

RECOMMEND interregional working group

Innovation voucher scheme - workshop

7th of May 2013, South Moravian Innovation Centre, Brno, Czech Republic

Main objectives of the workshop

- get introduction about South Moravian regional innovation policy and learn about main driving tools
- to get independent feedback on RECOMMEND goals and purpose
- to learn about success story of innovation vouchers scheme – motives, initiation phase, framework, operation,
- evaluation, impacts
- to receive some specific recommendations and advices on initiation of innovation voucher schemes

Agenda (still in progress)

until 12 a.m	Arrival of participants
12:00 – 13:00	Lunch
13:00 – 13:10	Introduction of participants and goals of the workshop
13:10 – 13:20	RECOMMEND project presentation
13:20 – 14:00	South Moravian region – leading innovation region in the Czech Republic (common data on region, GDP, regional R&D capacities, political support)
14:00 – 14:30	Regional innovation strategy / policy in South Moravia and tools
14:30 – 14:45	Coffee break & networking
14:45 – 15:30	Innovation voucher scheme
15:30 – 16:00	Discussion / feed back / further steps
19:00	Joint dinner

Annexes

- I. Brief summary of inputs / issues from participated partners taken from assessment reports
- II. All assessment reports elaborated by partners

Annex I - Assessment report inputs – workshop Brno

Group LEADER: Jan Jares / PP4 (tel. +420 602 563 348, e-mail: jares@ekoport.cz)
Project partners.involved: PP4, PP7, PP10, PP2
Regions: South Bohemia, Province of Ascoli Piceno, Varna, Kujawsko-Pomorskie

Main outputs / issues raised by partners in reports

Poland

What should be supported in the voucher (what works best in other regions):

- purchase of the researches
- purchase ready-made technologies (patents)
- purchase of the technology assets of the better pro-environmental parameters used in the production process
- purchase of consultancy services relating to the management of the environment and eco-innovations
- combined support.

To which enterprises should be dedicated to support:

- small and large businesses
- service and manufacturing
- public/private

What should be the optimal value of the support? What should be the relation of support to the own contribution of the company? Or provide support for 100% of the investment / research?

Who are the operators of the voucher and from what means they realize it (voucher): the EU, government, regional, private?

Are activities of the beneficiaries of the voucher monitored after implementation? How? What are the results of such monitoring?

Does voucher increase competitiveness of enterprises on the market or just increases environmental aspects?

Bulgaria – none concrete questions

Italy

What should be supported in the voucher (what works best in other regions):

- purchase of the researches
- purchase of the technology assets of the better pro-environmental parameters used in the production process
- purchase of consultancy services relating to the management of the environment and eco-innovations
- combined support.

The streamlined procedures.

Monitoring system of implementation.

Voucher effects for enterprises.

Czech

- proper tools to raise awareness in schemes
- recommendation on initiation of communication platform towards politicians
- knowledge exchange

Annex II - Assessment reports elaborated by partners

Case: Poland

Template for assessment report on default conditions in the region

Group LEADER: Jan Jares / PP4 (tel. +420 602 563 348, e-mail: jares@ekoport.cz)
Project partners.involved: PP4, PP7, PP10, PP2
Regions: South Bohemia, Province of Ascoli Piceno, Varna, Kujawsko-Pomorskie
Shortcut of the WG: "WGV"

Purpose of the report

- to collect basic feature data on default conditions in perspective regions
- to evaluate potential for voucher scheme initiation
- to analyse common synergies when designing perspective schemes
- to gather inputs for interregional WGV workshop

Recommended volume: 5 pages max.

Content structure

1. Demographic and political profile, economic characteristics and industry description (max. 1 – 2 pg)
2. Research & development infrastructure and potential fields / branches of cooperation in terms of Industry vs R&D (max. 1 - 2 pg)
3. Questionnaire

Deadline and responsible persons

Please complete report by 15th of February the latest and send it to jares@ekoport.cz!

Contact person: Jan Jareš, e-mail: jares@ekoport.cz, tel. +420 602 563 348

1. Demographic and political profile, economic characteristics and industry description

Kujawsko-Pomorskie region is located in the northern part of the country, on the Lower Wisła river, Brda river, Drweca river and Noteć river. It is adjacent to five voivodships: Pomorskie region, Warmia and Mazury region, Mazovia region, Wielkopolska region and Lodz region. It is also a transit route between Scandinavia and Southern Europe and the Baltic States, Russia and Western Europe. It covers an area of eighteen thousand square kilometers (5.7% of the Polish, 10th in the country) and is inhabited by 2.07 million people (5.4% of the total number of Poles, 9th place in the country). Among the 16 Polish regions the region ranks in the middle.

The region has a hierarchical spatial structure and a positive influence on the development of the region. The region includes 52 towns and more than 3600 rural villages. It is average urbanized, the population of the cities is 61.55%. The largest towns are Bydgoszcz (363,500 population) and Torun (190,000 population) as centers of metropolitan area and Włocławek (119.3 thousand population), Grudziądz (99.2 thousand population) and Inowrocław (76,800 population). The administrative region is divided into 19 administrative districts and 4 cities with county rights (144 municipalities). Metropolitan functions in the region are shared by Bydgoszcz (governor's office) and Torun (Marshal's office (self governor) and regional parliament).

