

TRANSANTIONAL AUTOMOTIVE NETWORK IN CENTRAL EUROPE

“COOPERATION TO SUPPORT IMPROVEMENT OF POLICIES”



**AutoNet network is implemented through the
CENTRAL EUROPE Programme co-financed by ERDF**

Cover page (and following pages)

A **tag cloud** (word cloud, or weighted list in visual design) is a visual representation for text data, typically used to depict keyword metadata (tags) on websites, or to visualize free form text. Tags are usually single words, and the importance of each tag is shown with font size or colour¹. This format is useful **for quickly perceiving the most prominent terms** and for locating a term alphabetically to determine its relative prominence.

A text cloud or word cloud is a visualization of word frequency in a given text as a weighted list². The technique has recently been popularly used to visualize the topical content of political speeches.

The tag Cloud in Cover Page of this study is made by words of the Introduction, which resume the **“Framework Policy Document” elaborated by Autonet Partners**.

¹ Martin Halvey and Mark T. Keane, [An Assessment of Tag Presentation Techniques](#), poster presentation at WWW 2007, 2007

² Lamantia, Joe. "Text Clouds: A New Form of Tag Cloud?"

WP5 – Cooperation to support improvement of policies

FINAL STUDY

INTRODUCTION

As it was stated 3 years ago in Autonet "Framework Policy Document" the automotive industry is crucial to Europe's prosperity, because the EU is the largest producer of motor vehicles in the world. A large pool of skilled workforce is employed in the automotive industry, a sector playing a strategic role as key driver of knowledge and innovation.

Central Europe, in particular, is considered to have become "Europe's Detroit" with its high concentration of motor vehicles production, due to low-cost but highly skilled labour, EU membership and good transport links with the West.

The sector, though, is highly suffering from global crisis that has affected the supply and sub-contracting network, the manufacturing (motor vehicles, motorcycles and parts thereof), as well as RTD institutions that collaborate with industry on innovative projects. The negative impact is clearly visible in all European regions that appear to be seriously damaged by jobs cut, declining tax revenue, decreased production, arrest of RTD and implementation of innovation projects.

Within this framework, European Union awarded Project AutoNet, led by 9 partners from 7 CE countries, with a financial contribution to strengthen the conditions for innovation in car industry and support the re-launch of its competitiveness. In achieving this goal, part of project activities were addressed to research on framework conditions of automotive industry within relevant territories in CE and, starting from there, outline recommendations to be reported as input to policy-decision-makers in order to stimulate their action to revive the sector.

This Study is a the Final report that resume and aims to evaluate 3 years of project implementation in the field of policies and cooperation with Associated institutions with more deep insight about 3 selected policy areas:

- *Policies supporting **increase of innovation capacities** in automotive industry related fields in regions*
- *Policies supporting **sustainable development and increase efficiency** of supporting business actors*
- *Policies increasing **investment in innovations** in automotive regions.*

*Diego Borsellino
General Manager Comunimpresa Scarl*

28th February 2013

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Chapter 1

SHORT PROJECT OVERVIEW

All regions of the automotive industry are faced by the worldwide economic crisis, resulting in the need of regional or national governments to find an efficient way of support. Project AutoNet is to provide activities for such a support by focusing on sustainable competitiveness of region in automotive innovations.

Nine partners from seven European countries working in the field of automotive industry have united themselves into the project AutoNet. The main task of the association is matchmaking and networking of organizations and subjects to boost development of new innovative solutions by supporting creation of trans-regional innovative cooperation.

- AUTOMOTIVE CLUSTER – WEST SLOVAKIA – SK
- BUSSINESS INTEREST ASSOCIATION ACS, AUTOMOTIVE CLUSTER OF SLOVENIA (SI)
- WEST-PANNON REGIONAL DEVELOPMENT COMPANY (HU)
- SAXONY ECONOMIC DEVELOPMENT CORPORATION (DE)
- PROVINCE OF REGGIO EMILIA (IT)
- MORAVIAN-SILESIA AUTOMOTIVE CLUSTER (CZ)
- WIELKOPOLSKA AGENCY FOR ENTERPRISE DEVELOPMENT (PL)
- LOWER SILESIA AGENCY FOR ECONOMIC COOPERATION (PL)
- COMUNIMPRESE SCARL (IT)

Project AutoNet's specific objective is to promote CE region and its actors as an ideal area for creating new processes, materials or products in automotive industry. AutoNet project proposed trans-regional matchmaking opportunity by creating "AutoNet" as a permanent business network supporting actors of automotive industries from CE regions.



With the establishment of a permanent network of leading automotive regions in CE – AutoNet focuses on 3 major areas by realization of common activities through the network:

1. Search or research of new services that could be provided by supporting actors in region to improve the conditions for innovation
2. Boost creation of transnational cooperation or ventures to produce innovative solutions
3. Create awareness about supporting of innovation in the automotive industry at different policy decision maker levels by elaboration of policy recommendation at 3 levels (regional, national and EC) and realize implementations through associated institutions of project.

The general objective is to support for the establishment and development of transnational network of clusters or other business supporting actors of automotive industry. The network has to play important role in the support of automotive industry in leading automotive regions by coordinating their activities and implementing activities in line with transnational clusters best practices recommended by E.C. or other relevant institutions.

More specifically, the project focuses to improve the framework of innovation in automotive industries with high positive contribution in fostering knowledge development. The targets are following ones:

- Create functional network including common technical standards and procedures (i.e. creation of thematic working groups, exchange of experience etc.)
- Create and maintain specific transnational services which will increase support network members and partners (specifically Internet based Match-making database, training service for SME's and RTD institutions related to Automotive, Transnational Network promotion)
- Realize the joint analyses of Automotive industry supporting actors and elaborate CE and regional strategy plan in Automotive industry
- Establish close cooperation with decision policy makers and address policy recommendation to support sustainable development of Automotive industries

The main activities are:

1. Create Network standards and procedures
2. Develop and maintain Match-Making database, train SME's and RTD in usage of Match-Making database
3. Create and realize Dissemination strategy for Network
4. Identify best practices across leading automotive regions. Research and Analyze CE and regional strategy plan to tackle the negative impact of economy crisis in Automotive.



Chapter 2

SUMMARY OF GOALS OF WP5 ACTIVITIES

One of the principal targets of AUTONET project has been to stimulate exchange of experiences and knowledge between the project partners, and to initiate productive cooperative projects among partner regions. From the beginning, AUTONET member institutions took the distinctive distribution of responsibilities in their regions in the automotive field into consideration. The political and institutional structures vary considerably among European member countries at the regional level and in certain cases responsibilities are shared among several actors within a single region for a single industry. Keeping this in mind, AUTONET partners made it a priority to extend the reach of networking activities to other relevant actors in their regions. This open and welcoming approach led to cooperative activities in different fields.

More over Clusters and cluster management are crucial tools to bolster the competitiveness of European economic area and are designated among industrial and innovation support mechanisms by European Union. Automotive industry, the focus of AUTONET project, had a crucial importance not only due to its economic contribution that is visible in statistics (employment, added-value creation, investments in R&D among others), but also because it predates developments and trends in other industries. Automotive has always had a wide-reaching strategic, organizational and technological influence and it continues to pull along other industries as it moves ahead on its path of innovativeness and change.

The European Union supports different means to intensify inter-territorial cooperation: the importance of cooperation in the field of automotive industry doesn't need to be underlined; the European Automotive industry has to work together to face the challenge of globalization. The regional actors are fully aware of their role as crucial stakeholders and are making vibrant and effective contributions to this end. It is important that the mechanisms to continue to support such networks are maintained and reinforced: in this way AUTONET partners strongly collaborated with other Automotive Networks, establishing relationships, inviting them to join AUTONET activities and facilitating communication and the wider and faster dissemination of best practices and cluster management organizations. Moreover, it targeted to initiate cross-border cooperation projection, with a strong emphasis on SMEs.

AUTONET's feedback along regional competitiveness realm complemented the overbearing aim of CARS 21 group, which was set to make a contribution to the worldwide competitiveness of the EU automotive industry. By expanding the results of CARS21, AUTONET served for effective governance at all levels of European Union and assisted competitiveness inducing regulation making; especially in on multidimensional issues like exhaust-emission levels regulations and their economic impacts. In this sense, AUTONET Network took the intrinsic policy feedback function of existing automotive-themed projects to the next level, thanks to the broader geographical and organizational reach of the other networks with which collaboration started during three years activities.

The Objective of WP5 activities can be displayed as follows:



In these framework the 9 partners, working hardly together achieved those main results:

a) One Official Network!

The 9 Project Partners in July 2010 officially established their own Network casting it into the European Automotive arena as a reliable counterpart with whom to cooperate. Its scope is to consolidate Members presence and visibility on the European scenario; in the framework of AutoNet Network, AutoNet Partners agreed:

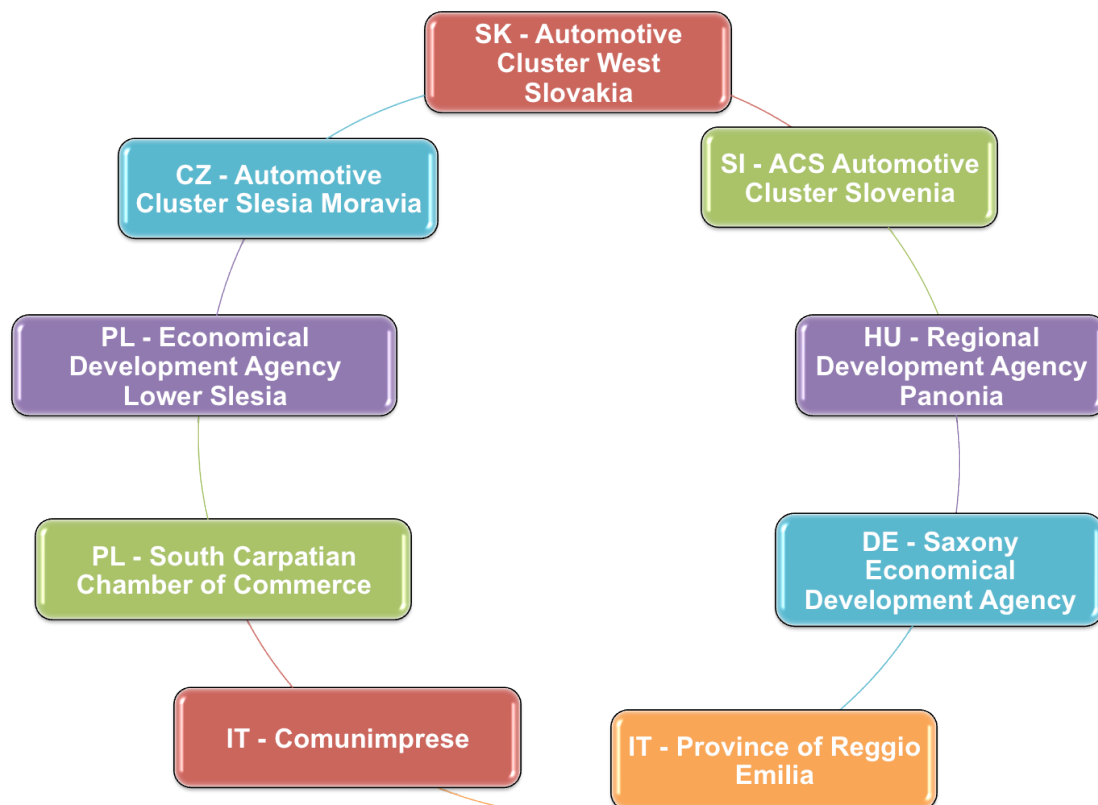
- To support automotive industry innovation by transferring and implementing common services and policies standards.
- To boost automotive industry innovation by matchmaking relevant actors who are willing to seal the signature of mutual cooperation agreements or ventures.
- To stimulate more efficient cooperation among actors of the so-called innovative triangle: Universities (other RTDs) – SMEs – Governments.
- To foster international co-operations and partnerships among SMEs in the automotive industry.
- To promote CE territory as the leading automotive area in the field of innovation within regions outside EU.
- To involve the policy makers at regional, national and EC level, project-associated institutions and other relevant networks into the process of ameliorating the conditions for automotive industry innovation.

The undersigning organisations agreed to cooperate in the following areas:

- A. Exchange of experience to improve regional services
- B. Match-making to boost innovation
- C. Cooperation to support improvement of policies

With the following objectives:

- to identify new services through the exchange of experiences inside the partnership that will result in good practices to be transferred to other partners within the network;
- to improve identified or develop new services and policies in support of innovation and technology transfer in the Automotive industry in CE regions with strong Automotive vocation, tackling new challenges propelled by economical crises;
- to create new trans-regional ventures or cooperation agreements among actors of participating Regions by launching match-making activities in order to produce innovative solutions;
- to set up AutoNet as a permanent network of business supporting actors in Automotive industry by leading CE regions;
- to promote cooperation with similar transnational activities and networks.



Comunimpresa, taking care of the basic structures of cooperation, coordinating the different activities and serving as a Contact Point to all members and followers, is managing a Secretariat.

The cooperation actually concerns the following activities:

- the organization of exchange of experience seminars and conferences;
- the organisation of matchmaking events that lead to the creation of at least one cooperation initiative where at least one actor will be from a Third Country;
- the setting-up of a matchmaking web-based database service, as Joint Sustainable Transnational Tool;
- the sealing of cooperation agreements with similar transnational activities and networks;
- confrontation meetings with policy decision-makers.

