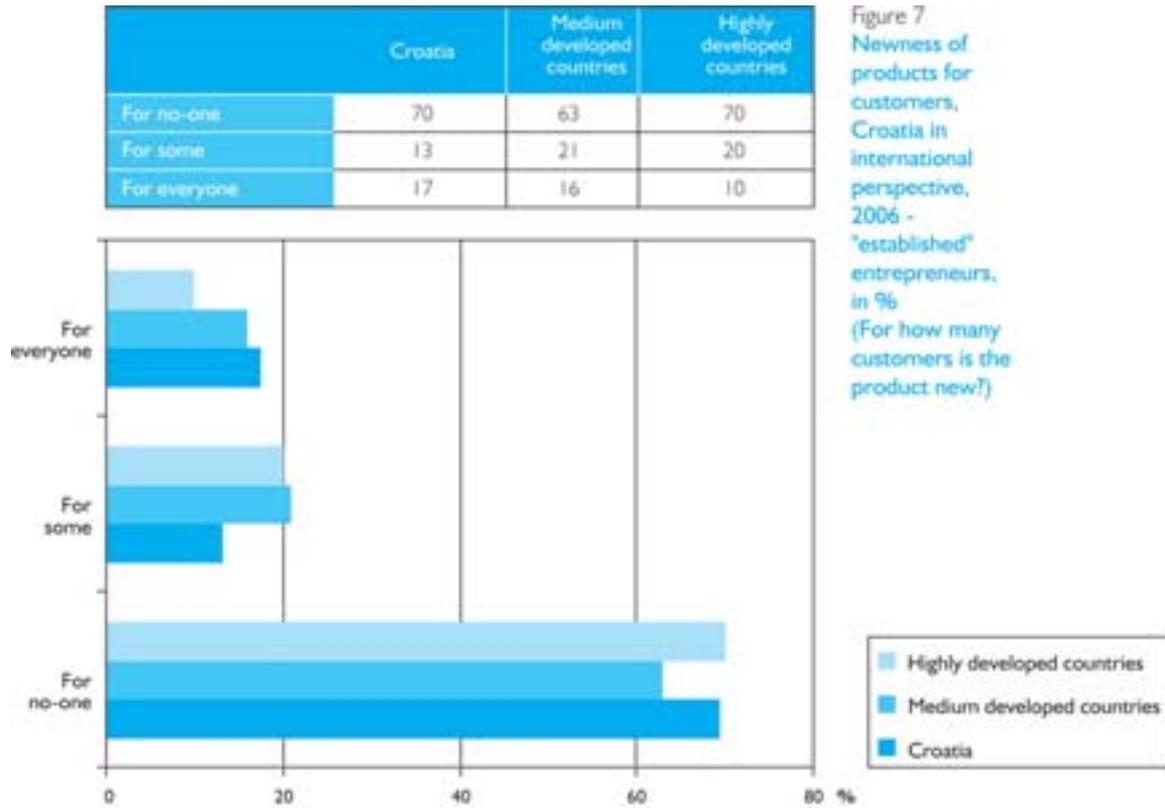
Figure 5  
New technologies, Croatia in international perspective, 2006 - "established" entrepreneurs, in %  
(How many "established" entrepreneurs use new technologies?)



	Croatia	Medium developed countries	Highly developed countries
For no-one	71	51	54
For some	16	30	30
For everyone	13	19	16

Figure 6  
Newness of products for customers, Croatia in international perspective, 2006 - start-up entrepreneurs, in %  
(For how many customers is the product new?)





In 2006, start-up entrepreneurs use new technologies more often than the "established" ones (Figure 4 and Figure 5), but especially important is the fact that both categories of entrepreneurs in Croatia invest more in new technologies than such businesses in the cluster to which Croatia belongs (medium developed countries) or even in the cluster of highly developed countries: 24% of Croatian start-up and 8% of "established" enterprises have latest technologies, while in the cluster of medium developed countries there are 16% of such new entrepreneurs and 4% of the "established" ones. This gives hope that investment in technology will soon pay off through creation of new or innovative products, because that is still not the case: no less than 71% of start-up enterprises and 70% of "established" enterprises have products that are new to no-one, while in the cluster of medium developed countries that is the case in 51% of start-up entrepreneurs and 63% of "established" entrepreneurs (Figure 6 and Figure 7).

### Strong competition based on the same products

Almost the same situation continues in 2006 as in 2005: "established" entrepreneurs expect stronger competition. Much lower expectation of strong competition by start-up entrepreneurs, like in 2005, has no foundation in the level of innovativeness of the products, and continues to point to perhaps inadequate knowledge of how the market functions and to the fact that beginners are dazzled by their own products.

	2006
<b>Start-up entrepreneurs</b>	<b>96</b>
Many	53
Some	38
None	9
<b>"Established" entrepreneurs</b>	
Many	76
Some	23
None	1

Table 9  
Intensity of the expected competition, 2006, in % (How many entrepreneurs offer the same product?)

### No changes in expectation of new employment

While 2005 was the year in which expectation of new employment in the category of 20 and more employees grew by leaps and bounds in relation to previous years (to 15% at start-up entrepreneurs and 18% at "established" entrepreneurs), there have been no changes in 2006 (Table 10).

	2006
<b>Start-up entrepreneurs</b>	<b>96</b>
None	10.7
1-5	45.5
6-19	28.7
20 and more	15
<b>"Established" entrepreneurs</b>	
None	14.5
1-5	41.0
6-19	27.0
20 and more	17.5

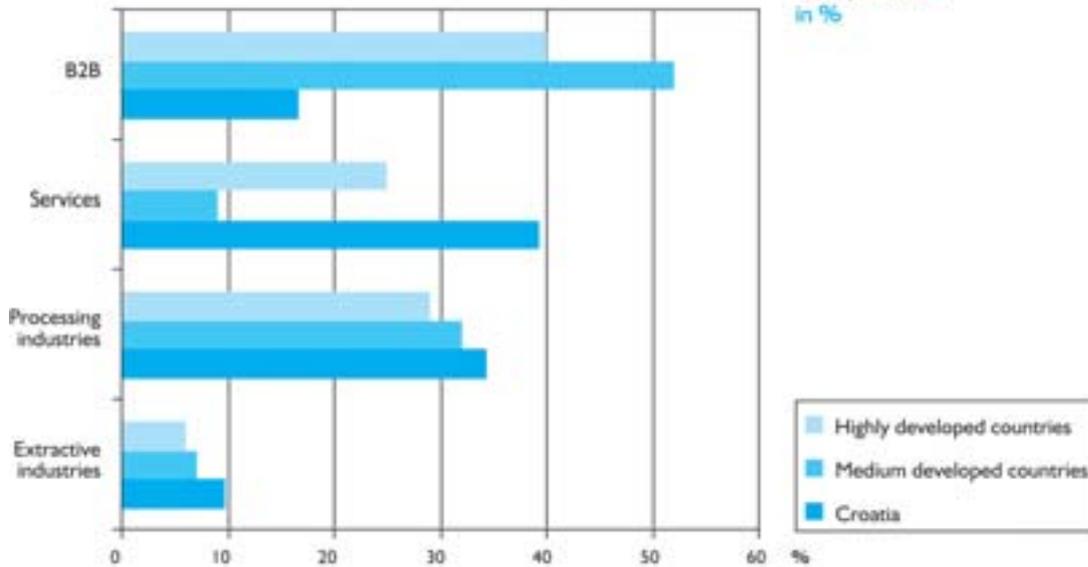
Table 10  
Growth expectation through employment, 2006, in % (How many new employees you expect in 5 years?)

## Sectoral distribution of entrepreneurial activities

Indicators of distribution of entrepreneurial activities by sectors speak how entrepreneurs evaluate entrepreneurial opportunities in individual sectors.<sup>2</sup> There are two significant deviations of sectoral distribution of entrepreneurial activity in Croatia from the cluster of medium developed countries, to which Croatia belongs: in both categories of entrepreneurs (start-up and "established") there is significantly more entrepreneurial activity in B2B<sup>3</sup> and significantly less in services.<sup>4</sup>

	Croatia	Medium developed countries	Highly developed countries
Extractive industries	9.81	7	6
Processing industries	34.26	32	29
Services	39.35	9	25
B2B	16.58	52	40

Figure 8  
Sectoral distribution of entrepreneurial activity, Croatia in international perspective, 2006 - start-up entrepreneurs, in %



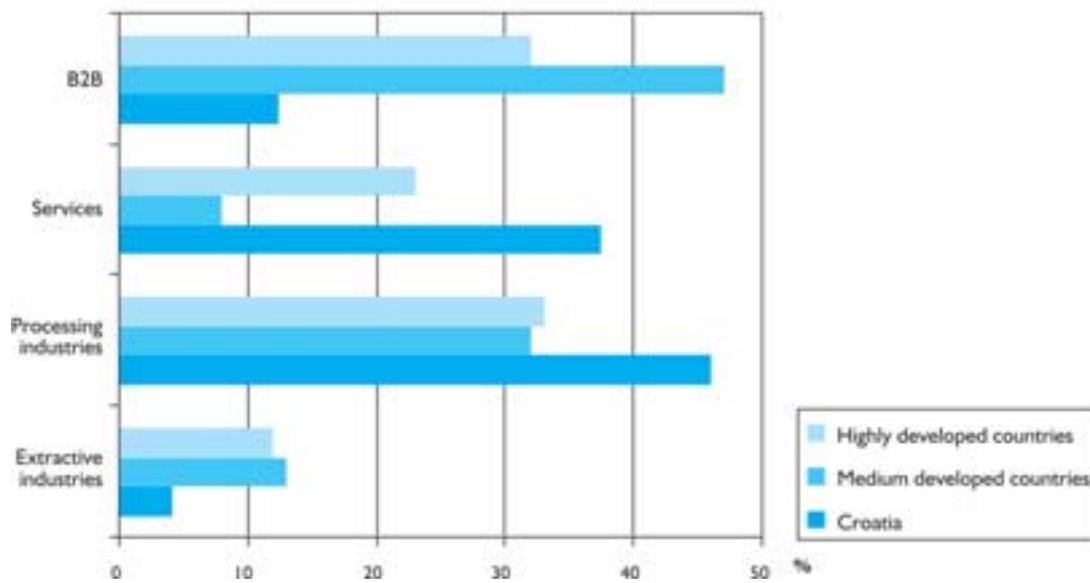
<sup>2</sup> For the purpose of classifying entrepreneurial activities, GEM research uses International Standard of Industrial Classification of All Economic Activities IISCI codes.

<sup>3</sup> B2B activities are those in which other enterprises are the main customers.

<sup>4</sup> Service activities are those where physical persons are the main customers (education, health services, restaurants, retail, etc.).

	Croatia	Medium developed countries	Highly developed countries
Extractive industries	4.19	13	12
Processing industries	46	32	33
Services	37.47	8	23
B2B	12.33	47	32

Figure 9  
Sectoral distribution of entrepreneurial activity, Croatia in international perspective, 2006 - "established" entrepreneurs, in %



## Regional differences in entrepreneurial activity continue to decrease

Differences in regional activity within a country are generally connected with the differences in development of a certain region - this is also true for Croatia.<sup>5</sup> Therefore, indicators on TEA indexes by "regions" of Croatia are complementary with "hard" indicators of general (non)development of these areas, measured by GDP per capita, efficiency of use of intellectual capital (ICE), level of unemployment and data on educational structure of population.<sup>6</sup>

For the purposes of GEM research, Croatian counties and City of Zagreb are grouped in six "regions":

Zagreb and surroundings

Slavonia and Baranja

Northern Croatia

Lika and Banovina

Istria, Primorje and Gorski Kotar

Dalmatia

In order to get a better insight in the connection between entrepreneurial activity and development indicators, an identity card of "hard" general development indicators has been created for each "region".

<sup>5</sup> For the needs of GEM project, we grouped Croatian counties in regions, according to the criterion of geographic-historical comprehension of regional structure of Croatia.

<sup>6</sup> Sources of data: for gross domestic product per capita and ICE: Center for Intellectual Capital: Intellectual Capital - 2005 Report; for unemployment rate: CES: Yearbook 2005, Zagreb; for population data: Census 2001.

## Zagreb and surroundings

Counties:  
**City of Zagreb**  
**Zagreb County**

Surface:  
 3,719 km<sup>2</sup>

Total population:  
 1,088,841



	GDP pc in USD		ICE
	2004	2005	2005
City of Zagreb	23,361.00		2.30
Zagreb County	5,081.00		2.61
Average	<b>14,221.00</b>		<b>2.46</b>
Rank			1

	%
City of Zagreb	7.80
Zagreb County	16.70
Average	<b>12.25</b>
Rank	<b>5</b>

Unemployment,  
 December 31, 2005

	Population	Share (%) of illiterates in population 10 and older	Share (%) of population 15 and older	
			With low education	With tertiary education
City of Zagreb	779,145	0.62	25.10	22.60
Zagreb County	309,696	1.51	43.55	7.94
Total/Average	<b>1,088,841</b>	<b>1.07</b>	<b>34.33</b>	<b>15.27</b>
Rank	1			

Human capital,  
 2001

## Slavonia and Baranja

Counties:

**Brod-Posavina County**  
**Osijek-Baranja County**  
**Požega-Slavonia County**  
**Vukovar-Syrmia County**

Surface:

10,488 km<sup>2</sup>

Total population:

797,870



	GDP pc in USD		ICE
	2004	2005	2005
Požega-Slavonia County	2,634.00		1.91
Brod-Posavina County	2,113.00		1.77
Osijek-Baranja County	3,600.00		2.03
Vukovar-Syrmia County	2,070.00		1.91
Average	<b>2,604.25</b>		<b>1.91</b>
Rank		<b>6</b>	<b>5</b>

	%
Požega-Slavonia County	20.90
Brod-Posavina County	29.50
Osijek-Baranja County	26.10
Vukovar-Syrmia County	32.10
Average	<b>27.15</b>
Rank	<b>1</b>

Unemployment,  
December 31, 2005

	Population	Share (%) of illiterates in population 10 and older	Share (%) of population 15 and older	
			With low education	With tertiary education
Požega-Slavonia County	85,831	3.00	53.35	6.78
Brod-Posavina County	176,765	2.43	46.69	6.95
Osijek-Baranja County	330,506	1.99	46.55	9.23
Vukovar-Syrmia County	204,768	3.17	51.49	6.69
Total/Average	<b>797,870</b>	<b>2.65</b>	<b>49.52</b>	<b>7.41</b>
Rank	<b>4</b>			

Human capital,  
2001

## Northern Croatia

Counties:

**Bjelovar-Bilogora County**  
**Krapina-Zagorje County**  
**Koprivnica-Križevci County**  
**Međimurje County**  
**Varaždin County**  
**Virovitica-Podravina County**

Surface:  
 9,681 km<sup>2</sup>

Total population:  
 1,008,382



	GDP pc in USD		ICE
	2004	2005	2005
Krapina-Zagorje County	3,482.00		2.13
Varaždin County	5,306.00		1.96
Koprivnica-Križevci County	5,367.00		2.06
Bjelovar-Bilogora County	3,300.00		1.86
Virovitica-Podravina County	2,352.00		1.69
Međimurje County	4,995.00		1.97
Average	<b>4,133.67</b>		<b>1.95</b>
Rank		<b>3</b>	<b>4</b>

	%
Krapina-Zagorje County	14.70
Varaždin County	14.20
Koprivnica-Križevci County	16.80
Bjelovar-Bilogora County	25.60
Virovitica-Podravina County	29.60
Međimurje County	15.50
Average	<b>19.40</b>
Rank	<b>4</b>

Unemployment,  
 December 31, 2005

	Population	Share (%) of illiterates in population 10 and older	Share (%) of population 15 and older	
			With low education	With tertiary education
Krapina-Zagorje County	142,432	1.54	53.04	5.84
Varaždin County	184,769	1.04	46.00	8.40
Koprivnica-Križevci County	124,467	1.38	58.21	7.03
Bjelovar-Bilogora County	133,084	2.31	54.88	6.61
Virovitica-Podravina County	93,389	2.16	56.84	5.79
Međimurje County	118,426	0.87	48.26	6.57
Total/Average	<b>1,008,382</b>	<b>1.55</b>	<b>52.87</b>	<b>6.71</b>
Rank	<b>2</b>			