Representative of the voivodship's governor (based in Bydgoszcz), and Marshal is the host of voivodship. The regional government bodies are:

- a) Voivodship Parliament
- b) Management Board of Voivodship

The regional government on the basis of the authorization, shall act local law in force in the region.

The driving force of the development of the region are companies. Workers' wages and thus household income as well as local governments depend on their successes and achievements. Well-functioning companies have the greatest potential for development, including conducting research and development activities and cooperation with the area of science. In the region of Kujawsko-Pomorskie over 184 thousand economic entities (at the end of 2011) are registered of which 94.7% are micro enterprises (employing up to 9 workers), 4.3% are small businesses (employing from 10 to 49 workers), 0.9% are medium-sized enterprises (employing from 50 to 249 workers), and 0.1% are large enterprises. And there are 233 such companies employing at least 250 workers each. In other Polish regions of the statistic is similar.

In 2010, only 899 companies were registered out of every 10.000 inhabitants of the region (1024 average in Poland). Low tendency to set up business can be a barrier to fostering the development of innovative companies (for example, in the field of academic entrepreneurship).

Industrial and service companies incurred in 2010 approximately PLN 1.1 billion investment in innovation, but 95% was in the industry. Compared to whole Poland, investment of regional service companies are disadvantageous, and are in fact only 0.5% of such expenditures incurred in Poland in general. Much better in this respect an indicator of industrial companies presents, which in 2010 amounted to 4.5%. Compared to the whole country, relatively low capital expenditure incurred on research and development (R &D; 1.8% of such spending in Poland) and the acquisition of knowledge from external sources, 1.7%), with high fixed capital formation (especially on plant and machinery imports) more than 5% of the expenditure in the country.

Table: Expenditure on innovation activities in the industrial and service companies in 2010.

innovation activity	companies in the service sector		industrial enterprises	
	PLN	%	PLN	%
altogether	54,4	0,50%	1075,3	4,50%
research and development (R & D)	1,7	0,10%	59,3	1,80%
acquisition of knowledge from external sources	0,1	0,00%	15,7	1,70%
purchase of software	5,1	0,30%	10,8	2,20%
investment in total fixed	43,5	0,70%	967,3	5,40%
including capital expenditures on fixed assets: buildings and premises, civil engineering and land	13,1	0,90%	306,1	5,70%
including capital expenditures on fixed assets-plant and machinery total	30,3	0,70%	661,3	5,30%
including capital expenditures on fixed assets: plant and machinery imports	7,7	1,90%	283,1	5,70%
training of personnel directly associated with the introduction of product or process innovation	0,4	0,50%	3	2,90%
marketing associated with the introduction of new or significantly improved products	1,7	0,40%	4,9	1,10%

In Poland and in the region clear regularity can be observed - the larger the company is the greater chance that it incurs expenditures for the innovative actions and naturally higher levels of investment. In 2008, in the industry, 11% of small companies, 27% medium and almost 55% of large companies employing more than 249 employees forwarded means for innovative activities. Expenditure on innovation activities amounted to PLN 434,100 in large companies. Firms less often bore expenditure on innovation activities, but their expenditures were higher than industrial companies. In the services sector expenditure on innovative activities in the field of product and process innovations was in 10% of small companies (PLN 478 900 issued on a per company), 21% of medium-sized companies (446 thousand PLN) and 40% of large companies (32 490 000 PLN).

In Kujawsko-Pomorskie, in 2008, almost 17% of companies bore expenditures related to the introduction of product and process innovations in the industry. It was roughly the same as in the whole country. Moreover, the level of expenditure in terms of one company turned out to be higher than in the whole country (4614 PLN) and amounted to PLN 5549, more than in the Pomorskie voivodship (PLN 5,770.4). This result demonstrates intensive innovative activities of industrial companies in the region. In the service sector the situation is opposite - in Poland expenditures on innovation in services bore 12.6% companies, when in Kujawsko-Pomorskie only 9.5% companies. At the same time, spending on innovation activities in terms of one company in the region was four times lower than in Poland and amounted to PLN 1,221.6.

Expenditure on innovation activities in Kujawsko-Pomorskie bore approximately one of ten industrial small business (11%) and every fourth medium company (27%) – similar in the whole country. The percentage of small industrial companies allocating resources for innovation, both in Kujawsko-Pomorskie and in the whole Poland is, however, lower than in Pomorskie. Analogous data about service providers is not available. Kujawsko-Pomorskie small companies are not leaders of eco-innovation. Only 10% of active innovative small businesses in the region have introduced innovations that have brought environmental benefits of reducing harmfulness or energy-intensity of its operations. This may suggest that the activities of innovative small companies in the region

were focused on the introduction of ecological solutions. Possible positive effects on the environment could have been rather the side effect of innovations introduced for other purposes.

Small companies from Kujawsko-Pomorskie region much rarer than a similar-sized companies in the whole country and Pomorskie region, introduced eco-innovations to meet the legal requirements for the protection of the environment- such goal declared only 7% of companies in the region (in the neighboring region 27%).

