DISSEMINATION AND EXPLOITATION OF RTD RESULTS

In BULGARIA, CROATIA, LATVIA, LITHUANIA, MACEDONIA, POLAND, ROMANIA, SERBIA, SLOVENIA

PROCEED – PROmotion and coordination of environmental research in Central and Eastern Europe for a sustainable Development with the support of Enterprise Europe Network

Contract no. 265352

Deliverable no.: 2.1. SWOT Report

Issued by: Chamber of Commerce and Industry of Slovenia

Issue date: June 2012

Due date: January 2012

WP leader: Chamber of Commerce and Industry of Slovenia

Funding scheme	**CSA (Coordinating)**
Theme	**ENV.2010.5.1.0-2**
Start date	**1. January 2011**
Duration	**30 months**

Document history	
Version and date	**Changes**
20.6.2012	Version 1 – draft 1 of final document
September 2012	Version 2 – draft 2 of final document

The report is based on national SWOT analyses of present communication of research results/practices; from the ProCeed project partners' countries: Bulgaria, Croatia, Latvia, Lithuania, Macedonia, Romania, Serbia and Slovenia.

Dissemination Level		
PU	Public	
PP	Restricted to other programme participants (including the EC Services)	
RE	Restricted to a groups specified by the consortium (including the EC Services)	
CO	Confidential, onfy for members of the consortium (including the EC)	**CO**

Table of Content

Executive summary

Data collection and preparation of the SWOT report for the Central European countries (Bulgaria, Croatia, Lithuania, Latvia, Former Yugoslav Republic Macedonia, Slovenia, Poland, Romania, Serbia, and Slovenia) is an important Deliverable of WP2, since it represent the basis for the recommendationd for most efficient communication of RTD results.

Data for the national SWOT reports have been collected through three different channels: desk research, online questionnaire and guided interviews.
The target of collected questionnaires was 25 answers per country and 5 interviews with policy /decision makers. It was met in all countries, excluding Bulgaria, Latvia, Poland and Romania. Nevertheless, we've collected 212 questionnaires. The questionnaire used is attached as Annex number 1.

Partners form the target countries intervied 41 (research/industry) policy makers and summarized their contributions in this document.

Introduction

The SWOT report for the Central European countries represents the collection of national SWOT analyses, which were prepared in target countries (Bulgaria, Croatia, Lithuania, Latvia, Former Yugoslav Republic Macedonia, Slovenia, Poland, Romania, Serbia, Slovenia) according to agreed methodology (D.2.1 deliverable).

Data for the national SWOT reports have been collected through three different channels: desk research, online questionnaire and guided interviews. Desk research was dedicated to identification of existing analyses and surveys, aiming at communication and dissemination of RTD results (also technology transfer). Companies, performing RTD and collaborating with RTD institutions in the target sectors (Air pollution, Environmental technologies, Chemical pollution) have been asked to fill the agreed online questionnaire. A special attention has to be given to the part 4 "Comments and Recommendations" of the questionnaire since it represents the basis for the preparation of action plan, aiming at overcoming the identified weaknesses and threats.

The guided interviews represented a tool to gather relevant information from the Decision/Policy makers. They highlighted the good practices of dissemination and exploitation of the research results and the possibilities for further improvement (of dissemination and exploitation of the research results).

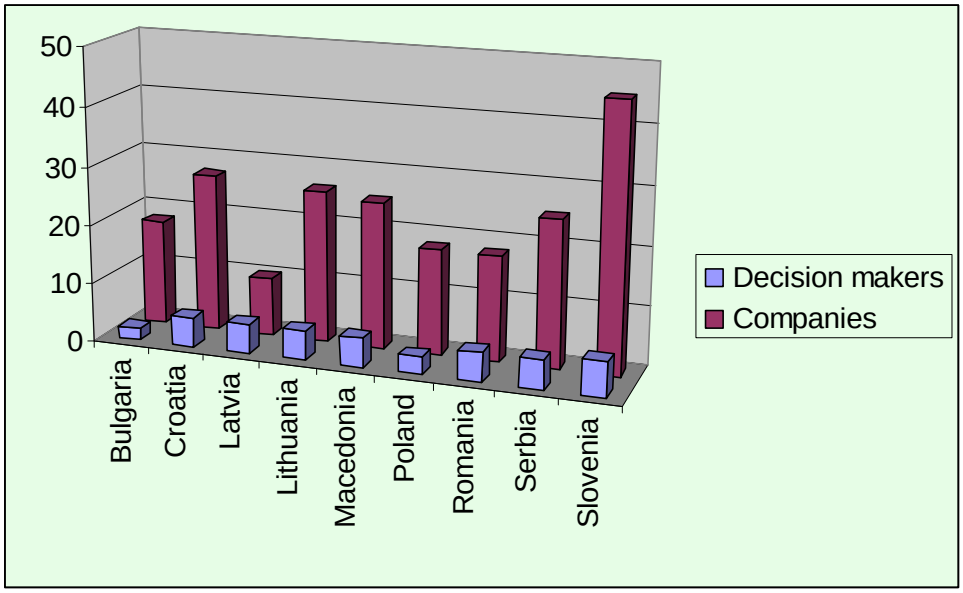
Some countries (Lithuania, Serbia, Romania and Latvia) discovered in the WP1, that insufficient number of companies is involved in the RTD activities from target sectors. Since this information is relevant in order to understand the communication of RTD results, we prepared a simplified version of the existing questionnaire, aiming mainly to reasons for non-collaboration and to comments and recommendations.

This report should have been prepared in the month 13; the delay occurred mainly due to two reasons:

1. Lack of companies, collaborating with RTD institutions in the target sectors; as consequence, we had to adjust the agreed questionnaire
2. Difficulties in gathering information from the companies and also from Decision/Policy makers; as consequence – the delay in reporting national SWOTS and also Joint SWOT report.

The target of collected questionnaires was 25 answers per country and 5 interviews with policy /decision makers. It was met in all countries, excluding Bulgaria (2 responses from Decision makers, 18 responses from companies), Latvia (10 responses from companies), Poland (3 responses from Decision makers, 18 responses from companies), and Romania (18 responses from companies). More information is available in the Appendix, Table no. 1).

Figure 1: Answers per target country



In **Romania** the companies are interested to obtain direct benefits from their activities, to increase their own budget. Taking into account the international financial crisis, most of the companies try to survive instead of going bankrupt. The companies, who are interested in research activities, spent a most of their budget on infrastructure, professional trainings, disseminating activities and investments necessary for applied research. Furthermore, most of the basic and pilot research results are developed by public institutes, universities, not in companies. Romanian partners contacted all companies, fulfilling the criterions of ProCeed project (28) via phone, email, personal visits or through other contact persons. From those, 64% responded to SWOT survey (18 surveys), 22% justified that the answers would have been negative for 80% of the survey's questions, so they decided not to complete the survey, 2% were not interesting on PROCEED activities, 2% of the companies haven't responded.

The participation of **Latvian** SMEs in research and development projects financed by EU is very low and also the number of projects collected with the participation of Latvian SMEs was lower than expected due to the poor involvement (the involvement is much higher for research institutions). LTC contacted all 10 SMEs involved in EU research projects in the target sector (environment) and managed to collect answers from all of them. So 10 filled in questionnaires were collected.

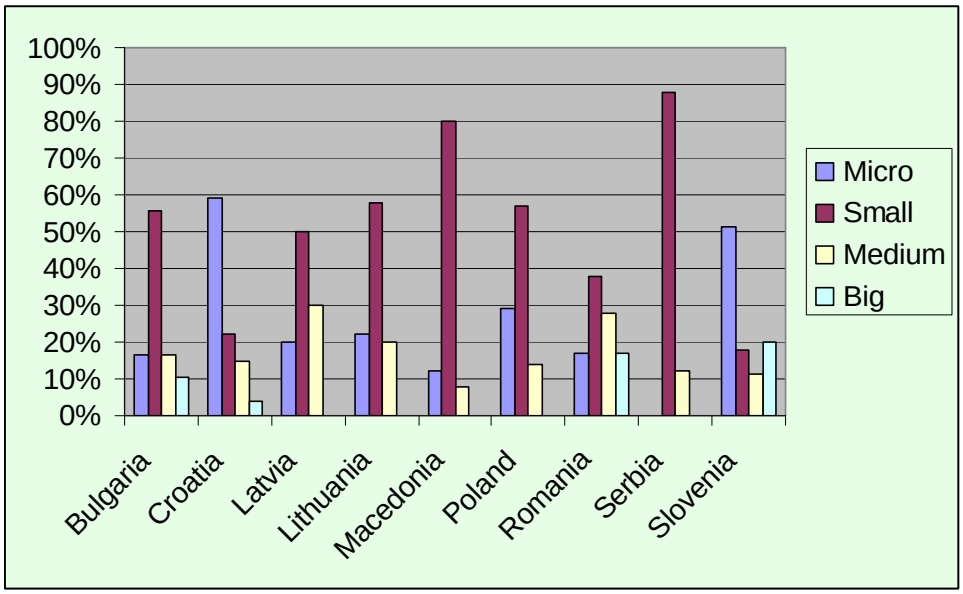
LTC contacted all policy makers in the target sectors (Ministry of Environmental Protection and Regional Development, Environmental Management Coordination centre, Ministry of Economics) and interviewed 5 persons in different positions. As these are the only policy makers in the target sector LTC did not see necessity to interview more than 2 persons from each institution. So 5 filled in questionnaires from policy makers were collected.

Justification from other countries will be added in the next version of the document.

General observations:

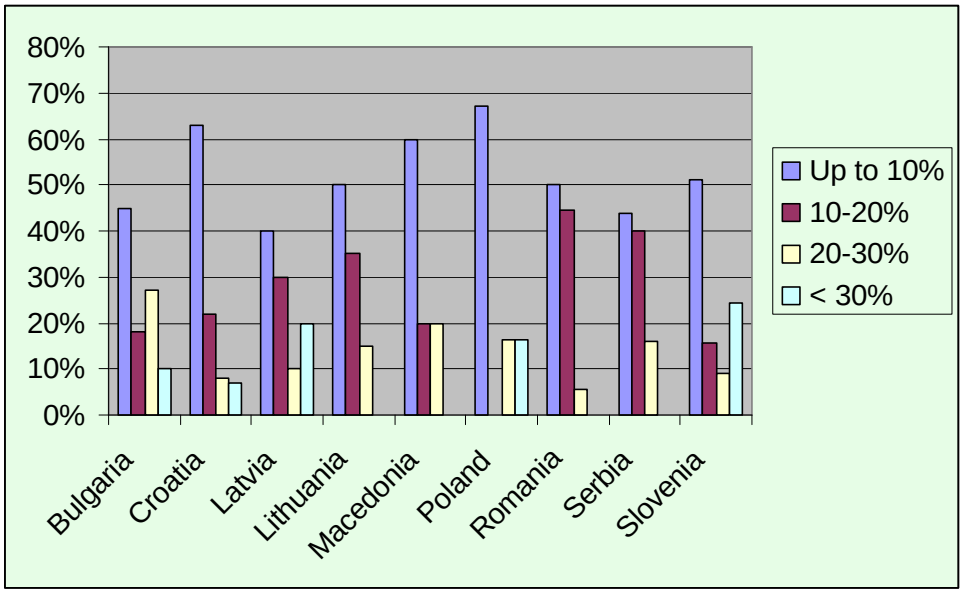
The partners have interviewed companies of all sizes; nevertheless, the most answers came from micro (Croatia, Slovenia) and small companies (Bulgaria, Latvia, Lithuania, Macedonia, Poland, Romania, Serbia). The percentage of collaborating companies referring to the size is also available in the Appendix, Table no. 2.