The organization of the cooperation is organised as follows:

- I. All parties to this Agreement are represented in the Assembly of Partners with equal rights. Every member nominated a representative in the Steering Committee. There is no burden imposed to any party beyond their voluntary commitment. All expenses (travel and accommodation, conferences, project costs etc.) are covered by each party itself unless there is a voluntary commitment to do otherwise.
- II. A President is assigned on a rotating principle on a one-year basis, whose task is to suggest and, upon decision and in collaboration with the Steering Committee, support the execution of the Work Programme.
- III. In order to support and facilitate the execution of the Work Programme, a Secretariat is set up. It takes care of the basic structures of cooperation, coordinate the different activities and serve as a contact point to all members. It provides the documentation and basic information about the Network's actions and related activities. This Secretariat is actually placed in Milan c/o Comunimpresa – Italy. Together with the Lead Partner of "AutoNet" project, the Secretariat will guarantee the sustainability of the Network for at least 2 years, after the end of AutoNet Project. After this period there will be the possibility to start a rotation also of the Secretariat role.
- IV. The operating language of the Network will be English.
- V. All the undersigning partners decide an annual Work Programme upon the way of agreement. The Work Programme specifies areas of cooperation between the undersigning partners regarding key topics, events and projects to be realized.
- VI. The Work Programme will be suggested by the Organization in Presidency.
- VII. This Agreement does not limit the undersigning parties to form or participate in other agreements in any way.
- VIII. Membership can be terminated by declaration at any time; new members will be accepted by majority of votes in the Steering Committee.

The activities of the Network will be carried out as follows:

- I. a minimum of two Assemblies of Members every year (preferably one per semester);
- II. a minimum of one public event (public meeting, seminar, workshop, etc.) every year of activity of the Network;
- III. one or more theme meetings to be arranged in relevant locations/occasions in order to promote the Network and stimulate new potential partners);
- IV. organising a teleconference per month to discuss specific topics/issues based on Members' request;
- V. a permanent internet or phone contact among the Members to discuss specific issues;
- VI. maintain a website aimed to guarantee permanent communication among the Members, also after the end of "AutoNet" Project;
- VII. one annual report for every year of activity, edited by the Secretariat, summarizing the goals met by the Network and the positive actions taken;
- VIII. mutual study-visits among the Members;
- IX. stakeholders exchange among the Members and other interest groups.

b) ONE LINKEDIN GROUP WITH 30 MEMBERS!

The LinkedIn group actually involves 30 Members willing to cooperate with other relevant Automotive European Platforms, Organisations, Universities, R&D Institutions, individuals to match-make ideas, share perspectives and stimulate debates.



c) NINE LOCAL TEAMS

Each Project Partners established a Local Team involving relevant policy-level bodies and economical operators to actively participate in AutoNet actions. The Network can actually counts on 9 Local Teams as working groups called upon the confrontation on automotive topics relevant to project activities. The setting up of each Local Team has been made official by the subscription of a collaboration document that, considering the potential added-value that would be provided by joint collaboration between AutoNet Project and local partners of each Project Partner, in facing the goal of enhancing the competitiveness of the Automotive Industry in the EU, established a Local Team which had been working in a general framework of collaboration within the scope and objectives of AutoNet Project, with the aim of

improving the conditions for innovation in Automotive industry. The format that follows was signed by each local tam in Central Europe territories involved in Autonet Network.



COLLABORATION DOCUMENT

Between

AutoNet - CE Project 2CE201P1

PP

And

.....
And

PLACE.....,DATE.....

Recalling the goal of AutoNet Project which is to ameliorate the framework conditions for innovation in Automotive industry in CE Regions, by the creation of a permanent Network as an operational tool in support of Automotive Business.

Considering the potential added-value that would be provided by joint collaboration between AutoNet Project and and in facing the goal of enhancing the competitiveness of the Automotive industry in the EU.

Have agreed to establish a Local Team which is working in a general framework of collaboration within the scope and objectives of AutoNet Project, with the aim of improving the conditions for innovation in Automotive industry.

Parties have agreed that this Document of collaboration is not legally binding.

This Document of collaboration may be terminated unilaterally by any Party any time.

THE PARTIES HEREBY EXECUTE THIS DOCUMENT OF COLLABORATION EFFECTIVE UPON THE DATE OF SIGNATURE.

**AutoNet Project
PP**

**Name of Representative
Place and date**

.....

**Name of Representative
Place and date**

.....

**Name of Representative
Place and date**

.....

**Name of Representative
Place and date**

d) ONE FRAMEWORK POLICY DOCUMENT

The Network researched on the state-of-the-art of automotive industry in CE, mapping the excellence of the region, highlighting trends and developments, focusing on needs and priorities. This document collects and assembly single and personal analysis conducted by each AutoNet partner.

Each of them offer a personalized elaboration regarding the state-of-the-art of automotive industry within their territory, mapping the excellence of the region, highlighting trends and developments, focusing on needs and priorities and analysing innovation and research, with the following information:

- Quantitative and Qualitative Analysis of the Automotive Industry

- I. Introduction and the main features of the automotive industry
- II. Structure of the automotive industry
- III. Research and Innovation
- IV. Main development trends in the automotive industry
- The Construction of the Automotive Network: Cluster Initiatives
- Requirements and Priorities of the Automotive Industry

AutoNet
FRAMEWORK POLICY DOCUMENT
*Notes on the Automotive industry in Central Europe:
Slovakia, Slovenia, Italy, Czech Republic, Poland, Germany, Hungary*

The automotive industry is crucial to Europe's prosperity, because the EU is the largest producer of motor vehicles in the world. A large pool of skilled workforce is employed in the automotive industry, a sector playing a strategic role as key driver of knowledge and innovation.

Central Europe, in particular, is considered to have become "Europe's Detroit" with its high concentration of motor vehicles production, due to low-cost but highly skilled labour, EU membership and good transport links with the West.

The sector, though, is highly suffering from global crisis which has affected the supply and sub-contracting network, the manufacturing (motor vehicles, motorcycles and parts thereof), as well as RTD institutions that collaborate with industry on innovative projects. The negative impact is clearly visible in all European regions which appear to be seriously damaged by jobs cut, declining tax revenue, decreased production, arrest of RTD and implementation of innovation projects.

Within this framework, European Union awarded Project AutoNet, led by 9 partners from 7 CE countries, with a financial contribution to strengthen the conditions for innovation in car industry and support the relaunch of its competitiveness. In achieving this goal, part of project activities are addressed to research on framework conditions of automotive industry within relevant territories in CE and, starting from there, outline recommendations to be reported as input to policy-decision-makers in order to stimulate their action to revive the sector.

This document collects and assembly single and personal analysis conducted by each AutoNet partner: AUTOMOTIVE CLUSTER WEST SLOVAKIA (SLOVAKIA), COMUNIMPRESE SCARL CONSORTILE COMPANY LIMITED BY GUARANTEE (ITALY), BUSSINESS INTEREST ASSOCIATION ACS, AUTOMOTIVE CLUSTER OF SLOVENIA (SLOVENIA), MID-PANNON REGIONAL DEVELOPMENT COMPANY (HUNGARY), SAXONY ECONOMIC DEVELOPMENT CORPORATION (GERMANY), PROVINCE OF REGGIO EMILIA (ITALY), MORAVIAN-SILESIAN AUTOMOTIVE CLUSTER (CZECH REPUBLIC), PODKARPACKA IZBA GOSPODARCA (POLAND), LOWER SILESIAN AGENCY FOR ECONOMIC COOPERATION (POLAND).

Each of them offer a personalized elaboration regarding the state-of-the-art of automotive industry within their territory, mapping the excellence of the region, highlighting trends and developments, focusing on needs and priorities and analysing innovation and research.

e) NINE REGIONAL POLICIES RECOMMENDATIONS IN 3 STUDY AREAS

The Network outlined operational recommendations to be reported as inputs to policy decision-makers to stimulate their action to revive the sector. Recommendations have been regularly revised and reassessed considering how they were in line with regional policies.

The analysis took into consideration 3 study areas pertaining:

- 1) innovation capacities
- 2) efficiency of supporting business actors
- 3) investments in innovations.

In the first revision of the Recommendations after underlining that the automotive industry is crucial to Europe's prosperity, because the EU is the largest producer of motor vehicles in the world. A large pool of skilled workforce is employed in the automotive industry, a sector playing a strategic role as key driver of knowledge and innovation. And these are two driving forces whose empowerment is binding in order to help the sector overcome global crisis and flourish again.

As far this, AutoNet Network, capitalizing on the activities carried out after nearly two year work, was in the position to outline and hand to the policy-decision-makers a few arguments and recommendations to stimulate their action to revive the sector.

The first argument related to the importance **to prepare well-educated and trained staff, through a tight cooperation between automotive companies and technical schools.** AutoNet partners specifically recommended the increase of the quality of education in European technical high schools, their cooperation with automotive sector, the unification of their curriculum including its update on an ongoing basis, and a view on the creation of new knowledge, skills and competences in the field of ecology, eco-mobility, security and comfort.

Secondly AutoNet Partners agreed on the need **to keep on enforcing partnership and cooperation among R&D sector, universities and automotive industry,** being the latter the leading investor in research activities capable to drive the development and diffusion of new technologies and innovations able to be competitive on the market. In parallel they all called for the continuous support of a strong cluster policy, capable to optimize resources, knowledge, skills and efforts, avoiding dispersion and promoting the excellence of a region. The acknowledgement and the interlink between CE leading regions of excellence, might contribute to best-practices transferability and increase international visibility.

Finally AutoNet Partners recommended **easier access to funds for investment in development projects,** asking the political interlocutors **to allocate economical resources through the launch of founding programmes financing research initiatives that might boost the innovation within the sector.**

The first Policy recommendations revision collected and assembled single and personal analysis conducted by each AutoNet partner willing to hand over to the policy-decision-makers a few recommendations to push their intervention and attention towards new lymph to the automotive sector.

Policies recommendations delivered in the first round are still very actual; sometimes seem to be shyly followed by concrete new interventions or by the improvement of the existing ones. Anyhow how effective and successful these policies are, is something we can judge only on the long term.

Some regions may benefit from the backing of new or ongoing partnership and cooperation among industry, R&D sector and universities together with the allocation of new envelopes of economical resources for the development and support of cluster activities, as it was the case in Lombardy Region.

Some others still claim for a better coordination among R&D interlocutors and the industrial sector and the spin of ventures among them through the allocation of concrete investments that might boost the necessary innovation capacities in favour of development.

In Lower Silesia is to be mentioned the new Strategy of Regional Development, grounded on **the launch of educational courses that improve the qualifications and potential of managers and leaders operating in the automotive industry** (an initiative recently launched by Lombardy Region, as well), together with the implementation of **joint science projects between business and academic institutions**, a priority that seems to be perfectly in line with the recommendations already moved into the attention of the policy leaders and incorporating the idea of building industrial and technology parks located in Special Economic Zones.

It is greatly highlighted **the focus on e-mobility which has been a policy area of new trends and sustainable developments** for the Saxony region.

Equally urgently recommended the establishment of an instrument for systematic coordination addressed to the preparation and implementation of EU projects, being able to rely on a to-be consolidated international networking of all the stakeholders to be involved.

f) THREE ANNUAL INTERNATIONAL CONFERENCES

Nearly 400 participants from Central Europe gathered in Leipzig, Ostrava and Wroclaw. They were innovative automotive supplier companies, representatives of automotive networks, decision makers, R&D-facilities and institutes, stakeholders and members from universities.

They all attended with an interest in bi/and multilateral cooperation, laying the ground for future relations and business contacts.



g) SEVEN INTERNATIONAL MEMORANDUM OF COOPERATION (MOC)

The MOCs proposed a framework of collaboration to further common goals that includes awareness raising activities and information exchange, within and beyond the collaboration framework.

Considering the complementarities of goals and interests pursued by AutoNet network and the partners listed below, in support of automotive industry across Europe and recognizing the potential added-value that would be provided by joint cooperation and mutual support in facing the goal of enhancing the competitiveness of the Automotive Industry in the EU, Partners had agreed as follows:

- 1) the scope of the MOCs is to establish a framework of collaboration between AutoNet Network and the other undersigning organisation to further common goals.
- 2) These goals included awareness raising activities addressed to stakeholders of the Automotive industry as well as policy-makers levels (regional, national and EC).
- 3) The activities undertaken under the MOCs promoted information exchange, common strategies adoption and know-how transfer within and beyond the collaboration framework.

The Seven partners that undersigned the MOCS with AutoNet Network are:

A. CLEPA (European Association of Automotive Suppliers)

CLEPA's aim is to promote, defend and represents the general interests of the motor equipment and parts industry internationally. To achieve this aim, CLEPA seeks to coordinate views and opinion regarding all the problems facing the industry, both in the technical and the economic fields, to ensure harmonious development of international trade, especially through the lifting of technical barriers.



CLEPA represents the official voice for the automotive supplier industry and its aim is to further strengthen the position and promote the common interests of one of the most strategic industries in the European and global economy. To serve this purpose CLEPA actively endorses the development of the necessary competitive framework conditions and acts as information network and as the principal negotiation platform between suppliers and institutions.

CLEPA and its members are firmly committed to win the battle of competitiveness by keeping investing on innovation, safety, environmental protection, social responsibility, sustainable development and sound economic growth.