Medium companies of the region are not behind companies from Poland and Pomorskie region. Approximately 16% of medium-sized companies in the region introduced innovations aimed at saving energy and material - in the neighbouring region, only 12% companies introduced them. But the biggest advantage in the field of eco-innovation draws in the activities that were supposed to lower harm to the environment. One of four medium enterprises introduced such solution- it is a higher proportion than in the Polish casually. Medium-sized enterprises from the region clearly experience necessity to adapt to the legal requirements for the protection of the environment and are at the same level as companies across the country.

The leading sectors of the region are the following industries: electrical machinery, chemicals, paper, food and electronics.

The registered unemployment rate at the end of 2010 in the region was 17% which puts the region on the third negative position in the whole country at the highest level in the region of Warmia and Mazury (20%) and lowest in the region of Wielkopolska (9.2%), with 12.4% of the national average. In previous years the situation in the country and the region in terms of unemployment worsened.

2. Research & development infrastructure and potential fields / branches of cooperation (industry vs R&D)

In Kujawsko-Pomorskie Region we have 5 public and 15 private schools of higher education. These which function dynamically and may bring the greatest contribution to promote innovation are:

- Kazimierz Wielki University in Bydgoszcz;
- Nicolaus Copernicus University in Toruń;
- Jan and Jędrzej Śniadecki University of Technology and Life Sciences in Bydgoszcz;
- University of Economy in Bydgoszcz
- Environmental Management School in Tuchola

In Kujawsko-Pomorskie Region we identified 13 science and research institutions, the most important are:

- Institute of Plastics Processing METALCHEM in Toruń;
- Industrial Research Institute for Automation and Measurements Department OBRUSN;
- Regional Innovation Center at the Jan and Jędrzej Śniadecki University of Technology and Life Sciences in Bydgoszcz;
- Institute of the Judicial Genetics;
- Institute of Animal Husbandry National Research Institute pilot plant situated in Kołuda Wielka
- Institute of Polymer Materials and Dyes Engineering in Toruń.

In Kujawsko-Pomorskie Region, there are also a number of business support institutions like: business incubators, economic zones, parks of technology, chambers of commerce, employers associations, loan and guarantee funds.

Marshal's Office involves representatives of local businesses as experts and advisors in the creation of innovation policy and taking action to support local entrepreneurship. In our opinion the best example is the team of experts of the Kujawsko-Pomorskie Management for innovation and research and development policy. Members of this team are representatives of largest companies in Kujawsko-Pomorskie Region: PESA Bydgoszcz (manufacturer of trains and trams), Dressings Factory in Toruń, Coated Paper PASACO.

Within the framework of Eco-Voucher we would like to support regional companies that can establish cooperation with scientific and research centers, both from the region and outside of it. But supported research units must be situated in the province of Kujawsko-Pomorskie Region. We expect that the effect of this support obtained thanks to vouchers will be implemented in our Region.

Currently in Kujawsko-Pomorskie Region 'an innovative voucher' programme is carried out. Its value is about 4 mil. euro.

The objective of this project is to create conditions to improve the transfer of knowledge and experience from the research and development area to business which will influence economic development of our region, especially micro, small and medium-sized enterprises, which represent 90% of the functioning companies.

The main point of the project is introduction of vouchers to micro, small and medium-sized enterprises. Thanks to those vouchers, the enterprises will be able to buy R & D services. Voucher is like a tool which initiates the cooperation between the business and science, which will contribute to improve innovation in the region and accelerate (speed up) knowledge transfer.

A grant for the purchase of services:

- industrial or development research;
- research of the products for compliance with the normative requirements in the branch and the product.

The value of the subsidy is from 25,000 PLN (EUR 6,250) to 50,000 PLN (12,500 euro).

Nowadays, the companies interested in implementation of innovative voucher program are: mechanical, electromechanical, electrical (55 vouchers), computer science, telecommunications (42), chemistry, biotechnology, medicine, agri-food (27), construction and building materials (9), and others (25). Marshal's Office under the 3 competitions announced 158 vouchers in 2012.

On the basis of those information we can conclude that the eco-voucher will be concentrated in similar branches. Exception, because of its specificity, it might not be computer science and telecommunications.

Kujawsko-Pomorskie Region is a strong health resort tourism destination. Salt mine resorts in Inowrocław, Ciechocinek and Wieniec-Zdrój are the most popular in Poland. In year 2011, 15.1% of patients in Poland were treated in health resorts in our region. Moreover, in our region there are many natural areas and landscapes, including 8 landscape parks and numerous protected landscape areas. Small and medium-sized enterprises operating in the health resort areas and areas of protected landscape, are also a potential group of customers of eco-vouchers, because their activity is associated with increased environmental requirements, which is associated with all sorts of legal restrictions on forms and ways of doing their businesses.

Kujawsko-Pomorskie Region plays an important role in agricultural production and food production. Agri-food industry is represented by the sugar processing, meat, poultry, fat, fruit and vegetables, bakery, sugar, milk plants. Participation of our Region in the production of agri-food industry accounts for about 7% of the national production of food sold (high score). The main sectors of industry having influence beyond the region, which have major impact on the development of our region are: production of agri-food (growing non-perennial crops, animal husbandry, production of grain mill products, starches and starch products) and production of machines for agriculture and forestry.