Figure 2: Participating companies per size and per target country



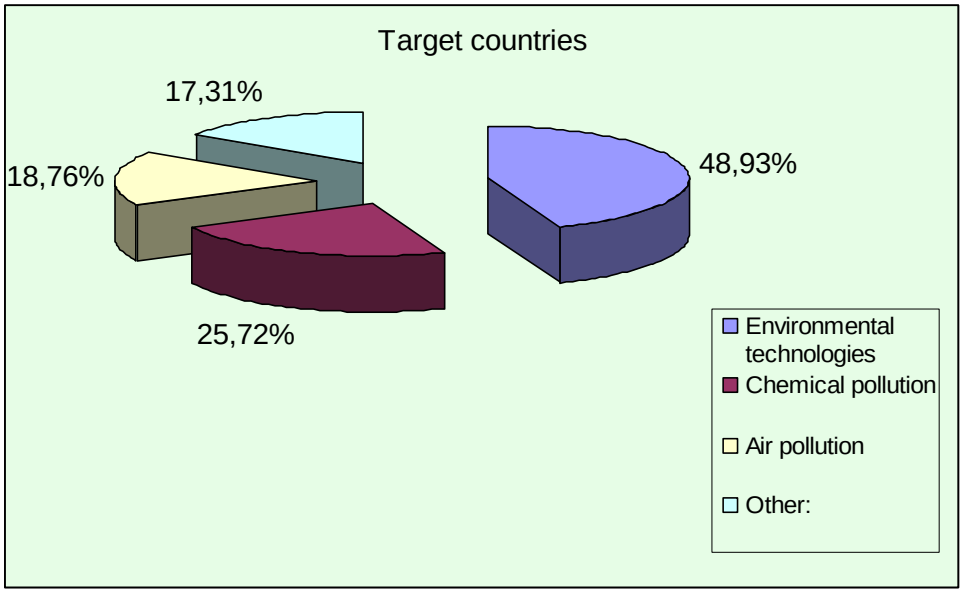
Most of the companies are dedicating less than 10% of the annual income to the RTD (40% – 63% companies have chosen this answer). Slightly smaller percentage of companies is investing in RTD between 10-20% of annual income (15,5% - 44%). Only a few companies are investing more than 20% (5,5%-37%). The percentage of RTD investment in total income of companies is also available in Appendix, Table no. 3.

Figure 3: % of RTD investments in total income of companies



The most representative sector of RTD is environmental technologies (20-60%), with the exception of Latvia, where the most represented sector of RTD is chemical pollution. Air pollution and chemical pollution sectors are moderately represented in all other countries. The representation of RTD performance per sectors is available in Appendix, Table no. 4.

Figure 4: Representation of RTD performance per sectors



The companies tend to perform RTD project mainly from their reinvested profit; much less frequently the Central European companies take the role of EU project partner and they even scarcer take the role of project coordinator. There are some exceptions; Polish companies mostly take the role of EU project partners and they rarely take the role of project coordinator or reinvest their own funds. More information of the number of projects is available in Appendix, Table no. 5.

Table no. 5: Number of projects

	Internal	**EU – as partner**	**EU – as coordinator**		**No answer**
Bulgaria	8 40%	**13** **65%**	7 35%		0 0%
Croatia	**178** **(59%)**	83 (27%)	43 (14%)		0 (0%)
Latvia	**68** **(45%)**	56 (37%)	28 (18%)		0
Lithuania	**17** **40%**	11 26%	7 17%		7 17%

Motivation of the companies for participation in chosen RTD projects differs in the observed countries. Thus the motivation seems to have more reasons; the importance of a particular

motivator varies from country to country. We've noticed that the most frequent motivator was „Keeping up with major scientific/technological developments“. It was stated as the most important motivator in 4 different countries (Macedonia, Poland, Romania, Slovenia). The next most important motivator was „Networking / find new partners“, (relevant for Bulgaria, Lithuania and Serbia). Among more important motivators we found also „Access to complementary resources and skills“; „Access to application fields for testing/validating theories“ and „Obtain funding“.

Table no. 6: Motivation for participation in RTD projects, average of importance (per answer) per country

	BG	CRO	LAT	LIT	MAC	POL	ROM	SRB	SLO	Freq.
R&D cost sharing	3		4	4	3	3	2,75	4	2,88	**1**
Risk sharing- reduce uncertainty	2		3	3	2	2,5	2,5	N/A	3,29	**0**
Access to complementary resources and skills	5		3	3	3	2,5	4,25	3	3,65	**2**
Allow your organization to reach a critical mass of resources and skills in a given technological field	4		2	2	3	2	4,5	2	3,82	**1**
Keeping up with major scientific/technological developments	4		2	2	4	5	5	3	3,59	**3**
Access to application fields for testing/validating theories	3		2	2	5	5	5	4	3,24	**2**
Exploring different scientific/technological opportunities	4		3	3	3	5	4	3	3,18	**1**
Gain a window into 'state of the art'	3		3	3	3	4,5	-	4	3,59	**1**
Show up scientific/technological competences	4		3	3	3	5	4,5	4	3,35	**1**
Networking / find new partners	5		4	4	3	3	4,25	5	3,12	**3**
Joint creation and promotion of technical standards	5		1	1	NA	4,5	1,67	N/A	3,12	**1**
Obtain funding	4		4	4	3	4	4,75	5	3,12	**2**

Results achieved by RTD projects proved to be multiple; this means one project had more than one result – e.g. frequently the results were a combination of know-how, improved processes and improved products. The most frequent results of RTD project in the CE region are “Know-how” and “Improved processes”. They are followed by “new products”, “improved technologies” and “improved services”.

Table no. 7: Results of RTD projects

	Bulgaria		Croatia	Latvia		Lithuania		Macedonia	Poland	Romania	Serbia	Slovenia	
	%	No		%		%	No	No	%	No	No	%	No
New Technologies	35%	7	na	5%		5%	2	12	9,52%	5		18,75	**12**
Know-How	30%	6	Na	50%		50%	**19**	16	**14,29%**	3		21,88	**14**
New Services	30%	6	Na	8%		8%	3	0	9,52%	1		6,25	4
New Products	35%	7	Na	2%		2%	1	**19**	9,52%	2	**2**	12,5	**8**
New Processes	25%	5	Na	5%		5%	2	8	4,76%	1		12,5	**8**
Improved Technologies	20%	4	Na	8%		8%	3	4	**14,29%**	4	**2**	9,38	6
Improved Services	40%	**8**	Na	8%		8%	3	**19**	9,52%	1	1	4,69	3
Improved Products	20%	4	Na	5%		5%	2	4	**19%**	2		6,25	4
Improved Processes	45%	**9**	Na	8%		8%	3	**19**	9,52%		**2**	6,25	4
Other, specify	5%	1		0		0		0				1,56	1

The majority of companies has had reserved funds, dedicated to dissemination of project results. The majority of companies have reserved 1-5% of the total project budged for dissemination of RTD results. Some companies dedicated more than 5% of funds for dissemination and some of the companies hadn't had funds for these activities (17,6% of companies in Slovenia, 12,5% of companies in Poland, 10% of companies in Bulgaria, and Macedonia, 6% of companies in Lithuania).

Table no. 8: How much budget of the project did you spend on dissemination - % of answers per cathegory

	More than 10%	5%-10%	1%-5%	none
Bulgaria	20%	10%	**60%**	10%
Croatia	na	na	na	na
Latvia	5 %	4 %	1 %	90%
Lithuania	5%	7%	**82%**	6%
Macedonia In %	10%	10%	**70%**	10%
Poland*	12,5%	0%	**25%**	12,5%
Romania	na	na	na	na
Serbia	0	0	**100% (only two companies answered)**	0
Slovenia	11,76	11,76	**58,82**	17,65

*no answer (50%)

The most frequently used channels for dissemination were the following: web, conferences, project's web-sight and professional contacts (the most frequent answer in 3 countries), followed by personal contacts and press releases (the most frequent answer in 2 countries). The least used dissemination channels are books, workshops, employee placement schemes, e-zine, tutoring, consultancy, open access publications and inclusion in EU documents.

Table no. 9: Dissemination channels – tools for dissemination of projects' results

	Bulgaria		Croatia		Latvia	Lithuania	Macedonia	Romania	Serbia	Poland	Slovenia	
	No/ %	imp	No/ %	imp	No	%	No	imp	No	%	No	imp
Journal papers	45	9	na	na	16	45	9	4,75	5	**37,5**	30	66,67
Books	25	5	na	na	38	40	8	4,33	3	0	11	24,44
Workshops	40	8	na	na	48	60	12	4,33	3	12,5	26	57,78
Conferences	50	10	na	na	47	**85**	17	**4,2**	12	**37,5**	**41**	**91,11**
Seminars / presentations	50	10	na	na	49	80	16	4,33	11	25	**38**	**84,44**
Project web site	50	10	na	na	38	**100**	**20**	4	2	**37,5**	24	53,33
Employee Placement schemes	-	-	na	na	0	30	6	0	1	0	8	17,78
Teaching materials	35	7	na	na	49	25	5	**5**	1	12,5	5	11,11
Tutoring	-	-	na	na	0	15	3	0	0	0	5	11,11
Consultancy	25	5	na	na	39	10	2	4,5	0	25	16	35,56
e-zine	5	1	na	na	0	40	8	**5**	2	12,5	0	0
Web	**70**	14	na	na	49	**100**	**20**	**5**	9	37,5	24	53,33
Open access publication	50	10	na	na	0	10	2	3,5	0	0	12	26,67
Trade fairs	10	2	na	na	0	40	8	3	6	**37,5**	24	53,33
Press release	20	4	na	na	0	80	**16**	**5**	5	25	8	17,78
Involvement in networks	25	5	na	na	0	60	12	**5**	2	12,5	26	57,78
Inclusion in	15	3	na	na	0	55	11	**5**	0	25	16	35,

Government documents												56
Inclusion in EU documents	20	4	na	na	0	30	6	0	0	25	13	28, 89
Professional contacts	50	10	na	na	41	15	3	**4**	**18**	**37,5**	**40**	**88, 89**
Personal contact	25	5	na	na	13	20	4	**4,33**	**20**	25	**40**	**88, 89**