Human capital,  
 2001

## Lika and Banovina

Counties:

**Karlovac County**  
**Lika-Senj County**  
**Sisak-Moslavina County**

Surface:

13,435 km<sup>2</sup>

Total population:

380,851



	GDP pc in USD		ICE
	2004	2005	2005
Sisak-Moslavina County	2,689.00		1.63
Karlovac County	5,126.00		1.97
Lika-Senj County	2,169.00		2.03
Average	3,328.00		1.88
Rank			<b>5</b>

	%
Sisak-Moslavina County	29.90
Karlovac County	27.60
Lika-Senj County	22.40
Average	26.63
Rank	<b>2</b>

Unemployment,  
December 31, 2005

	Population	Share (%) of illiterates in population 10 and older	Share (%) of population 15 and older	
			With low education	With tertiary education
Sisak-Moslavina County	185,387	3.35	48.73	7.61
Karlovac County	141,787	2.91	47.25	8.68
Lika-Senj County	53,677	3.20	52.16	7.12
Total/Average	<b>380,851</b>	<b>3.15</b>	<b>49.38</b>	<b>7.80</b>
Rank	<b>6</b>			

Human capital,  
2001

### Istria, Primorje and Gorski Kotar

Counties:  
**Istria County**  
**Primorje-Gorski Kotar County**

Surface:  
 6,402 km<sup>2</sup>

Total population:  
 511,849



	GDP pc in USD		ICE
	2004	2005	2005
Primorje-Gorski Kotar County	6,931.00		1.84
Istria County	9,628.00		2.37
Average	<b>8,279.50</b>		<b>2.11</b>
Rank			<b>3</b>

	%
Primorje-Gorski Kotar County	13.40
Istria County	8.00
Average	10.70
Rank	<b>6</b>

Unemployment,  
 December 31, 2005

	Population	Share (%) of illiterates in population 10 and older	Share (%) of population 15 and older	
			With low education	With tertiary education
Primorje-Gorski Kotar County	305,505	0.60	30.20	15.29
Istria County	206,344	0.89	36.93	12.60
Total/Average	<b>511,849</b>	<b>0.75</b>	<b>33.57</b>	<b>13.95</b>
Rank	<b>5</b>			

Human capital,  
 2001

## Dalmatia

Counties:

**Dubrovnik-Neretva County**  
**Split-Dalmatia County**  
**Šibenik-Knin County**  
**Zadar County**

Surface:

12,898 km<sup>2</sup>

Total population:

861,482



	GDP pc in USD		ICE
	2004	2005	2005
Zadar County	3,943.00		2.43
Šibenik-Knin County	2,370.00		2.13
Split-Dalmatia County	4,268.00		1.90
Dubrovnik-Neretva County	4,854.00		2.13
Average	3,858.75		2.15
Rank			<b>4</b>

	%
Zadar County	20.90
Šibenik-Knin County	26.50
Split-Dalmatia County	22.30
Dubrovnik-Neretva County	18.30
Average	22.00
Rank	<b>3</b>

Unemployment,  
December 31, 2005

	Population	Share (%) of illiterates in population 10 and older	Share (%) of population 15 and older	
			With low education	With tertiary education
Zadar County	162,045	3.20	40.80	10.77
Šibenik-Knin County	112,891	5.13	42.84	9.51
Split-Dalmatia County	463,676	1.95	33.98	13.58
Dubrovnik-Neretva County	122,870	1.13	34.53	14.03
Total/Average	<b>861,482</b>	<b>2.85</b>	<b>38.04</b>	<b>11.97</b>
Rank	<b>3</b>			

Human capital,  
2001

In the 2002-2006 period, entrepreneurial activity in all regions shows positive changes, primarily in Slavonia and Baranja, in Lika and Banovina, and in Northern Croatia, which leads to a decrease of differences between regions (Table 11).

	2002	2003	2004	2005	2006
Zagreb and surroundings	4.89	4.30	4.42	8.43	7.77
Slavonia and Baranja	2.11	1.00	4.44	4.91	8.84
Northern Croatia	2.83	1.99	3.00	4.40	9.15
Lika and Banovina	2.71	1.78	3.99	5.11	8.69
Istria, Primorje and Gorski Kotar	4.47	3.05	5.29	5.74	7.10
Dalmatia	3.95	2.43	1.68	6.34	9.85
Croatia	3.62	2.56	3.74	6.11	8.58

Table 11  
Regional dimension of entrepreneurial capacity of Croatia - TEA indexes, 2002-2006

The picture of regional distribution of entrepreneurial activity is complemented by information on the reasons for starting entrepreneurial ventures, i.e., TEA Opportunity and TEA Necessity (Figure 10), and the motivation index, which is the result of relationship between TEA Opportunity and TEA Necessity (Table 12).

	Zagreb and surroundings	Slavonia and Baranja	Northern Croatia	Lika and Banovina	Istria, Primorje and Gorski Kotar	Dalmatia
TEA Opportunity	4.51	2.80	5.20	3.14	5.41	4.93
TEA Necessity	2.59	5.62	3.95	5.54	1.69	4.32

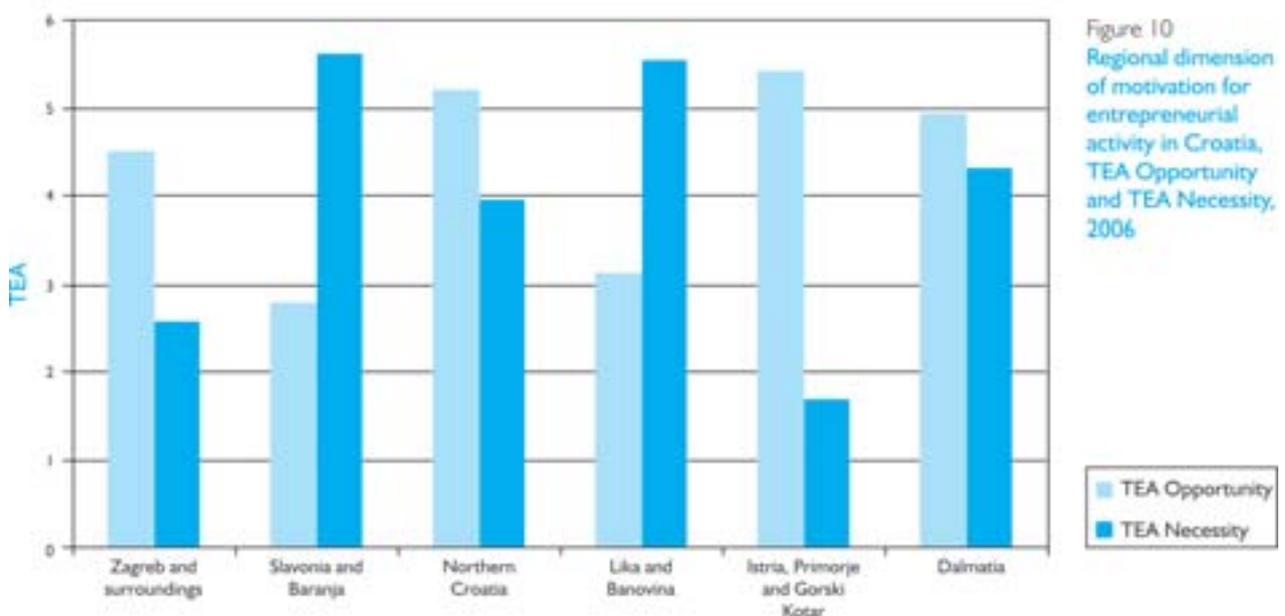


Figure 10  
Regional dimension of motivation for entrepreneurial activity in Croatia, TEA Opportunity and TEA Necessity, 2006

Region	TEA	Motivation index (TEA Opportunity/ TEA Necessity)
Zagreb and surroundings	7.77	1.74
Slavonia and Baranja	8.84	0.5
Northern Croatia	9.15	1.32
Lika and Banovina	8.69	0.57
Istria, Primorje and Gorski Kotar	7.10	3.2
Dalmatia	9.85	1.14
Croatia	8.58	1.16

Table 12  
Motivation index,  
regional differences,  
2006

Balancing of the regional distribution of entrepreneurial activities (value of TEA indexes) is the result of different motivations for entering entrepreneurship (because of an opportunity or owing to circumstances). Motivation index gives important information on differences in entrepreneurial potential, since there are substantial differences in expectations of those who have entered entrepreneurial activity because of a recognized opportunity (long-term, more optimistic) in relation to those who were forced into it by circumstances. Using the motivation index, the rank of entrepreneurial capacity of Croatian regions has remained mainly unchanged. The first two positions are held by Istria, Primorje and Gorski Kotar, and Zagreb and surroundings, while the rear is taken by Slavonia and Baranja and Lika and Banovina.

Analysis of the regional distribution of entrepreneurial activities and the "hard" indicators of regional development shows a high level of mutual supplementation (Table 13). Equalization of entrepreneurial activity by regions, with a time delay, will probably cause changes in values of gross national product per capita and a decrease in unemployment (which will depend on to what degree started entrepreneurial activities will be vital enough to develop into "established" ventures). Motivation index is in the closest relationship with the existing level of development, because it is highest for the richest "regions" and lowest for the poorest "regions". The highest motivation indexes for the richest "regions" means that people in those environments start business ventures because their choice is based on recognized business opportunities. Motivation index below 1, which is present in two poorest "regions" (Lika and Banovina, Slavonia and Baranja), speaks of significant domination of people who enter entrepreneurial activity because of necessity, since they have no other choice, which results in lower evaluations of expectations of venture development.

Region	GDP pc, 2004		ICE, 2005		Unemployment, 2005		Entrepreneurial activity, 2006			
	USD	Rank	Value	Rank	%	Rank	TEA	Rank	Participation index	Rank
Zagreb and surroundings	14,221	1	2.46	1	12.25	5	7.77	5	1.74	2
Slavonia and Baranja	2,604	6	1.91	5	27.15	1	8.84	3	0.5	6
Northern Croatia	4,133	3	1.95	4	19.4	4	9.15	2	1.32	3
Lika and Banovina	3,328	6	1.88	6	26.63	2	8.69	4	0.57	5
Istria, Primorje and Gorski Kotar	8,279	2	2.11	3	10.7	6	7.10	6	3.2	1
Dalmatia	3,858	4	2.15	2	22	3	9.85	1	1.14	4

Table 13  
Development profiles of "regions" in Croatia

Information on entrepreneurial demography (Table 14) is useful for understanding the regional differences in entrepreneurial activity. In the most developed "regions" (Zagreb and surroundings; Istria, Primorje and Gorski Kotar) differences between men and women are the smallest, there are most entrepreneurially active highly educated people, they most often belong to the 25 - 34 age group, and there are most people with highest monthly income. In the poorest "regions", people who are entrepreneurially active more often have elementary education and much lower monthly income. It is interesting to note that Northern Croatia has the lowest number of entrepreneurially active women.

		Zagreb and surroundings	Slavonia and Baranja	Northern Croatia	Lika and Banovina	Istria, Primorje and Gorski Kotar	Dalmatia
Gender	Women	38.7	37.5	11.5	27.3	38.5	25
	Men	61.3	62.5	88.5	72.7	61.5	75
Education	Less than secondary school	6.3	17.4	12	10	0	0
	Secondary school	50	73.9	76	80	69.2	71.4
	University or higher	43.8	4.3	8	10	30.8	28.6
	No answer	0	4.3	4	0	0	0
Age	18 - 24	12.9	13	30.8	27.3	42.9	10.7
	25 - 34	38.7	30.4	30.8	27.3	35.7	35.7
	35 - 44	25.8	30.4	23.1	18.2	14.3	17.9
	45 - 54	16.1	21.7	7.7	9.1	7.1	21.4
	55 - 64	6.5	4.3	7.7	18.2	0	14.3
Monthly income, in kunas	No income	0	20.8	3.7	27.3	0	10
	Up to 1000	6.7	9	0	0	0	3.3
	1001 to 2000	3.3	12.5	11.1	27.3	7.1	6.7
	2001 to 3001	3.3	25	11.1	9.1	28.6	13.3
	3001 to 4000	6.7	12.5	33.3	9.1	14	10
	4001 to 5000	20	8.3	14.8	18.2	14.3	10
	Over 5000	50	11.9	14.9	9	36	36.7
	No answer	10	0	11.1	0	0	10

Table 14  
Entrepreneurial demography by regions, 2006 (for nascent entrepreneurs and new business owners, entrepreneurially active up to 42 months), structure in %

Knowledge of regional differences in entrepreneurial activity within a country is necessary for better comprehension of the effectiveness of entrepreneurial framework conditions and the efficiency of individual government policies and programs.

### Entrepreneurial demography of Croatia

GEM monitors changes in entrepreneurial demography as signals for interventions needed in order to secure the right to access to entrepreneurial opportunities to everyone, regardless of gender, age, education and income. Tables 15 - 17 show structures of nascent entrepreneurs and new business owners (i.e., those who are entrepreneurially active for less than 42 months) depending on gender, age and household income.

Both in Croatia and in the GEM countries, business ventures are more often started by people who are more educated than people who are less educated, but the medium level of education dominates in Croatia (Table 15), while people with university education (undergraduate and graduate) dominate in GEM countries.

	2006
Entrepreneurs, active for less than 42 months	%
More than secondary education	23.0
Secondary education	67.6
Less than secondary education	7.8
No answer	1.7
Entrepreneurs, active for more than 42 months ("established")	%
More than secondary education	31.5
Secondary education	41.0
Less than secondary education	3.5
No answer	0

Table 15  
Entrepreneurial activity and education of entrepreneurs, 2006, structure in %

Increase in the motivation index in favour of entrepreneurs who have decided to pursue entrepreneurial activity because of opportunity and not out of necessity, has also caused changes in the structure of entrepreneurs with relation to age. While the most common age group in 2005 was that between 35 and 44 years (when those who entered entrepreneurial activity because of necessity dominated); the most common age group in 2006 was that between 25 and 34 years.

Age	Entrepreneurs, less than 42 months active
18 - 24	12.00
25 - 34	13.00
35 - 44	8.81
45 - 54	5.36
55 - 64	4.11

Table 16  
Entrepreneurial activity (TEA indexes) and age of entrepreneurs, 2006

Gender influences the differences in age at which people become entrepreneurially active: the greatest difference in entrepreneurial activity is up to 34 years of age, and the smallest differences are between 35 - 54 years (Figure 11).

	18-24	25-34	35-44	45-54	55-64
Women:	5.35	6.52	7.21	4.52	0.2
Men	18	20	10	6.22	8.27

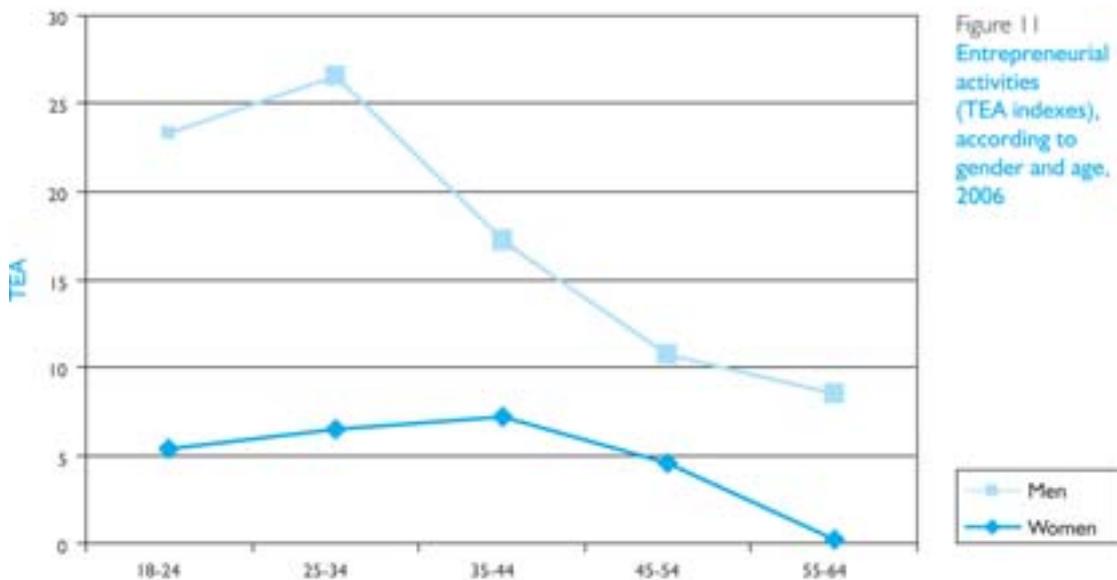


Figure 11  
Entrepreneurial activities (TEA indexes), according to gender and age, 2006

Structure of entrepreneurs who are entrepreneurially active for less than 42 months in relation to the household income criterion has changed substantially in Croatia in the 2002 - 2006 period. Involvement of entrepreneurs whose household income was in the lower third amounted to 77.6% in 2002, only to fall to 19.7% for nascent entrepreneurs and new business owners and 21.4% for "established" entrepreneurs in 2006, with an increase in the number of entrepreneurs with higher household income (Table 17). The change of structure in Croatia is heading in the direction of the pattern that exists in the GEM countries average, where entrepreneurial activity is entered by people with higher income. Entrepreneurial structure of Croatia still has a substantial, although not dominant, presence of those who decide to enter entrepreneurial activity out of necessity, and not because of a perceived opportunity, which is also connected with their financial strength.