The over 3000 member companies of CLEPA play a central role in adapting the automotive industry to the sweeping changes brought on by the double processes of globalisation and technological development. Automotive suppliers account for about 75% of the vehicle industry's final product value and are responsible for about 50% of the research and development in the sector.

CLEPA mission is to defend and to make the most of this endowment of innovative skills and industrial achievements by initiating activities, which stimulate the successful business growth and development of its members and by rising debate on those topics, which directly impact the future of the automotive industry in general and of the supply chain in particular.

Building on more than 50 years of experience and activity, CLEPA is now recognised as the natural discussion partner on all issues regarding the automotive supply industry by the European Institutions and the United Nations. Within UNECE, CLEPA received formal mandate from MEMA (USA) and JAPIA (Japan) to represent the worldwide suppliers.

CLEPA also facilitates constructive dialogue with all relevant parties including vehicle manufacturers (ACEA, JAMA, etc.) and fellow associations in the relevant automotive world markets both in the field of Original Equipment and of the Aftermarket.

B. EASN (European Automotive Strategic Network)

EASN delivers projects via a three-tiered approach under the pathways of innovation, skills and clusters.

Our strategy involves working with European Champions to identify specific challenges facing the industry and, through collaboration, identify solutions and develop these into projects.

The output from these projects is then fed to the European level decision makers to influence future strategies and policies to the benefit of the industry.

How do EASN helps his members?

- Provide a 'voice' with the main European automotive industry decision makers
- Consider the future of the industry within the EU and each region providing feedback via the clusters
- Brings together regional and cross boundary Tier 2/SME suppliers
- Combine expertise and knowledge
- Share R&D costs to reduce investment and maximize results
- Listen to and share key issues developing solutions to the challenges
- Collaboratively bids and wins programmes which are then delivered through partners



EASN has undertaken significant development work to develop a wide network of contacts across the EU, encouraging closer collaboration across regional and national boundaries. At present EASN involves with more than 30 EU, regional or local projects with this number growing all the time

C. AUTOCLUSTER NETWORK

The "Autoclusters Network" was established in 2007, with Respect to:

- Create first sustainable network in automotive industry in SEE region with specific focus on innovation activities by cooperation between R&D, Automotive clusters and Universities.
- Create partnership, which consists from institutions from new member States, non-EU members as well as well-experienced institutions from EU-15.
- Invite into network not just clusters and other SME supporting facilities but directly also R&D institutions and universities.



Partners (actually 26, coming from all South East Europe Regions) agreed

- To collaborate with the aim to create the first network in Automotive industry in SEE with focus on increase the innovation capacity and improve technology transfer and the innovation cycle.
- To focus on the three key aspects: automotive, innovation and transnational cooperation. These three aspects will be the basis for all joint activities/projects.
- To support facilitation of clusters (in regions with no presence), improving of local services by exchange of experiences, marketing, etc.
- To continue these activities after the "Autoclusters" project's closure, with the support of all partners, to guarantee sustainable outputs/results from the project itself: updated website, on-line database, exchange of experiences activities.
- To reach out in Pan-European activities even beyond the SEE project's scope and act as a leading figure in automotive innovation and ICT related sectors.

In the following areas:

- a. Providing the best practices from their Regions and updated studies on Clusters development
- b. Innovative trends and main challenges in Automotive industry
- c. Increasing of cooperation and innovation capacity
- d. Pilot R&D cooperative projects
- e. Mutual support between partners in solving specific issues linked to automotive industry and labour market.

With following objectives:

- to speed up the usage of NMS potential (as well as candidate's countries, potential candidate and neighbouring countries);
- to identify the conditions for more efficient know how and technology transfer as well as to prove the concept by pilot project implementations;
- to promote automotive industry at universities and in other R&D institutions;
- to increase competitiveness between institutions in SEE region to focus on and contribute in finding of solutions for global problems in Industry;
- to create conditions for networking in finding of solutions for global problems in Industry;
- to invite new members to join the network;
- to identify of available possibilities for further development of cooperation through community or national programs and other funding sources.

D. CLUSTERS CORD (Clusters & Cooperation for Regional Development in Central Europe

CLUSTERS-CORD is CENTRAL EUROPE Initiative program running from 1st March 2010 to 28th February 2013 (36 months). A cluster can be broadly defined as geographically co-located end producers, suppliers, services providers, research laboratories, educational institutions, and other institutions in a given economic field, are important drivers of dynamic regional economies.



Clusters are powerful engines of economic development and drivers of innovation in the European Union.



They provide a fertile business environment for companies, especially SMEs, to collaborate with research institutions, suppliers, customers and competitors located in the same geographical area.

CLUSTERS-CORD brings together 10 European partners interested in exchanging experience on cluster policies, best practices, cluster management, and development of direct cooperation among existing actors.

E. PLASTIC CLUSTER IN ZLIN REGION

18 founding companies established the Plastics Cluster as an interest association of legal entities on 27. 2.2006. The objective of the cluster is to create a communications environment for companies in the plastics industry, to support their expansion into new markets, to build a base for research and development and the organisation of training of selected professions for member companies. The project of establishing the cluster was co-financed by the Zlín Regional Government and was supported by a grant from the Operational Programme Industry and Enterprise.

The Zlín Region will become the centre of innovative plastic product manufacturing in the Czech Republic.



Concrete objectives of the cluster's activities:

- Create a representative forum of plastic product manufacturers in the Zlín Region
- Set up an effective network of plastic product manufacturers to take advantage of selected services and products, as a necessary prerequisite for increasing performance and competitiveness.
- establish a base for the preparation of joint development projects

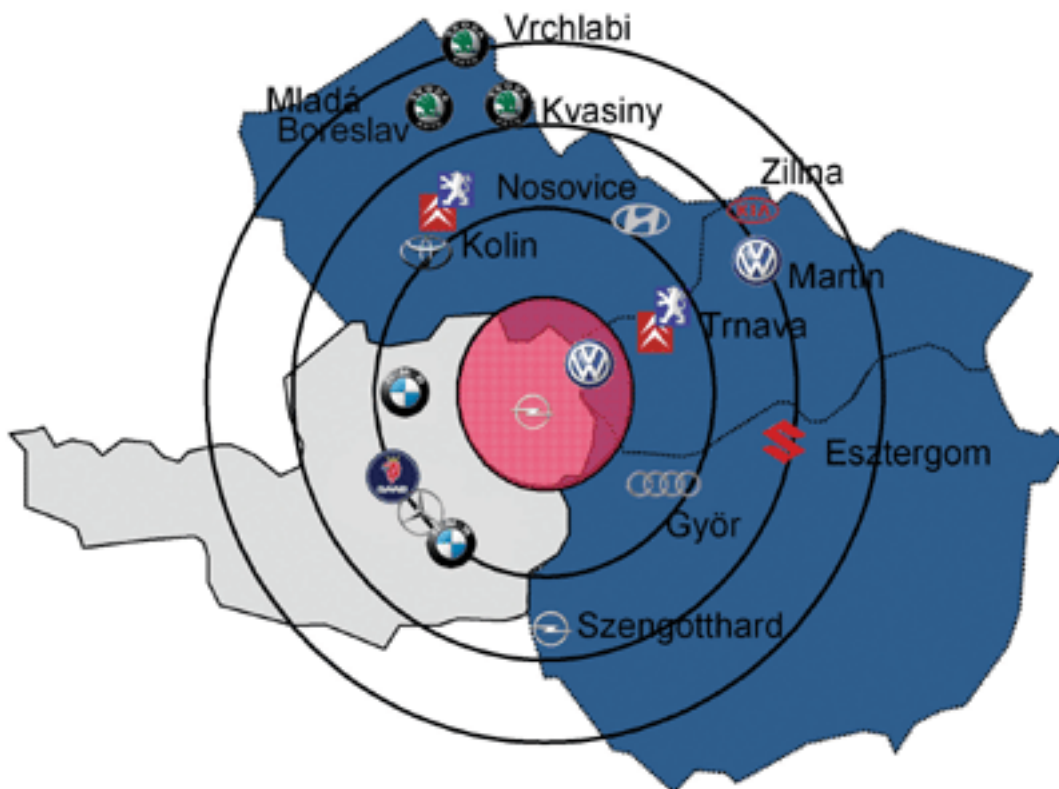
Participation in the preparation of international projects:

- a. Cross border cooperation of the Czech Republic and Slovakia:

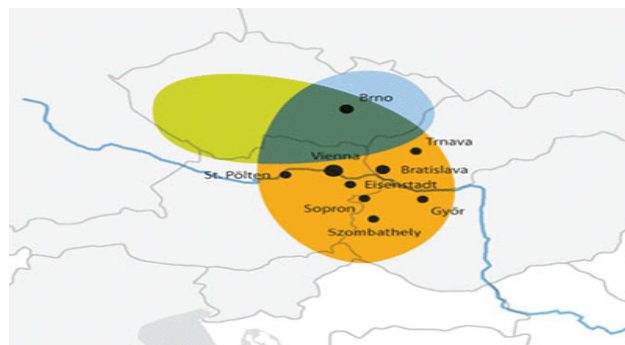
- Development of knowledge potential of teachers, technical staff and students in the field of plastic and leather technologies (in cooperation with the Technical College in Otrokovice)
 - To create conditions for the growth of cross border group of business entities and the quality preparation of human resources (in cooperation with the Automotive cluster - West Slovakia).
- b. Seventh Framework Programme:
- CERADA – European Research and Development Area (in cooperation with entities in the Zlín, North Moravian, Žilina and Katowice regions.)
 - CLUSTERPLAST – Inter-cluster initiative to target the future challenges for the European polymer converting industry (in cooperation with clusters from France, Italy, Austria, Spain and Portugal.)

F. AC CENTROPE (Automotive Cluster Central Europe)

The wider region CENTROPE - in the border quadrangle between Slovakia, Czech Republic, Hungary and Austria up to Romania and Poland - is becoming ever more significant for the automobile industry. Presumably, more than 3 million cars will roll off the Central and Eastern European assembly lines in 2008. Approximately 5 percent of the vehicle production worldwide will be manufactured in this region - reason enough to call it "Detroit of the East".



Ten automobile manufacturing plants are already located within a radius of 300 kilometres of Vienna. The large international system suppliers followed the automobile manufacturers - nevertheless the majority of the necessary parts still come from West and South Europe. The manufacturers are therefore currently restructuring the procurement network and increasing their focus on local purchasing of bought-in parts. This is supported by the general trend in the automobile industry to further reduce their own value creation and to transfer the development and/or production processes to suppliers. This opens up substantial possibilities for suppliers in the region. Studies carried out by Institute for Management Sciences of the Technical University Vienna and by the Fraunhofer Project Group for Production Management and Logistics show that the annual procurement volume of the automobile manufacturing plants in the wider CENTROPE region will exceed 20 billion Euros starting from 2008.



G. INNOVMAT (Platform of innovations and technologies in the field of material sciences).

Innovmat want to establish a bilateral technology transfer platform for innovative materials in the region Vienna-Bratislava.

Material sciences and technologies play an important role in the region Vienna-Bratislava. A large number of technology oriented enterprises with special needs in R&D support are located here. However, the transfer of knowhow from scientific institutions to SME's is limited causing significant competitive disadvantages.

To boost the region's competitiveness, transnational-intersectorial instruments in the field of materials sciences and technologies tailored to suit the market needs are required. Creation of new networks to interlink scientists and enterprises are able to improve the quality and quantity of technology and knowhow transfer within the economic area.

Aims

- Initiate new routes of collaboration between Austrian and Slovakian R&D institutions to develop new materials for industrial applications.
- Establishment of a cross-border platform for technology transfer of innovative materials and technologies to strengthen the local supply chains.
- Enhance the innovative potential and competitiveness of high-tech oriented enterprises in the Vienna-Bratislava region.



Chapter 3

OVERVIEW OF POLICIES SUPPORTING INNOVATIONS IN AUTOMOTIVE INDUSTRY AT THE EUROPEAN LEVEL

*THE FOCUS OF THIS CHAPTER IS ON EC LEGISLATION, POLICIES AND FORMER RECOMMENDATIONS REGARDING
AUTOMOTIVE INDUSTRY AND IN THE SAME TIME INNOVATION³.*

The European automotive industry is one of the biggest industries in Europe with more than €700 billion in turnover and a multiplier effect on the entire economy via links with other sectors (steel, chemical and textile). There are some 180 vehicle plants across the EU. The industry provides over 12 million direct and indirect jobs with a significant share of highly skilled workforce. It has a hugely positive trade balance (of over €90 billion in 2011). It is thus a major source of growth and prosperity of the European citizens.

Due to the current macro-economic situation, automotive sales in EU markets have declined this year (a 6.8% decline for the first half of 2012 for passenger cars and a 10.8% decline for commercial vehicles) - compared to already low sales levels of 2011. Current forecasts indicate almost 8% year-on-year decline in the EU passenger car market with sales amounting to 12.1 million units, representing the fifth consecutive year of decline. Recovery of growth is expected only in 2014/2015 and a return to pre-crisis levels is not expected in the next 4-5 years — in certain markets only by the end of the decade.

The industry is a key driver of knowledge and innovation as it is the largest private investor in R&D (around €30 billion in 2010) and a world leader in the development of safety and environmentally favourable performance technologies. The industry is currently investing and preparing for both fuel efficiency improvement of conventional engines and the deployment of electric vehicles. While electric vehicles sales in EU in 2011 reached only 11 000 units, electro-mobility is firmly on track and it is expected that by 2020, registrations of vehicles with traditional combustion engines will fall while the registrations of electric vehicles will increase its share to 7%.