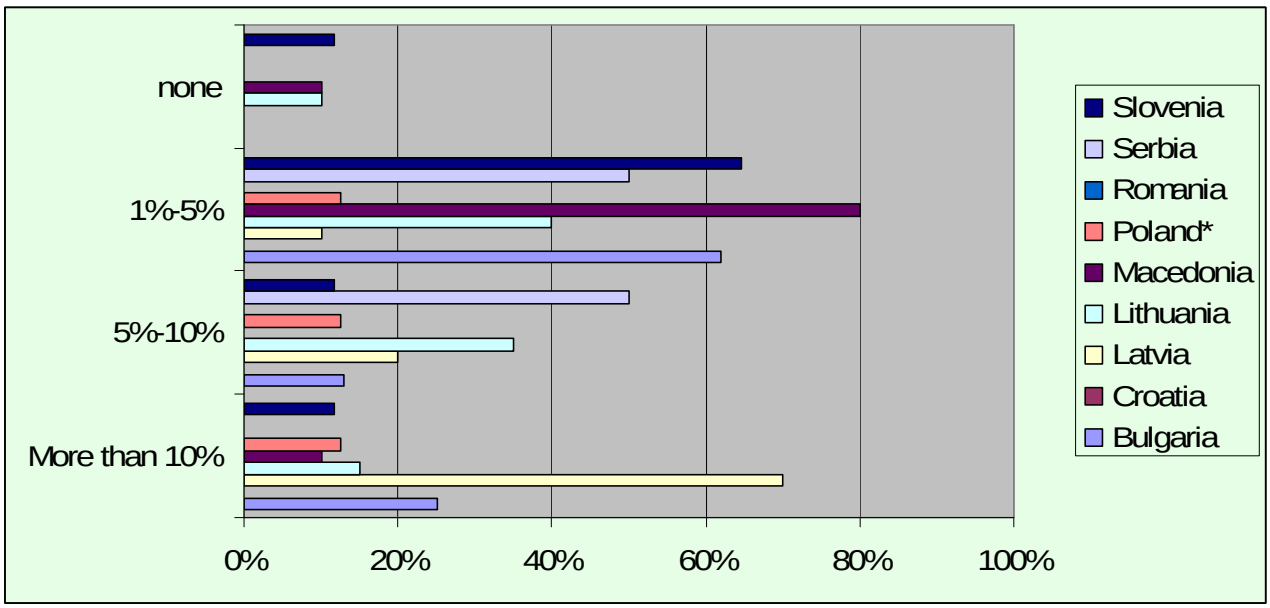
EXPLOATATION channels

	Bulgaria		**Croatia**		**Latvia**		**Lithuania**		**Macedonia**		**Romania**		**Serbia**		**Slovenia**	**Poland**
Number and AVG of importance of answers		imp	**No**	**imp**	na	na	**%**	**imp**	**%**	**imp**	na	na	**No**	**imp**	**AVG IMP**	**%**
Journal papers	15	3	16	9,3	na	na	12	3	8	4	na	na	2	2	2,33	37,5
Books	-	-	9	5,2	na	na	15	4	0	0	na	na		-	0,80	12,5
Workshops	35	7	9	5,2	na	na	73	19	28	4	na	na	2	2	2,00	12,5
Conferences	35	7	9	5,2	na	na	54	14	32	4	na	na	2	3	2,93	37,5
Seminars / presentations	20	4	11	6,4	na	na	46	12	32	4	na	na	2	3	3,40	25
Project web site	25	5	13	4,65	na	na	8	2	8	3	na	na	2	4	2,27	25
Employee Placement schemes	10	2	3	1,74	na	na	4	1	0	0	na	na		-	1,33	0
Teaching materials	40	8	4	2,3	na	na	8	2	8	4	na	na	1	3	1,93	12,5
Tutoring	10	2	4	2,3	na	na	4	1	0	0	na	na		-	1,33	0
Consultancy	20	4	9	5,2	na	na	73	19	0	0	na	na		-	1,87	2
e-zine	15	3	11	6,4	na	na	4	1	0	0	na	na		-	1,27	1
Web	50	10	15	8,7	na	na	85	22	4	3	na	na	2	2	1,87	50
Open access publication	16	3	9	5,2	na	na	19	5	0	0	na	na		-	2,33	25

Trade fairs	-	-	5	2,9	na	na	77	20	24	4	na	na	2	3	2,27	50
Press release	10	2	7	4,0	na	na	12	3	12	3	na	na	2	4	2,47	37,5
Involvement in networks	5	1	5	2,9	na	na	31	8	20	4	na	na		-	2,07	25
Inclusion in Government documents	-	-	1	0,5	na	na	23	6	4	2	na	na		-	1,53	25
Inclusion in EU documents	10	2	2	1,1	na	na	19	5	0	0	na	na		-	1,07	25
Professional contacts	25	5	20	11, 6	na	na	96	25	40	4	na	na	2	5	3,47	37,5
Personal contact	15	3	15	8,7			81	21	32	5			2	5	3,60	
Other															0,27	

The majority of companies has had reserved funds, dedicated to exploitation of project results. The majority of companies have reserved 1-5% of the total project budged for exploitation of RTD results. Some companies dedicated more than 5% of funds for exploitation and some of the companies hadn't had funds for these activities (11,7% of companies in Slovenia, 10% of companies in Poland and Lithuania).

Figure 10: How much budget of the project did you spend on exploatation?



* No answer: 62,5%

We were also curios, how do the companies protect their RTD results. Since the majority of the project results were Know-how and Improved processes, we've expected the IPR protection level to be quite low. The conclusions met our expectations: large majority of companies do not protect their project results with IPR (Bulgaria, Latvia, Lithuania. Serbia); 10% of companies in Latvia and Lithuania, 50% of companies in Poland, 40% of companies in Macedonia, 47% of companies in Slovenia are protecting the results with national or international patents.

Table no. 11: IPR of the project

	YES – national	YES – international	NO IPR
Bulgaria	0%	0%	**100%**
Croatia	na	na	na
Latvia	10 %		90 %
Lithuania	Around 10%		**90%, but the results may be exploited – see next table**
Macedonia	Around 40% (sole ownership)	-	**60%, but the results are being exploited – see next table**
Poland	12,5%	37,5%	50%
Romania	na	na	na
Serbia	0%	0%	**100%**
Slovenia	47%		**53%**
	75&	25%	---

Relatively high number (over 50%) of companies (regardless if IPR is protected or not), exploit the result on the market (Slovenia, Macedonia). The percentage of companies, partly exploiting the results, is modest – it varies from 12,5% (Poland) to 65% (Lithuania). The percentage of not exploited results is high in Croatia (44%) and Poland (37,5%).

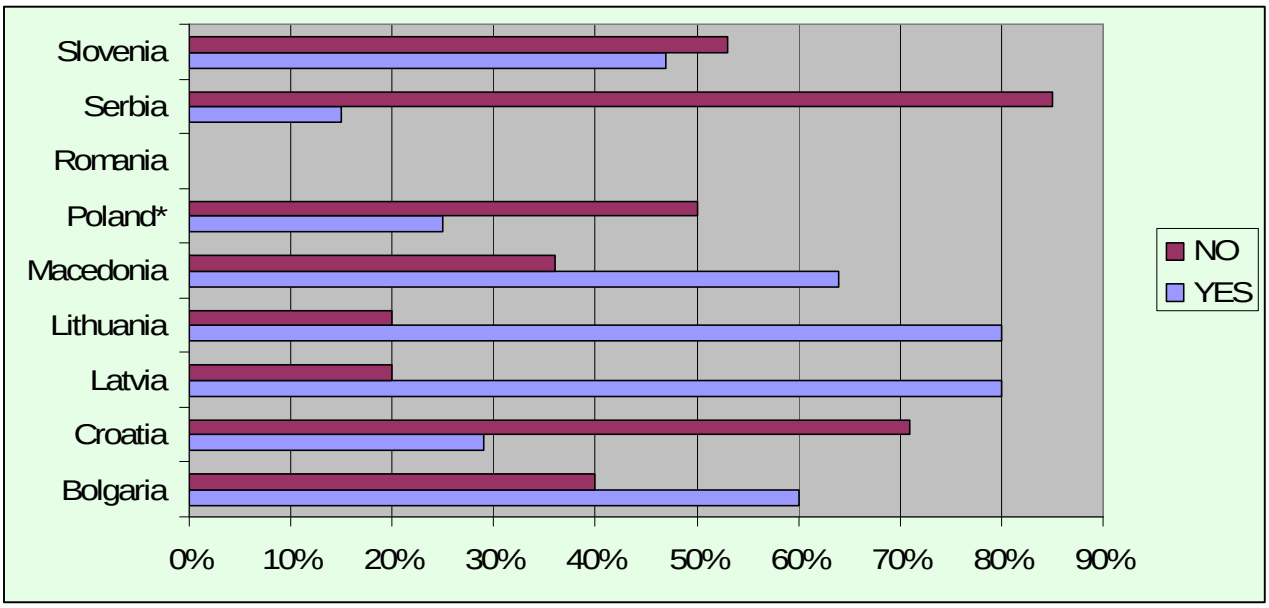
Table no. 12: Exploitation of IPR

	YES	NO	Partly
Bulgaria	**65%**	0%	35%
Croatia	19%	**44%**	37%
Latvia	30%	30%	40%
Lithuania	15%	8%	**65%**
Macedonia	**60%**	8%	32%
Poland*	25%	**37,5%**	12,5%
Romania			
Serbia	**68%**	4%	28%
Slovenia	**58,82%**	11,76%	29,41%

*** no answer 25%**

Most of the interviewed companies are looking for partners to exploit project results. The exception are Croatia (71% of companies are not looking for an "exploitation partner"), Serbia (85%), Slovenia (53%) and Poland (50%).

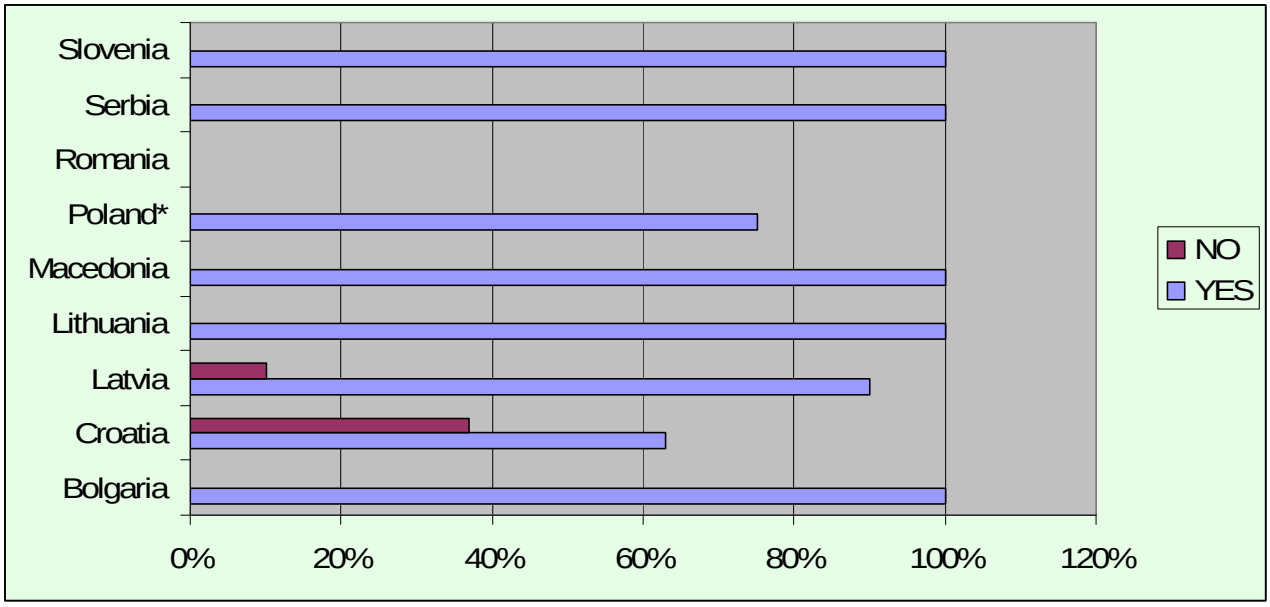
Figure 13: Companies looking for partners to exploit project results



*no answer: 25%

Almost all of the interviewed companies are interested in further participation in RTD projects. The positive answers range from 63% (Croatia) to 100% (Bulgaria, Lithuania, Macedonia, Serbia and Slovenia).

Figure 14: Companies are interested in participating in RTD projects, in %



*no answer: 25%

SWOT report

In the second part of this document we've prepared an overview of the national SWOT reports.

Strengths of the CE region

General observation about strengths:

The report shows Central European countries host good and excellent scientist, more and more willing to cooperate with companies. On the other hand, companies in the region are more willing to improve their production processes, services, products, also in collaboration with researchers from other companies and from RTD institutions. This fact may be the consequence of EU RTD programs and of the ever changing business environment. Due to the accelerating pace of RTD the companies are willing and sometimes forced into cooperation and "open innovation" models; this is shown in the motives for cooperation in RTD – the most important motivators are access to complementary resources and skills; networking, and joint creation/promotion of technical standards. The channels for receiving relevant information are attending the conferences and other business/RTD events with networking, cooperation with established national innovation and RTD support institutions and European networks like the Enterprise Europe Network.