Household income	2006
<b>Entrepreneurs, active for less than 42 months</b>	<b>%</b>
Lower third	19.7
Middle third	33.7
Upper third	29.9
No answer	16.7
<b>Entrepreneurs, active for more than 42 months</b>	<b>%</b>
Lower third	21.4
Middle third	33
Upper third	28
No answer	17.7

Table 17  
Entrepreneurial activity and household income, 2006, structure in %

### What drives entrepreneurs in Croatia?

Entrepreneurial activity is conditioned by personal decision, which is based on the capacity for evaluation of opportunities, person's knowledge and skills, and the system of values on which perception of opportunities and risks depends.

GEM research starts with the assumption that perception of entrepreneurial environment significantly differs between those who have decided to pursue entrepreneurial activity and those who haven't, which has been confirmed throughout all the years of research, and in Croatia as well (Table 18). Good business opportunities are more often perceived by those who are entrepreneurially active, and they would more often not be discouraged from trying again by business failure.

In the area where they live, they see a good business opportunity in the next 6 months	Entrepreneurs, active for up to 42 months	Non-entrepreneurs
Yes	57.1	36.4
No	32.3	45.5
Don't know	10.6	18.1

**Table 18**  
Factors that influence the perception of entrepreneurial environment, 2006, structure in %

Fear of failure would prevent them from starting a business venture	Entrepreneurs, active for up to 42 months	Non-entrepreneurs
Yes	24.1	35.4
No	72.1	60.3
Don't know	3.8	4.3

Having adequate knowledge and skills, as well as being in touch with others' experience contributes substantially to the decision on entrepreneurial activity. Among those who have adequate knowledge and skills, there is substantially more of those who are entrepreneurially active (TEA 20) than among those who do not possess such knowledge (TEA 2.62). Those who personally know an entrepreneur who has started his/her own business in the last two years have more often started their own business venture (TEA 20) than those who do not have such a contact (TEA 6.59).

Have required knowledge and skills to start a business venture	Entrepreneurs, active for up to 42 months
Yes	20
No	2.62

**Table 19**  
Entrepreneurial activity depends on knowledge, TEA indexes, 2006

Personally know an entrepreneur who has started his/her own business in the last two years	Entrepreneurs, active for up to 42 months
Yes	20
No	6.59

Perception of entrepreneurial environment is based on value attitudes, which are the foundation of entrepreneurial culture. GEM research has developed a framework that consists of four questions, which evaluate the system of values in individual countries, and which is based on the evaluation of value attitudes on egalitarianism, entrepreneurial career, entrepreneur's social status, and the role of media in creation of entrepreneurial culture.

While substantial differences between entrepreneurs and non-entrepreneurs are visible in the evaluation of business opportunities and the attitude towards risk, there are no significant differences in the attitude towards statements from the system of values group between start-up entrepreneurs (those who are entrepreneurially active for less than 42 months) and non-entrepreneurs (Table 20). This points to the conclusion that the system of values, which would shape entrepreneurial culture is still evolving.

In Croatia, majority of people would like it better if everyone had a similar standard of living	Entrepreneurs, active for up to 42 months	Non entrepreneurs
Yes	77.4	70
No	12.8	21.2
Don't know	9.8	8.8

Table 20  
System of values,  
2006, structure in %

In Croatia, majority of people believe that starting a business venture is a desirable career choice	Entrepreneurs, active for up to 42 months	Non entrepreneurs
Yes	68.4	65.9
No	26.4	23
Don't know	5.3	11.1

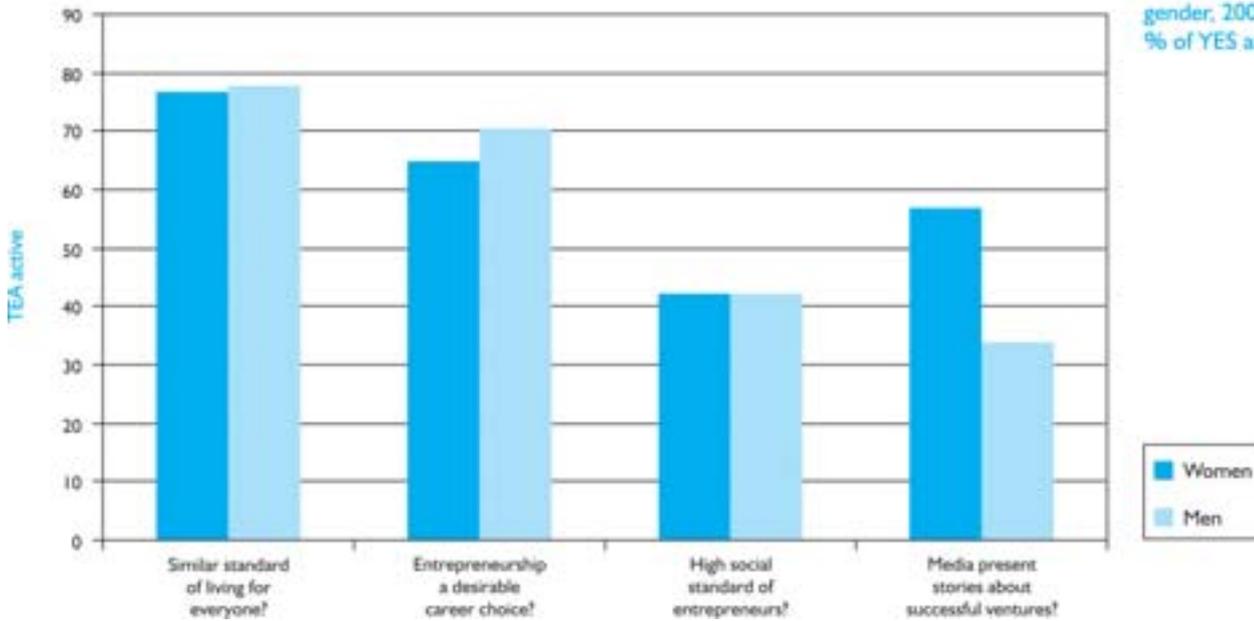
In Croatia, it is believed that those who have successfully started a business venture have high social status	Entrepreneurs, active for up to 42 months	Non entrepreneurs
Yes	44.4	48.7
No	45.1	38.6
Don't know	10.5	12.6

In Croatian media, there are often stories about successful business ventures	Entrepreneurs, active for up to 42 months	Non entrepreneurs
Yes	58.6	53.5
No	36.8	37.1
Don't know	4.5	9.5

In 2006, the differences between value attitudes of women and men towards entrepreneurial culture have "melted away"; except that women more often think that the media present successful ventures (Figure 12). With regard to the fact that women are less entrepreneurially active, this even more obliges numerous institutions, especially government policies and programs, to contribute to creation of entrepreneurial conditions that will allow women to realize their entrepreneurial potentials.

	Similar standard of living for everyone?	Entrepreneurship a desirable career choice?	High social standard of entrepreneurs?	Media present stories about successful ventures?
Women	76.9	64.9	42.1	56.8
Men	77.7	70.5	42.1	33.7

Figure 12  
Difference in perception of values of TEA active entrepreneurs, with regard to gender, 2006, % of YES answers



## Entrepreneurial environment in Croatia is improving

Financial support

Government policies and programs

Education

Transfer of research and development

Business and professional infrastructure

Market mechanisms

Access to physical infrastructure

Cultural and social norms

Entrepreneurial efficiency

Entrepreneurial environment in GEM research is described with entrepreneurial framework conditions, which, in interaction with national framework conditions create assumptions for economic growth (short description of the conceptual research framework is given in Appendix I).

If the conditions of entrepreneurial environment are available and of good quality, they stimulate entrepreneurial activity; if they are limited and of low quality, they represent an obstacle to entrepreneurial activity. In 2006, out of 42 countries involved in research of entrepreneurial activity, five countries were not included in evaluation of the quality of entrepreneurial environment, and the ranking of countries according to the quality of entrepreneurial environment is carried out within 37 countries.

The level of availability and quality of entrepreneurial environment for the GEM research is evaluated by experts, who are chosen based on their knowledge of a specific component of entrepreneurial environment. The sample of experts is selected from entrepreneurs - people who know the practice, scientists who research entrepreneurship, experts in professional infrastructure, and government institutions and nongovernment organizations that deal with entrepreneurship. In 2006, 36 experts have evaluated the quality of entrepreneurial framework conditions in Croatia.

Experts evaluate entrepreneurial environment by means of a standardized questionnaire with about 80 statements that describe components of entrepreneurial environment (generally, one component is described by 4 to 7 statements). They express their agreement/disagreement with these statements by means of grades from 1 to 5, 1 being total disagreement and 5 total agreement. In that way we get an evaluation of every individual component of entrepreneurial environment.

Statements are grouped in such a way as to form measuring instruments<sup>1</sup>, which make it possible to interpret the perception of experts regarding:

- Availability and structure of the sources of financing for entrepreneurs,
- Government policies,
- Government programs for encouraging entrepreneurship,
- Contribution of educational programs in creation of entrepreneurial capacity of the youth,
- Transfer of knowledge and technology,
- Quality of professional and supporting institutions,
- Openness of the market,
- Availability of physical infrastructure,
- Cultural and social norms that shape entrepreneurial culture.

Questionnaire also includes statements with which experts evaluate several important aspects of entrepreneurial behaviour:

- Ability to perceive entrepreneurial opportunities,
- Entrepreneurial capacity (knowledge and skills),
- Entrepreneurial motivation (understanding and reputation of entrepreneurial career),
- Relation towards women in entrepreneurship,
- Attitude towards growing enterprises.

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<sup>1</sup> Cronbach Alpha test with values between 0.7 and 0.89 shows high reliability of measuring instruments, which gives credibility to evaluations of quality of entrepreneurial environment.

Expert evaluation of entrepreneurial environment, under the assumption of continuous participation in GEM researches, provides three types of information:

- Evaluation of each segment, where the grade above 3 signalizes a positive value of a certain component (stimulating environment), and the grade below 3 gives a negative value of a certain component (non-stimulating environment)
- Comparison of changes in the evaluation of quality of certain components of entrepreneurial environment through time (in Croatia since 2002)
- Comparison of differences between perception of quality of a certain component of entrepreneurial environment in space (i.e., among GEM participating countries)

Table 21 shows grades of all components of entrepreneurial environment and value norms, compared with the GEM average in 2006, and identification of the best and worst grades for individual components:

Components of entrepreneurial environment	Croatia		GEM countries				
	Grade	Rank	Average		Min		Max
Financial support	2.68	19	2.67	1.76	Turkey	3.91	USA
Government policies - grants	2.41	22	2.61	1.91	Turkey	3.58	UAE
Government policies - regulations	2.17	22	2.39	1.38	Brazil	4.27	Iceland
Government programs	2.64	16	2.6	1.82	Argentina	3.4	Germany
Primary and secondary education	2.21	15	2.15	1.51	Brazil	3.1	Singapore
Tertiary education	2.86	19	2.87	2.3	Denmark	3.6	USA
Transfer of research and development	2.19	24	2.42	1.74	Peru	3.26	USA
Commercial and professional infrastructure	2.92	31	3.25	2.46	Peru	4.06	USA
Openness of the market - dynamics of change	3.47	5	2.86	1.86	Finland	3.84	UAE
Openness of the market - barriers	2.3	35	2.76	2.11	Uruguay	3.46	Netherlands
Access to physical infrastructure	3.75	19	3.76	2.76	Italy	4.65	USA
Cultural and social norms	2.45	30	2.84	1.93	Uruguay	4.47	USA
Recognizing business opportunities	3.43	20	3.43	2.48	Uruguay	4.46	UAE
Entrepreneurial capacity - potential	2.49	26	2.69	2.13	South Africa	3.68	USA
Entrepreneurial capacity - motivation	3.1	31	3.44	2.45	Uruguay	4.56	USA
Protection of intellectual property	2.63	22	2.97	1.93	Russia	4.26	Australia
Relation towards women in entrepreneurship	3	31	3.31	2.49	Hungary	4.29	Iceland
Attitude towards growing enterprises	2.82	22	3.02	2.12	Uruguay	4.11	Ireland

Table 21  
Components of entrepreneurial environment and value norms in Croatia - comparison with the GEM average, 2006

Out of 12 components of entrepreneurial environment and 6 components related to entrepreneurial capacity and values, USA has received highest grades in 8 categories, United Arab Emirates in 3, Iceland in 2 categories, and Australia, Ireland, Netherlands, Germany and Singapore in 1 case. These are sources of learning, as well as a benchmark for countries with lower grades in those components of entrepreneurial environment.

Grades of individual components of entrepreneurial environment point to a similar pattern of quality of entrepreneurial environment in Croatia and GEM countries, but grades in Croatia are generally lower than the average of GEM countries, but with a good tendency of approaching the GEM average. In 2006, Croatia for the first time has several components graded at the level of GEM countries average: Financial support, Government programs, Primary and secondary education, Tertiary education, Access to physical infrastructure, while Openness of the market - dynamics of change component is graded significantly better than the GEM average. Three components have received significantly lower grades (Government policies - regulations; Openness of the market - administrative barriers; Transfer of research and development) (Figure 13).