Former Recommendations to Europe Automotive Industry: CARS 21

The CARS 21 group presented on **12th June 2012** its final report calling for rapid progress and outlining concrete actions to be taken on important subjects such as electro-mobility, road safety and Intelligent Transport Systems, market access strategy as well as review of the regulations on the CO2 emissions from cars and vans. The recommendations contained in the December 2011 Interim Report of the CARS 21 Group (MEMO/11/862) are reaffirmed today, but the Final Report goes much further as it sets out a complete vision for the automotive industry in 2020 and provides additional recommendations.

³ Source: ec.europa.eu/enterprise/automotive

The report sets out the following key characteristics of a strong and competitive automotive industry and progress towards sustainable mobility at the horizon of 2020. Those key characteristics should be:

- An automotive sector which remains of strategic importance and a cornerstone for the EU industry and economy, providing quality employment to millions of workers in the EU;
- A strong manufacturing base in the EU for road vehicles, manufacturing a sizeable part of the vehicles sold on the EU market;
- An automotive industry that is leading in technology (clean, fuel-efficient, quiet, safe, connected);
- A sector exporting a larger portfolio of vehicles to third markets, the latter offering a genuine level playing field;
- New vehicles purchased by EU consumers, which are clean in terms of regulated pollutants, more fuel-efficient, safe and connected;
- A portfolio of propulsion technologies, dominated by the advanced combustion engine technology, although increasingly electrified. In addition, the deployment of vehicles with alternative power train concepts (such as electric and fuel cell vehicles) is growing significant;
- Appropriate refilling and recharging infrastructure for alternative fuel vehicles being built up, as required for their market development;
- A workforce in manufacturing, R&D and servicing that is trained and prepared to work with a multitude of technologies.

The CARS 21 members are committed to bringing about the transition in the coming years, within their respective area of responsibility. This vision will be brought to reality by the implementation of CARS 21 recommendations. More concretely, the implementation of recommendations spelled out in CARS 21 Final Report will bring the following changes:

- While the Internal Combustion Engine will remain dominant in the 2020 perspective, a portfolio of alternative fuels, covering electricity, hydrogen, bio fuels, methane, LPG and others, will be necessary to meet the policy objectives. The implementation of the recommendations will ensure that the rollout of alternative infrastructure is in step with the technological development to enable the market penetration of vehicles powered by these alternative fuels.
- The electric vehicles will become a valid choice for the European consumer. The Group recognised that charging of electric vehicles is expected to be performed mainly at home/work, but there will be also a need for publicly accessible recharging infrastructure. In order to ensure interoperability across the EU, standardisation on the European level is needed. This is why the Commission will start an impact assessment into the legislative options and technical modalities, ensuring that practical and satisfactory solutions for the infrastructure side of the interface are implemented throughout the EU.

- The clean and energy-efficient vehicles will be not only deployed but also produced in Europe with the European support for the research, development and innovation on a broad range of automotive issues and critical future technologies. In addition, a specific and major initiative on breakthrough technologies (including, among others, electrification of combustion engines, hybrid and electric vehicles, fuel cells, electrical and electronic systems) will be envisaged, in parallel with the continuous EIB support to the automotive sector as well as to infrastructure and services.
- Regulation for reduction of CO₂ emissions will remain a priority without however affecting competitiveness of the automotive industry. In order to achieve ambitious goals in relevant policy areas, the CARS 21 Group wants that a real integrated approach be fully implemented. Measures to be taken must be proportional and in line with the principles of cost-effectiveness and better/smart regulation, taking also into account the affordability of new vehicles.
- The 2020 targets for the cars & vans CO₂ regulations are technically feasible and will be pursued. Production costs will increase, particularly for cars, but are lower than in previous estimates. Users and society would also benefit from lower fuel consumption. Flexibilities need to be considered in order to achieve a cost-effective implementation of the targets, but they should not effectively weaken the targets.
- A new driving test-cycle and test procedure for measuring fuel consumption and emissions will be developed to be more representative of real-world driving and address the climate and air quality challenge. This will be complemented with measures controlling vehicle emissions in use, based on a thorough analysis, with the aim of delivering a timely reduction of real-world pollutant emissions, hence, contributing to improved air quality.
- Road safety will be improved further, based on complementary actions on vehicles, infrastructure and driver behaviour. The right policy mix needs to be found, combining regulatory with other measures. Priorities include motorcycles, safety of new vehicle technologies (EVs) and technologies supporting driver behaviour and enforcement of road rules (speed limit devices, ITS, ecodriving).
 - EU trade policy will aim to take full account of the importance of maintaining a strong and competitive automotive manufacturing base, using both multilateral and bilateral tools. Both should tackle key issues of removing tariff and non-tariff barriers. Free Trade Agreements should aim at full tariff dismantling and removal of Non-Tariff Barriers. The overall impacts of each trade negotiation should be assessed.
 - The EU will promote the reform of 1958 UNECE Agreement with a view to make it more attractive for third markets. As part of this reform, the introduction of an International Whole Vehicle Type-Approval system should be promoted by all relevant stakeholders.
 - Multilateral regulatory cooperation under the UNECE framework will be complemented with bilateral regulatory cooperation in particular with emerging countries, but also with, for example, the United States - under the Transatlantic Economic Council - and with Japan.

Action Plan in response to the current economic situation

In order to bring about the transformation of the industry as spelled out in the vision for 2020 and set the sector firmly on a path towards competitiveness and sustainable growth, the EU will also have to react to the current economic situation.

Actions in following three areas are envisaged:

- Promoting economic growth by providing European financing for research and investments which are needed to develop the propulsion technologies of tomorrow, the safety and comfort systems and production tools that will be demanded by the future markets, regulations and consumers.
- Managing the costs and structure for doing business by applying the principles of smart regulation, integrating an in-depth assessment of the impacts on industry, society and other stakeholders, notably the associated costs and benefits, are strictly implemented. Also the cumulative effects and effective implementation need to be assessed and specific attention needs to be paid to the constraints of small and medium-sized enterprises (SMEs).
- Supporting the internationalisation of EU industry enabling a larger portfolio of vehicles assembled in the EU to be exported with actions in two complementary areas:
- Improving market access through trade negotiations and
- work with international partners on regulatory and procedural convergence.

In order to devise and implement the Action Plan, a constructive sartorial dialogue for the automotive industry must take place between stakeholders concerned, focused on internal market principles and the general European interest.

While those actions remain yet to be developed, another key recommendation of the CARS 21 Final Report is here of key importance – the necessity to anticipate the change. The Group agreed that anticipation of change should be holistic and respect all factors influencing the competitiveness and the long-term perspective of companies. It should be reflected effectively in companies' long-term strategies with due attention paid to human resources skills and availability. Restructuring, when necessary, should not be resisted, but widely recognised good practices should be followed, to minimise its social impact.

CARS 2020 ACTION PLAN

With 12 million sector-related jobs the automotive industry is vital for Europe's prosperity and job creation. The EU needs to maintain a world-class car industry, producing the most energy efficient and safe vehicles globally and providing high-skilled jobs to millions.

To make this happen, the European Commission tabled on **8th November 2012** the CARS 2020 Action Plan aimed at reinforcing this industry's competitiveness and sustainability heading towards 2020.

The Commission proposes a massive innovative push by streamlining research and innovation under the European Green Vehicle Initiative. Co-operation with the European Investment Bank will be reinforced to finance an innovation boost and facilitate SME access to credit. A EU standard recharging interface will provide the regulatory certainty needed to facilitate a breakthrough for large-scale electric car production.

Innovation in the automotive industry will also be stimulated through a comprehensive package of measures to reduce CO₂, pollutant and noise emissions, to drive improvements in road safety and develop technologically-advanced intelligent transport systems (ITS).

In parallel, the Commission also proposes to address the immediate problems in the car sector. In response to a fall in demand on European car markets and plant closure announcements, the Commission will in November bring together car producers and trade union representatives and Ministers of Industry ahead the next Competitiveness Council to review measures for dealing with the present crisis in a co-ordinated way. The car industry is important throughout Europe and a European response is needed. This response should focus on addressing overcapacity, social and technological investment, as well as state aid and demand-side measures, followed by a discussion at the political level.

The action plan presented by the European Commission aims to help strengthening the EU's automotive industry between now and 2020. It builds on the vision for industry competitiveness and sustainability in 2020 and recommendations how to achieve this vision contained in CARS 21 Final Report.

On this basis, the Commission proposes concrete actions to be taken on issues of emissions, research financing, electro-mobility, road safety, new skills, smart regulation, trade negotiations and international harmonization. The action plan, which comes at a time when the automotive industry is facing particular pressure due to a strong decline of the EU market and structural overcapacities, includes concrete actions to help tackling these difficulties. It is also the first deliverable of the New European Industrial Policy outlined in the Commission's October 2012 Communication (see IP/12/1085).

FOUR PILLARS OF THE ACTION PLAN

The Action Plan is comprises four pillars, each encompassing concrete actions proposed by the Commission, which are to be implemented by the Commission, Member States and regional authorities over the next years:

I. Investing in advanced technologies and financing innovation

To strengthen the competitiveness of the European car industry and to maintain its technological leadership, it is essential to increase the resources for research and promote rules and standards that will help to boost innovation.

Under this pillar the Commission proposes to:

- develop a proposal on the European Green Vehicles Initiative enabling clear identification and information on the research and innovation funding available to the transport industry, setting a clear thematic priority of energy-efficiency and alternative power trains.

- continue working with the European Investment Bank in order to ensure that financing for automotive research and innovation projects is available as well as supporting the EIB in its efforts to facilitate access to finance for SMEs and mid-caps. The Commission will also explore with the EIB the possibility of financing projects linked to electro-mobility.
- implement the 2020 CO₂ targets for cars and vans.
- start a broad consultation on CO₂ regulatory policy for cars and vans beyond 2020.
- actively support the development and implementation of a new driving test-cycle and test procedure to measure fuel consumption and emissions from cars and vans in a way that is more representative of real-world driving.
- define complementary measures controlling vehicle pollutant emissions in use, based on a thorough analysis, with the aim of delivering a timely reduction of real-world pollutant emissions, hence, contributing to improved air quality.
- continue to implement road safety work, covering actions on vehicles, infrastructure and driver behaviour. Priorities will include motorcycles, safety of new vehicle technologies (EVs) and technologies supporting driver behaviour and enforcement of road rules (intelligent speed management devices, seat belt reminders, ITS, ecodriving).
- further promote the deployment of Intelligent Transport Systems (ITS), including cooperative systems, in particular the EU-wide in-vehicle emergency call system "eCall".
- set up an Alternative Fuels Strategy supporting the need for a range of alternative fuels, covering electricity, hydrogen, sustainable biofuels, natural gas and LPG and adopt a legislative proposal on alternative fuel infrastructure, concerning the deployment of a minimum refuelling/recharging infrastructure and common standards for certain fuels, including electric vehicles.
- promote dialogue with relevant stakeholders on a voluntary fuel-labelling scheme.
- monitor the implementation of the National Renewable Energy Action Plans, in particular the effective bio fuel blending rates used in different Member States and the compatibility of fuels with vehicle technologies.
- ensure by a legislative measure that practical and satisfactory solutions for the infrastructure side of the recharging interface for electric vehicles are implemented throughout the EU.

II. A stronger internal market and smart regulation

To attract investment and maintain a strong car base, the European Union needs a stable and predictable framework able to promote innovation without imposing unnecessary burden.

Under this pillar the Commission proposes to:

- set up a dialogue between stakeholders, encouraging them to work towards common principles on vertical agreements on the distribution of new vehicles.
- put forward guidelines for financial incentives for clean and energy-efficient vehicles established by Member States in order to maximise their environmental effectiveness and limit the fragmentation of the market.

- carry out an extensive and in-depth evaluation (“fitness check”) of the vehicle type-approval framework and on this basis to adopt a proposal to enhance the type-approval framework to include provisions for market surveillance to avoid unfair competition.
- carry out competitiveness proofing exercise for major future initiatives, including those with a significant impact on the automotive industry.
- explore the possibility and added value of carrying out a proportionate economic analysis for some implementing acts, based on existing vehicle legislation, such as the proposals on the revision of evaporative emissions requirements for Euro 6 and anti-tampering measures for L-category vehicles (powered 2- and 3- wheelers and quadricycles).

III. Global markets and the international harmonisation of vehicle regulations

By 2020, 70% of new growth will be in the emerging economies. The car sector will also face a similar trend. While the demand in mature markets will remain stable, demand will steady increase in the global market. To help the European cars to be exported and take the opportunity of new growing markets, it is important to promote the internationalisation of the European car industry, effective access to market, harmonisation of standards and technical rules.