The increasing role of science in innovation stimulates governmental and European financial support mechanism, intended for RTD and technology transfer. This is especially the case in the future Horizon 2020. Technology transfer offices in CE countries are becoming more and more experienced and efficient. Governmental initiatives stimulate even more willingness for collaboration between RTD and industry, intended for SMEs and big companies. The number of companies, seeking new project partners and seeking new project represents more than 50% of the observed population.

An increasing positive attitude towards "green economy" can be observed in the companies, especially in the project, aiming at efficient use of resources. Branding of companies is becoming more and more important, also developing trust and close cooperation with project, research and business partners. "Good and reliable partnership" is wanted attribute for every consortium.

Below is the description of identified strengths per country.

Bulgaria

- Small and micro sized enterprises are willing to improve their production processes and services applying the research results achieved by the project;
- Dissemination and exploitation practices are normally implemented without any specific difficulties;
- Among the main motives of the research organizations taking part in research projects are the access to complementary resources and skills, networking, as well as joint creation and promotion of technical standards;
- The SMEs are becoming more competitive utilizing the environmental technologies developed and their research in the field of chemical and air pollution;
- The exploitation activities of the project achievements (deliverables) sometimes result in the creation/implementation of a clear business strategy by some companies;
- Establishing new contacts and partnerships for new projects and developing new ideas;

- Involvement of local educational institutions, NGOs, municipalities, other public and private organisations/associations from different sectors in the research practices;
- Dissemination and exploitation activities of the research results involve the following main tools: organization of conferences and workshops, provision of teaching materials, case studies and research publications aiming to improve the competences of project target groups and to raise awareness of mass public;
- Developing business clusters and incubators with RTD priorities;
- The communication and exploitation activities are normally undertaken on regional/national and international level;
- The Structural funds are recently providing more opportunities and grants for research and innovation to the companies stimulating their interest to apply and develop new ideas;
- The number of the Bulgarian enterprises willing to invest in R&D activities is currently increasing;
- A significant number of companies are fully implementing the results in their production/services.

Croatia

- Increasing number of young scientists who are willing to disseminate results
- Recognition of Croatian scientists in international environment
- Even though the group of users (companies) of RTD results is small, they are connected among themselves
- Networking and communication channels are already established
- Communication between institutions in charge of RTD is already established
- IT support for dissemination and exploitation of information already exists.

Latvia

- Strong and sophisticated (although ageing) scientific and RTD staff in research institutes and universities;
- Experience and excellence in the fields of chemistry, pharmacy, ICT and signal processing technologies;
- Collaboration with different support initiatives like Enterprise Europe Network, business incubators, governmental agencies and other technology platforms;
- Environment and energy (renewable energy resources, climate change diminishing technologies and biological diversity) is one of political priorities along with innovative materials and information technologies, initiated by Latvian Academy of Sciences and Ministry of Science and Education of the Republic of Latvia;
- The increasing role of science and innovation stimulates the governmental support for RTD projects and dissemination and exploitation activities as well;
- Availability of financing mechanisms for dissemination and exploitation of RTD results (available at the moment and in the nearest future);
- Motivation for SMEs and researchers for creation of new products and processes from the side of the government offering development and support programmes;
- Active and successful participation in EU-funded schemes (Framework Programmes, Eureka etc.);
- Innovative companies are enthusiastic about finding partners for dissemination and exploitation of RTD results;
- The results of research projects are utilized for elaboration of energy and environmental policy and strategy in Latvia – the more available the results are to the policy makers the bigger the possibility to shape the sectoral policy;

Lithuania:

- Satisfactory scientific RTD potential in universities and research organization;
- World class excellence in narrow scientific fields in electronics (femtosecond 10-15lasers, high frequency electronics, microwave technologies, microcircuits technologies, material diagnostics),
- biotechnology (genomics, proteomics and microfluidics, bacterial drugs, application technologies), renewable energy technologies (PV, hydrogen, fuel cells, etc.)
- Initial government and SMEs support for RTD projects;
- Relevant public innovation support system is able to initiate changes in dissemination and exploitation of RTD results;
- Availability of financing mechanisms for dissemination and exploitation of RTD results;
- Active participation and success in EU-funded schemes (Eureka, COST, FP)

- High interest of innovative companies to find a partner/form/business model for dissemination and exploitation of RTD results;

Macedonia:

- Companies undertaking projects with known partners (previous collaboration in place).
- Companies acting equally as technology developers, users and performers of basic research i.e. contributing to better exploitation/dissemination of RTD results.
- Projects usually involving RTD institutions and/or end-users.
- Projects' results mainly involve new products, improved services and processes.
- Planning of dissemination and exploitation activities for larger or international projects.
- Participants in externally (EU) funded projects had no specific problems in disseminating project results.
- Project results are sufficiently exploited (by licence and moreover with other ways of exploitation) and generating revenues.
- Sufficient interest in finding exploitation partners.
- Strong national partners, collaboration with renowned and credible partners like universities.
- Involvement of end users in the consortium.
- Well defined dissemination strategy tailored to the needs of the targeted audience and use of network of contacts domestically and internationally.
- Connection with other initiatives like EEN and technology platforms.
- Twinning with other projects from the same field.
- Interesting RTD topic, useful/attractive products.
- Participation at national and international conferences, relevant fairs and EEN events.
- Obtaining and using awards as dissemination tool and exploitation enablers (increases credibility of the company/researcher and the research result itself).

Poland

- Involvement of RTD centres/units (in most of the projects)
- Strong focus on environmental technologies
- Improved products, improved technologies and know-how were main results of the projects
- Keeping up with major scientific/technological developments, access to application fields for testing / validating theories, exploring different scientific/technological opportunities and show up scientific/technological competences were the strongest motivation factors
- Seeking opportunities to participate in future RTD projects (companies)
- Development of marketing communications addressed to customers and journalists
- Preparation of business plans for new undertakings
- Mobilisation of resources for development and implementation of projects (also within the framework of the Operating Programmes: Infrastructure and Environment and Innovative Economy)
- Relations with other European, regional and local science-business initiatives
- Wide presence in the web and on trade fairs in different places in the country and across the Europe

Romania

- Well established bounds in project partnerships
- Companies act as technology developers, users and researchers which helps to a more easily dissemination and exploitation of the results
- Projects results are focused mainly on technologies, both in obtaining new ones and improving existing ones
- Participants in externally (EU) funded can easily disseminate project results
- Interest in finding exploitation partners.
- Strong national partnerships with prestigious institutions
- Complex consortia

- Solid dissemination strategy and exploitation plans
- Interconnectivity with other EU funded programs
- Participation in national and international specific events
- Existence of dissemination budgets for all projects
- Main motivation for participation in projects is keeping up with major scientific/technological developments

Serbia

- S1: Struggle to gain the EU Candidate Country status, which assumes the harmonization of the environmental laws and policies with EU ones, will give an impetus to the wider adoption of emerging environmental technologies and local research results. EU enlargement provides a major opportunity for the environment. The perspective of eventual membership of the Union gives additional momentum and focus and EU environmental legislation provides a concrete target to be achieved. By their date of accession, candidate countries must be able to effectively apply all EU legislation and policy. During the pre-accession period, the Commission works with the candidate countries and potential candidates to assist them in adapting their environmental legislation and upgrading their implementation and enforcement capacities in order to meet the EU's environmental protection requirements. Preparations for membership present three particular challenges for the environmental sector:
- Legal: over 300 pieces of EU environmental legislation have to be transposed into national legislation in a short space of time;
- Administrative: often weak and under-resourced administrations have to be significantly strengthened to be able to apply the environmental acquis;
- Financial: substantial investment in infrastructure and technology is needed to overcome years of insufficient funding and inadequate attention to environmental priorities;
- S2: Modern factories, which are mainly owned by foreign investors, use “green” technologies and are willing to apply recent research results in this field.
- S3: Some research organizations have a long tradition and extensive experience in the field of environmental protection. There are presently 144 ongoing research projects regarding environmental protection funded through the Serbian Ministry of Science and Technological Development latest completed call for proposals: Research programme in the field of technological development for the 2008.-2011. period. These projects are led by public scientific research institutions. Besides that, there are 25 bilateral projects with Greece, Hungary, Croatia, Slovenia, France, 14 of them concerning the various aspects of the environmental protection problems.
- S4: Some research organizations are already experienced in technology transfer. One such organization is The Mihailo Pupin Institute. Even though it is owned by the state, more than 90% of its annual turnover comes from successful technology transfer to industry and public sector in Serbia and abroad.
- S5: Highly educated workforce is employed in the research organizations. Highly educated researchers are most likely to publish the results of their research on various national and international conferences, and in scientific magazines.
- S6: There are many SMEs in recycling business that successfully operate on the market and may use new technologies to increase their profit.
- S7: Serbian R&D institutions (like the Mihajlo Pupin Institute, for instance) and chambers of commerce are increasingly taking part in EU funded projects (CIP/EIP, EEN, FP7, SEE, etc.), meant for environmental awareness rising and “greening” businesses, like CIP/EIP projects GREEN and WEEEN, and FP7 projects PROCEED and Envimpact.

Slovenia

- Access to the register of companies that can be selected as potential business partner
- Good partners with a lot of knowledge
- Clear vision of a company’s management
- Brand name and market position of specific company
- More efficient access to the new environmental technologies for industrial companies
- Availability of the specialised equipment and knowledge;
- Right RTD and business partners with a lot of knowledge

- Excellent results of RTD, excellent ecological and economical impact of the technology
- High-tech companies already collaborate with RTD institutions or have employed researchers, active also in the knowledge transfer and creation of new, innovative products.
- Available private funds (credits) for RTD projects.
- Conferences as a tool for promotion of RTD results

Weaknesses of the CE region

General observation about weaknesses:

The report shows that the market for RTD results commercialisation is underdeveloped due to lack of knowledge (both in companies and RTD institutions), lack of funds, motivation and time, needed for planning and executions of applicative RTD project. There are also communication barriers between companies and researchers, based on different "cultures" (i.e. RTD culture and industrial culture). We could say there is a lack of "translators" between RTD and industrial language.

The companies and RTD institutions lack (long-term) strategic orientation, research and business focus. Strangely, they even lack the information (and knowledge) on line legislation, on current technologies, state of development of a specific sector, lack the information on state of the art of IPR, they lack market information and information competitors, potential business / research partners. They even lack the information on activities of national RTD institutions. Companies from CE region are very rarely EU project coordinators and more often partners. But the level of cooperation is still low. These facts could be the consequence of poor time management, information overflow and overall disability (of companies) to identify useful information, events and business opportunities. On the other hand the fact could be the consequence of inappropriate communication skills of commercialist or inadequate dissemination (marketing) materials (of RTD institutions, support entities and also companies).

Especially in SMEs, the lack of finance for RTD and information dissemination can be a big problem. Quite often companies do not attend nearby B2B meetings just because they do not receive funding for the event. The fact may also be connected to the lack of qualified staff (brain-drain), able to recognise the opportunities of certain project results.

Overspecialising the employees and researchers may lead to the disability to be able to communicate with experts from other sectors (lack of interdisciplinary "translators"), where the most of new innovations occur.

Since innovation demands, among others, (very well managed) time, most of the companies do not invest their resources into real breakthrough innovations. They tend to invest their resources into small adjustments of existing technologies, products or services. Regarding this fact we need to keep in mind that weaknesses originate in our (dis)abilities; and one of things most hard to do is to change oneself.