3. Questionnaire

Are there voucher schemes in your country?	YES	NO
Are there voucher schemes in your region?	YES	NO
If YES - who is the managing institution of the existing voucher schemes?	Marshal's Office of Kujawsko-Pomorskie Voivodeship in Torun Kujawsko-Pomorskie Region Employers and Entrepreneurs Association in Bydgoszcz	
What are the obstacles to implement voucher schemes?	The main problem to solve is to convince regional companies to be eco, demonstrate the advantages and benefits of such approach.	
What do you want to learn about voucher schemes?	<p>What should be supported in the voucher (what works best in other regions):</p> <ul style="list-style-type: none"> - purchase of the researches - purchase ready-made technologies (patents) - purchase of the technology assets of the better pro-environmental parameters used in the production process - purchase of consultancy services relating to the management of the environment and eco-innovations - combined support. - to which enterprises should be dedicated to support: - small and large businesses - service and manufacturing - public/private <p>What should be the optimal value of the support? What should be the relation of support to the own contribution of the company? Or provide support for 100% of the investment / research?</p> <p>Who are the operators of the voucher and from what means they realize it (voucher): the EU, government, regional, private?</p> <p>Are activities of the beneficiaries of the voucher monitored after implementation? How? What are the results of such monitoring?</p> <p>Does voucher increase competitiveness of enterprises on the market or just increases environmental aspects?</p>	

Case: Italy

Template for assessment report on default conditions in the region

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Please complete report by 15th of February the latest and send it to jares@ekoport.cz!

Contact person: Jan Jareš, e-mail: jares@ekoport.cz, tel. +420 602 563 348

1. Demographic and political profile, economic characteristics and industry description

Ascoli Piceno Province is located in the central part of the country, in the lower Marche Region on the east side of Italy. It is in front of Adriatic Sea. It covers an area of 1.226,21 square kilometers, and is inhabited by 214.068 people.

The Marche Region is divided into 5 Province (Ascoli Piceno is in the south) and 239 cities; the total population is over 1.565.000 inhabitants; the region has a hierarchical spatial structure and an influence on the development of the provinces.

The Ascoli Piceno Province includes 33 towns; and it is highly urbanized; the biggest cities are Ascoli Piceno (51.168 population) and San Benedetto del Tronto (48.262 population).

Metropolitan functions in the Province are localized in Ascoli Piceno (governor's office and province parliament).

The provincial government bodies are:

- a) President
- b) Provincial Government;
- c) Provincial Council

The regional government on the basis of the authorization, shall act local law in force in the region; the Province can transpose and implement National and regional laws.

The driving forces of the development of the region are companies. Workers' wages and thus household income as well as local governments depend on their successes and achievements. Well-functioning companies have the greatest potential for development, including conducting research and development activities and cooperation with the area of science.

In the Ascoli Piceno's Province over 24 thousand economic entities (at the end of 2010) are registered of which (16% in industry, 11% in constructions, 24% in commerce, and 25% in services) and task over 102.924 employees. In other Marche's Province of the statistics are similar.

The regional system of research is conceptualized and as the set of structures, activities and relations between these the three main categories of persons who are within the region involved in the processes of knowledge production and innovation: research centers, businesses, the public operator. To these must be added subjects 'facilitators' of the interaction between the subjects before mentioned, such as technology transfer centers, chambers of commerce, associations of undertakings.

The essential elements in the regional research system of Marche characterized by the following aspects:

- Almost exclusive presence of public research centers (Universities);
- Low propensity to spend on research and development, the result of the sectoral characteristics and dimensions of businesses;
- Presence of centers for technology transfers public-individuals who play a connecting role between business and research system (regional and international).

The latest ISTAT available of R&D at Regional (2008), estimates the amount made in the Marche region in 309 million euros, equal to 1,6% of the national total value much lower than the contribution of the region to the national GDP (2,7%). In fact, spending on R&D relative to GDP takes into account a percentage value significantly lower (0,74) than the national average (Table 1). With

reference to the institutions engaged in the grocery store, the absence private non-profit institutions and the low incidence of public research institutions constitute the main differences between the brands and the national average.

The further element of discrepancy is the low level of expenditure 13 carried out by companies (0,35), slightly more than half of the average national (0,65).