Under this pillar the Commission proposes to:

- take full account of the importance of maintaining a strong and competitive automotive manufacturing base in Europe when conducting its trade policy, using both multilateral and bilateral (Free Trade Agreements) tools.
- assess impacts of each trade agreements as well as their cumulative impact on competitiveness of the automotive industry in a thorough and comprehensive way.
- complement multilateral regulatory cooperation under the UNECE framework with bilateral regulatory cooperation in particular with key new players, but also with, for example, the United States - under the Transatlantic Economic Council - and with Japan.
- promote and actively support further international harmonisation of vehicle regulations via the reform of the 1958 UNECE Agreement aiming to make adoption and implementation of international regulations more attractive for third markets.
- contribute to the development of a first proposal for International Whole Vehicle Type Approval (IWVTA) in the UNECE framework that would allow for the reciprocal recognition of the entire vehicle as opposed to the current situation, whereby individual components or systems can be approved separately in accordance with the various UNECE Regulations. The IWVTA would offer the benefit to manufacturers to use a "one-shop stop" type-approval procedure for their motor vehicles.
- steer the work of the two informal working groups on (1) safety and (2) environmental performance of electric vehicles with a view to agreeing a Global Technical Regulation (GTR) on the safety of electric vehicles in 2014 and a common approach in terms of policy on environmental performance of electric vehicles.

IV. Anticipating adaptation and softening the social impacts of industrial adjustments

Under this pillar, confronted with difficult economic situation of declining EU market, structural overcapacity and announcements of plant closures the Commission proposes to:

- bring together Industry Ministers, industry and trade union representatives in order to come up with coordinated actions to tackle the overcapacities, ensure the necessary investments and that national demand and supply-side support measures are in line with internal market and competition rules.
- support the creation of a European Automotive Skills Council, which will bring together existing national organisations conducting research on skills and employment in the automotive sector. The Skills Council will encourage peer learning based on the exchange of information and good practice as well as providing a platform for dialogue.
- encourage the use of European Social Fund (ESF) for workers' retraining and re-skilling in the new financial perspective of the Structural Funds.
- re-launch the inter-service task force to study and follow up the main cases of automotive plant closures or significant downsizing. The task force has been active (on ad-hoc basis) and highly efficient in past cases in the automotive industry.
- identify good practice and promote an anticipative approach in restructuring in consultation with representatives of the automotive-intensive regions, employment authorities and the sector's stakeholders.
- re-launch the inter-service task force to study and follow up the main cases of automotive plant closures or significant downsizing that would streamline the use of the relevant EU Funds.
- for the cases of plant closures and significant downsizing, invite Member States to consider using the European Globalisation Adjustment Fund (EGF).
- encourage Member States to make use of labour flexibility schemes and their co-financing by ESF in support of the suppliers who might need additional time to find new clients following a closure/downsizing of an automotive plant.

The adoption of the Action Plan, following the CARS 21 Report, is not the end of the process. In order to monitor the implementation of the policies announced and continue the dialogue with the stakeholders, a dedicated process will be established called "CARS 2020".

Some comments

The European Commission put forward on the action plan devised with stakeholders to revive Europe's struggling car industry⁴. The **CARS2020 action plan** calls for a change in the way the European Investment Bank makes loans to auto parts manufacturers, to facilitate access to credit for SMEs. It also calls for a standard recharging interface for electric vehicles and a streamlining of auto research under the European Green Vehicle Initiative.

⁴ *Bid to aid European car industry - By Dave Keating - 08.11.2012 © 2013 European Voice. All rights reserved.*

In response to the recent fall in demand on European car markets and plant closure announcements, the Commission will convene a meeting later this month of car producers, trade unions and ministers of industry ahead of the next competitiveness council. Overcapacity and investment barriers need to be address, the Commission said, and there is a need for a rethink on state aid measures to the automotive industry.

Antonio Tajani, European commissioner for Industry and Entrepreneurship, said the Commission will “take urgent action to address this sector's current difficulties and restructuring in a co-ordinated way.” This can be done, for instance, by taking better advantage of the increasing number of car sales in emerging markets.

Green transport group T&E blasted the Commission's action plan, saying it suspiciously makes no mention of steps the EU was supposed to take to reduce emissions such as a cap on emissions from lorries. T&E campaigner Greg Archer said claims of a crisis in the automotive industry are being exaggerated to put pressure on the Commission to drop environmental regulation, despite the fact that car production in Europe grew by 5% to nearly 16 million vehicles in 2011, fuelled by increased exports. This puts car sales close to previous levels.

“Without long-term targets, carmakers will reduce investment in developing low carbon vehicles. That will provide an opportunity for their competitors in emerging economies to catch up,” he said. “This is bad for the long-term competitiveness of the automotive industry in Europe; bad for drivers' fuel bills and bad for the environment.”

Automotive industry association ACEA welcomed the action plan, but said greater urgency is needed. “Vehicle sales will not recover to pre-crisis levels in the near to mid future, so the industry needs to adjust for the overcapacity that exists,” said ACEA secretary general Ivan Hodac. According to ACEA, the current average overcapacity across Europe is in the range of 25-30%. But this overcapacity is not evenly spread across Europe; some manufacturers are operating at 50-60% of their capacity, whereas others are at 80-90% or even higher. New car registrations are expected to have dropped by over three million between 2007 and 2012.

“Recent events show that the car industry in the EU is undergoing an important process of adaptation and restructuring right now,” said Hodac. He added that the EU should particularly explore ways to improve labour flexibility and support the affected workers and regions. Unfair trade agreements in which the EU auto market is opened to countries that have not returned the favour also need to be avoided.

Green MEPs expressed disappointment with the action plan. “It is a major source of regret that the Commission has not used this opportunity to propose a CO2 labelling scheme for cars or to outline plans for EU rules to reduce CO2 emissions from trucks,” said German MEP Reinhard Bütikofer. “In this regard, today's communication is behind the 2010 strategy for clean and energy efficient vehicles, which had foreseen legislation on CO2 emissions from trucks.”

Chapter 4

OVERVIEW OF AUTOMOTIVE INDUSTRIAL POLICIES DEVELOPMENT ON REGIONAL LEVELS

TAKING IN ACCOUNT ALSO NATIONAL CHANGES AFFECTING DIRECTLY REGIONAL POLICY FRAMEWORK

SLOVAKIA

Automotive industry in Slovakia is key industrial sector together with electro technical industry and information and communication technology sector. More than 70 thousands employees work in Slovak automotive sector. According to European Automobile Manufacturers' Association (next only ACEA), Slovakia is on the first place in the world in car production per 1,000 inhabitants. Thanks to these positive key developments of automotive industry in Slovakia, there is growing need for increasing attention mainly from the industrial policies development point of view and its practical realization.

Automotive Cluster – West Slovakia (ACWS) functional concept is based on project-cooperation-oriented initiative with other relevant players in automotive sector in Slovakia. We have recorded positive practical impact of policies recommendations at regional/national level adopted during the last 3 years in order to support automotive industry. One of the most important impacts of policies recommendations are activities of Automotive Industry Association of the Slovak Republic (AIA SR) in cooperation with ACWS. AIA SR is the leading organization in Slovak automotive industry and has direct impact on practical realization of policies recommendations mainly at national level with impact at regional level, as well. Based on continuous and long-term cooperation with AIA SR there was created a strategic document called Strategy of Automotive Industry Association of the SR till 2016. In the strategic document there are incorporated and adopted policies recommendations which will have in the near future regional and national level impact in terms of developing conditions and environment for automotive industry with focus on research and development and innovation (next only R&D&I) and education. We chose from this strategic document some of the key points, which have direct connectivity with AutoNet project:

- Increase and support cooperation between OEMs established in Slovakia and suppliers (and sub-suppliers) in automotive industry (Slovak automotive supply chain)
 - ACWS will be more involved in AIA SR activities; there will be defined concrete needs and role.
 - Common preparation and organization of specific conferences with automotive suppliers and OEMs
 - Designing and building educational institution called Academy for automotive industry development
 -

- Initiate and involve AIA SR in cooperation with ACWS, research institutes and universities to the EU projects
- Initiate and participate on creating the modern study programs for automotive industry
 - Coordinate cooperation with relevant educational institutions (universities, secondary schools)
 - Create coordination concept plan in cooperation with chosen educational institutions with focus on the process of preparation and education new experts and managers for automotive industry
 - Look for best practices, inspirations, new ideas, insights from abroad and adopt it into the automotive and innovation study programs
- Initiate and support creation of the R&D&I baseline for automotive industry
 - Define R&D needs for automotive industry in Slovakia
 - Analyze current status of the R&D&I activities in automotive industry in Slovakia
 - Create R&D Institute for Automotive Industry in cooperation with relevant organizations (OEMs, suppliers, universities, research institutes, etc.)
- Increase awareness about automotive industry perspectives
 - Analyze current status of the automotive industry in Slovakia
 - Create concept plan of automotive PR for near future
 - Create schedule of the specific and scientific conferences, educational seminars etc.
 - Be involved in EU automotive structures and informed about activities of foreign partners
- AIA SR needs to become active member in international automotive organizations with the aim increase competitiveness of the Slovak automotive industry
 - To be active member of ACEA
 - Create close cooperation with Automotive Industry Association of the Czech Republic
 - Create cooperation with other relevant institutions from neighbouring countries
 - Identify all Slovak representatives in EU institutions for ensuring competitiveness of the Slovak automotive industry and start to closely cooperate with them.

These strategic steps, activities and its practical application will contribute significantly to the development of the automotive industry in the Slovak Republic mainly in the fields R&D&I and education.

SLOVENIA

During the last 3 years in Slovenia were adopted or further developed the following policies or policy supporting tools:

- RISS – Research and Innovation Strategy of Slovenia
- action plan for sustainable mobility and competitiveness of the automotive industry in Slovenia
- industrial policy of RS - SIP

RISS – Research and Innovation Strategy of Slovenia

The Slovenian government approved the Resolution on the Research and Innovation Strategy of Slovenia 2011-2020 (RISS) in May 2011. The new strategy, which aims to advance the whole research and innovation system in Slovenia, includes the following specific objectives:

- establishing a common governance system for R&D in Slovenia;
- permanent monitoring of the programme implementation and institutions which are part of the innovation system;
- more autonomy for public research organisations;
- fostering technological and non-technological innovations;
- strengthening human resources.

The strategy places great emphasis on the importance of annual assessments and the flexibility to adapt programmes and action lines if needed. Through regular monitoring and evaluation activities, the government aims to gather robust empirical evidence for making decisions on specific measures, such as if they shall be discontinued, adapted or complemented with further actions.

The implementation of RISS will be monitored and assessed annually by independent experts over the whole period 2012-2020. The evaluation reports will be presented to the government and the National Assembly. The assessments shall use clear-cut indicators to capture and evaluate the performance of support and executive institutions and of specific instruments of RISS. The government has also commissioned two international evaluation studies. The first one is currently under preparation and will be published in autumn 2011, the second one is planned for 2014.

The government had invited stakeholders to debate a draft version of the Research and Innovation Strategy during a public consultation phase launched in October 2010. Many contributions to this consultation stressed the importance of conducting regular, comprehensive evaluations and adapting the measures if needed. This assessment is in line with current discussions at EU level which indicate a lack of innovation policy impact assessments and programme evaluations, therefore requesting Member States to increase their efforts in this direction.

Innovation developments in Slovenia indicate that the country is on a good way. The EU Innovation Scoreboard 2010 lists Slovenia as an “innovation follower”, with an innovation performance close to the EU average. In the European Innovation Scoreboard 2009, Slovenia had still been ranked among the “innovation followers”. With the new, ambitious Research and Innovation Strategy, Slovenia is committed to make further progress in this EU-wide ranking.

Action plan for sustainable mobility and competitiveness of the automotive industry in Slovenia

Automotive Cluster of Slovenia (ACS) in cooperation with The Chamber of Commerce and Industry of Slovenia (CCIS), the Ministry of Economic Development and Technology (MGRT), Slovenian automotive industry representatives and representatives of academic spheres is working on setting the ground and guidelines of the new action plan for sustainable mobility and competitiveness of the automotive industry, which is doubtless one of the strategic sectors of the Slovenian economy.

This is the first document of this kind, which will be followed by other industries. It is based on two strategic documents of European regulations: CARS 2020 and Strategy of Slovenian industrial policy (SIP) for the duration of the next financial perspective 2014 - 2020.

The purpose and objectives of the Action Plan for sustainable mobility and competitiveness of the automotive industry, positions and constraints, SWOT analysis of the automotive industry and strategic focus for the next financial perspective 2014 - 2020, which will take into account the industry trends as well as the situation in Slovenian automotive supplier's industry. It is important that the plan will present concretization of policy measures, economy and science and to persuasively and optimistically predict the success story, which should in the automotive industry account a doubled economic growth by 2020. The automotive industry will surely be a key driver of Slovenian economic development. Its major advantage is the good integration into global chains, its major weakness the lack of technical personnel of all levels, its opportunity the integration in key areas of business development (system of open innovation) and its threat, the risk of high costs for developing new products.

Action plan for sustainable mobility and competitiveness of Slovenian automotive industry, which is currently in the stage of development, will be as an implementing document prepared and presented to the audience on 29th March 2013.

Industrial policy of RS – SIP

The Government of the Republic of Slovenia in February 2013 approved the Slovenian Industrial Policy, which seeks to establish priorities for developing industry and the business sector in the 2014-2020 financial perspective.

The financial and economic crisis calls for maintaining and improving economic competitiveness, whereby it is important to strengthen the healthy core of industry that generates innovation, growth and jobs.

The vision of the Slovenian Industrial Policy is to create the conditions to restructure existing industries into industries of knowledge and innovation by improving the business environment, supporting entrepreneurship and innovation, and developing prospective technological and industrial areas corresponding to social challenges in order to create new, high-quality jobs and increase integration in international business.

The main goal of the Slovenian Industrial Policy is to improve productivity and added value per employee from 60% to 80% of EU-27 average by 2020.