Below is the description of identified weaknesses per country.

Bulgaria

- The market for the R&D results is not very well-developed on regional level;
- Lack of profound knowledge and experience in using and exploiting of research results;
- The research results are usually quite expensive for the end-user companies to apply;
- Language barrier to disseminate and exploit the research results on EU level;
- The information is targeted to reach a very wide audience, not a specific target group, by the use of different web-based dissemination and communication tools and channels;
- A major problem is the expensive IPR procedure to protect the research results achieved by the project;
- Long time needed to obtain permission for pre-release, registration and commercial release of end-users research results;
- The decision makers are not willing enough to support the research and innovation in Bulgaria by providing adequate funding schemes on national and regional level;
- The end-users are restrained by the economical recession to invest in research results;
- The educational institutions are not able to provide significant financial support for research practices;
- Lack of trained and motivated staff in the companies;
- There is a need for more active participation of foreign partners with experience in research activities.

Croatia

- Too many non-categorised information
- Poor structure of dissemination
- RTD results are not available to public
- Inappropriate promotion
- „different language“ between scientists and users of results
- Administrative barriers
- RTD results are overrated and too expensive for most of SMEs
- It is hard to find exact scientific literature and other sources of information about RTD results
- Non-existing model for exploitation of RTD results
- Lack of contacts
- Lack of interest for RTD results among SMEs in food industry
- Weaknesses
- Lack of financial support for early stage of commercialisation
- Lack of entrepreneurship on both sides (RTD community and industry)
- Lack of government support for technological development and innovation system
- Lack of establish channels for dissemination RTD results
- Lack of communication between companies and institutions
- Unjustified implementation of legislation and policy recommendations

Latvia

- Majority of Latvian SMEs do not have any innovation strategy or plans for implementing RTD results, companies are busy »surviving« and are not interested in »innovating«;
- Latvians are very modest in promotion of their RTD results – they tend to underestimate the value of the results (especially researchers);
- Scientists have unique products but do not have sufficient comprehension on how to implement these products to market;
- Majority of Latvian Environmental SMEs tend to adopt ready solutions not investing time, money and efforts in development of their own (or in collaboration with the local R&D players);
- Weak co-operation among SMEs and other stakeholders, particularly between SMEs and research organizations especially in the process of dissemination and exploitation of RTD results
- Lack of qualified staff in environmental SMEs to absorb and apply the RTD results (university students tend to choose programmes not related to environmental technology);
- A public system of research is not sufficiently oriented towards applied research;
- Weak interdisciplinary co-operation in terms of scientific research (RTD sector does not communicate with the industry);
- Lack of dissemination activities which are oriented to specific target groups and with a long term effect;

- Insufficiency of long-term policy. State institutions cannot formulate the type of information could be required in long-term due to the insufficiency of long- term policy. Accordingly the researcher competences cannot be formed and maintained.
- Researchers lack comprehension on the legal regulations influencing (or potentially influencing) the technology development.

Lithuania

- Insufficient progress in development of knowledge based society and economy;
- Many Lithuanian SMEs (potential adopters of RTD results) have not a structural innovation strategy but behave opportunistic towards innovations. For most of the SMEs the development of new products, services or processes require the adoption of technology or knowledge from outside and their fusion with their internal activities, a task that a lot of SMEs underperforms;
- The company needs to have additional knowledge, skills and competences on how to disseminate and exploit RTD results and adopt the technology or knowledge from outside their firm in order to strengthen the competitiveness of the company. This knowledge, skills and competences are quite scarce and normally not part of the formal education in Lithuania;
- Weak co-operation among SMEs and other stakeholders, particularly between SMEs and research organizations especially in the process of dissemination and exploitation of RTD results;
- A public system of research is not sufficiently oriented towards applied research;
- Weak interdisciplinary co-operation in terms of scientific research;
- Weak industrial base (high-tech areas represent only 4% of industrial structure);
- Lack of understanding of the environmental problems in SMEs;
- Lack of untraditional methods of supporting SME in dissemination and exploitation of RTD results. It seems that traditional support measures are not too effective;

Macedonia

- Rarely acting as coordinators of projects, especially translational ones.
- Rarely initiating transnational projects.
- Not sufficient planning of exploitation and dissemination within internal projects.
- In most of the cases lower budget for dissemination and exploitation activities (1-5% of the total project budget).
- In case of internal projects due to lack of planning of resources (especially financial), certain difficulties in disseminating project results are identified.
- IPR protection is not that often in the case of international projects nor is contacting the licence buyers/end-users before the start of the project (lower level of IP strategy, lack of sufficient information on the market etc.).
- Insufficient strategic approach towards partner search for exploitation of current project results.

Poland

- Legislation difficulties
- Unclear and to narrow distribution of the information
- Differences in spreading information
- Lack of proper financial instruments
- Cultural and language differences
- Insufficient application of informative and communicative technologies in public & private sector
- Weak cooperation between B+R and national economy
- Too complicated procedures of choosing private investor in cooperation with e.g. universities or other public RTD centres
- Awareness of proper usage of IPR in RTD results field is still limited
- Small amount of inventions submitted in National Patent Office
- Lack of awareness amongst public institutions about innovative technologies (e.g. from waste management field)
- Limited interest on the side of academic institutions / focus on basic research and publications
- Limited planning in dissemination and exploitation process

- Limited participation in projects as coordinators
- Difficulties in tailoring good budget which would include proper financial rates for dissemination and exploitation process

Romania

- Too few companies act as coordinators in EU funded projects
- Lack of initiative from the companies sector in initiating projects
- Small amount of the projects budget is allocated to dissemination
- Lack of solid IPR protection
- Insufficient exploitation of project results
- Most companies are either decreasing or remain constant in terms of accessing EU funds
- Companies do not use all relevant channels to receive data on studies and project results
- Companies do not show interest in creation of technical standards
- Lack of exploitation plans In some cases

Serbia

- W1: Overall awareness of the environmental technologies especially emerging ones is rather low.
- W2: Serbian legislation does not encourage more extensive use of "green" technologies. It is still cheaper to use dirty technologies and pay environmental taxes than to use "green" technologies. Despite of the efforts for normative harmonization, the largest number of laws within the area of environmental protection hasn't been harmonized with the EU directives yet. In addition, there have been substantial delays in implementing many of the new laws, regulations, and programmes, either because of lack of resources or because of other urgent priorities.
- W3: Relatively small budget on the national level for the research projects in the field of environmental protection, so the cost of dissemination part of the project is usually underestimated or not funded at all. In addition, research is usually expensive and often cannot be undertaken without the support of commercial sponsors, who seek rewards in the form of rights to commercial exploitation of the research outcomes. In such cases, sponsors often delay or otherwise restrict the release of research results.
- W4: Non-existing private funding of environmental research.
- W5: There is only one national source of the environmental research funding, i.e. Serbian Ministry of Science, whose overall budget is rather small, sums up to 0.3% of GDP (an order of magnitude smaller in relative terms then foreseen by Lisbon convention) and only small share of this budget is ear-marked for the environmental research. Direct MSTD's support for environmental protection projects in 2008 was 9.7 million Euros which present 9.7% of whole budgetary allocations for S&T activities (2.3% for the Basic Research program and 7.4% for T&D).
- While the projections for coming years were to increase this amount by a certain percent (as occurred during the whole 2001-2008 period), in view of the global economic crisis it is not realistic to expect this in recent years.

  While the Serbian Ministry of Science and Technological Development (MSTD) provides strong funding (currently 144 research grants) in the area of environmental protection, there are no explicit target research areas/themes as such (i.e. no areas/themes predefined by the MSTD). Instead of that the standard MSTD approach is bottom-up: MSTD typically announces calls for proposals for research grants in various fields (all include the themes of environmental protection). There were no special calls for environmental protection. Proposals go through an evaluation process by institutionalized research groups of reviewers qualified (external) for selecting projects to be funded.
- W6: The dedicated technology transfer organization or funded academia-industry communication channels do not exist in Serbia.
- W7: Environmental service providers do not have their own R&D departments.
- W8: Researchers are more interested in publications than the industrial outreach of their projects' outcomes. When defining research priorities, they usually take into consideration only "Science push" factors and neglect "Market pull" factors which are essential for successful industrial outreach.
- W9: Research focus of some research organizations is not practical and oriented towards the topics related to

environmental friendly technologies, which may be interesting for different factories and SMEs.

- W10: Low participation rate of research organizations and SMEs operating in the Environmental area in the EU funded research projects.
- W11: Small number of research organizations and SMEs (other than in recycling business) in this field.
- W12: Brain-drain is still very intensive. Looking for a better life and working conditions researchers are leaving the country in droves, seeking opportunities abroad that are not open to them at home. There is no comprehensive data on how many people have left Serbia in the last 20 years, but the number is around 300,000. According to USAID data, out of 133 countries surveyed, only Guinea-Bissau is losing a higher percentage of its educated young people to other countries. Though the subject has been widely discussed, little has been done to stem brain drain.
- W13: Unstable economic and political situation often forces companies to minimize or even withdraw their funding dedicated to RTD research. According to Mrs. Verica Kalanovic, Deputy Prime Minister for industrial and regional development of the Government of Serbia, only one in seven companies in Serbia is investing into research, and only one in fourteen are cooperating with innovation centres and institutions.
- W14: Not attractive green-field investment conditions and administrative barriers in Serbia discourage foreign companies to invest in Serbia and open factories that will be willing to apply the research results in the field of environmental protection.
- W15: Although academia-based researchers usually publish their research results, too often practice- based researchers do not. They often seem to believe that their research is only of interest in their own setting or will have little utility in another setting. Although this may indeed be true, it is preferable to let an editor or reviewers of submitted manuscripts make that judgment.
- W16: Few specialists in communication are involved in FP projects. Besides the requirement to have a work package dedicated to dissemination, there is a lack of professionalism; half of the projects interviewed do not employ a specialist in communication and do not design a dissemination strategy.
- W17: Collaboration on environmental protection research projects between research institutions and commercial enterprises seems insufficient due to the lack of an initiative for research in environmental protection from stakeholders, as well as to the poor transfer of research findings (results) into (operational) practice. More recently there have been certain initiatives for bringing together the industry and research institutions, such as the programme coordinated by the Ministry of Environmental protection and spatial planning, but with no concrete results as yet.
- W18: Communication and dissemination is felt as a threat for private enterprises which do not want to tell competitors about what they are doing.

Slovenia

- Lack of awareness regarding Ecology
- Lack of time, poor time management
- Lack of RTD personnel
- Lack of skills and specific knowledge
- Insufficient information on needs and requirements that exist in other companies and markets, lack of knowledge about potential new markets and partners in other countries
- Language difficulties
- Companies lack the understanding of the legislation
- Lack of suitable resources for technology transfer to target markets
- Lack of will in RTD institutions for placing RTD results to the market
- Few companies in Slovenia actively look for RTD results that they could use for their products and services. Those that do are very successful but usually lead by active or former researchers.
- Lack of testing laboratories, lack of availability of the specialised equipment and knowledge;
- Lack of industrial application of RTD results, it takes a lot of efforts (not necessarily available) to adapt crucial company elements (from engineering to marketing; leadership) in order to bring new product/process to the market.
- Lack of financial support
- Inefficient access to the new environmental technologies for industrial company
- Overflow of information / lack of selection
- Lack of knowledge about IPR

- Poor communication between the RTD institutions, policy makers, businesses and civil society in the scoping and planning phase of RTD projects leads to poor understanding of objectives and achievements and subsequently to lack of interest in RTD results.
- Aversion of risk is an important element in the business culture
- The companies are more interested in applied research results, their interest depend on the possibility for economic exploitation of the results and the research area. The public research institutions are more focused on the basic research than on the applied one. This mismatch is one of the barriers. Part of the reason is also type of financing, prevalence of institutional funding in comparison to the project funding.
- Companies regard RTD institutions as not able to deliver useful results. Companies are therefore unwilling to invest money into RTD projects. They prefer to contract RTD institutions only for very specific tasks that only these institutions can perform.
- In Slovenia, there is a substantial number of companies with low value added, who do not invest in RTD.
- Key missing link in Slovenia at present are demonstration projects and lead market development. Public authorities could have an important role here.