Table 1 – Annual expenditures in R&D in %

Region	public institutions	private non-profit institutions	Companies	Universities	Total
Piemonte	0,08	0,05	1,42	0,33	1,88
Valle d'Aosta	0,02	0,07	0,44	0,07	0,61
Lombardia	0,05	0,10	0,85	0,24	1,24
Prov. aut. di Bolzano	0,06	0,06	0,40	0,06	0,57
Prov. aut. di Trento	0,44	0,04	0,37	0,38	1,25
Veneto	0,09	0,01	0,68	0,26	1,05
Friuli-Venezia Giulia	0,12	0,02	0,74	0,49	1,37
Liguria	0,16	0,03	0,70	0,33	1,22
Emilia-Romagna	0,09	0,01	0,84	0,39	1,33
Toscana	0,09	0,01	0,45	0,58	1,14
Umbria	0,06	0,00	0,22	0,59	0,87
Marche	0,03	0,00	0,35	0,36	0,74
Lazio	0,70	0,04	0,60	0,45	1,79
Abruzzo	0,07	0,00	0,42	0,46	0,95
Molise	0,04	0,00	0,08	0,30	0,42
Campania	0,15	0,04	0,53	0,63	1,35
Puglia	0,10	0,05	0,18	0,46	0,79
Basilicata	0,27	0,00	0,16	0,25	0,68
Calabria	0,05	0,00	0,04	0,38	0,47
Sicilia	0,07	0,01	0,22	0,59	0,89
Sardegna	0,06	0,00	0,07	0,45	0,59
Italia	0,15	0,04	0,65	0,39	1,23
UE	0,24	0,02	1,21	0,44	1,92

Source: ISTAT

The dynamics of R&D on GDP shows a trend in the Marche growing from the second half of the decade, in line with the national trend, although the level recorded in 2008 was the lowest among those regions with similar production structures. Also with regard to the research personnel and development in public-private system to the latest figures available by Istat (the year 2008) show a value for the Marches (3,3 employees per 1000 inhabitants) significantly lower than the national average (4,0) and the regions compared (Emilia Romagna 5,4, Veneto 4,9; Tuscany 4,3). Overall, the ISTAT data on spending on R&D in the region confirm the fact that the industrial system of Marche characterizes, even more than the national one, as a model of “Innovation without research”. This characteristic is the result of sectoral composition and size of the regional industry, in which are prevalent sectors so-called “traditional” and businesses small and very small. These sectors and companies develop innovative processes less dependent upon the activity of R&D and collaboration with research facilities, because innovation generated is most associated with creativity, design and innovation organizational and market.

The significant presence of small and very small enterprises determines probably even an underestimate of the actual research and development, since most of this activity is carried out in a poorly formalized and, for this reason, more difficult to detect and account for. There is, however, in recent years a trend reversal, as shows the increase, albeit slight, in support of regional spending of

research and development in companies and by the increased dynamism in investment in R&D covers both small businesses and, to a greater extent, large companies, as marked by processing MET for 2008 and 2009.

From the reports MET is also clear that the research and development Marche companies used the most collaborations with external structures, especially other companies, rather than developing Internally this function. Among the indicators of increased propensity of the regional economic investment in R&D also indicates the significant increase in patenting of enterprises, especially in the second half of the last decade

The leading sectors of the region are the following industries: leather goods, electrical machinery, industrial machinery, chemicals and pharmaceuticals items, metal wroughts, apparel industry and food. The export structure see in 2011 a positive balance of commercial intertrading such as to achieve 9.724.515.225 exported items.

The registered unemployment rate at the end of 2009 in Ascoli Piceno Province was 5,85%, it is higher than the rate of region Marche 4,65%, with 6,74% of the national average. The following years, with the advent of the economic globe crisis, the situation in the country and in the Province of Ascoli Piceno in terms of unemployment worsened.

2. Research & development infrastructure and potential fields / branches of cooperation (industry vs R&D)

The research system is characterized by regional role predominant universities. In the Marche region, there are four public universities. These which function dynamically and may bring the greatest contribution to promote innovation are:

- UNIVERSITÀ DEGLI STUDI DI MACERATA
- UNIVERSITA' DEGLI STUDI DI URBINO
- UNIVERSITA' DI CAMERINO
- UNIVERSITA' POLITECNICA DELLE MARCHE - ANCONA

Marche region is among the Italian regions with the lower number of structures of public research institutions. The main public bodies research operating in Italy the CNR (National Research Council), ENEA (Italian National Agency for New Technologies, Energy and the Environment), INFN (National Institute for Nuclear Physics), ASI (Italian Space Agency), CRA (Council for Research and Testing in Agriculture) - are present in the Marche region only two structures: one of the CNR, ISMAR Marine Science Institute based in Ancona, the other of the CRA, Research Unit for horticulture based in Monsampolo del Tronto (AP).

Overall, they occupy about 50 people indefinitely: 46 ISMAR and 4 the CRA. In both cases it is research facilities addressed to the primary sector of the economy (agriculture and fisheries), and there are no research facilities dedicated to the industry or the service sector.

In the Marche region are classified in different structures of the categories considered structures such as science and technology parks, incubators, local development agencies, service centers thematic or cross-sector technology transfer offices of universities, special companies of Chambers of Commerce, etc.. [IPI, 2005]. The characteristic that unites these structures is to be a public issue or mixed public-private partnership. In many cases, the presence private concerns both individual production companies, or associations, or other entities operating in the territory (such as banks and foundations): a science and technology park (Tecnomarche), three centers sectoral public-private partnerships - ASTERIA, COSMOB and MECCANO, three offices for technology transfer in academia.

The centers sectoral public-private partnerships have been set up in the '80s as initiative of the Marche Region to support innovation in major sectors of the Marches. Over time, these centers are equipped with laboratories, facilities and personnel to the functional achieve this aim.