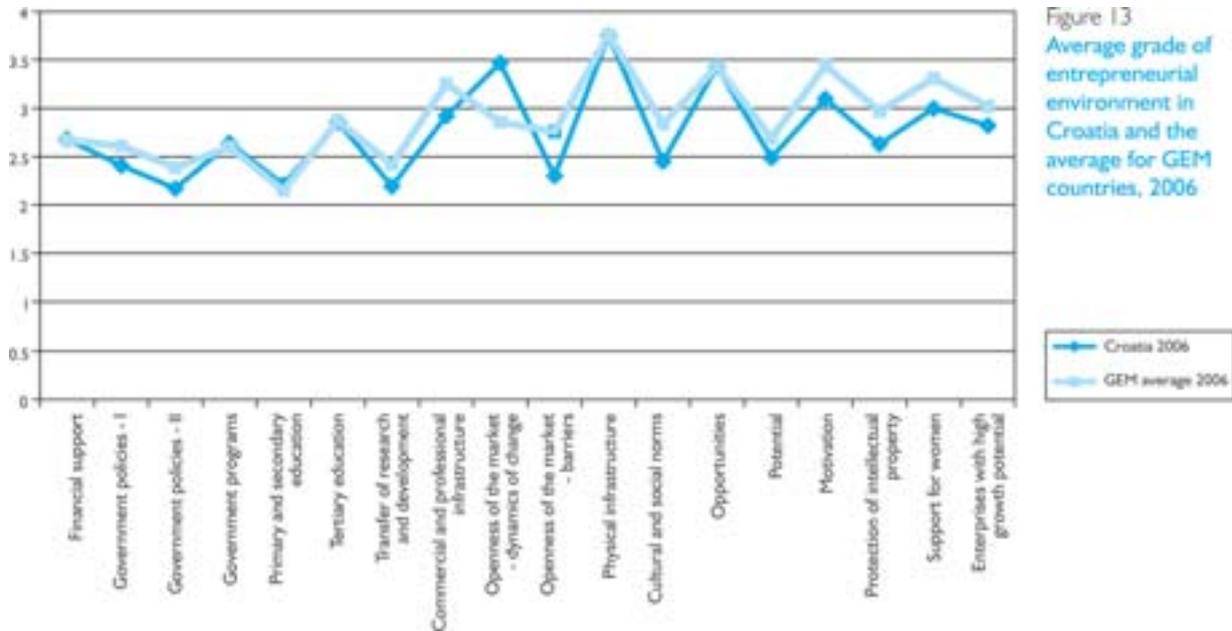
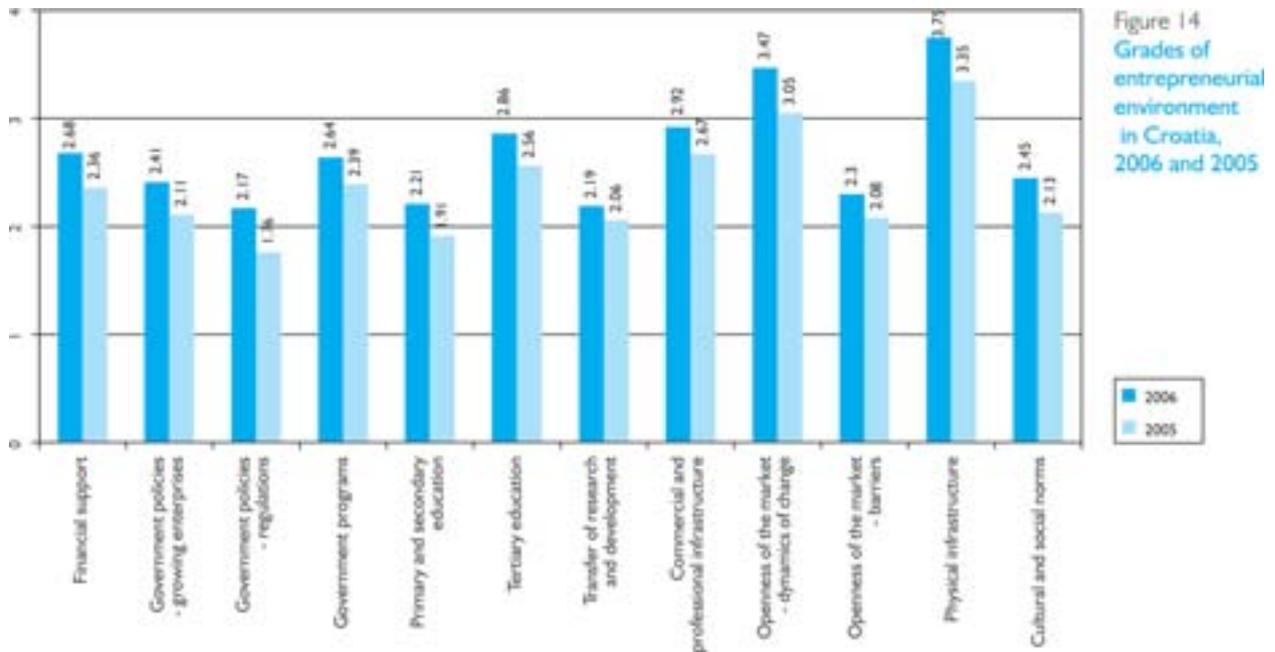


Figure 13  
Average grade of entrepreneurial environment in Croatia and the average for GEM countries, 2006

Advance in evaluation of availability and quality of individual components of entrepreneurial environment in 2006 in relation to 2005 is shown in Figure 14:



In 2006, all the components of entrepreneurial environment have received higher grades than in 2005, but still, same as in 2005, only two components have received grades above 3, but the grades are higher:

- Access to physical infrastructure (3.75 in 2006, 3.35 in 2005)
- Openness of the internal market - dynamics of change (3.47 in 2006, 3.05 in 2005)

The lowest graded components of entrepreneurial environment, which still place us at the rear, are:

- Openness of the market - administrative barriers, 35th place out of 37 countries
- Commercial and professional infrastructure, 31st place out of 37 countries
- Cultural and social norms, 30th place out of 37 countries
- Transfer of research and development, 24th place out of 37 countries

Each of the twelve components of entrepreneurial environment is described by several statements, which experts grade with grades from 1 to 5. In order to conduct a fine diagnosis of the situation, but also to get a sense which aspects need to be influenced, it is necessary to know why an individual component has received a good or a poor grade. Table 22 shows the ten highest graded statements about entrepreneurial environment in Croatia, and Table 23 shows the ten lowest graded statements.

Ten lowest graded statements about entrepreneurial environment in Croatia in 2006, furthermore since some of the statements were also on the lowest graded statements list in 2005, warn about the need for urgent intervention (e.g., government measures and policies do not provide systematic support to new enterprises in the sphere of public procurement, the problem of administrative barriers, non-existence of alternative financial instruments for financing the growth of enterprises, etc.). The starting of the HITRO.HR project in 2006 is a good example of how to start solving the problem of inadequate regulatory entrepreneurial framework conditions and the barriers that hinder start of entrepreneurial activity.

	Code	Grade
In Croatia, there are numerous opportunities for creation of new enterprises.	k06k01	3.42
In Croatia a new or a growing enterprise can get all utility connections in about one month (access to gas, water, electrical and sewage network).	k06h05	3.48
In Croatia, a new or a growing enterprise can withstand the expenses of basic utility services (gas, water, electric power, and sewage).	k06h04	3.54
In Croatia, market of goods and services intended for end consumers dramatically changes from year to year.	k06g01	3.57
In Croatia, it is easy for new and growing enterprises to get good banking services (current accounts, foreign currency transactions, letters of credit, etc.)	k06k05	3.58
In Croatia, there are more favourable opportunities for creation of new enterprises, than people who can take advantage of those opportunities.	k06k02	3.61
In Croatia, physical infrastructure (roads, utility services, communication, and waste disposal) ensures good support to new and growing enterprises.	k06h01	3.63
In Croatia, it is not too expensive for a new or a growing enterprise to get good access to the communication network (telephone, Internet, etc.)	k06h02	3.69
In Croatia, favourable opportunities for starting new enterprises have significantly increased in the last five years.	k06k03	3.89
In Croatia, a new or a growing enterprise can open a telephone line or get Internet access in about a week.	k06h03	4.12

Table 22  
Ten highest  
graded  
statements about  
entrepreneurial  
environment in  
Croatia, 2006

Source: Expert questionnaire, 2006

	Code	Grade
In Croatia, government measures and policies (public procurement, for example) systematically give advantage to new enterprises.	k06b01	1.85
In Croatia, there is adequate support available to engineers and scientists, which facilitates commercialization of their ideas through new and growing enterprises.	k06e06	1.94
In Croatia, new enterprises can get all the required licenses and permits within one week.	k06b04	2
In Croatia, illegal sales of "pirated" software, videotapes, CDs and other products protected with copyrights or registered trademarks are not widespread.	k06n03	2.03
In Croatia, it is not overly difficult for new and growing enterprises to deal with bureaucracy, legal and regulatory demands.	k06b07	2.06
In Croatia, primary and secondary school system devotes adequate attention to entrepreneurship and start-up of new enterprises.	k06d03	2.09
In Croatia, new and growing enterprises have the same access to new technology and research as the large enterprises.	k06e02	2.09
In Croatia, physical persons (except owners) are an important source of financial aid for new enterprises and growing enterprises.	k06a04	2.12
In Croatia, many people know how to start and manage a fast growing enterprise.	k06i01	2.14
In Croatia, new and growing enterprises have enough money to break market entry barriers.	k06g04	2.17

Table 23  
Ten lowest  
graded  
statements about  
entrepreneurial  
environment  
in Croatia,  
2006

Source: Expert questionnaire, 2006

#### Still a bad example - principle of administrative silence, typically our way

The Law on General Administrative Procedure in the Republic of Croatia (Official Gazette 53/91, 103/96), articles 171 and 172 actually state that government institutions issuing certificates and other documents (attestations, etc.) DO NOT HAVE TO give the client a decision on denying the request, because:

"(5) If the institutions mentioned under items (1) and (2) of this article deny the request to issue a certificate or other document they shall issue a separate decision about it. If they do not issue a certificate or other document within 15 days of the day when the client submitted the request, and if they do not deliver a decision on denying the client's request in that period of time, the request shall be deemed denied".

And in the European Union it is exactly the opposite.

The same was written in 2006 in What Makes Croatia an Entrepreneurial Country? Results of GEM Croatia Research 2002-2005, page 48, but this year it is our choice of a bad example. Nothing has happened, is this really that difficult to change?

#### Results of a good initiative

In its 55 recommendations to increase the competitiveness of Croatia (2004), National Competitiveness Council has especially emphasised the priority of cutting down the administrative procedure to register a business, which will save time and costs of the registration process. The Government of the Republic of Croatia and FINA (Financial Agency) have found a solution to this problem in their project HITRO.HR. HITRO.HR is a service of the Government of the Republic of Croatia intended for quick communication of citizens and entrepreneurs with the state administration. It is based on the one-stop-shop concept of providing more services in one place and from one place.

HITRO.HR provides the following services: establishing a company, establishing a craft, e-Pension (electronic registration of Pension insurance), e-VAT (electronic submission of value added tax data), e-KATASTAR (electronic database of cadastral records), e-REGOS (online submission of payments for voluntary pension insurance), e-Charter (electronic registration of crew and ships in the nautical field). All of these services are accessible via Internet, thanks to electronic infrastructure that was developed by FINA in cooperation with its partners (Croatian Institute for Pension Insurance - HZMO, Regos, and Ministry of Finance). The key role in the process is played by FINA's e-card with certified electronic signature, which represents the unique platform for electronic business in Croatia.

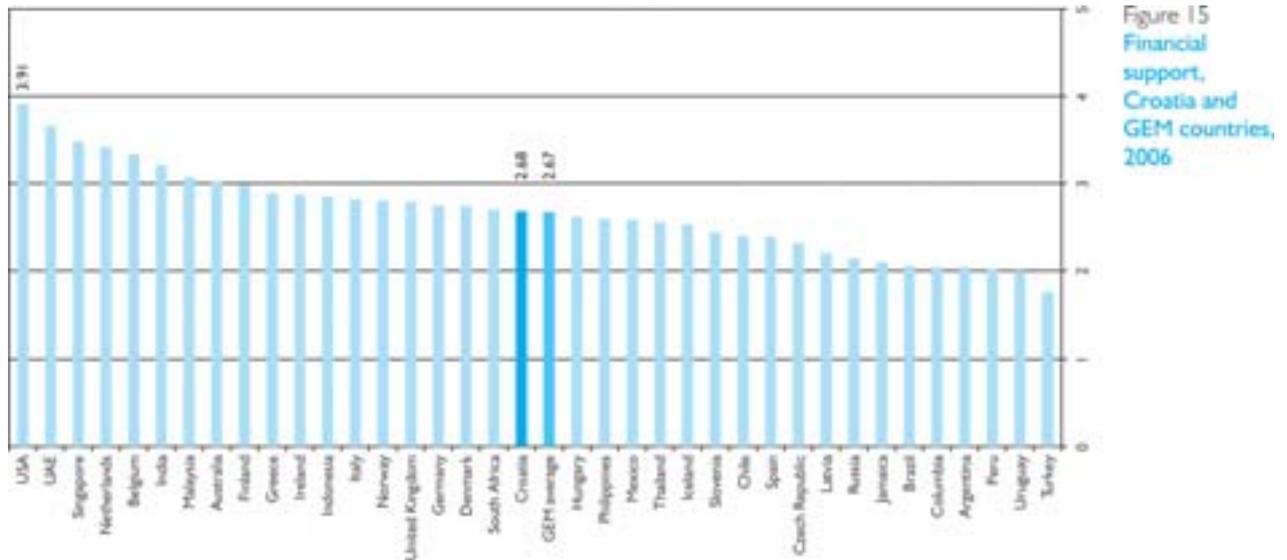
First office of the service started with operation in May 2005 in Zagreb. During 2005 and 2006, offices in all major Croatian cities and county centers were opened. So far, over 15,000 enterprises and crafts have been established through HITRO.HR, out of which almost 500 enterprises have been established by foreign founders, which amounts to 30% of established enterprises.

In cooperation with the Central State Administrative Office for e-Croatia and state administration bodies, preparations for introduction of new services for entrepreneurs and citizens are underway. A total of 20 services within the HITRO.HR project are foreseen, 12 of which are intended for citizens, and 8 for business entities.

## Financial support

Croatia's nineteenth place in quality of financial support reflects a significant move forward in 2006 in relation to 2005, but insufficient presence of financial angels still remains among the worst graded aspects of financial support (among lowest graded statements- ki06a04, Table 23). There is still no appropriate regulatory framework for the development of informal forms of financing, which, together with almost complete ignorance of the significance of such financing of entrepreneurial ventures hinders development of the financial market.<sup>2</sup>

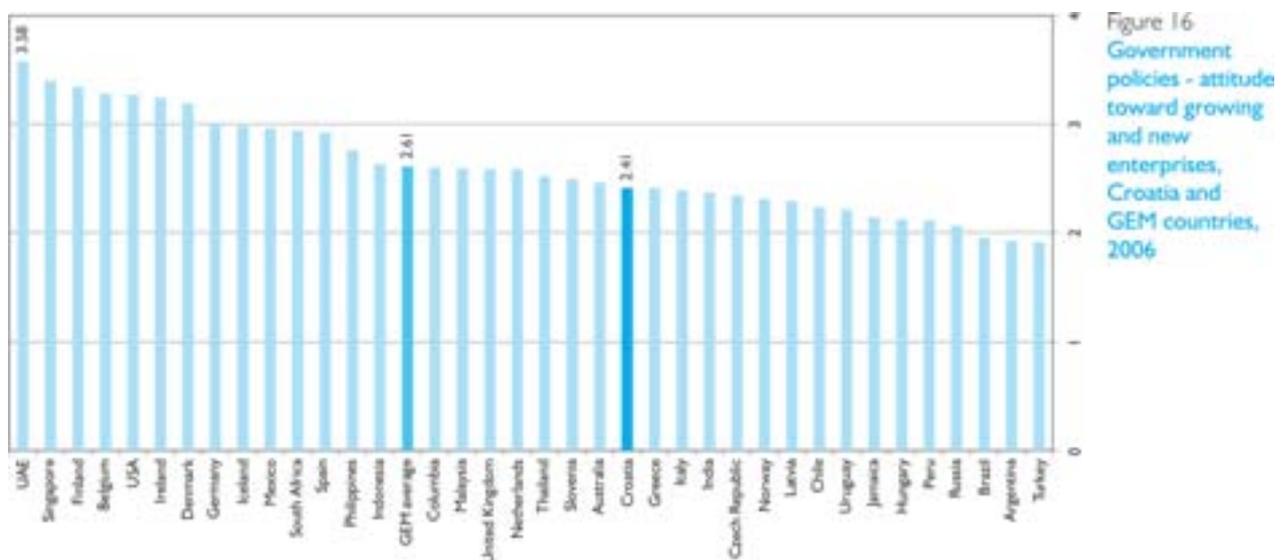
<sup>2</sup> In 2003, in Cooperation with CDVCA - Community Development Venture Capital Alliance, USA and Professor Colin Mason from Strathclyde University, Glasgow, an expert on business angels, CEPOR organized a round table titled Investment of "patient" capital, which was attended by representatives of the Ministry of Finance, representatives of venture capital funds in Croatia, and entrepreneurs' associations. The goal was to familiarize the attendants with strategies of development of venture capital funds as form of support for development of growing small enterprises, and the role of informal forms of financing in establishment of new ventures and support for growing enterprises. An initiative for creation of regulatory framework for the development of informal financing was started then, but nothing has happened so far.



### Government policies and programs

In 2006, government policies for grants and government policies for regulations have taken the same 22nd place, in their respective categories. Significant jump in the perception of quality of government policies in the field of quality (from 1.76 in 2005 to 2.17 in 2006) most likely has the foothold in a range of activities aimed at eliminating administrative barriers and facilitating communication between entrepreneurs and state administration (HITRO.HR, regulatory guillotine project). However, within the ten highest graded statements about entrepreneurial environment, there are still none related to government policies, and among the ten lowest graded statements, just like in 2005, there are again three statements related to government policies, which sends a signal of urgency for change and requires adequate policy intervention.