Opportunities of the CE region:

General observation about opportunities:

We have identified a number of opportunities, helping the CE countries to overcome the identified weaknesses and threats. The most evident opportunity is the creation of efficient, lean and dynamic innovation (RTD) support environment; i.e. governmental support instruments for RTD and commercialisation of RTD results; support to technology transfer (instruments, change of inadequate legislation), creating reward system for researchers, participating in applicative RTD projects and project, custom made for companies' needs; creation of business environment, accepting risks and business failure; affordable financing of RTD projects; improvement of awareness of IPR and strategic management of IPR; inclusion of national knowledge centres into European development programmes; governmental support to high-tech export; insisting on "usable" science (tech.transfer); providing support and funding instruments on all stages of innovation development; establishing new instruments for supporting innovation, e.g. innovation procurement, demonstration projects, … which could initiate the absorption of modern technologies; improvement of general investment climate.

RTD institutions and companies can become more successful, if they grasp the already existing opportunities, e.g.: enhance the knowledge about each-other's activities, strategies, plans; start collaborating on small scale projects and continue the cooperating on larger projects; utilise the innovation support networks (national, European); start planning mid-term and strategically, including all publicly accessible information (market information; business registers; IPR databases with information on state of the art of patents, models …); apply for EU funding programmes, like Eco Innovation, Life+; Eureka, Benef …; increase the networking activities, since they can help to increase the knowledge on specific markets, competitors strategies …

Below is the description of identified opportunities per country.

Bulgaria

- Involving different organizations and institutions, establishing networks of local stakeholders;

- The research organizations prefer to establish contacts with license buyers before the start of the project;
- The number of employees involved in the research projects of the companies tends to be slowly increasing;
- Establishing international collaboration by taking part in the dissemination activities provided by the project and the networks created;
- Exchange of information and know-how between project partners and the target groups;
- Collaboration between the research organizations in the region and abroad;
- Providing information on existing good practices in environmental research by making data available through internet accessible databases on regional/national/EU level;
- Project results are disseminated by the web and the social networks like Facebook, Twitter, LinkedIn, You Tube;
- Improvement of state policy towards clear priorities and adequate financing in the field of scientific research;
- Attracting foreign investments in high technology sectors;
- Providing support to Universities for scientific research;
- Small-size enterprises with experience in R&D activities are taking part in research environmental projects as project partners mainly;
- Participants in research projects tend to use more frequently internet sources to disseminate and exploit the results achieved in order to reach more efficiently their target group;
- Developing a communication and dissemination strategy on regional and national level is an opportunity to establish new contacts and partnerships with similar organizations, public institutions, trade associations and other stakeholders;
- Scholarships for students in technology faculties;
- Small-size enterprises with experience in R&D activities tend to be more active to participate in research environmental projects than micro, medium and big companies;
- The participants use to spend more than 10% of their project budget on exploitation;

Croatia

- Strong and open-public database with catalogued information/results/contacts
- Possibility to employ more personnel to conduct researches and analyses
- Networking
- Possibilities for organising workshops
- Workshops in which can be presented RTD results
- Possibility to use results in practice
- Government incentives for support RTD dissemination to SMEs
- Better connections among institutions, SMEs and industry
- Guaranty of investment in RTD results
- Commercialising of results, co-financing RTD projects development
- More public awareness about importance of technologies
- Establishing a reward system for researches who participate in RTD projects
- Career advancement and motivation policy based on number of projects
- Innovation infrastructure – labs, incubators, technology parks
- Better communication between institutions in charge of RTD
- Establishing systems for SMEs and industry in order to apply RTD results with less risk
- Building database of business partners
- More direct communication based on real need
- More networking and communication
- Collaboration should be constant
- Apply to EU and national funds
- Improve awareness of IPR
- Affordable financing of RTD projects
- Use of new equipment
- Increase interest for commercialization of RTD results
- Education for sustainable development

Latvia:

- The environmental research development and it's significance is tended to be considered under the competence of all ministries which allows to enlarge the significance of the RTD result dissemination and exploitation in national level;
- The results of research projects are utilized for elaboration of energy and environmental policy and strategy in Latvia – the more available the results are to the policy makers, the bigger the possibility to shape the sectoral policy;
- Finances are allocated for competence centres including the competence centres for environment, bioenergetics and biotechnology and industrial centres allowing to focus on specific sectors of environmental issues;
- Increasing networking between technology oriented SMEs and researchers (scientific institutions) for dissemination/exploitation of RTD results;
- New communication channels can be formed between the intellectual property owners in the environmental research projects and potential target beneficiaries.
- Internal and national project results are usually protected by national and/or international patents.
- New technology identification and support, dissemination of knowledge on the technologies and financial support for technology development and international transfer;
- Growing investment (national and foreign investments) support for new and innovative products and RTD activities/companies as well.
- Overall improvement of investment climate and simplification of the administrative processes connected to dissemination and exploitation activities;
- Growing support for value-added projects involving modern technologies or implementing RTD results, promotion of the projects among consumers and SMEs;
- Progressive collaboration between researchers and industry (trainings in R&D institutions for company employees, students, employment and internship of students);

Lithuania

- Identification of SME needs by education and research units (funded) with business support organizations involvement. Early stage involvement of SME having innovation and technology potential into the dissemination/exploitation of RTD results;
- Increase of quantity and quality of consulting for SME, including consulting from private companies in the area of dissemination/exploitation of RTD results;
- Increase number of personnel in business support organizations (BSO) – create communication networks for BSO (grouping). This may be our reaction for BSO clusters who could do more for SME organizing key services, exchanging ideas and consulting, knowledge, mutual complementarily and common projects;
- Improvement of networking between technology oriented SMEs and RTD performers (scientific institutes) for the dissemination/exploitation of RTD results;
- New incentives for cooperation of SMEs and RTD performers for the efficient dissemination and exploitation of RTD results. Creation of framework conditions for absorption and diffusion RTD results;
- Identification of sources of new technologies, their promotion, dissemination of knowledge related to their utility and efficiency, as well as information on how may they be used in practice, plus financial support for new technology transfer;
- Strengthening the role of the industrial associations in trust building processes across the SMEs (i.e. cooperation on R&D = awareness of possible economic interest + trust);
- Initiating and tightening the cooperation between RTD performers and economy (in-house training in R&D institutions for company employees, postgraduate studies, supporting the employment of graduates);
- Supporting the initiatives defined in the Regional Innovation Strategy, aiming to create formal and informal networking between R&D and SME sectors;
- Stimulation of the development of the market of technologies, supporting R&D activities of enterprises, including subsiding industrial and pre-competition research conducted by enterprises or groups of enterprises in cooperation with scientific-research institutions, creation and introduction of technological and organizational innovations already existing in enterprises, supporting the usage of information-communication technologies by entrepreneurs, creation of secure networks and IT systems in enterprises;
- Support for projects increasing the absorption of modern technologies in the scope of services, implementing a system of information on the latest service products and their promotion among entrepreneurs and consumers;

- Improvement of the general investment climate, improvement and simplification of the administrative proves (process) associated dissemination/exploitation of RTD results;

Macedonia

- Constant to increasing trend in terms of number of employees, income, external funding and reinvested profit.
- Existing RTD project experience in internal projects and/or as partners in externally funded projects.
- High level of motivation for actual exploitation of RTD project results.
- Used dissemination channels have been characterised as moderate to highly effective.
- Results from internal and national projects are usually protected by national and/or international patents.
- Exploitation rate is relatively high and generating revenues for the companies.
- High level of motivation for future participation in RTD projects. Companies interested in applied research, in undertaking specific project role in projects with specific RTD field as well as with concrete RTD or TT partner search requests.
- Adequate planning of exploitation and dissemination activities might contribute to overcoming certain barriers.
- Contacts with different relevant stakeholders like chambers and especially universities are highly recommended (they are experienced and with large RTD network).
- Utilization of all the support available like EEN and Joining forces with similar initiatives (project, technology platforms etc.) opens additional opportunities.
- Protected IPR, market assessment, relevance of the research and involvement of end-users are all potential enablers of successful dissemination and exploitation.
- Organisation of dissemination events at places with a high frequency of the targeted audience.
- More focus on innovation management, maintaining RTD project portfolio.
- Increased networking of researchers and companies, nationally and internationally.
- More info through use of different media - specialised TV programmes or specialised magazines.
- Calls on specific problems as opposite to thematic approach.
- Nationally, tax reduction for companies performing/investing in RTD. - Distinguishing between technological and non-technological innovations. - Quantification of outcomes/effects in more economic terms – number of jobs created or increase in profit, establishing spin-outs etc. might be considered as preconditions for certain programmes.

Poland

- RTD results are in most of the cases protected by patents (more often by European/international)
- Positive trends: regular increasing number of employees, income and funding from different national and EU Programmes
- Companies are at the same time technology developers, end-users, as well as the basic research performers - strong level of dissemination and exploitation of RTD results
- Focusing on the most effective dissemination channels like web and trade fairs
- Strong willingness of the companies to further participation in RTD projects
- Launching system of international internships for graduates of environmental faculties
- Creating financing of 'eco-innovations' through ecological funds
- Increasing of research teams with the best foreign R&D institutes (co –financed by ecological funds)
- Public, financial support for SME
- Public support in the area of legal protection (including funds for patenting)
- Larger dialogue between RTD producers and business community
- Publicly-funded promotion of RTD results
- Encouraging co-operation between scientific institutions and companies
- Better understanding of mechanisms leading to the diffusion of innovations since the local expertise in successful launches of new products and market penetration with new technologies are still limited
- Preparation of techniques for sales of complex technological solutions and the shift from price-based competitiveness to value based competitiveness

Romania

- Most of the companies register an increasing profit and number of employees
- Existence of companies with relevant experience in the field of EU funded projects
- Used dissemination channels are considered effective
- Companies are motivated in participating in other EU funded projects
- Companies try to extend partnerships on national level
- Improved legislation
- Easier access to relevant information
- Organization of dissemination events focused on audience
- Improved media coverage for disseminating project results
- Access to exhibitions and fairs
- Links to international networks
- Existence of Projects websites
- Decrease of time and costs for protecting industrial property
- Brokerage events

Serbia

- O1: High level of motivation for future participation in RTD projects.
- O2: Global economic crisis may motivate some Serbian senior researchers to come back to Serbia and join some research organization or start their own business in the field. Turning "brain drain" into "brain gain" will raise the level of expertise and competence of Serbian research organizations. The Diaspora minister says that 48 percent of Serbian experts living abroad plan to return.
- O3: These senior researchers, with extensive experience in technology transfer and industrial outreach endowers may help in better technology transfer towards the industry. They will bring knowledge of most effective ways (public symposia, campaigns, seminar series, publications…) for communicating the research results to the public, thereby increasing the likelihood that knowledge will be further increased.
- O4: Research organizations and SMEs from Serbia are now eligible to participate in many EU Programmes which fund projects in the field of environmental protection.
- O5: If Serbia becomes an EU candidate country, more funding opportunities will open.
- O6: EU projects like PROCEED, GREEN, WEEEN, etc. that Serbia is already taking part in will open new communication channels between the intellectual property owners in the environmental research projects and potential target beneficiaries.
- O7: Expected enforcement of environmental and economic laws and regulations as a part of EU accession process.
- O8: Increased access to IPA funds may present a new opportunity for better industrial outreach of environmental research outcomes in Serbia.
- O9: Environmental protection recognized among national priorities. It is one of the seven national priorities defined in the Strategy of Scientific and Technological Development of the Republic of Serbia for the period from 2010 to 2015.
- O10: Increased networking of researchers and companies, nationally and internationally.