The main condition for increasing investment in technological and economic development is to improve the business environment by following the principles of sustainable development. The second main area is to strengthen entrepreneurship and innovation, which provide the key elements for productivity, employment and economic growth.

New sources of economic growth and development need to be found which are based on smart specialisation that takes into account previous investment and competences. New sources of growth will be able to meet social challenges by introducing new paradigms of development based on green growth (OECD), the green economy (UNEP) and resource-efficient low carbon society (EC) aimed at improving efficiency (energy, material, environmental and social) instead of relying on increasingly greater consumption of space, raw materials and energy.

Therefore, SIP defines priority areas based on challenges, opportunities, competences, capabilities and natural conditions to promote the development of technologies and their application to industrial sectors.

In view of the fact that national development funds are increasingly limited, efficient withdrawal of European funds is crucial to attaining development funds.

SIP will contribute to strengthening economic competitiveness and accelerating structural reform; however, businesses are the main engines of change and development.

HUNGARY

Along with many discoveries and inventions, Hungarians have contributed to the spread of the automobile across the world. Based on this domestic heritage, Hungary took significant steps to promote the industry in fulfilling requirements for globalisation. As a result, and because of cost-effective reasons, the OEM's and TIER1 suppliers are outsourcing even more, non-strategic activities to their lower-level suppliers. To make the Hungarian SMEs suitable for these procedures, Hungary has made significant efforts in the conscious development of Hungarian automotive supply companies. This means the enhancement of innovation and R&D potential at lower-supplier level, with further development of connections to universities and colleges and help in the reception of high-skilled workforces at company level.

The Hungarian development policy offers incentive packages for actors of automotive may consist of the following elements at national/regional level:

1. Subsidy based on individual Government decision

Above EUR 10 M and no EU funds available, or above EUR 25 M

Type: cash, non-refundable, post-financed

Amount of subsidy: decided individually by the Hungarian Government

Conditions: min. 50 new jobs (25 in preferred regions)

Incentive Provider: Hungarian Government

2. EU co-financed tenders

Below EUR 25 M - As a member of the European Union Hungary has access to EU funds for a number of development goals, like asset acquisition, infrastructural development, new construction, renovation, service development, job creation, and financing human resources costs.

The relevant tenders are concluded in the frame of New Széchenyi Plan in the forms of both refundable and non-refundable incentives. The Central-Transdanubian Region, as target area at NUTS-II level focused on some key development areas may supported in these category as follows:

- The supply chain
 - development of the overall enterprise environment (logistics, finance, management (overall, marketing, production, HR, financial)) expected by settled integrators and established cross-border partnerships
 - development of applied technologies and quality management environment level related to supplier status of settled integrators and existing partners
 - development of labour force (language skills, competence trainings, overall and specific support actions on the field of labour force market)
 - development of value-added production (development of new technologies give a chance for cost sensitive production of more complex elements in high-tech category)
- The applied R&D activities
 - practice-oriented cooperation in R&D organisations-Production sector relationship (aimed sectors: Mechatronics, Environmental technologies, Product development and prototyping)
 - internal R&D units at mostly production-based companies (aimed sectors: incentive measures for the reinforcement, maintenance and extension of existing units, establishment of new ones)
- The clusterisation

Highlighted final beneficiaries accompanied with criteria and supportable activities are as follows:

- Start-up initiatives (advantage if export-oriented business and high value-added focus)
- Giving opportunity to all initiatives - Cluster management and Joint services
- Developing clusters (at least one year successful (effective) operation necessary, export, high value added focus)
- Support to the active cooperation to help further development - Management, Joint services and investments
- Accredited clusters (accreditation is an entry criterion, export, high value added focus, track-record)
- Support to clusters with proven cooperation - Joint services and investments

3. Development tax allowance

Type: tax allowance for post-investment period

Amount of subsidy: exemption for 80% of the corporate tax payable for 10 years following installation. For up to HUF 500 M turnover, the corporate tax rate is 10%, above HUF 500 M the tax rate is 19%.

Conditions: investment volume min. HUF 3 BN (EUR 10 M), min. 150 new jobs OR HUF 1 BN (EUR 3.3 M) investment volume and 75 new jobs in preferred regions

Incentive Provider: Ministry for National Economy

4. Training subsidy

Type: cash subsidy, non-refundable

Amount of subsidy: 25-90% of eligible training costs, max. EUR 1 M (HUF 300 M) if job creation is between 50-500, max. EUR 2 M (HUF 600 M) if job creation >500

Conditions: min. 50 new jobs

Incentive Provider: Ministry for National Economy

5. Job-creation subsidies

There are 2 Options at this instrument as follows:

Type: cash subsidy, non-refundable (Option One)

Amount of subsidy: HUF 340 M (EUR 1.1 M) per project

Conditions: cash subsidy based on individual Government decision is granted; in preferred or most preferred locations; min. 500 new jobs.

Incentive Provider: Ministry for National Economy

Type: cash subsidy, non-refundable, only for SMEs (Option 2)

Amount of subsidy: HUF 1.2-2.2 M (EUR 4,000-7,300) per new job

Conditions: min. 2 new jobs

Incentive Provider: Ministry for National Economy

6. Other, personal-type subsidies

Types: salary-subsidy, START programme, START EXTRA programme, START PLUS programme, traffic and lodging subsidy, aggregated-transport, labour-market services

Incentive Provider: according to the location of investment the competent local-government authorities

GERMANY

The development of the automotive industry in Saxony is in total very positive, thriven especially by the market, general automotive developments in the industry and the global OEM's. As there are in Saxony three different OEM's present, they all have a great influence at regional level; particularly the companies Volkswagen, BWM and Porsche are working globally very successful.

The expansions of the production at BMW (BME i3 and BMWi8) and Porsche (Porsche Macan) in Leipzig are also a result of Saxony's engagement in looking for further investments and supporting the whole automotive industry in Saxony, but especially the RnD-sector and the settlements of new suppliers.

Still existent are several supporting instruments for SME's in the automotive industry, as it is still the most important industry in Saxony. Thus all available supporting activities are in use for continuous developing of the industry itself: activities/business trips accompanied by political decision makers, vocational marketing, checking for state-aids by case to case decisions, entrepreneurs trips in selected areas and markets, export promotion instruments, trade fairs and support in the internationalization of the companies.

Nevertheless the Saxony Automotive Supplier Network (AMZ), established in 1999 and worked on behalf of the Saxon State Ministry for Economic Affairs, Labour and Transport, had to cope with the end of support by the ministry with end of 2012. The network initiated and accompanied product and technological developments from the first idea to the start of serial production (SOP). As one of the largest network initiatives in the Free State of Saxony, AMZ was the first cluster that was supported as a program of the State Ministry and the three phases of network development ended in 2012. AMZ still exists and is still the strategic partner of small and mid-sized suppliers as well as the assistant for measures designed to promote small and mid-sized enterprises in the local core branches. But from now on, they will reduce their export promotion activities and will focus mainly on the field of increasing the competitiveness of the Saxon automotive supply industry, supported by members of the network and in deep cooperation with the Saxony Economic Development Corporation (SEDC).

CZECH REPUBLIC

Specific Cluster involvement in:

- Businesses cooperation with Universities
- Developing competitiveness of Cluster members
- Business oriented activities
- Research & Educational initiations with positive impact

In order to increase Businesses cooperation with Universities Cluster establishes and provides high-equipped laboratories and continuously updates their parameters/specifications that in cooperation with university (engineering support provided by PhD students) offers to whole sector special testing for research and development that is made in close cooperation between Businesses and Universities.

For further improvement of Business and Universities cooperation there are some recommendations:

- A. Financially support business in terms of co-financing (real cooperation with Universities) so that they could announce public procurement in further cooperation with universities and their available capacities.

This proposal will on the one hand boost businesses to look for technical capacities of universities and their capabilities. Universities will on the other hand have a chance to spend all available capacities, get benefits and put their students into real problem solving with great opportunity to get experience.

- B. To fully utilize Hi-Tech technologies available in Business and use them for teachers and students trainings and as a pay back to business is the taxes reduction linked to this specific technologies.

Apart from interconnecting, cluster also focuses on developing competitiveness of those institutions individually.

Taking as an example is the education on secondary level. Cluster in cooperation with experts created curriculum material in Leadership, Project management, Lean Processes and Logistic so that students of technical schools could quickly adapt in working processes and eliminate time and cost for extra business trainings. Another curriculum material is focused on developing students' competencies in innovative thinking. An area Cluster would appreciate higher governmental participation is dissemination of quality made curriculum to other similar schools and replace it with obsolete studying material no longer applicable in current situation.

In regard to Business oriented activities Cluster would appreciate Governmental institution to support Clustering and membership in such associations according to their interests.

Great example is common purchase of overheads, energies and services applying economy of scale principles. Proved by already realized common purchase, Cluster has helped to reached around 3 millions CZK savings. The more companies will actively participate, the more savings they can achieve.

Supporting all crucial fields of long-term sustainability, specifically employment, environment and safety issues, resources and expert centres, it can be summarized in a huge initiation carried out by Technical University in Ostrava. Automotive industry hand-to-hand with Technical University will be also interconnected into this huge initiation and can also positively utilize all of its improvements in region representing automotive. Project is divided into subprojects sorted by name and its specification focusing on:

- A. IT4Innovation
- B. RMTVC – Regional materially technological research Centrum
- C. INEF – Innovations for effectiveness and environment
- D. Energetic units for alternative resources utilization

Report reflects all intentions either Cluster's itself or other big players in the region to support sustainability of not only automotive, but also whole region. If the region can prosper environmentally, economically and educationally it will have further indirect impacts on automotive as well.

The main goal is to create European Center of Excellent in aforementioned activities interconnecting and boosting key players, creating effective infrastructure and supporting not only automotive, mentioned once again.

POLAND

Automotive industry in Poland is supported mainly by the policies formed at the regional level.

In **LOWER SILESIA** the policies for supporting innovation in general (including innovation in the automotive sector), appear in The Regional Innovation Strategy for Lower Silesian Voivodeship for years 2011-2020. The document defines four strategic objectives:

- Strengthening of innovative skills and attitudes, which are of key significance for the knowledge based economy.
- Increased chance for the success of innovative business projects.
- Increase of innovative potential of Lower Silesian Region scientific institutions.
- Development of cooperation in the economy in the innovation area.

Within the framework of the strategy, local authorities support automotive industry development by implementing European Programs, especially Innovative Economy Programme and Human Capital Programme. Those programs are part of six national programmes, co-financed by the UE.

The Innovative Economy Programme is a tool to support innovativeness in all sectors, also the automotive. It is addressed to entrepreneurs who want to implement innovative projects, connected with modern technologies, research and development, investments of high importance for the economy or implementation and use of information and communication technologies. The project aims not only to improve the innovativeness of enterprises, but also to improve the competitiveness of Polish science and to strengthen of the role of science in the economic development.

On the other hand, local authorities need to improve the level of professional activity and finding employment, to make Lower Silesia an attractive place for FDI because of its high-qualified labour force. It is possible thanks to the UE funds destined, within the PO Human Capital, for those issues. In the terms of the programme, the region is able to boost the local employment not only by taking care of the level of local education, but also by facilitating access to the services such as professional training and consulting.

Furthermore, the alliance of innovation in the term of industry and in the term of education allow the Lower Silesia to boost its potential for being an interesting investment destination.

Besides EU funds the entrepreneurs from automotive sector can locate their investments in one of three special economic zones (SEZ) in Lower Silesia. Special economic zones were basically defined by Polish government in the Act on Special Economic Zones of 20 October 1994. Till now there are 14 SEZ in the whole country, three of them in Lower Silesia.

The SEZ offer to the investors an interesting system of tax exemptions (income tax and real estate tax), a rich offer of specially prepared investment grounds with complete accessibility to the technical infrastructure. Till now several automotive companies profited from the special investment opportunities offered by the Lower-Silesia special economic zones. As a result, in there are two factories of Toyota, where are produced engines and car transmissions.

In the region there are also workplaces of Volkswagen in Polkowice, Volvo in Wrocław and Takata-Petri Parts Polska near Kamienna Góra. In the region one of the biggest automotive investors is Faurecia, owning two car seats factories in Legnicka SEZ, employing around 900 people.

In **SUB CARPHATIA** - is highly limited autonomy when it comes to solutions for businesses and companies in the automotive industry. Considering the development of the automotive industry issues to take into account some issues:

1. Fiscal burden.

In the three years of the project Autonet tax burden for businesses increased. It is all about the VAT increase, which was interpreted as the omnipresent crisis. In addition, other taxes imposed that burden companies. For example, imposed a tax on rain.

2. The employer.

During The cost of the project work repeatedly, which concerned two issues:

- Annual increase in the minimum wage,
- Increase the burden on social security

3. The growth of special economic zones

Mielec Special Economic Zone has grown during this period. With the proliferation came to the surface where the company was located in the automotive industry - Japanese company TRI Poland bought for 600 thousand zł land in the Special Economic Zone in Zasław district Zagórz. It intends to build a new facility that will eventually employ about 300 people. TRI Company was founded in Japan in 1929 and is now a leader in the manufacture of automotive parts vibration. In Poland, the company has invested since 1999, has a factory in Wolbrom. - The Company intends to implement TRI Poland in our investment of approximately 40 million zł.