Given the structural characteristics of the productive regional policies promoted by the Marche Region to stimulate Research and innovation have been primarily aimed at supporting and encourage the planning of enterprises, with a particular attention to those of small size. This objective was pursued on the one hand relying on territorial cooperation between supply and demand of knowledge, on the other promoting aggregation between enterprises through strengthening and enhancement of technological and productive sectors.

Regional policies have been particularly careful to promote dialogue between the production system and the system of knowledge, promoting the implementation of research and innovation, the cooperation between companies, research organizations (universities and other institutions research) and centers for innovation and technology transfer (Service centers, science parks and technology), all of which, in order to help overcome the reluctance to cooperation between these two systems which constitute one of the critical issues for the competitiveness of our territories.

With this in mind it is aimed to promote the transfer of knowledge academic and specialized skills in production processes, through involvement in the study, design and prototyping of researchers (involved through scholarships or research grants) and young technologists graduates (included in company through preparatory training and targeted in areas technology related to the project financed).

The most significant results obtained, which demonstrated the effectiveness of policies, partnerships have been activated between the research system and businesses (285 contracts) and the large number of figures qualified professional (well 462) involved in the implementation of projects.

Taking into account these requirements, the regional government, in order to strengthen the process of rapprochement between academia and business, has facilitated the creation and development of enterprises to high technology in order to enhance and transform scientific knowledge gained in university applications industrial and developing and marketing products, processes or innovative services.

Bringing together producers and users of knowledge to grow the level of competence and attractiveness of our region is, therefore, the objective that the Government is pursuing and why, in the last seven years, has provided the whole 79.6 million euro.

In particular, the industrial policy instruments used were:

- Support for research and development in technological sectors production (at least 3 combined enterprises, of which at least one large enterprise) through collaboration with universities and research centers, incentives for industrial research and development experimental in SMEs: the two interventions were allocated 63.5 million;
- Technology transfer through the creation and dissemination new knowledge and skills, as well as the qualification of human resources through training and the involvement of young researchers, for which they were allocated 11.6 million euros;
- Support for the creation and development of new innovative generated by university spin-offs, for which they have been allocated 4.5 million euros.

Through these instruments, the regional government of action-oriented and stimulated the planning of enterprises towards some subject areas prioritized and strategic development of territories (such as advanced mechanics, home automation, energy efficiency, new materials, Biotechnology); these platforms can constitute, in fact, a basis for the redevelopment and growth of supply chains typical tissue production Marche. The response of the territory of the guidelines regional was positive, as

the majority of projects are been developed in the context of home automation and technological areas interrelated themes (ICT, advanced mechanical efficiency energy).

3. Questionnaire

Are there voucher schemes in your country?	YES	NO X
Are there voucher schemes in your region?	YES (not for green economy)	NO
If YES - who is the managing institution of the existing voucher schemes?	Marche Region - Internationalization, culture, tourism, trade and promotional activities Office	
What are the obstacles to implement voucher schemes?	The main problem to solve is financial as well as structural; the economic crises reduce economic resources and there is a lack of streamlined procedures for assigning and outstanding contributions to companies.	
What do you want to learn about voucher schemes?	<p>Understand and acquire best practices regarding:</p> <p>What should be supported in the voucher (what works best in other regions):</p> <ul style="list-style-type: none"> - purchase of the researches - purchase of the technology assets of the better pro-environmental parameters used in the production process - purchase of consultancy services relating to the management of the environment and eco-innovations - combined support. <p>The streamlined procedures.</p> <p>Monitoring system of implementation</p> <p>Voucher effects of enterprises.</p>	

Case: Czech Republic

Template for assessment report on default conditions in the region

Group LEADER: Jan Jares / PP4 (tel. +420 602 563 348, e-mail: jares@ekoport.cz)
Project partners.involved: PP4, PP7, PP10, PP2
Regions: South Bohemia, Province of Ascoli Piceno, Varna, Kujawsko-Pomorskie
Shortcut of the WG: "WGV"

Purpose of the report

- to collect basic feature data on default conditions in perspective regions
- to evaluate potential for voucher scheme initiation
- to analyse common synergies when designing perspective schemes
- to gather inputs for interregional WGV workshop

Recommended volume: 5 pages max.

Content structure

1. Demographic and political profile, economic characteristics and industry description (max. 1 – 2 pg)
2. Research & development infrastructure and potential fields / branches of cooperation in terms of Industry vs R&D (max. 1 - 2 pg)
3. Questionnaire

Deadline and responsible persons

Please complete report by 15th of February the latest and send it to jares@ekoport.cz!

Contact person: Jan Jareš, e-mail: jares@ekoport.cz, tel. +420 602 563 348

1. Demographic and political profile, economic characteristics and industry description

South Bohemian region is bordering mostly with Upper Austria and with 636 000 citizens and area of 10 056 km² belongs to the region with lowest density population in the Czech Republic. Compared to other regions, South Bohemia doesn't have any important economical centre and is not located on any important development axis. Well preserved natural environment (due to former border restrictions in the past) made it very attractive for massive tourism development and follow up services in past years though.