Slovenia

- Innovative approaches in applying new products to the market
- Development of new products
- Qualitative implementation of activities and of procedures for knowledge transfer can be achieved only by adequate human resources support and stable working conditions, which is subject to appropriate education and training, to a systematic approach in financing the knowledge transfer activities and to the establishment of a generally favourable environment (from the legislative point of view and in agreement with social acceptance of the activity).

- Better organised innovation/RTD supporting environment (filtering information; IP knowledge and support; active networks, clear promotion of support services)
- Awareness raising among industrial and RD partners on how to... and benefits of such collaboration (success stories)
- Higher R&D intensity of the business sector, higher employment of PhDs in the business sector
- RTD institution should incorporate industrial needs in early stages of research. Public research institutions should be more oriented to the R&D requirements to the business sector (measures to increase the revenues from private/business sector). Thorough evaluation of the efficiency and relevance of funding should be carried out and based on that new measures should be defined.
- Companies should cooperate more tightly with RTD institutions and invest in joint research. Intensified collaboration and communication in the process of developing the scope and objectives of RTD programmes and projects.
- Creation of adequate financial instruments (tax relieves …), inclusion of RTD results into demonstration projects and innovative public procurement. Proper and active role of funding institutions in monitoring and verification of RTD results. RTD programmes should be supported by a stakeholder communication process involving RTD institutions, business sector, public authorities and civil society. These processes should extend from setting the scope, RTD activities, to pilot and demonstrations projects, development of lead markets and mass deployment.
- Enhanced mobility of persons between RTD institutions, companies and public authorities.
- Creating an environment that would stimulate risk taking and thus inhibit risk aversion.
- Improvements in the flow of knowledge will be achieved by the following means:
    - Creation of an environment that favours efficient knowledge transfer
    - Building an efficient system for the protection of intellectual property
    - Fostering the culture of patent acquisition with thorough premeditated patent policy and through development of legislation for the intellectual property field
    - Determining the knowledge transfer as a key strategic mission of PROs
    - Building a relationship of trust and good integration into the research environment

Threats of the CE region

General observation about threats:

Lastly, we've identified threats which may stop the CE countries in their efforts toward knowledge driven economies. The worst threats are the following: inability of governments for strategically and long-term planning, avoiding political programmes and thus implementing country development programmes; brain drain (capable and talented individuals migrate to western EU or to USA); the governments will not be able to implement all the necessary changes (stimulus for collaborating with industry; change of legislation, currently preventing the establishment of RTD spin-offs and technology transfer); nationally accepted models for exploitation of RTD results are non-existing, in best cases they are just being tested before establishment; simplifying administrational requirements, especially in structural funds; inability of national governments to fight corruption; lack of provision of RTD funds; inability of governments to attract foreign investors.

Other threats, related to the management of RTD institutions and companies, are: incompetent managers, oblivious of the importance of collaboration and innovation; managers, prohibiting the researchers and employees to gain the necessary additional knowledge; managers, oblivious of the importance of IPR protection.

Below is the description of identified threats per country.

Bulgaria

- Human resources problems – lack of trained and motivated qualified young researchers willing to work;
- The companies receive information for research results by websites or technical materials, which may decrease their requirement in the results.
- The scientific structure in Bulgaria is rather old and not flexible;
- Not enough stimulus for collaborating with the Universities;
- Inefficient solutions based on incorrect use of project research results.
- The contacts with end-users or distributors are not regular enough.
- The main results achieved by the research projects are not currently protected with IPR.
- The less effective dissemination channels are Employee Placement schemes, trade fairs, books, press-releases and inclusion in Government documents;
- The participants use to spend 1-5% of their project budget on dissemination;
- Relevance of research in overall activity of the surveyed companies is up to 10%.

Croatia

- Reliability of results-language barrier
- „brain drain“ of scientists because of non-used opportunities
- Slow administration-too much administration
- Weak connections between institutions and potential users of RTD results
- Weak partnerships/poor contracts
- Incompetence of managers in work with results
- Small interest for RTD results
- Lack of practice usage of RTD results
- Small number of researchers are thinking about commercial potential of RTD results
- Companies are more oriented towards trade instead of production
- Average SME has low level of technological capacity and lack of financial resources for investing into RTD activities
- Different expectations and interest about importance of RTD results

Latvia:

- Political support for knowledge economy development can be alternating if other social issues are given priority;
- Ageing population of scientists and lack of new researchers to substitute them (majority of the RTD staff is close to retirement and the amount of environment science students are reducing as well) which can seriously influence the results of RTD activities;
- Economic situation and pressure on SMEs to solve urgent problems related to profit, employment etc. may significantly decrease their involvement in dissemination/exploitation of RTD results;
- Majority of Latvian environmental SMEs tend to adopt ready solutions/innovations not investing time, money and efforts in development of their own (or in collaboration with the local R&D players);
- Possibly ineffective use of EU structural funds allocated for innovation implementation and dissemination and exploitation of RTD results; (corruption, bankruptcy of companies, inexpedient use of the financial resources);
- Low level of cooperation among SMEs, research organizations and innovation support programmes;
- Bureaucratic regulations and reporting complexity alienate SMEs and even RTD players from participation in research projects;
- Limited new product/technology development limits the needs to apply, disseminate and exploit RTD results; Lack of motivation for SMEs to disseminate and exploit the research results;
- Low demand for more environmentally friendly products due to the low purchasing capacity and low awareness in society on environmental issues;
- Availability of financing – both European and bank financing is essential for fostering RTD in Latvian environmental SMEs – in case of reductions or changes of allocation regulations the small amount of active SMEs and researchers might decrease even more;

Lithuania:

- Political support for developing knowledge economy (and dissemination/exploitation of RTD results) might change if other social issues are given priority;
- System models adopted from other countries for efficient dissemination/exploitation of RTD results not suitable for needs and requirements at national level;
- Aging population of scientists (more than have of them are over 50 yrs old, 20% of them-over 60 yrs) and brain drain could harm the results of RTD activities;
- No motivation for SMEs for dissemination/exploitation of external RTD results;
- Missing perception of opportunities among entrepreneurs for the particular results of RTD projects;
- Approach of community funding programs could be not inspiring for dissemination/exploitation of RTD results by businesses;
- Pressure on SMEs to solve urgent problems related to profit, employment etc. (due to the economic crisis) may jeopardize their involvement in dissemination/exploitation of RTD results;
- Lack of co-operation among different stakeholders. Particularly among SMEs, research organizations and innovation support programmes may hinder the process of dissemination/exploitation of RTD results;
- Limited new product/technology development in Lithuanian business limits the needs to apply disseminate and exploit RTD results;
- Adaptive innovative activities (i.e. adaptation of production methods developed and tested in other countries) prevail in Lithuanian business;
- Possibly ineffective use of EU structural funds allocated for innovation implementation and dissemination and exploitation of RTD results;
- Weak demand for more environmentally friendly products due to low environmental awareness of the society limits dissemination and exploitation of RTD results;

Macedonia

- Companies with sufficient RTD potential and increasing trends not utilising national or EU funding.
- Insufficient number of projects coordinated by SMEs.
- Low level of RTD relevance for the overall activities of the SMEs.
- Insufficient valorisation of RTD results from EU funded projects in terms of IPR protection.
- Insufficient level of networking and too many similar types of actions on the market are to a certain extent undermining the effects from the dissemination activities.
- Insufficient presence in different media, lack of specialised digital or written media where RTD results can be presented.
- Lack of market/market strategy or limited market; insufficient awareness of the targeted clients or knowledge how to use RTD results.
- Lack of finances to be invested in uptake of RTD results.
- Lack of adequate RTD results/applied research/RTD infrastructure in the country.
- Lack of information on adequate RTD results, not sufficient cooperation
- Insufficient RTD capacities and/or basic lab infrastructure
- Low level of investment into the developing of adequate research and technology infrastructure at the RTD institutions.
- Low level of interest among academic staff for cooperation with companies and/or of young academicians for research activities.
- Lack of more private RTD performers that will be more market oriented.

Poland:

- High costs of taxes arising from exploitation process
- Lack of awareness in the different social groups
- Barriers in access to capital which could be used in creating and development of enterprises
- Lack of good practices

- Differences in national and local financing farmers
- Bureaucracy
- Lack of market for the RTD results
- Companies tend to look for R&D help abroad instead of using local resources
- Low rate of funds assigned to B+R from national budget
- Low rate of social activities and commitment in spreading information about RTD results
- Complicated procedures and legal complexities which discourage private investors to cooperate with the public sector
- Number of local companies in eco-innovations is still limited, thus restricting possibilities of exploitation of RTD results
- Mental barrier – companies assume that scientists have limited awareness of their needs and are not interested in closer co-operation; scientists tend to have relatively negative opinions about businesspeople, not looking for potential win-win scenarios
- Lack of market for the RTD results

Romania

- Few companies are involved or have previous experience in accessing EU funds
- Companies tend to underestimate relevance of the research
- Many companies do not beneficiate of national or EU funding
- Low level of exploitation of RTD projects results
- Few projects coordinated by SMEs
- Insufficient media coverage
- Lack of knowledge on all sources of information promoting relevant information
- Lack of RTD infrastructure on national level
- Low level of funding the development of RTD institutions
- Low level of financing research in academic area
- Undeveloped RTD facilities

Serbia

- T1: Unstable political situation (Kosovo, etc.) and low credit rating of the country discourages foreign investments.
- T2: Global economic crisis as well as local social tensions may severely limit the funding opportunities on the national level for environmental protection in the next few years.
- T3: No financing – no companies dedicated to environmental protection – no communication of research results towards the industry.
- T4: Overall rather weak real sector in Serbia, so the potential target beneficiaries base for the “greening” activities and industrial outreach is consequently very weak.
- T5: Due to global economic crisis foreign investors may be reluctant to invest in Serbia in the years to come.
- T6: Factories are mainly not capable to invest in environmental friendly technologies and greening their business.
- T7: Brain-drain is still very intensive. Looking for a better life and working conditions researchers are leaving the country in droves, seeking opportunities abroad that are not open to them at home. There is no comprehensive data on how many people have left Serbia in the last 20 years, but the number is around 300,000. According to USAID data, out of 133 countries surveyed, only Guinea-Bissau is losing a higher percentage of its educated young people to other countries. Though the subject has been widely discussed, little has been done to stem brain drain.
- T8: The competition of research organizations and SMEs for the EU funded research projects is very strong, while Serbian organization lack the experience in successful proposal writing, since they have only recently became eligible for EU funding. The competition for EU funding is very rigorous and the success rate of FP7

projects is in general very low – 10 to 20% on the average. Sometimes excellent proposals are rejected (usually for budgetary reasons), and sometimes not so good proposals get funded. This is very discouraging for inexperienced researchers that take part in proposal writing.

- T9: Serbian researchers from abroad still reluctant to return (low salaries, bad economic situation). Returnees, complain about small salaries, lack of infrastructure, bureaucracy and pollution. Having become used to Western systems, workplace culture can feel foreign and frustrating.
- T10: Pushing information out to your target audience does not guarantee that it will be read and used. Information is useful only when it is received by the right person, who is looking at the right time.