Croatia is ranked even higher according to the government programs criterion (16th position) in 2006, which evaluates the availability of programs for the support of development of entrepreneurial capacity in the country.



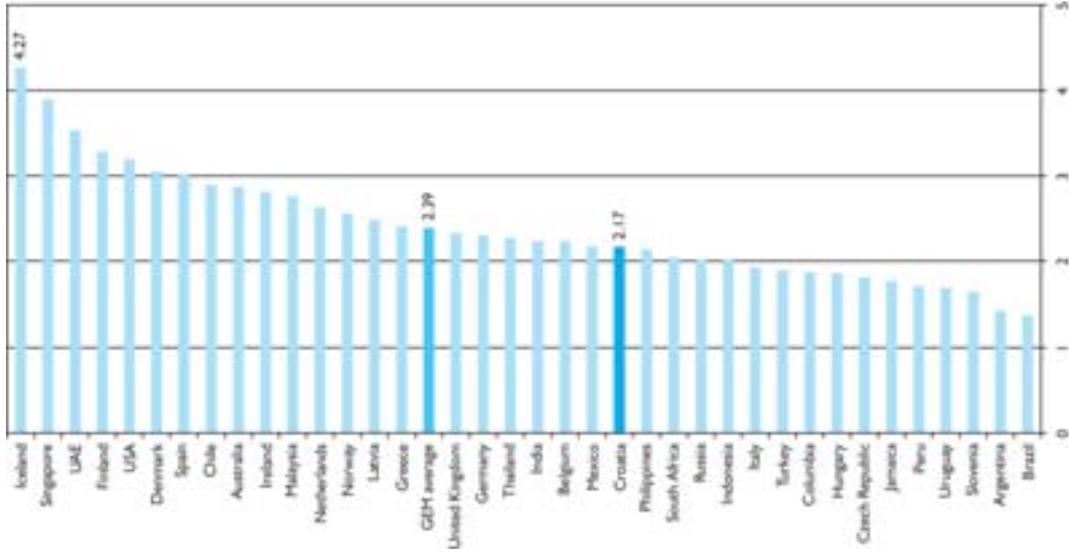


Figure 17  
Government policies - regulatory aspect, Croatia and GEM countries, 2006

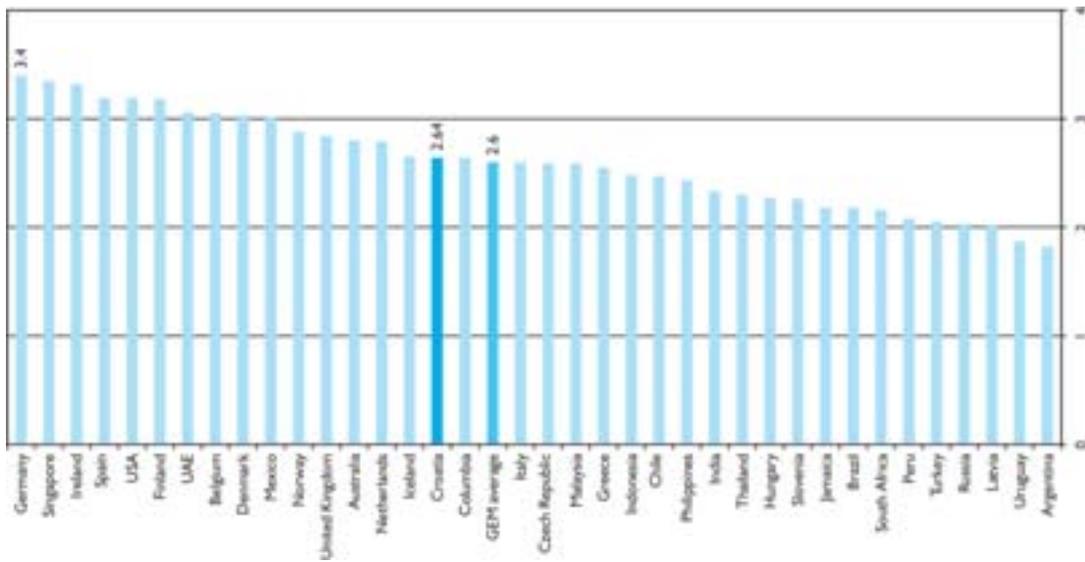
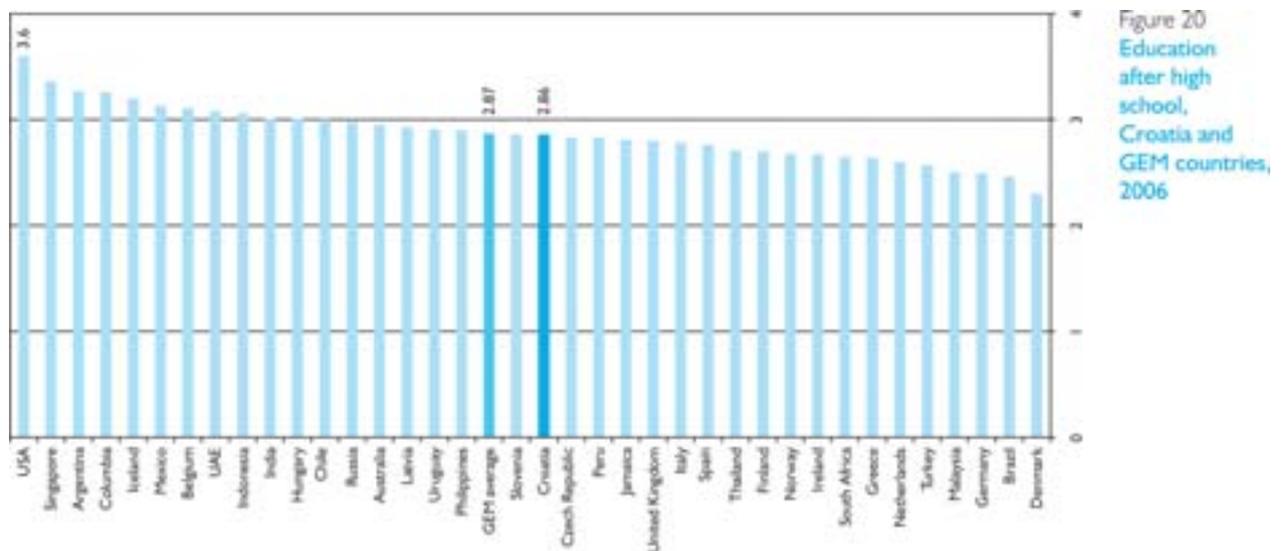
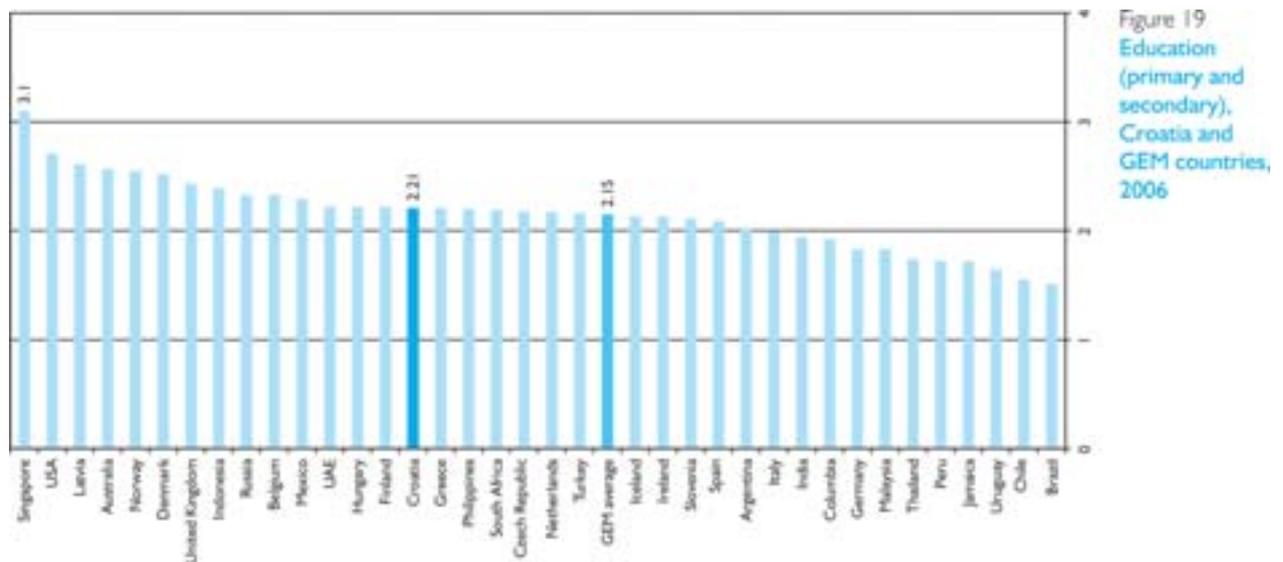


Figure 18  
Government programs, Croatia and GEM countries, 2006

Education

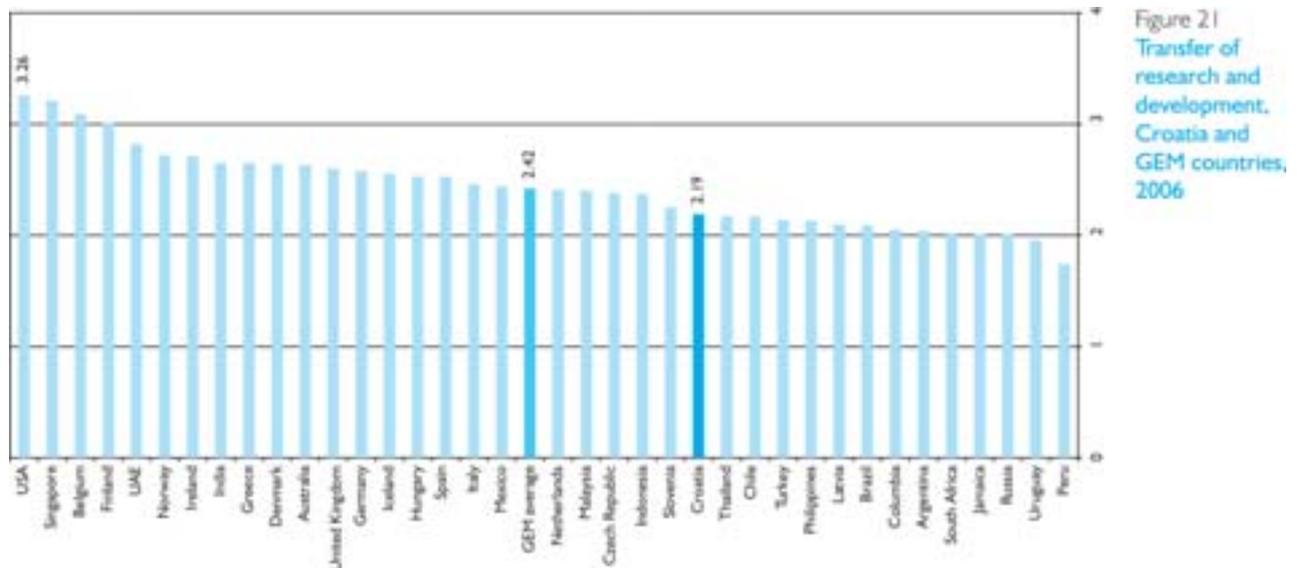
The difference in Croatia's ranking according to the quality of primary and secondary education (15th place) in relation to the tertiary level of education (19th place) still speaks of a gap, but in relation to 2006 this gap in perception of quality is decreasing (in 2005 these two held 22nd and 29th place, respectively).

However, also in 2006, primary and secondary education insufficiently contribute to the development of entrepreneurial capacity of the youth, which is shown in experts' extremely low evaluation of primary and secondary education within the ten lowest graded statements (ki06d03, Table 23). Ongoing reforms in the field of education in Croatia (cataloguing of knowledge and skills, Bologna higher education reform) indicate the existence of political will, but the efficiency with which these mechanisms are applied depends on the consistency of the policies lead in the sphere of education, as well as on education sector's institutional competence for their implementation.



## Transfer of research and development

In 2006, same as in 2005, quality of the transfer of research and development from universities and research centers to economic practice is among the lowest graded components of entrepreneurial environment in Croatia. It is especially significant that among the lowest graded statements there are two that indicate there is a considerable problem of transfer of research and development to the business sector: experts believe that there is no adequate support available to engineers and scientists, which would facilitate commercialization of their ideas through new and growing enterprises (ki06e06, Table 23), and that new and growing enterprises do not have the same access to new technology and research as the large enterprises (ki06e02, Table 23). Although perception of quality of protection of intellectual property has significantly improved in 2006 in relation to 2005, this field is still a significant low point of entrepreneurial environment in Croatia.



## Business and professional infrastructure

Considering that business and professional infrastructure component was significantly represented in government programs, the fact that in 2006 Croatia is positioned at the rear (31st place out of 37 countries) according to quality of business and professional infrastructure can still sound disappointing. In the GEM research this component is described through existence of a network of business and professional infrastructure, but also with the level to which enterprises can afford such services and whether these are high quality services. Business and professional infrastructure exists (entrepreneurial zones, centers for entrepreneurship, incubators), but the problem lies in the adequacy and quality of services. Also among the ten lowest graded statements is the statement which warns that entrepreneurs, both future and existing, feel they lack the knowledge to start a business venture with growth potential and manage a fast growing enterprise.

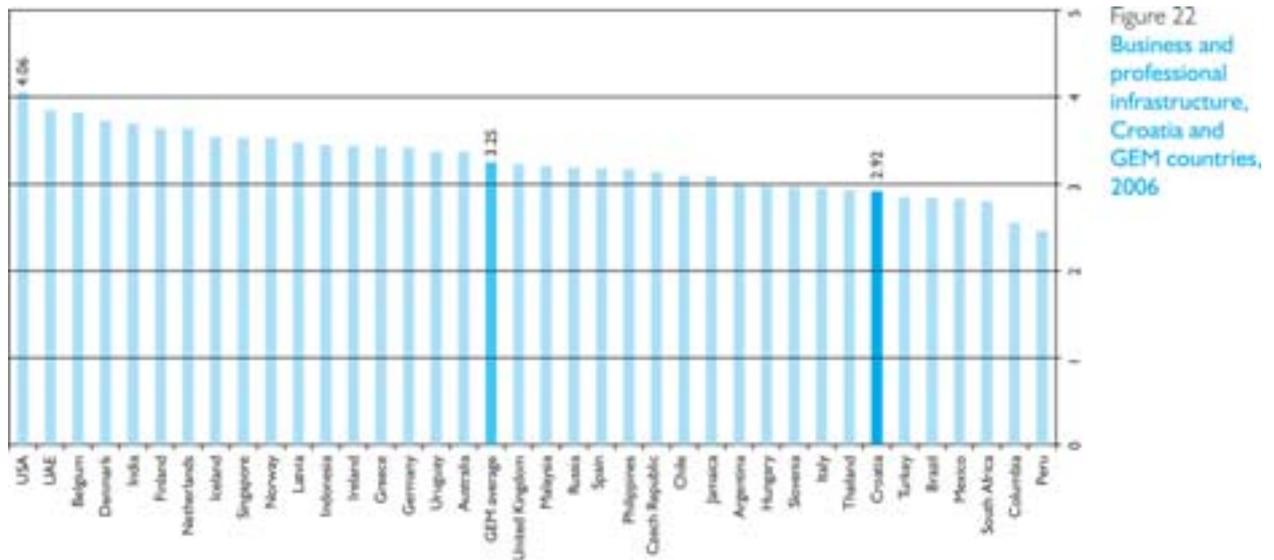


Figure 22 Business and professional infrastructure, Croatia and GEM countries, 2006

**A good example - educational program for the owners of future Croatian gazelles**

There is a need - say the entrepreneurs, there is a good product - also confirmed by entrepreneurs, but there are not enough trained trainers

**Growth and development of your enterprise** [www.razvoj.biz](http://www.razvoj.biz) is a program of business development designed exclusively for entrepreneurs whose business ventures have growth potential and who wish to develop them. Program was developed with financial support of Ministry of Crafts, Small and Medium Entrepreneurship, European Training Foundation, and Open Society Institute. Program is a good example of careful adjustment of successful worldwide practice to the needs of growing entrepreneurs in Croatia. It consists of 22 workshops, which take place 14 times over 7 months (April to November). Workshops cover basic business areas (strategy, operations, marketing and finance), but also skills that are necessary for business success (communication, negotiation, sales, as well as the skills to find, motivate and keep quality employees). During participation in the program, entrepreneurs also receive ten hours of counselling, which introduces participants' current problems and solving real issues and problems of each individual enterprise to the program.