South Bohemian region belongs to the average when it comes to figures like GDP/citizen (12 134 €), its unemployment rate has been one of the lowest in longterm horizon. Region participate with around 5 – 6% share on national GDP. If we take closer look at particular branches and their share on national GDP we can see that major part (60,7%) lies in services followed by manufacturing (17,3%), constructions (7,2%) and other such as agriculture, forestry, fish industry, administration, etc. An interesting remark – South Bohemia together with Pilsen region represents NUTS II Southwest region that is considered to be one of the strongest regions in terms of economy in the Czech Republic (reaching 73,8% of EU 27 GDP).

As for R&D sector there are around 100 scientific institutions with 2 050 employees and annual expenditures 80,4 mil. € (40,6 mil. € spent in private sector) in South Bohemia. This is only 3,3% of all national expenditures. Specific feature of R&D expenditures in this region is very high share (1/2) of public financial sources.

South Bohemia region has pretty significant R&D potential mainly located in „capital city“ České Budějovice (Budweis) within South Bohemian university although this potential is not fully utilized mainly due to inferences between focus of regional industry and local R&D capacities which has following impacts to innovation performance: i) non-functional continuity of all educational levels, ii) priority to basic research instead of applied research, iii) no significant collaboration between R&D and industry, iv) lack of innovative SME's and start-ups, v) insufficient infrastructure to support innovations

With reference to local R&D capacities focus following branches have been identified as the most promising in terms of mutual collaboration:

- transformation of agriculture, its non-production functions, landscaping and aspects of sustainable development, linkage of primary sphere to the food processing industry;
- technology of waste management and environmental technology, technology for ecology, centre of services in environmental technologies, water industry and water treatment plant technologies;
- forestry, landscaping, relation to processing wood and furniture technology, technology for FBI (forest based industry), biomass for energetic purposes;
- production of food products, biotechnologies, functional food, medical aspects of food, fodder and additives in food;
- biotechnology, pharmacology, medical applications, drugs and supplements, specialised fodder, chemical substances etc.;
- power engineering, technology for renewable energy sources, alternative energy sources;
- new functional materials for building industry, alternative methods/technologies of building industry (passive houses, low-energy solutions)
- electrical engineering, control and automation technology, constructional materials, mecha-tronics, sensorics, light machinery, process technology, precise machinery, optical and measuring appliances and devices, automation of production;

- specialised technologies for traditional branches as food industry, agriculture, forestry and fishery, for wood processing industry, textile and clothing industry, industry for production of pulp and paper, glass industry etc.
- information and communication technologies and their application in all the fields, safety technology;
- tourism industry, spa industry, specialized products of tourism (congress tourism etc.), cultural heritage, technical monuments, environment, sport etc.
- car industry, components for car industry, trailers, semi-trailers and other transport means;
- machines and equipment, constructions of machines and their components.

SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> - Concentration of R&D branches and qualified teams (especially in biological and environmental fields with the possible connection to bio-technological disciplines). - The choice of strategy of mutual differentiating in case of a considerable part of companies (e.g. quality, specialisation). - Quite diversified economic base with the trend of growing share of processing industry and first of all services and business. - Existence of traditional branches (food industry, wood industry, paper industry) and their ability of transformation, ability of reaction on the demand of local and global markets. - Location and development of world-wide progressive branches (car components, electro-technics, plastics, process technology). - A quite high adaptability of younger generation to requirements of labour market. Ability to learn, supplement the qualification and practical skills. - Potential for the development of the tourism or specialised innovative products of tourism in connection to spa industry, experience tourism, technical and cultural monuments, health service. 	<ul style="list-style-type: none"> - Insufficient connection of university degree of education and associated R&D activities with entrepreneurial sphere. - The up to now insufficiently developed physical infrastructure for strengthening relationships (co-operation) of R&D and commercial sphere. - Lack of qualified and quality employees for technical and manager professions. - Focus of essential part of production of regional companies on production with a low added value. - Low share of innovative and technically orientated MSP utilising the unique solution and technological news. - Low share of commercial subjects implementing systematic industrial research and development. - Weak and insufficient regional support of research, development and innovative initiatives in the region. - Low degree of orientation of political representation of the region as one whole and political representation of town centres in the issue of support to knowledge economy. - Infrastructural and material-technical base of educational and research centres in the region (functionality and technological equipment)
Opportunities	Threads
<ul style="list-style-type: none"> - Higher attractiveness of the region for inflow of foreign investments – potential for location of production and services with a higher added value. - Opening the possibility of larger involvement of South-Bohemian institutions into the European Research Space, or worldwide initiatives. - Development of topic of technologies for environment. - Strengthening co-ordination of support to innovations in SBR from the regional level of self-administration. - More effective support of R&D from the state budget and change of the system of evaluating R&D towards strengthening of applied and practically focused research. - Development of indirect support of R&D and other principles enabling the entry of the private capital in R&D activities. - Perceiving the role of innovations as standard pre-condition for the long-term development of companies – change in thinking. - General perceiving innovations as indisputable drive of social-economic development. 	<ul style="list-style-type: none"> - Preserving de-motivating and outdated state of support of R&D and tertiary school system consisting in absence of the necessity to co-operate with practice from the national level. - Persisting extreme administrative demands while acquiring any financial means. - Persisting system of budgetary sources of institutions of tertiary sphere, when the prevailing part of means is bound without possibility of flexible usage. - Possibility of transfer of non- anchored foreign investments, and also domestic production outside the region – loss of competitive advantages of entrepreneurial environment. - Non-accommodation to non-market pressure and hidden protectionist measures in some branches (textile, food) - Accommodation to non-market pressure of some interest groups – trap of corrupting acts. - Preserving of the state framework of entrepreneurial environment – first of all of not completely suitable legislative and tax conditions for business.