Slovenia

- Different legal and institutional environments
- Underdeveloped communication channels for dissemination activities
- University and public research organizations in reality do not need collaboration with companies; they only use them for financing of their costs. Research results in most cases are articles, references and not products, developed for end users (companies).
- Inappropriate legislation for technology transfer
- Lack of funds
- The lack of incentives for collaborative R&D projects between companies and public research institutions which would enhance cooperation and the dissemination of RTD results. The system of funding of public RTD is more focused on basic research funding than collaborative applied projects.
- The global financial situation
- Obstacles to market access, materials for SRF production are not allowed to be land filled
- Problems with permits (eco, other) at business partners
- Lack of suitable industry that would use RTD results and valorise them on the market.
- Different value system of industry and research sphere
- Relatively low R&D intensity of the business sector
- Lack of tradition of collaboration between the business enterprises and public research institutions. Consequently, lack of mobility of researchers (and PhDs) between RTD and industry.
- Public R&D institutions and researchers would adapt quickly if the demand from the business sector became stronger. The key is therefore in the business sector. We cannot expect a "push" from the public RTD.
- Public support institutions measure quality of RTD against scientific indicators and not against dissemination and market success of results.
- In Slovenia, RTD institutions (universities, institutes) consider themselves above the companies and not as service providers to the companies. This means they invest little effort in pushing results towards the companies.
- In Slovenia, there is no holistic approach to regulating the field of transfer of knowledge. The majority of activities are based on ad hoc initiatives from different actors. The largest number of activities arises from some public research institutions and higher educational institutes, while the state institutions in the majority of cases do not undertake enough pro-active roles.

EFFICIENY OF COMMUNICATION CHANNELS

The analysis is being prepared by Croatian partners and will be added here in the next version of this document.

ADITIONAL RECOMENDATIONS:

General overview of additional recommendations:

Partners in the CE regional should keep on stimulating the interest of companies in taking part in RTD activities. This can be done through presentations of EU RTD programmes and information days, followed by B2B matchmakings, networking events among companies and researchers. Cooperation between companies and researchers should be further stimulated through joint company missions/visits, aiming at disseminating the need for RTD in companies and disseminating the RTD results of researchers, aimed at industry.

Needed and required is also intensified collaboration wth NCPs and existing European networks (like Entreprise Europe Network). All involved parties should strive for more visibility of RTD results and presentations of best practices of collaboration.

Future EU RTD programmes should increase the support to applied research, innovations and marketing of RTD results. Future programmes should include the needs of the industry and thus orient themselves in one part to basic RTD and in bigger part to applicative RTD. The projects shouls always involve future end users of the project results.

Action plan of ProCeed partners, based of recommendations and SWOT findings, will be added in the next version of this document.

Below is the list of recommendation per country.

Bulgaria

Remaining challenges and emerging areas of interest:

- To stimulate interest of enterprises and other private organizations to take part in research projects related to environmental pollution and climate change;
- To make awareness-raising campaigns with regard to new calls for proposals, explaining the application procedures on national and EU programmes for environmental research;
- To develop a national strategy for sharing and exchanging of research results;
- Expert missions are crucial to facilitate the introduction of the learned techniques and good practices adopted;
- Individual contacts/fellowships are fundamental to achieve methodological harmonization at the regional level, since groups of specialists are not homogenous regarding the level of technical knowledge.

Recommendations

- To implement more effectively the project communication and dissemination strategy;
- To elaborate adequate national policies in the field of RTD;
- To organize more networking & matchmaking events, as well as more seminars on how to use RTD results;
- To prepare and implement well-developed strategy for exploitation of project results;
- To support expert missions to assist in solving specific problems to a wider group of researchers in the country and abroad;
- To support individual trainings tailored to meet the specific needs of researchers;
- To provide more opportunities, measures and national funding schemes to support scientific research.

Croatia:

Recommendations

Decision makers see better dissemination and exploitation of RTD results through intensive networking and communication, constant collaboration, improving awareness of IPR and increasing interests for commercialization of RTD results. This could be achieved via workshops aiming at connecting business subjects, at better awareness and assured information resources.

Decision makers also gave their suggestions for shaping future EU funding programmes:

- programs should be more result oriented,
- be with more flexible financial conditions,
- obtained by previously funded RTD project,
- focus on innovation value chain and create support measures.

Macedonia

Recommendations for shaping future EU-funding programmes for better dissemination/exploitation

The comments provided by the survey respondents in this regard are very much connected to transferring some of the enablers/good practices as part of the future programmes. It also focuses on more strict indicators and follow-up on the results from the exploitation activities as well as suggestion for more business support structures, less fragmentation of initiatives and certain suggestions concerning co-financing rules and more recognition of successfully implemented projects. Here are some of the recommendations provided:

- Promotion of cooperation between projects or with adequate structures like technology platforms (bringing together different initiatives)
- More support structures like EEN, more organized ways or measures for networking in the field of research
- Avoiding insisting on use of innovative (e.g. viral marketing) dissemination tools
- Putting clear indicators and demands for exploitation (quantified and with exact time frame)
- More recognition to successful projects (awards or similar)
- Increased support to applied research
- One joint portal for simple presentation of all research results
- Verification of exploitation
- In case co-financing by the partners is required, not to refer to dissemination and exploitation activities

The recommendations for the future/potential participants in RTD projects related to the dissemination and exploitation of results can be summarized as following:

- Strong focus on dissemination (dissemination strategy, goals, adequate planning and adequate tools – not always the 'fanciest' ones)
- Contacts with different relevant stakeholders like chambers and especially universities (they are experienced and with large RTD network)
- Visibility, national and international
- Utilization of all the support available like EEN
- Joining forces with similar initiatives
- Clear exploitation plan
- Protected IPR, using professional assistance
- Market assessment
- Relevance of the research
- Involvement of end-users (whenever possible)
- Adequate budgeting

Thus, enablers from practice as well as difficulties encountered in the past point out the need for careful and strategic planning of the dissemination/exploitation activities, active networking, addressing market needs with clearly defined IPR issues, achieving synergies with others and using all available support along the way.

Latvia

Recommendations for shaping EU programmes:

1) Both research results and dissemination activities should be checked by partner countries which can be interested in results or can be affected by them.
2) The quality check of the research results in collaboration with the partner representatives should be established as an obligatory demand of the research programmes.
3) A national disseminator conducting the national dissemination of the research results should be planned in each international project. It is especially important in situations when project contractors do not envelope all partner countries. In this case extra expenses for dissemination in the rest of the partner countries must be provided in the research project. An extra result to such approach would be the enlarging circle of scientific institutions involved in international projects.

Requirements to perform dissemination and exploitation of environmental research results in higher quality

1) The collaboration between researchers and the product developers (investors) – the researchers should be more active. The researchers must achieve: a) wider audience of publicity, b) research results must be segmented for specific audiences – company groups.
2) Researchers must create the interest from the companies to the new product. The researchers must carry out their own market research and the first level of dissemination (for example inviting the potentially interested companies to seminars on the research results).

Lithuania

Recommendations for shaping EU funding:

- In terms of legal requirements and dissemination and exploitation oriented schemes, it is recommended to conduct periodic assessment of their effectiveness in promoting development and implementation of new approaches and relevant modification.
- To strengthen external driving forces for dissemination and exploitation of RTD results, it is recommended to assess possibilities for applying simplification for control of legal compliance for companies developing and implementing dissemination and exploitation models and methods.
- Considering the fact that the main internal barrier for dissemination and exploitation of RTD results is lack of competence within the project partners
- (SMEs, R&D centres etc.) competence strengthening and technical support to them in development and implementation of new dissemination and exploitation practices should become a priority.
- It could be recommended to organize long-term training programmes for representatives of RTD projects, covering both theoretical training and practical development of dissemination and exploitation models. Such programmes could be focused on particular sectors of industry or mixed industry groups. Experience shows that such training programmes are most effective to strengthen competence in enterprises.
- Introduce to the main stakeholders of the RTD project (SMEs, governmental/ financial institutions etc.) dissemination and exploitation development methodologies and potential benefits. In such case it would be meaningful to organize a series of short-term training programmes.
- To promote and to ensure effective technical assistance for the main stakeholders of the RTD project (SMEs, governmental/ financial institutions etc.) in development and implementation of dissemination and exploitation procedures. In such case the establishment of specialized technical support system would be recommended. Such system could include free of charge advise related to dissemination and exploitation of RTD results. This provider of services could be not only specialized in technical support but also could serve as an

informational centre to promote technical assistance services provided by other research and consulting organizations.

- For development of skills, competencies and abilities the members of RTD projects need external technical and financial support. A system for identification, development and implementation of dissemination and exploitation practices could be meaningful.

Poland

Recommendations to participants in RTD project

- Learn more about commercialization strategies and diffusion of innovations
- Talk to each other, forge alliances and consider developing innovations within partnership networks instead of trying to do everything on your own

Recommendations for shaping future EU funding

More support is needed for promoting best practices, teaching how to commercialize RTD results and improve the level of competencies in specific EU countries – as opposed to merely running Europe-wide competitions for project funding, in which only the companies from the best developed nations have chance to win

Serbia:

Recommendations for the shaping of future EU-funding

- Providing more recognition to successful projects
- Increased support to applied research
- Simplifying application procedures

Slovenia

What recommendations would you suggest for the shaping of future EU-funding programmes in the context of better dissemination / exploitation results

- To pay attention on environmental and development of new technologies.
- Incentives for researchers, collaborating with companies
- More information on calls (from NCPs)
- Appropriate conditions for more efficient information exchange between partners
- No need for public research institutions to be required as member of consortiums
- Possibility to open markets over to other markets China, USA...
- More stress on the industrialization. Make sure that people from the companies are those who manage the project. We cannot expect much in the case that public RTD institutions manage the projects and companies play a minor role because the motives and the goals are often too different.
- Focus on the real business and environmental problems. If funds are given for R&R you have to know, that we are not able to plan the projects in detail for the next 3 years, because the research activities and results cannot be always predicted.
- Working for and with target public (throughout the project)
- Piloting
- Better conditions for companies to participate in the EU funding programmes. Mandatory involvement of the business sector into the projects through the support of policies makers and the line agencies. Exchange of good practices between countries.
- In Horizon 2020 there would be special emphases for better dissemination /exploitation of results while EC would like to get more cooperation between the public and private partnerships.
- The EU funding programmes should provide for inclusion of the following tasks into the projects:
    - Early identification and involvement of relevant stakeholders and potential target audiences in the project design,

- Involvement of future user of the results in project teams,
- Formalised requirements for informing the relevant stakeholders, potential target audiences and interested public about the progress of the project throughout the project
- A part of budget set aside for preparing demonstration activities/projects

What recommendations would you suggest to future participants in projects for better dissemination / exploitation of results

- Proactiveness; accepting support from RTD support environment
- Participation in professional networks
- Internal vademecums on RTD collaborations; clear strategies
- Right choice of partners, from previous good experience.
- Innovative and environmentally friendly technologies.
- Good cooperation with competent authority (regulator)
- Improved communication between all participants - appropriate market analysis
- Base results on real needs and objectives and develop projects to focus to market possibilities even if after several years
- Clear vision of the project and results, serious efforts should be made to understanding of project objectives early on in the project
- Strong network and include business partners (on both sides) in the project
- A need for constant communication to industry and consulting community would help developing end user results. Providing sufficient time, scope and resources for development of demonstration projects based on the results.
- Mixed teams and regular formalised monitoring of progress of the project by all partners.
- Possibility to gain appropriate information on needs and requirements in other countries
- Companies must fund at least a part of the project. Strict orientation to the market; but it has to be very realistic – just in that case the PPP can get a very good exploitation of results.
- The project leader (not necessary the leader of the scientific research) must be from a company.