ITALY

The automotive industry in **LOMBARDY REGION** has a strong tradition; many important and famous brands, such as Alfa Romeo, Autobianchi and Innocenti have born in the region. However, the last two decades have seen these brands to leave the region. In this contest, there is a lack of great OEMs able to lead the automotive industry but many small and medium enterprises remain and operate in this area. These enterprises employ about 50000 people and have a turnover of around 20 billion € (Belcar's research).

Such work and economical power makes Lombardy one of the most important European regions for automotive industry, with a potential to be the 7th bigger automotive cluster. The lack of car OEMs is compensated by the presence of industrial vehicles and farm tractors and motorcycles OEMs. There is an important presence of components suppliers, some of them are considered world leaders in their fields.

In such a situation, the Lombardy component suppliers have a strong vocation for interregional and international cooperation, especially with European nation such as Germany, France and Spain and the neighbouring region Piedmont.

The regional industry is supported by the presence of research centres and universities of excellence. Three universities are present whose fields of research are related to automotive. The cooperation between Universities and enterprises can lead to the development of products with very high technological content. A strong industrial tradition and a first level school system assure the formation of highly qualified personnel. Main research and Development Areas, supported by the Lombardy Region are:

- Energy and environment - Automotive industry is greatly affected by the energetic problems related to the reducing availability of fossil energy and it is considered one of the main sources of pollution. In this conditions there is a strong need of efficient and clean vehicles for reducing both fossil energy request and polluting emissions. In the short and medium term, the increase in energy efficiency, both related to vehicle and traffic system, can guarantee the sustainability of the actual transport system. In the long term, the fossil energy should be abandoned in favour of clean and renewable energies. In particular, the reduction of particulate and CO₂ can be no longer delayed. The more and more stringent requirements of the national and international normative are already pulling the automotive research toward the development of cleaner and more efficient engines and the reduction of energy loss and mass of vehicles. However, structural modifications of the actual transport system should be considered to reach the long-term objectives.
- Electrification of the vehicle and of the infrastructure - the use of electric vehicles has a strong potential for the (local) elimination of greenhouse emission. The total greenhouse emission should be reduced by the production of electric energy in modern plants localized afar from cities. The use of pure electrical vehicles is limited by the energy storage systems. The use of hybrid vehicles can, especially in the short term, reduce the emissions and allow for suitable vehicles autonomy.
- Mass reduction - the reduction of mass is a very effective way for reducing energy requirements and emissions of vehicles. The mass reduction can be achieved only by the study and application of innovative materials able to guarantee the required vehicle safety with a reduced mass.
- New concepts of vehicles toward improved energy efficiency - the actual layout of the vehicle should be reconsidered in order to find different solutions able to reduce the energy requirement of the vehicles.
- Renewable and alternative fuels - the diversification of energy sources should be investigated in order to reduce, and eventually eliminate, the use of fossil fuels. The research should focus on finding renewable and CO₂-neutral fuels and the relative strategies for their use. The research on fuels should be supported by the development of power train systems able to optimize their use. In the short term, the study of optimization of internal combustion engines and the relative exhaust systems can be effective to have immediate fuel saving and reduction in the greenhouse emissions. More sophisticated energy management and recovery systems should be employed.

- Safety - in the development of new generation vehicles characterized by low weight, electric motors and new types of fuels the safety issues have to be considered. In particular, weight reduction, new fuels and related innovative power train systems must guarantee, at the least, the same passive and active safety levels of the actual vehicles.
The use of new light material should be supported by adequate research and testing. The energy storage systems (batteries, load cells, ...) should be tested in the most dangerous situations that can arise in hybrid or electric vehicles. New strategies can be developed for traffic regulations. The use of communicating systems between vehicles and between vehicle and infrastructure can permit the implementation of collision avoidance systems and the exchange of safety relevant information. The development of “smart” sensor (both on board and in the infrastructure) is required for improving the control systems and strategies.
- Transport and mobility - the mobility requirements and transportation of persons and goods are continuously increasing. The transportation system is very complex with the interaction of different actors and transport modes. The automotive industry must contribute to the development of an affordable and energy efficient transport system. The research activities should be devoted to the development of ICT (Information and Communication Technologies) and ITS (Intelligent Transport Systems) systems for traffic and transport management, both with regards of the single vehicle and with regards to whole travel planning. The use of different transports and interchange has to be studied and the best strategies implemented. Interfacing of transport infrastructures and services for different transport modes (road, rail, waterborne and air), energy efficient transport of goods, freight distribution and improved logistics can play a crucial role in transport optimization. A new concept of individual and public transportation should be developed.
- Affordability and competitiveness - Green vehicles and transportation can be achieved only by a competitive productive system able to furnish products at an acceptable cost. The green vehicle should be appealing not only for the reduced emission but also for fun of driving and design. The employment of new, light and unconventionally materials should not cause an increment in cost production. The manufacturing and forming of such material has to be optimized in terms of reduction in energy requirements and technological process. Alternative materials with adequate characteristics but lesser cost should replace the use of rare and precious material. Production process and maintenance should be integrated with virtual and ICT technologies as to optimize logistic and supplying. Flexible productions for small series and high customization are required to realize dedicated and efficient vehicles for any application.

In 2009 Lombardy Region decided to address its industrial policy towards Industrial meta district, called “Productive Systems”, launching a call for tender in order individuate the most innovative and powerful industrial partnerships. Comunimpresa participated the Regional Call (16 Million Euro for 7 winning new industrial systems) coordinating the building a brand new regional automotive Cluster: managed by Politecnico of Milan, the project now involves major companies like Brembo, Pirelli, Same, Iveco, more than 100 SMEs, important Research Centres such as “Kilometro Rosso” in Bergamo and CSMT in Brescia, Universities (Milan, Bergamo, Brescia), Institutions and Industrial associations.

The cluster won the call (together with other main sectors such as Aeronautics, Nautical, Energy), because it was demonstrated the importance of automotive industry in Lombardy (turnover more than 20 billions euro - 50.000 employees). Right now Comunimpresa is technical advisor of the cluster.

In terms of industrial policies, the **PROVINCE OF REGGIO EMILIA** as public body strongly believes that there is a need to follow an integrated approach, which combines the efforts of all stakeholders to achieve common societal, environmental and benefits aims.

The automotive sector in fact is often declined with R&D investments, as those are key factor to maintain and enhance the competitiveness of local industry and companies; moreover it can increase the level and quality of employment.

These elements can be shared across appropriate sectors of the economy and the society, not only from the industry point of view and not only at local level: at regional level each of the provinces of the Emilia-Romagna Region hosts a different specialized laboratory and testing facility. This infrastructure will provide a first regional answer to the challenge to facilitate a more efficient technology transfer and to increase science to business cooperation in the region.

Emilia-Romagna Region supports activities towards companies of the regional automotive sector by the Regional Plan for Research, Innovation and Technology Transfer (PRRITT) 2012-2015 approved with deliberation of "Assemblea legislativa" the regional government n. 83 of 25th of July 2012 in order to consolidate a spread regional innovative system, based on knowledge and oriented to the world competition.



Chapter 5

PROCESS OF COOPERATION WITH ASSOCIATED INSTITUTION AND RESULTS OF POLICY RECOMMENDATIONS

SLOVAKIA

One of the key development and support pillars of the current world automotive industry is building close cooperation with different partners. Our project activities were based on the basic principle called project-cooperation oriented initiative that set up predispositions for successful project realization and achieving results. Building automotive networks and cooperation in the frame of Central Europe with foreign and domestic partners was one of the key tasks of the AUTONET project. Process of cooperation with associated institution Slovak Investment and Trade Development Agency (next only SARIO) was built on previous very good cooperation in the frame of project AUTOCLUSTERS and other common activities. SARIO is government funded organization administered by Ministry of Economy of the Slovak Republic and its role is to attract foreign direct investments and help domestic companies to develop foreign trade. SARIO is a member of ACWS as well. ACWS cooperation concept with the associated institution SARIO had sense mainly from the two key aspects:

- Preparation, communication, advisory and common organization of matchmaking events – connecting domestic industrial companies with other foreign automotive network members etc. Discussion and advisory about preparation other matchmaking events in abroad, providing relevant contacts on domestic and foreign organizations, etc.
- Second aspect of cooperation was built on knowledge about industrial sectors in Slovakia and needs from the foreign direct investors point of view. It helped to better see and understand the world trends, challenges, changes, and requirements in the automotive supplier sector and involve other players from different industry sectors into the cooperation. This knowledge helped to create policy recommendations and to think about higher effectiveness of cooperation between automotive organizations (mainly domestic suppliers and other institutions such as universities, research institutes, associations, etc.) and companies from different industrial sectors.

Cooperation between ACWS and SARIO had one more positive aspect mainly in the process of creating the recommendations at national and regional level. It helped to connect various companies from different sectors and countries. SARIO database of industrial and non-industrial contacts (SARIO has 8 regional offices in Slovakia) were very useful for building a virtual network of organizations that are and want to be active in automotive industry. It was good baseline for building a business relationships not only on country level but interregional as well.

One of the very important results of cooperation between ACWS and SARIO was common organization of Matchmaking event in the city Nitra in Slovakia. Other results of the cooperation process were sharing knowledge about industrial sectors characteristics and foreign direct investor's needs; common activities for increasing awareness about automotive R&D&I. (For example: the city of Trnava is owner of the project City and Industrial Technology Park, which was granted by SARIO. This city park has attracted foreign investors mainly to the R&D field. It was very good contribution point to the development of regional network of company's cooperation with connection to foreign companies and building R&D network.)

Other very interesting output of policy recommendations (focus all efforts on building automotive R&D&I baseline) was creating new discussion topic about increasing level of cooperation between automotive industry and innovative and technology-oriented firms (start-ups and/or spin offs). Discussion started thanks to internal SARIO project called Slovak Start-up Development Program. Project was focused on development and support of young innovative projects/firms Slovakia. During the discussion, there was born idea "how to bring start-up approach to the automotive industry, how to connect ICT oriented start-up projects/firms with automotive organizations". ICT start-up firms are very flexible and could be helpful in the process of generation innovative solutions (for example: solving problems in the field ICT for automotive; solutions for e-vehicle or green vehicle sector; solutions for increasing effectiveness of transportation and mobility in the cities, etc.) and start-ups could be great potential for flexible approach to research of customer needs (Customer-oriented approach and Lean start-up approach). This new dimension of cooperation was good topic for close discussion with universities because universities are pool of talents and future generation of innovative entrepreneurs. Start-up sector will be one of the future tools in the process of increasing cooperation level in the automotive industry and building innovative and business-oriented society at national and regional level, as well. Strong automotive baseline in Trnava region brought a lot of opportunities for implementation of recommendations to the praxis and it will have impact not only during the project realization phase but in the post-project phase, as well. There were created good relationships between players: ACWS, associated partner SARIO, Faculty of Materials Science and Technology of the Slovak University of Technology, City of Trnava, chosen SMEs, and project partners.

SLOVENIA

ACS policy recommendation at the inception phase of AutoNet project was a new Automotive industrial policy to provide an appropriate "environment" that will enable companies to invest in research and development in priority areas, identified in the ACS Strategic Development Plan 2009-2014 and the recommendations of the working group for vehicles, transport and logistics in the context of Council for Competitiveness and includes the following areas:

- environment and efficient usage of energy
- safety
- comfort
- New materials and technologies to implement the above functions for the user of the vehicle.

The policy recommendations given by the ACS were based on intense collaboration with policy decision makers, followed and reflected in:

- RISS – Research and Innovation Strategy of Slovenia (2011-2020), (which proposes e-mobility as one of the key areas (priorities) of research and innovation in the timeframe 2011 – 2020. Slovenian government is thus systematically supporting the whole chain in the field of e-mobility);
- Action plan for sustainable mobility and competitiveness of the automotive industry in Slovenia, where ACS is playing significant role in coordinating and content-wise advisory of this document;
- Industrial policy of RS – SIP.

HUNGARY

In general, we can say that the main characteristics of the mentioned policy-elements have been described in the first approach of policy recommendations in the life time of project AutoNet. The close cooperation at local level and the sharing of experiences originated from project AutoNet have given excellent possibility to reaffirms our original position in trends, priorities and breakout points in CTD Region.

Operative steps for the Central-Transdanubian Regional AutoNet Team (CTD AT) started at the beginning of June 2010 and the first official CTD AT meeting was realized in the September of that year. The establishment of the local team was initiated by the Mid-Pannon Project Team (MPPT); the cooperation agreement has been signed by

- the Mid-Pannon Regional Development Co. (AutoNet PP4)
- the Central-Transdanubian Regional Innovation Agency
- the Automotive and Mechatronics Cluster of Ajka Area and the Central-Transdanubian Regional Development Agency, as working organization of the Central-Transdanubian Regional Development Council.

The Mid-Pannon Project Team has been in productive cooperation with above relevant regional actors for two and a half year. The local team elaborated local inputs to the WP5.2 Framework Policy Document in 2nd Project Period. The Central-Transdanubian Regional Development Agency, in deep cooperation with Central-Transdanubian Regional Development Council has elaborated the draft version of the document, local partners shared their views on the written analysis and expectations (goals, instruments) and the policy paper was finalized, accepted by the Central-Transdanubian Regional AutoNet Team (CTD AT), shared with local beneficiaries and sent to the AutoNet WP5 Leader in January 2011.