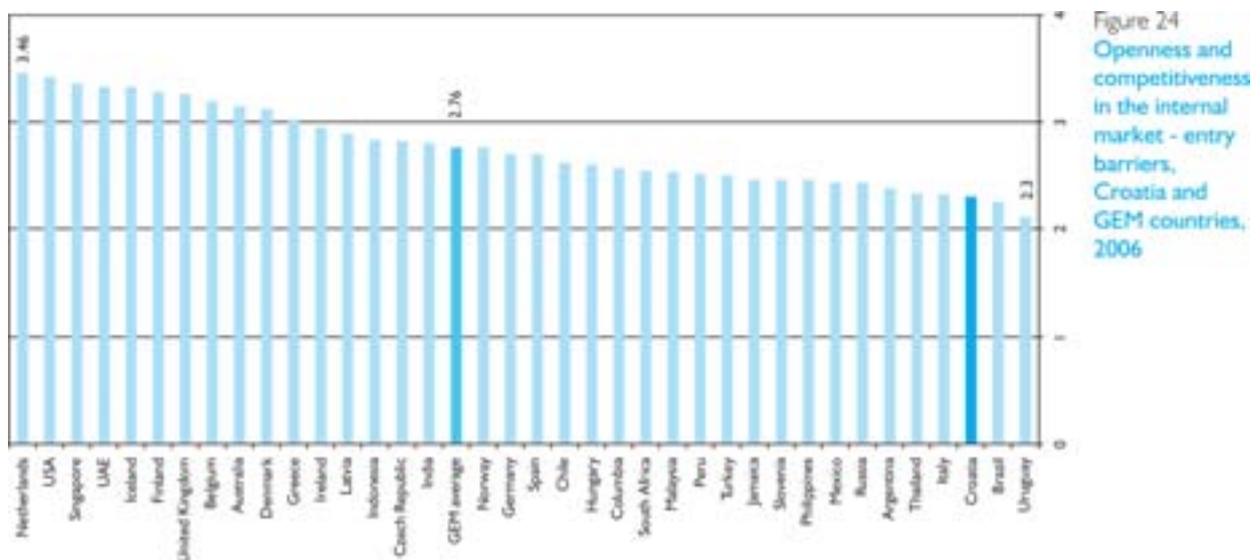
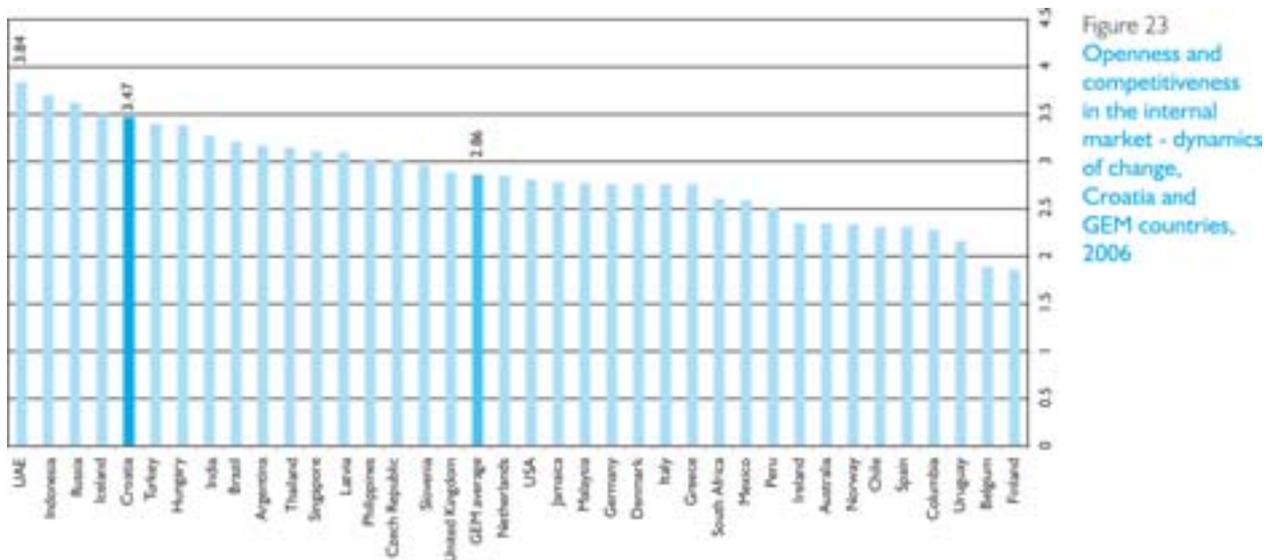
The program was started in 2005 in the Center for Entrepreneurship in Osijek ([www.poduzetnistvo.org](http://www.poduzetnistvo.org)) as an entrepreneurial attempt of the Center itself towards the development of high quality educational programs focused on growing enterprises. In 2006, three cycles were carried out: two in Šibenik and one in Osijek, which confirms that demand exists. With support of Ministry of Economy, Labour and Entrepreneurship (vouchers, for instance), entrepreneurs would faster "transfer" their need for such a program into demand. In 2007, Center for Entrepreneurship in Osijek will expand the program in Croatia through education of trainers and counsellors in the program, at first involving students of Graduate Program in Entrepreneurship at Josip Juraj Strossmayer University of Osijek.

## Market mechanisms

Market mechanisms are viewed through the dynamism of changes and the existence of entry barriers in the internal market. In 2006, expert's perception of these two components speaks of a gap even more: according to dynamics of change in the internal market Croatia holds the high 5th place, while it is in the unenviable second last, 35th place according to the presence of barriers. These conclusions repeat from one year to the next, not only in GEM research, but also in research carried out by the World Bank (Doing Business), and the National Competitiveness Council within the framework of competitiveness research, which is carried out by the World Economic Forum. Persistent presence of barriers and nonexistence of consistent and decisive policies for elimination thereof paves the way for corruption, which additionally increases the government's responsibility to eliminate them. Even beside the good experience with HITRO.HR, it is not enough, because procedures need to be simplified and made more transparent.

Among the ten lowest graded statements there are still three statements that indicate the existence of strong administrative barriers (ki06b04 - obtaining licenses and permits within one week; ki06b07 - it is difficult for enterprises to deal with bureaucracy, legal and regulatory demands; ki06g04 - new and growing enterprises do not have enough money to break market entry barriers, Table 23).

However, in order to enter a market, information on trends, risks, etc. are needed. Large enterprises can afford such information often, whereas small enterprises can rarely afford them. Therefore it is extremely important to have publicly available information as the basis for decision making or for entry into a certain industry or on whether and how to grow an enterprise. The statement that new and growing enterprises do not have the same access to new technology and research as large enterprises (ki06e02, Table 23) is also among the ten lowest graded statements.



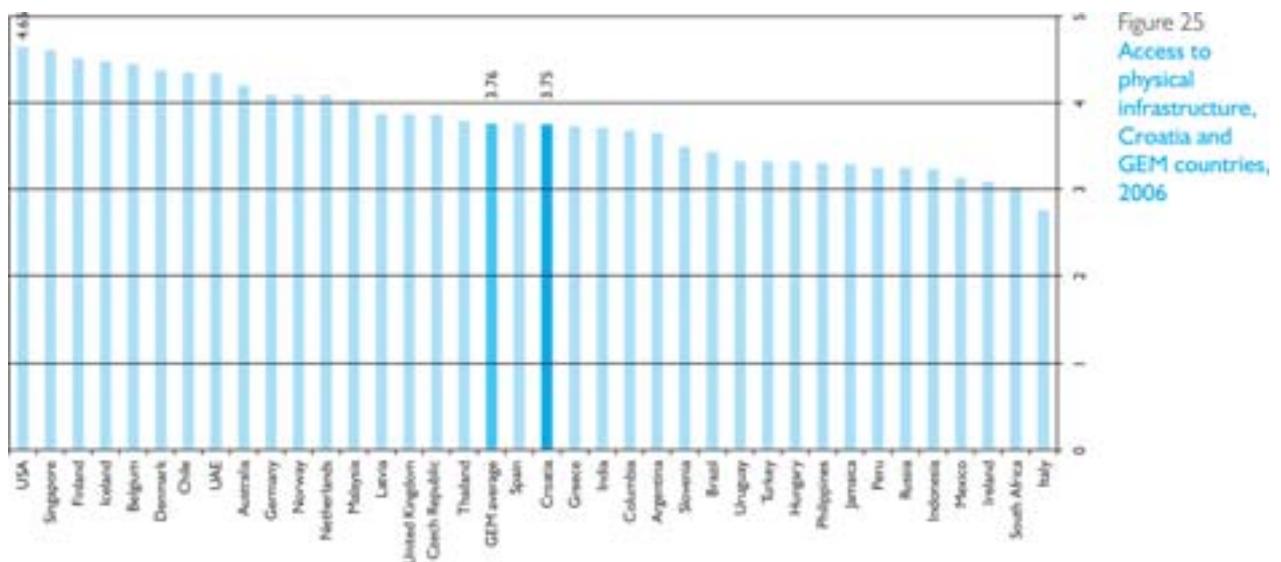
**Two good new examples - creating benchmarking opportunities**

**Example 1:**  
 Center for Entrepreneurship in Osijek and Faculty of Economics in Osijek, in collaboration with Maribor Institute for Entrepreneurship Research and Austrian Institute for SME research (KMU Forschung Austria), have done three studies on the situation and trends in tourism, wine industry and construction (housing), within the South-Eastern Europe Network for Improving Industry Research project, financed by Austrian Science and Research Liaison Office. The produced studies are an example how information/data from "open" sources can be systematized and made available to all who are making decisions on strategic alternatives at the enterprise level and evaluating the risk of such decisions. Each study includes information on the current situation of the industry analyzed (suppliers, competitors, customers, technology changes...), industry's strengths and weaknesses, identification of trends and forecasting future tendencies. From June 1, 2007, these studies will be available at the web page of Center for Entrepreneurship in Osijek [www.poduzetnistvo.org](http://www.poduzetnistvo.org) and the web page of Graduate Program in Entrepreneurship at the Faculty of Economics in Osijek [www.psp.efos.hr](http://www.psp.efos.hr).

**Example 2:**  
 On December 1, 2006 FINA has introduced a new product to the market, named BONPLUS. It is a new, expanded version of creditworthiness information, which contains even higher quality, clear and easily understandable data and information that help in business decision making. It is based on the set of data and information from several different sources, that is, the Register of Annual Financial Reports (data from financial statements for three business years), Unified Register of Accounts (daily updated data about entrepreneur's accounts) and Commercial Court Register. Beside the basic data about the entrepreneur, BONPLUS contains information about registration of the company, the type of ownership, Board members and majority owners, the amount of founding capital, and the list of activities for which entrepreneur is registered. BONPLUS also shows financial information for the last three years, namely, assets and sources of funds, business results and business indicators with explanations. For the first time, creditworthiness information contains the evaluation of credit rating, that is, an estimation of entrepreneur's future ability to fulfil obligations within agreed upon deadlines, which is shown, in accordance with FINA's rating scale, with grades from 1 to 8. All information about BONPLUS and other FINA's products can be accessed at FINA's web page [www.fina.hr](http://www.fina.hr), via email at [info@fina.hr](mailto:info@fina.hr), or at a charge-free number 0800 0080.

Access to physical infrastructure

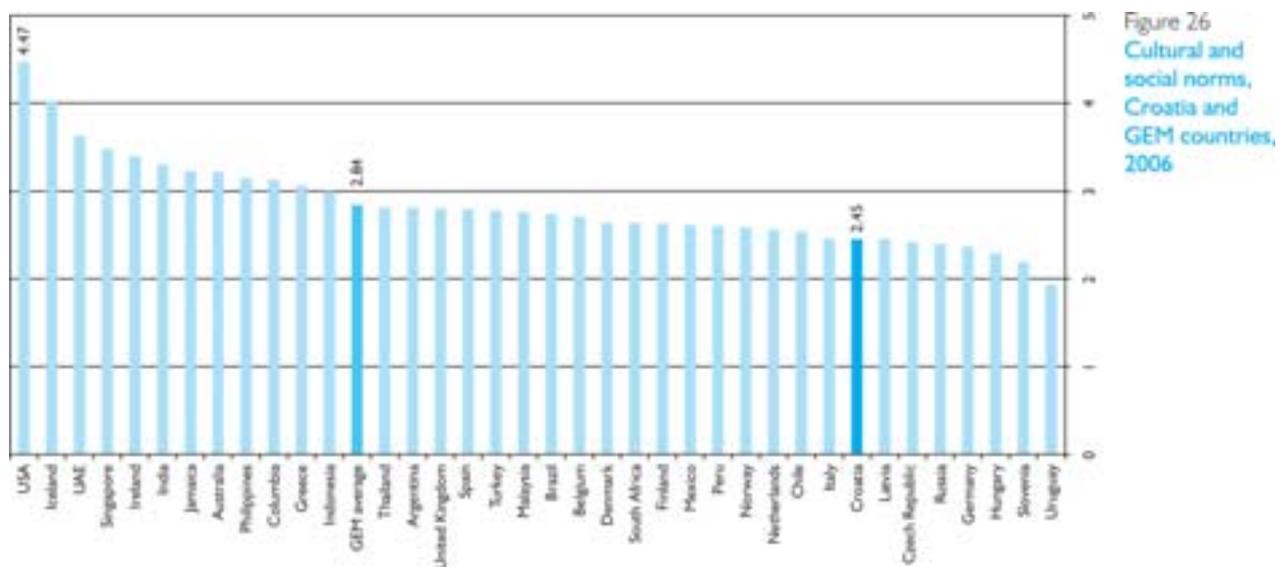
Satisfaction with what has been achieved in the development of physical infrastructure can be observed from the high grade that quality of this component of entrepreneurial environment has received in 2006. According to perception of quality of physical infrastructure, Croatia is at the level of GEM countries average.

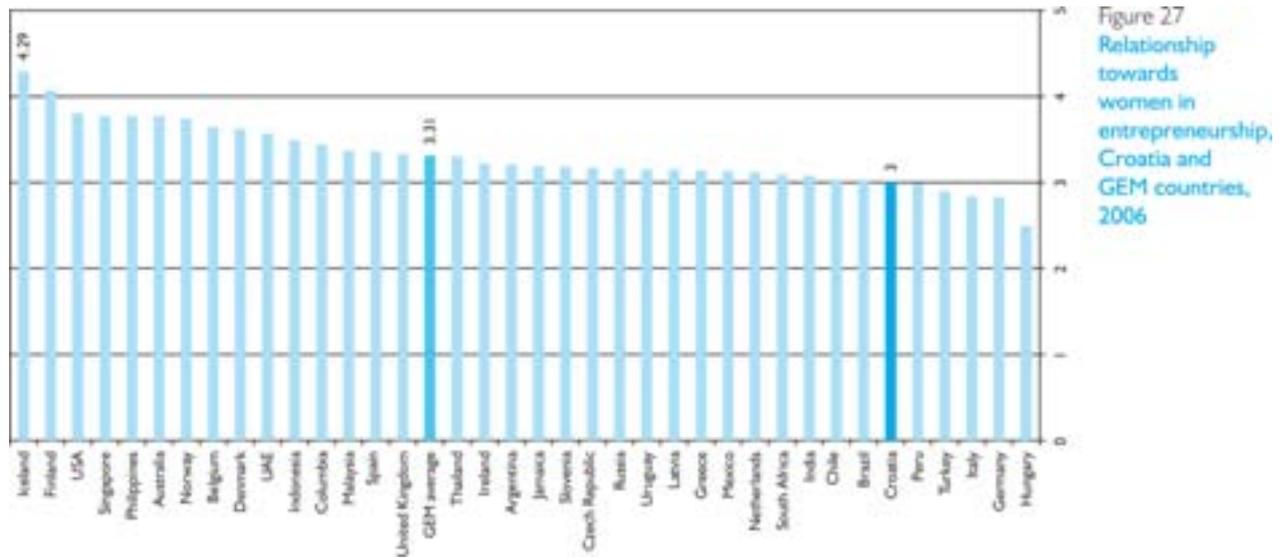


## Cultural and social norms

Cultural and social norms are the starting point of all the activities that support the development of entrepreneurial activity in GEM research, described through self-sufficiency, initiative, risk taking, creativity and individual responsibility. From the last place, which Croatia held in 2005, we have moved to the 33rd place out of 37 countries. Changes in cultural and social norms are the most difficult to make and require the greatest amount of time, which emphasizes the necessity of cooperation between different policies, programs and institutions (from education to the media) even more. Since 2002, when the grade of cultural and social norms in the sense of supporting entrepreneurial culture was 2.17, in 2006 it managed to "climb" to 2.67. The GEM countries average is 2.84, while score of the USA is 4.47. Precisely the fact that the USA significantly stands out in this component of entrepreneurial environment was the incentive for the European Union to define entrepreneurship as one of eight life skills, and to develop values which support that through various long-term activities, like the case is in the USA.