2. Research & development infrastructure and potential fields / branches of cooperation (industry vs R&D)

A number of educational and scientific and research institutions work on the territory of South Bohemian Region. In the region of South Bohemia, 59 secondary professional schools and 16 higher professional schools exist at present. As for higher professional schools, the effort for profiling graduates in practice in co-operation with important employers in the locality may be seen. Also the technical and constructional branches are being developed on this level. A very discussed drawback are the connections between branches and the permeability of the secondary and higher schools and universities. The educational pyramid the basic condition of which is the co-operation of institutions and school facilities on various degrees does not come into being and the result is the university graduate with education in the region, ideally with a job in the region and ideally with super-structural system of work with talents.

There are among the most important actors of university education in the region: University of South Bohemia in České Budějovice as public university consisting of seven faculties (Faculty of Science, of Economic, of Philosophy, Pedagogical Faculty, Faculty of Theology, Faculty of Health and Social Studies and Faculty of Agriculture) and two university institutes (Institute of Physical Biology in Nové Hradky and Research Institute of Fish Culture and Hydrobiology in Vodňany). The Biological Centre of AS CR, v.v.i. established on the base of institutes of AS CR dealing with scientific research in the field of general and applied entomology, hydrobiology-limnology, parasitology, molecular and cellular biology, genetics, physiology and pathogens of plants, soil zoology, soil microbiology, soil chemistry, soil micro-morphology and ecology and utilization of acquired knowledge in the protection of nature and environment, in agriculture, water industry, forestry and medicine. Moreover the Microbiological Institute of AS CR in Třeboň, Botanical Institute of AS CR in Třeboň, Institute of Systems Biology and Ecology in České Budějovice, Nové Hradky and Třeboň, Research Institute for Fish Culture and Hydrobiology of USB (University of South Bohemia) in Vodňany, Faculty of Management of University of Economics Prague in Jindřichův Hradec. Moreover, the educational facilities and facilities with scientific-research character establish oneself newly in the technical branches. An example may be the co-operation with COP Sezimovo Ústí with Czech Technical University Prague, or the co-operation of Higher Professional School and Industrial School for Car Technology with the University of West Bohemia in Plzeň, as well as the establishment of a new public Technical and Economic University in České Budějovice.

Most important public educational capacities in South Bohemia are concentrated in the economic centre of the region - in České Budějovice. The most significant and most extensive activities are located in the Academic and University Campus (AUK) in České Budějovice and are developed by the University of South Bohemia and Biological Centre of AS CR. There is no degree of co-operation between universities and industry in all the fields of education, basic and applied research. It shapes up that this co-operation is of key-importance for the higher degree of innovations and is closely connected with competitiveness of the region.

In spite of quite significant representation of the scientific and research sphere and commercial subjects with innovation potential, our economy grows slower than in the surrounding regions of the Central Europe. Among main reason is the insufficient linkage of the academic and production sphere from which follows among others: non-functional continuity of secondary, higher schools and universities, preferring basic science to usability of results and practically orientated research; insufficient usage of research results by companies; production of graduates with worse chances (necessity of re-qualification, missing accordance with labour market requirements); insufficient private investments into education and insufficient development of innovating business, or foundation and location of technologically orientated companies.

It follows from partial surveys that from the viewpoint of branch concentration and traditions of the public research-development sphere, the South-Bohemian institutions are, besides the Prague and partially Brno the top ones in the developed biological, environmental, bio-chemical, bio-physical and ecological branches. This fact, in view of the world development and national preferential directions of the support of research and development, enables to think about the below identified R&D branches, roofed sub-branches and their development in condition of the South-Bohemian Region.

- Biological and ecological aspects of sustainable development;
- Molecular and cellular biological access in bio-medicine, bio-technologies, food industry and breeding;
- Support of long-term sustainable assurance of energetic sources incl. technologies for the renewable sources;
- Material research;
- Mechatronics;
- Optimization method of the construction of machines and their functions
- Development of specialized information technologies

3. Questionnaire

Are there voucher schemes in your country?	YES	NO
Are there voucher schemes in your region?	YES	NO
If YES - who is the managing institution of the existing voucher schemes?		
What are the obstacles to implement voucher schemes?	<p>With reference to the existing voucher schemes in other regions of our country we don't see problems in legal setup or structural obstacles. As the main barriers we have identified:</p> <ul style="list-style-type: none"> - interest and awareness of regional politicians as well as the position of innovation support on the list of their priorities - non-existing communication platform between local R&D capacities, regional authority and involved municipalities (mainly Budweis) 	
What do you want to learn about voucher schemes?	<ul style="list-style-type: none"> - proper tools to raise awareness in schemes - recommendation on initiation of communication platform towards politicians - knowledge exchange 	