One test of cultural and social norms is the attitude towards the involvement of women in entrepreneurial activity: only Peru, Turkey, Italy, Germany and Hungary are behind Croatia. Besides the change in cultural attitude towards the role of women in entrepreneurship, in order to achieve greater changes it is necessary to work on creation of conditions that will allow the realization of certain value norms (e.g., a good network of services that help with organization of family life).





### Entrepreneurial efficiency

Entrepreneurial efficiency arises from the ability to recognize business opportunities, from entrepreneurial capacity, and from attitude towards growing entrepreneurial ventures, and represents a sort of a synergy effect of all the components of entrepreneurial environment.

The "recognizing business opportunities" component is described in the GEM research through presence of business opportunities, availability of information about these opportunities and the capacity to turn the recognized opportunity into a business venture.

Two dimensions describe entrepreneurial capacity:

- Potential dimension includes simple procedures of starting a business venture, existence of knowledge and skills about how to start a venture and the speed with which one reacts to opportunities.
- Motivation dimension includes value norms towards entrepreneurship as a desirable career, high social status of an entrepreneur and the perception that entrepreneurs are competent people.

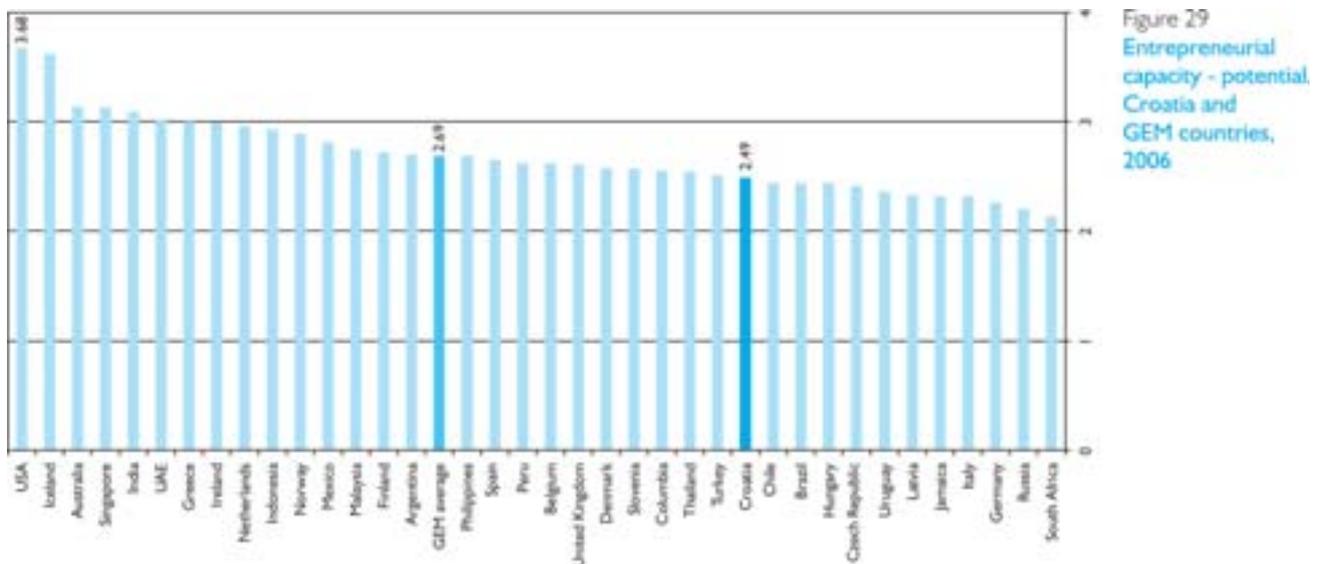
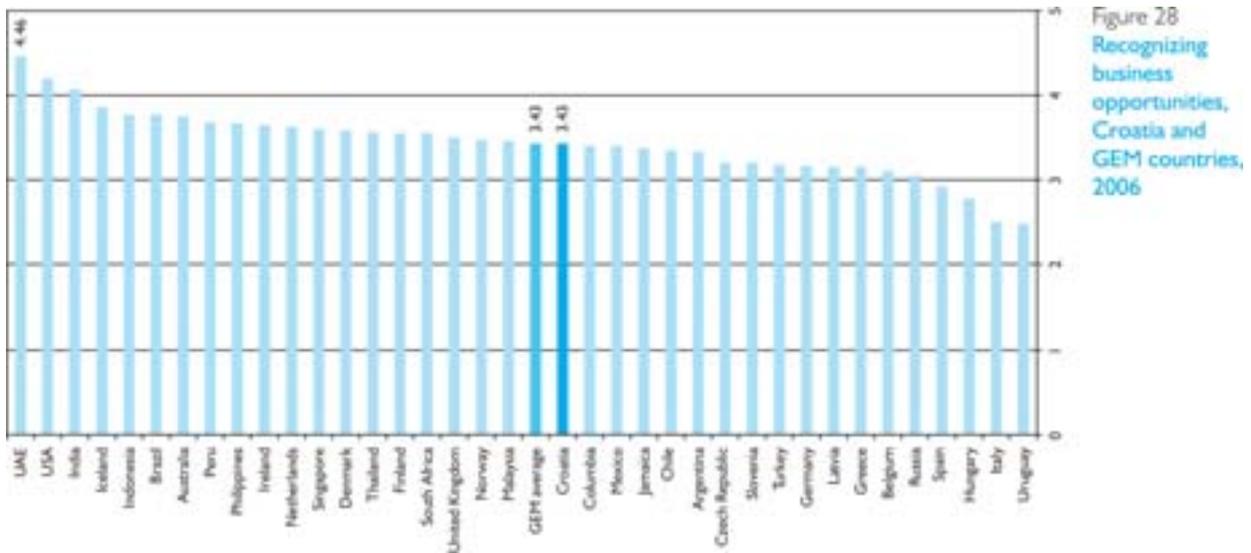
The "attitude towards growing enterprises" component is described through the awareness of creators of national policies about the importance of growing business ventures, through the existence of numerous support initiatives designed to fit the needs of fast growing enterprises and through availability of adequate competencies.

In 2006, positive advances have been achieved in evaluating all of these components of entrepreneurial efficiency. However, the gap that exists between dynamism of changes in the market (according to which Croatia is at the high 5th place out of 37 GEM countries) and the capacity for "recognizing business opportunities", which involves converting perceived opportunities to ventures (20th place, out of 37 countries) is still not closing. "Opportunity window", which is opened by the dynamism of changes in the market is not going to stay open forever; opportunities must be seized when they appear. The responsibility for non-utilization of opportunities lies on the non-removal of entry barriers, but also on the low level of entrepre-

neurial capacity. According to both dimensions of entrepreneurial capacity (potential, motivation), Croatia is at the rear of the list of GEM countries: 26th place according to potential and 31st place according to motivation.

This bad image is improved by significant change in the attitude towards growing enterprises, because, from the 31st place out of 33 countries in 2005, we have climbed to the 22nd place out of 37 countries in 2006. But, Ireland is full of growing enterprises, and the average rating of attitude towards this elitist group of enterprises, which are the ONLY ones that significantly create new jobs and new value is 4.11!

Entrepreneurial efficiency is a synergic effect of all the components of entrepreneurial environment, and thus can be changed ONLY through change of these components. Whether this process of improving entrepreneurial efficiency will be faster or slower, depends on the consistency of all interventions in space and time (i.e., between different bearers of responsibility).



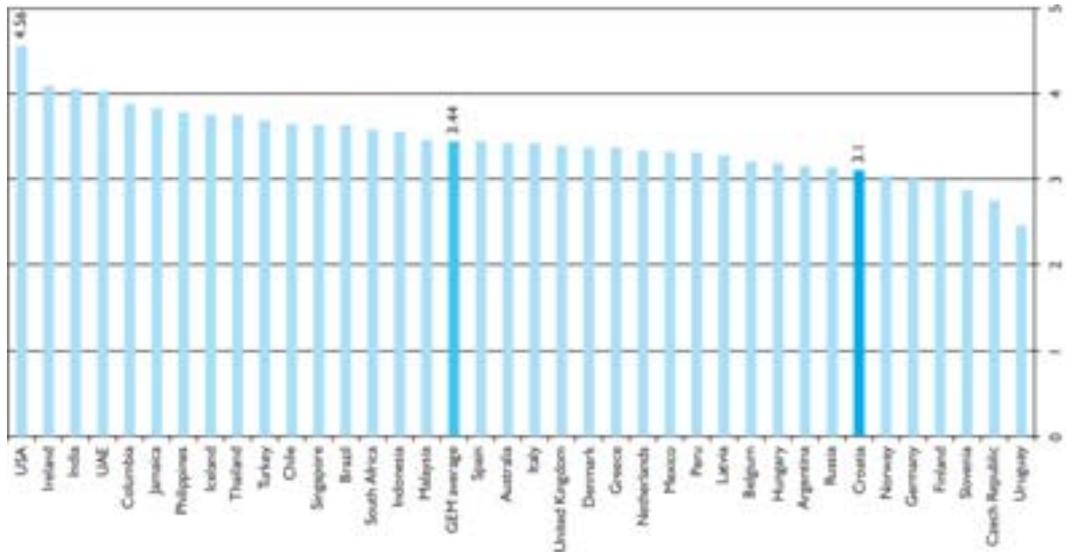


Figure 30  
Entrepreneurial capacity - motivation, Croatia and GEM countries, 2006

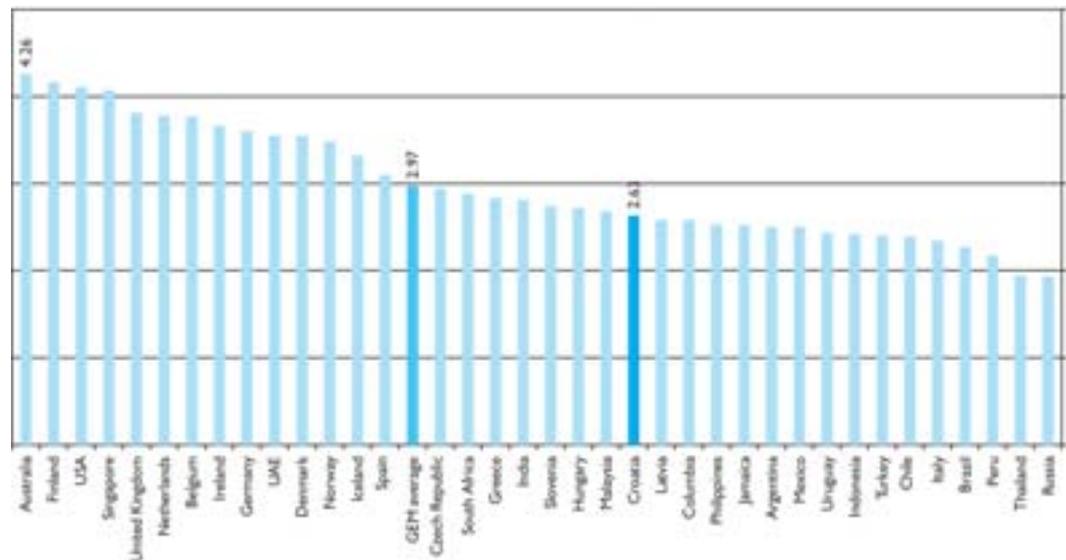


Figure 31  
Protection of intellectual property, Croatia and GEM countries, 2006

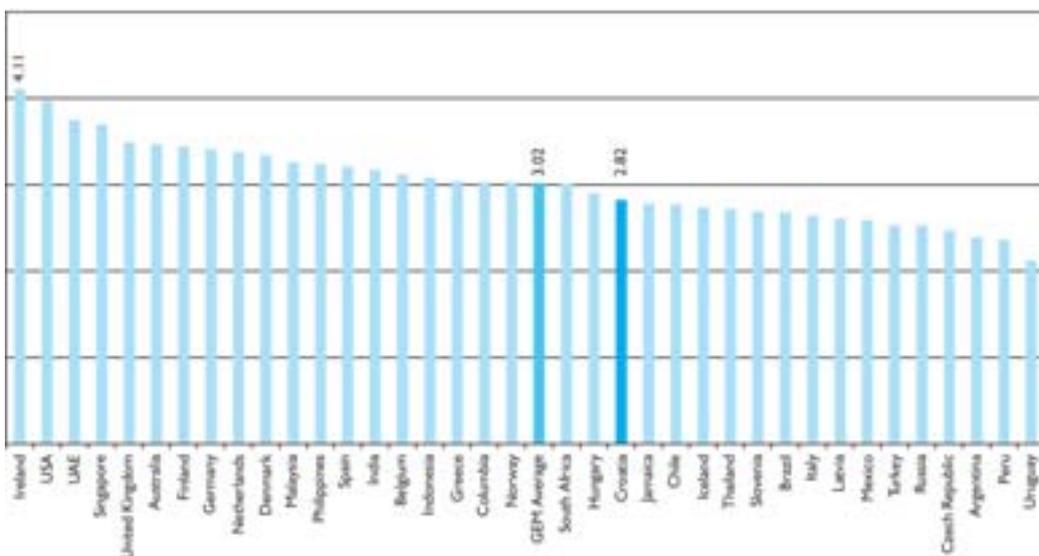


Figure 32  
Attitude towards growing enterprises, Croatia and GEM countries, 2006

## 4 Conclusions and recommendations for increasing the entrepreneurial capacity of Croatia

**Conclusions in 2006, like in 2005: better, but can be even better!**

**Recommendations - can we have more unity, more simultaneousness and faster?**

Participation in the GEM research has provided Croatia with the possibility to monitor its entrepreneurial activity according to a model which allows vertical comparability over time and horizontal comparability with other countries. The fact that world's most developed countries are involved in the GEM research gives invaluable value to comparisons that each participating country can use to formulate its visions and goals, and strategies for their accomplishment. Usability of research results is multiple: from familiarizing with the anatomy of country's entrepreneurial capacity, learning from others' experiences, to building entrepreneurial capacity through the management of change at the political level of decision-making (national policy for building the entrepreneurial environment, which stimulates development on the principles of innovativeness, knowledge and openness), at the business system level, and the personal level.

**Conclusions in 2006, like in 2005: better, but can be even better!**

Entrepreneurial activity of Croatia in 2006 allows the following conclusions:

- Good news about moving away from the lower end of the scale of GEM countries with regard to the TEA index in 2005 have not been accidental. Further intensification of entrepreneurial activity has continued in 2006, and Croatia was ranked 18th out of 42 countries, with TEA index of 8.58.
- While in 2005 Croatia was the only GEM country with motivation index below 1 (which shows that there are more entrepreneurs who have started entrepreneurial activity out of necessity and not because it had been their choice based on a perceived opportunity), motivation index was 1.16 in 2006, which speaks of a significant reversal, but is still way below the GEM average of 6.06.
- Rate of "maturity", which speaks about the transition to the status of "established" entrepreneurs, with entrepreneurial activity longer than 42 months, is still far from the GEM average (Croatia 0.48; GEM countries 0.81).
- Entrepreneurial activity of Croatia in European perspective is an important information for creators of government policies and programs: in comparison with the average of 16 European Union member countries that are involved in the GEM research, Croatia has the highest level of the TEA index, but also the highest level of TEA Necessity, and only four countries have less "established" entrepreneurs.
- Still not enough enterprises with growth potential: in the cluster of countries that Croatia belongs to according to the level of gross national product per capita, Croatia has more enterprises that invest in new technologies, but still has no new products: no less than 71% of new enterprises and 70% of the "established" ones have products that are new to no-one, while in the cluster of the medium developed countries, the case is same with 51% of new entrepreneurs and 63% of "established" entrepreneurs. The precipitate increase of the expected new employment in 2005 in relation to previous years in the category of enterprises with 20 and more employees (to 15% in new entrepreneurs and 18% in "established" entrepreneurs), did not continue in 2006.
- Regional distribution of entrepreneurial activity in Croatia is becoming uniform, due to strong strengthening of entrepreneurial activity in Slavonia and Baranja, Lika and Banovina, and Northern Croatia. However, the difference in motivation index still indicates that there are significant differences in entrepreneurial capacity, because Slavonia and Baranja and Lika and Banovina are the only two regions with motivation index lower than 1.

- Entrepreneurial environment in Croatia is becoming better and better: all components of entrepreneurial environment have received higher grades in 2006 than in 2005, but still, same as in 2005, only two components have received grades above 3:
- Access to physical infrastructure (3.75 in 2006, 3.35 in 2005)
- Openness of the internal market - dynamics of change (3.47 in 2006, 3.05 in 2005)

The lowest graded components of entrepreneurial environment, which still place us at the rear, are:

- Openness of the market - administrative barriers, 35th place out of 37 countries
- Commercial and professional infrastructure, 31st place out of 37 countries
- Cultural and social norms, 30th place out of 37 countries
- Transfer of research and development, 24th place out of 37 countries

### Recommendations - can we have more unity, more simultaneousness and faster?

Entrepreneurship as an integral phenomenon of individuals' actions in interaction with the environment depends on numerous factors, transformation thereof from limiting into stimulating activities requires involvement of various social segments; different interventions are needed, and all of this has different resource and time demands. In relation to 2005, none of the fifteen recommendations have become outdated; all of them are still current. Entrepreneurial activity of Croatia in 2006 has only emphasized the specific priorities that we need to be focused on:

- Government policies for regulatory framework, education, transfer of research and knowledge, development of the financial market (informal investors, venture capital funds, guarantee funds, micro-crediting)
- Government programs for stimulation of development of quality services for entrepreneurs, especially those who have potential and wish for growth
- Strengthening the entrepreneurial culture (education, media)
- Strengthening the involvement of women in entrepreneurial activities

Croatia is a small country with very limited resources, faced with huge challenges of thorough "cleaning up" of its political, economic and social space, and building institutional and personal entrepreneurial capacity needed for participation in global processes, which are not bypassing us. It is therefore more than ever necessary to reach a consensus at the level of vision, and actualize the goals and strategy, depending on the situation. The Strategic framework for development 2006 - 2013 and activities related to accession to the European Union are the starting point for a strategic alliance for change, and competitiveness and entrepreneurship are the most important factors for the achievement of "growth and employment in a competitive market economy acting within a European welfare state of the 21st century".

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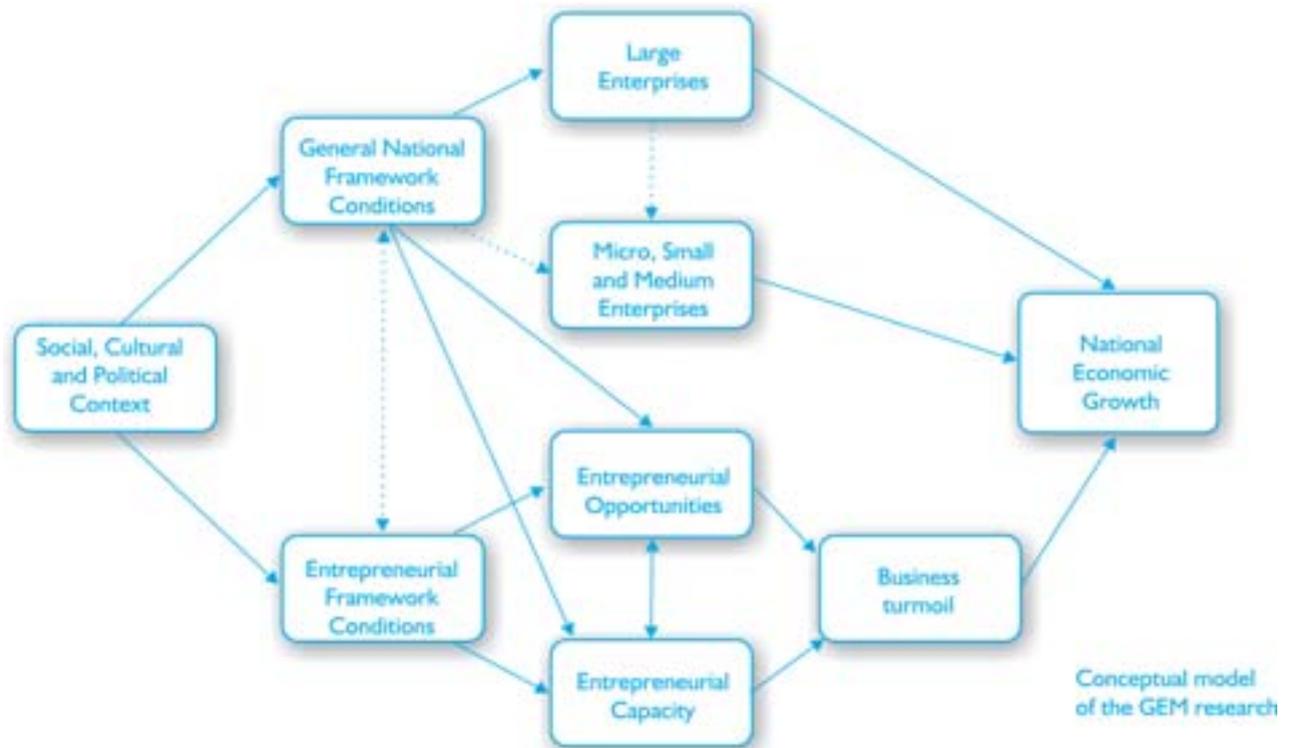
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## Appendix I

### Conceptual framework and methodology

GEM research is based on conceptual framework within which complementarity of two principal mechanisms (general macroeconomic framework conditions and entrepreneurial framework conditions) is presumed, on which a national economy's ability to achieve prosperity at the level of individual and the community depends.



#### General National Framework Conditions:

- Openness of national economy
- The role of government
- Effectiveness of the financial market
- Level of investment into research and development
- Physical infrastructure
- Managerial competence
- Flexibility of the labour market
- Rule of law

#### Entrepreneurial Framework Conditions:

- Financial support
- Government policies
- Government programs
- Education
- Transfer of research and development
- Business and professional infrastructure
- Openness of the internal market and competitiveness
- Access to physical infrastructure
- Cultural and social norms

GEM research is based on data gathered from three sources: data collected through surveying a representative sample of adult population, data collected through surveying and interviewing experts in the field of entrepreneurship, and data collected from standardized secondary international databases.

### Sample of adult population

The most important set of data in the GEM project is obtained by surveying adult population. Each year, on a random sample of adult population, using a specially designed questionnaire, data is gathered with the aim to measure entrepreneurial activity at the national level. In 2002, 2003 and 2004 data in Croatia was collected using the "face to face" method, and since 2005 telephone collection of data is used.

Each sample is weighted according to gender and age in order to get the data that represents working population in the country. Sample prepared in such a way for every year is sent to the GEM Coordination Team (London Business School and Babson College), which is in charge of checking the quality of data and harmonizing the data. In the data harmonization process, weights in the sample are adjusted according to the gender and age structure in accordance with US Census International Population Data Base.

Total sample of examinees		2006
Gender	Women	52.4
	Men	47.6
Age	< 18	5.1
	18-24	11.6
	25-34	15.3
	35-44	18.4
	45-54	16.4
	55-64	15.8
	65-98	17.5

### Sample of experts

As the second relevant source of data in research of entrepreneurial activity, experts' attitudes and opinions gathered through a standardized questionnaire composed of several groups of statements related to entrepreneurial framework conditions are used. By analysing the data gathered in this way, expert's attitudes are quantified and the perception of selected components of entrepreneurial environment in the country is measured. Sample of experts is selected on the basis of their reputation and experience, and as such does not represent a representative sample of experts from the field of entrepreneurship. Harmonized database, which is produced by the GEM Coordination Team is used for preparation of national reports.

### Standardized international set of data

In order to determine and examine the relationship between the level of entrepreneurial activity in each country and the macroeconomic conditions, different standardized data from international data sources, such as World Bank, International Monetary Fund, OECD and United Nations is gathered within the GEM project. GEM Coordination Team is in charge of gathering all this data and the national teams have the data for all countries involved in the GEM project at their disposal.

## Appendix 2

Name	Position	Institution
Bakula Goran	Economic Advisor	Independent Croatian Trade Unions
Begović Leo	Assistant Minister for Crafts	Ministry of Economy, Labour and Entrepreneurship
Bohaček Zoran	Chairman	Croatian Banking Association
Buković Darko	Chief Editor	Privredni vjesnik Magazine
Crnković Pozaić Sanja	Director	SMEs and Entrepreneurship Policy Center - CEPOR
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Ferdelj Vladimir	Vice-chairman for economy	Croatian Chamber of Economy
Flegar Tomislav	Director	Savings and Loan Cooperative NOA
Hanžek Lidija	Member of the Board	Croatian Credit Registry - HROK
Horvat Đuro	Lecturer	Business School Libertas
Jakešić Bernard	Deputy Director	Croatian Employers' Association
Jurković Ratka	Director	Svan Consulting
Jurić Mirta	Owner and Director	Warp Consulting
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Experts for the evaluation of the quality of entrepreneurial environment who participated in GEM research 2006

## Appendix 3

List of GEM teams and sponsors, 2006				
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GEM Research Director	Babson College	Maria Minniti		
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GEM Data Manager	London Business School	Mark Quill		
Program Manager	London Business School	Mick Hancock		
NES Coordinator	Imperial College	Erikko Auto		
Project Administrator	Babson College	Marcia Cole		
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<b>Australia</b>	Australian Graduate School of Entrepreneurship, Swinburne University of Technology and The University of Adelaide	Kevin Hindle Kim Klyver Gary Hancock Noel Lindsay		Australian Centre for Emerging Technologies and Society
<b>Belgium</b>	Verick Leuven Gent Management School Ghent University	Hans Crijns Merjam Knockaert Sophie Mangart Miguel Meuleman Tom Van Acker Sabine Vermeulen	Flemish Ministry of Economic Affairs (Steunpunt Ondernemerschap, Ondernemingen en Innovatie)	TNS Dimarso
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Team	Institution	National Team Members	Financial Sponsor	APS Vendor
Singapore	National University of Singapore (NUS) Entrepreneurship Centre	Poh Kim Wong Lena Lee Ho Yuen Ping	Standards, Productivity and Innovation Board (SPRING) Singapore and National University of Singapore (NUS) Enterprise	Joshua Research Consultants
Slovenia	Institute for Entrepreneurship and Small Business Management, Faculty of Economics & Business, University of Maribor	Miroslav Rebernik Polona Tominc Kerija Punik	Slovenian Research Agency Ministry of the Economy Smart Com Finance - Slovenian Business Daily	RM PLUS
South Africa	UCT Centre for Innovation and Entrepreneurship, Graduate School of Business, University of Cape Town	Mike Herrington Gideon Maai	Liberty Life, Standard Bank, South African Breweries and the National Research Foundation	AC Nielsen ZA
Spain - Nacional	Instituto de Empresa	Ignacio de la Vega García-Pastor Alicia Coduras Cristina Cruz Rachida Justo Isabel González	Instituto de Empresa Fundación Cultural Banesto Fundación INCYDE Cámaras de Comercio	Instituto Opinometre S.L.
Spain - Andalucía	Universidad de Cádiz	José Ruiz Navarro José Aurelio Medina Daniel Lorenzo Álvaro Rojas Vázquez Antonio Rafael Ramos Salustiano Martínez David Urbano Pulido	CENTRA (Fundación Centro de Estudios Andaluces) Junta de Andalucía Consejería de Innovación, Ciencia y Empresa de la Junta de Andalucía UNICAJA Endesa Sevillana	Instituto Opinometre S.L.
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Spain - Castilla la Mancha	Universidad de Castilla la Mancha	Miguel Ángel Agustín Álvarez Herranz Juan Carlos López Francisco Escribano Sotos Inmaculada Carrasco Monteagudo M. Soledad Castaño Martínez José Miguel Olmeda Isabel Pardo	Universidad de Castilla La Mancha Caja de Castilla La Mancha Instituto Municipal de Promoción Empresarial, Formación y Empleo (IMPEFE), Ayuntamiento de Ciudad Real Ayuntamiento de Cuenca (Patronato de Promoción Económica, Formación y Empleo)	Instituto Opinometre S.L.
Spain - Castilla y León	Universidad de León	Mariano Nieto Nuria González Álvarez Constantino García Ramos Vanessa Solís Rodríguez Claudia Roure Vilalobos Noemi Huerga Pérez	Junta de Castilla y León Agencia de Desarrollo Económico de Castilla y León Centros Europeos de Empresas e Innovación de Castilla y León S.A.	Instituto Opinometre S.L.
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Spain - Comunidad Valenciana	Universidad Miguel Hernández	José M <sup>a</sup> Gómez Ignacio Mira Solves Jesús Martínez Mateo Antonio J. Verdú	Air Nostrum LAM S.A.	Instituto Opinometre S.L.
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Spain - Murcia	Universidad de Murcia	Antonio Aragón Sánchez Alicia Rubio Bafón Nuria Nevers Esteban Lloret José Andrés López Yepes María Feliz Madrid Garre Mercedes Palacios Manzano Gregorio Sánchez Marín	Fundación Cajamurcia Fundación de Estudios Económicos Región de Murcia Instituto de Fomento de la Región de Murcia Centro Europeo de Empresas e Innovación de Murcia Confederación Regional de Organizaciones Empresariales Universidad de Murcia	Instituto Opinometre S.L.
Spain - navarra	Observatorio de Empleo del Servicio Navarro de Empleo  CEIN  UPNA	Observatorio de Empleo del Servicio Navarro de Empleo  Itxaki Mas Erice  Ignacio Cortin Martín Larrazza	Gobierno de Navarra SNE CEIN UPNA	Instituto Opinometre S.L.
Sweden	ESBRI - Entrepreneurship and Small Business Research Institute	Magnus Aronsson Lena Ramfelt Mikael Samuelsson	Confederation of Swedish Enterprise (Svenskt Näringsliv) NUTEK - Swedish Agency for Economic and Regional Growth VINNOVA - Swedish Governmental Agency for Innovation Systems	SKOP
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Turkey	Yeditepe University	Nülfer Egriçan Esra Karadeniz	Siemens Technology Development Foundation of Turkey	Akademetre
United Arab Emirates	Zayed University	David McGlennon Kenneth J. Press Declan McCrohan Raed Daoud	Mohammed Bin Rashid Establishment for Young Business Leaders	IPSOS-STAT (Emirates)

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United Kingdom	Northern Ireland Team Small Business Research Centre, Kingston University Economic Research Institute of Northern Ireland	Mark Hart Maureen O'Reilly	Invest Northern Ireland	#
United Kingdom	Scottish Team Hunter Centre for Entrepreneurship, University of Strathclyde	Jonathan Levie	Hunter Centre for Entrepreneurship, University of Strathclyde	#
United Kingdom	Welsh Team National Entrepreneurship Observatory University of Glamorgan Cardiff University	David Brooksbank Dylan Jones-Evans Piers Thompson Caleb Kwong	Welsh Assembly Government Welsh European Funding Office	#
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