The Mid-Pannon Project Team was in productive cooperation with relevant regional actors in the 3rd project period also; Local partners shared their views on the WP5.2.3 Policy Recommendations and sent the result of this revision to the AutoNet WP5 Leader on 15th of August 2011. There were some key factors for this recommendations presented in the local paper as follows:

- Development of automotive industry at European, national and regional level are part of economic development policies and they appear as priorities of these policies.
- Accepted recommendations stimulate comprehensive strategic objectives with indicating the financial instruments enabling their achievement
- Concerning the institutional system the partial integration, thematic harmonization and co-operation of local, regional and national institutions would be observed.
- The resources supporting the development of the automotive industry are related to the operation of Structural Funds, to the use of Framework Programmes and Community Initiatives

Altogether three Central-Transdanubian Regional AutoNet Team meetings were held in the 6th project period under the aegis of project AutoNet and management of the Mid-Pannon Regional Development Company. These meetings focused on the evaluation of the project, the participants shared their views on the actualities of supporting policies for the automotive sector and matched their Policies Recommendations against the analysis they carried out during the initial period of the Project. The regional actors agreed on the practice-oriented benefits of the project – and gave highlighted attention to the three highlighted AutoNet topics:

- innovation capacities,
- sustainable development
- investments in innovations

In the 5th and 6th project periods, regional actors gave highlighted attention to the “AutoNet Service Standard” document as well. These standards could be interpreted as ‘seed knowledge capital’ for concrete development proposals would be submitted in the upcoming EU programming period (2014-20) - that’s why key-areas of standards are considered as inputs to the definition of supportable areas of the relevant programs and plans at Central-Transdanubian development policy level.

GERMANY

The collaboration between the Saxon State Ministry for Economic Affairs, Labour and Transport and the Saxony Economic Development Corporation (SEDC) is still very deep. Not only because the State Minister is the leader of the board of SEDC, but for the strategic planning of economic development and main tasks of both institutions, is cooperation absolutely necessary. Partly the cooperation is based on contracts, which differ by regions (e.g. Russia, Central Europe), but also on specific common projects (e.g. EU funded projects) and common sector-oriented activities.

Thus both institutions handle collaboration in the elaboration but mostly in the implementation of policies and policy recommendations. Additional there is coordination between SEDC and the specialty departments of the Saxon State Ministry for Economic Affairs, Labour and Transport an everyday life – whether in project lifetime, conferences or strategy developments.

CZECH REPUBLIC

Automotive cluster has established Pulsation system testing used for product lifetime verification by dynamically loaded internal pressure effects within temperature changes of the test medium as well as the surrounding area. Pulse testing consists of the pulsator and heating chamber and they are separated. Examples of the pulsation testing application:

- testing of automotive radiators,
- testing of hoses,
- testing of lubricating circuits, brake systems, filter circuits, with internal pressure vessels, screw joints, etc. This is not a destructive test, but a long-term tests with pressure pulses (typically up to hundreds of pulses).

AIA SAP Automotive Industry Association (PP7 has signed cooperation scan with) is initiating a pilot project to verify the added value of Dual Education System within 25 participants (cooperation of state vocational school –private business) through out the regions of Czech Republic. General impact on automotive lies in:

- better qualification of students,
- employment and on the other hand
- Business benefits from Tax reductions due to tax deductible increase

Moravian-Silesian Automotive Cluster further activities lead to support R&D of SMEs integrating large enterprises and universities to solve innovative challenges in automotive industry. After many discussions and proposals among the members of the cluster, eleven areas of interest have been chosen:

A. Absorption properties of plastics

The aim is to develop multipurpose plastic components to combine primarily absorption properties with various operational functions reducing other parts usage.

B. Rubber replacement by recyclable materials

By replacement rubber with recyclable plastic materials based on TPE the overall processing improves. Therefore techniques like injection moulding can be used.

C. Silicone injection molds

Project utilizes the low viscosity properties of silicon with focus on high quality mould construction and its rheological characteristics.

D. Materials and surface finishing of molds for injection molding

The improvement of mould quality reflects improvement of final injected part leading to cost reduction due to mould fixing and increase of competitiveness.

E. Defects prediction of molded parts

As a result the e-catalogue will be designed carrying all the practice-based knowledge of moulds usage and servicing. The application will reduce cost in technological preparation of mould construction and consequently in reduction of defects.

- F. RFID code for forms, molds and tools tracking
Designed system will improve the tracking processes of expensive technologies (tools, apparatus and moulds) and increase effectiveness of the preventive mending.
- G. Generalized tolerances - Listing in 3D
Designed software with use of optical scanner will provide dimensional report that will lead to time saving and cost reduction due to discrepancies elimination between CAD model and real component.
- H. Vibration in modern cars and their influences on the specific components lifetime and noise
The aim is to design overall technology of vibration testing of which acquired data will than improve the input data for components testing and construction and also it will help to analyze the root cause of defects.
- I. Components joining: metal - plastic, plastic-plastic
The development of e-catalogue of joining principles will improve the joint construction, its adhesion, solidity, durability, tightness and appearance. It is designed for plastic and metal materials.
- J. Laboratory support for research and development activities
Mobile innovation centre base on TIPS methodology will support the constructors, managers, scientists, and innovators searching for innovative solutions.
- K. High strength steel components for the automotive industry
The subproject leads to verify the new type of construction (cutting, pressing), material and process in order to improve the utility properties of high strength steel.

POLAND

In **LOWER SILESIA** In order to support the development of automotive industry, the aim of the activity of DAWG, in terms of the project, was to recognize and define the problems and obstacles of local automotive entrepreneurs and, in the aim to resolve existing problems, to propose some recommendations to implement in the Regional Strategy for the years 2014-2020. We strongly believe that our propositions can contribute to boost the region's potential for development of the automotive branch. It is important to underline that the biggest impact on creating effective policies supporting the automotive industry have the authorities at the national, not the local level.

The cooperation of Lower Silesia Agency for Economic Cooperation with the Associated Institution during the last three years based on organizing several work-groups meetings and committees in order to prepare the Regional Strategy document in the most efficient way. As a result our Agency took part in the steering committee, public consultation and workgroups for The Strategy of Development of Lower Silesia 2014-2020. This fruitful activity resulted in including several recommendations of Lower Silesia Agency of Economic Cooperation in the Regional Strategy, such as:

- Greater availability of technical schools, universities with their science resources for the needs of the market;
- Preparing joint programs of educating staff in automotive sector along with industry organizations;
- Implementation of joint science projects between business and academic institutions, incorporating the idea of building industrial and technology parks located in Special Economic Zones;
- Preparation of regional analysis of influence over new trends in communication solutions, supporting the security of fuels delivery, changes in regional infrastructure.

Implementation of the mentioned recommendations gives the entrepreneurs the opportunity to profit from the developing scientific backup in the process of innovating the local automotive industry. Furthermore it is important to say that in long term, enterprises will profit also from new wave of very well educated and specialized labour force, because of the project of greater availability of technical schools and Universities. Their science resources are already used in local automotive sector in a successive way, so the developing cooperation between the business and education sectors is expected to bring fruitful effects in the term of accelerating and improving the process of implementing technical innovations in the industry.

The process of making the policy regulations has just been finished and now we are going to implement those policies. We are expecting to get the possibility to profit from the new funds in order to activate the process implementation. Besides, thanks to new policy regulation we plan to take part in building several automotive consortiums that will contribute in the innovating process in the sector.

In **SUB-CARPATHIAN**, the Chamber of Commerce signed three cooperation agreements establishing local team. Agreements have been signed with:

- Association Initiative in Krosno
- MARR Regional Development Agency Joint Stock Company in Mielec,
- Regional Chamber of Commerce in Sanok.

The co-operation with institutions proceeded in a legal manner. However, due to the fact that these are not the parties who have a direct impact on policy recommendations cannot be done directly. However there took place initiatives to support innovation activities, including in the automotive industry.

Examples of such activities were the organization of the Regional Development Agency Joint Stock Company MARR in Mielec Podkarpacki Festival of Science and Technology. Sub-Carpathian Chamber of Commerce in cooperation with the Regional Development Agency Joint Stock Company MARR in Mielec was organized exhibitions in Krosno. In bar fairs were presented examples of modern technologies in this particular electric car, which was the result of a project implemented by the European Regional Development Fund.

To sum up the impact of local affiliates in the local team is indirect. This is due to the fact that these are the institutions that support the business environment of the company direct but which have no direct impact on legal solutions.

Despite this contribution to the development of entrepreneurship, new technology (including the automotive industry) is very large from the organizations of business.

ITALY

LOMBARDY REGION is one of the most important industrial areas in Europe with the presence of top-level enterprises in many different sectors. In this contest the automotive industry can count on a well-developed network of technical knowledge and on the possibility of technologic transfer between different sectors. In the automotive sector, the OEMS are characterized by a strong product differentiation, covering industrial vehicles, farm tractors and motorcycles. The absence of a car OEM is compensated by the presence of leader components suppliers.

The presence of competitive and versatile small and medium enterprises allows for the development of customized and high quality products. This creates the conditions for production of advanced vehicles, series or prototypes, and the competence for developing all the related systems.

The peculiarity of the Lombardy Automotive Cluster - Poliauto - led by a technical university, shows the strong link between research and production. This contributes to put the Lombardy automotive industry in an ideal position for the research and development of new technologies toward a sustainable and green transportation.

The automotive industry is traditionally one of the major investors in research and development. In Lombardy, the most important components suppliers have created and finance top level research centres (such as Kilometro Rosso and Pirelli Labs). The regional political institutions are supporting the research in this area by creating and financing research programs. The Lombardy Automotive Cluster (Poli-Auto) is currently working to direct the regional founding toward research areas and enterprises connected with the automotive industry. By this activity, important economical resources can be available for the members of the cluster. A common research path can be indicated in order to avoid resource dispersion.

The automotive industry of Lombardy has been considered in order to indicate the most important areas for research and development. Reduction of fossil energy consumptions is, of course, the main objective for pollution and greenhouse emissions control. This objective can be reached by a synergic development of new engine and vehicles technologies, employment and research of new materials and vehicles and infrastructure interactions. Lombardy, given the characteristics of its automotive cluster and the presence of research centres and universities, is in a good position for developing products able to comply with the considered requirement and to be competitive on the market.

To fulfil its mission as local promoter of the industry sector, the **PROVINCE OF REGGIO EMILIA** maintains strong Associated institutions, relationships with industry, regional government, universities, research centres, labour organizations and media. Some examples of planned and realized activities in cooperation with Associated Institutions are:

- Reggio Emilia Laboratory for Mechatronics MECTRON, particularly targeted to the simulation facility on the electromagnetic compatibility of electronic components,
- PRITT (Emilia-Romagna Region) financing mechanisms for R&D and technology transfer,
- The mechatronic lectures of the Reggio Emilia Engineering Faculty of University of Modena and Reggio Emilia,
- The Mechatronic Club coming out from an agreement between managers and firms with the aim at spreading off the mechatronic culture.

The future perspective in Reggio Emilia is closely connected to research activities of "Reggio Emilia Innovazione" and to the University of Modena and Reggio Emilia, in particular to the Faculty of Engineering. The regional network dedicated to innovation is composed by the Techno-pole, which represents the real core of research and applied science of Province of Reggio Emilia, where it has been established a new group of collaboration working together "Gruppo di lavoro della Meccatronica" (Working group on Mechatronic).

The local strategies and policies recommendations defined launched the "Working group on Mechatronic" to make realistic the possibility to involve all local stakeholders. It was and still is a big effort and challenge to be shared with Reggio Emilia Innovazione as it represents the local actor and fostering initiatives related to R&D in engineering, in particular in Mechatronics. The potential of this cluster is crosscut issue with many strategies for Public Body as the Province of Reggio Emilia and Municipality of Reggio Emilia.

Many local players and Public Authorities are involved: Chamber of Commerce, Confindustria (Association of Industries), Spinner Emilia-Romagna, ASTER as centre of research and application, the University of Modena and Reggio Emilia, Reggio Emilia Innovazione, specifically fostering the start up and accompanying phases of new enterprises in a framework of research and development of projects, at national and European level: supporting initiatives and relationships involving all levels of cities; developing "technopolis" as place where the technology transfer can be on scene.

It can be recognized a double line of activity from the past to be followed up for the future:

- the educational path to promote scientific culture and competence,
- the support the internationalisation of industry.



Chapter 6

DESCRIPTION OF PROCESS OF POLICY INFLUENCE

The description of the Process of Policy Influence during AutoNet Project deeply analyse, in each interested Region:

- A) THE STATE OF ART OF THE POLICY SUPPORT OF INNOVATIONS IN AUTOMOTIVE INDUSTRY IN THE REGION**
- B) THE DESCRIPTION OF SUCCESSFULLY IMPLEMENTED RECOMMENDATIONS/ REASONS OF FAILURE OF THE RECOMMENDATIONS**
- C) THE SUMMARY OF RECOMMENDATIONS FOR FUTURE YEARS AND THEIR GOALS**

SLOVAKIA

Strong influence on development of the Slovak automotive industry in terms of R&D&I will have a new government draft of Innovation Strategy of the Slovak Republic for time period 2014-2020 (next only “draft”). Draft was prepared by the Ministry of Economy, but not yet approved. Strategic aim of the innovation strategy is to increase ability to commercialize and adopt innovation and technologies and involve the Slovak Republic into the successful industrial countries of the 21st century. According to the draft, we chose several thoughts, which can have impact on the development and support of automotive R&D&I in Slovakia:

- some of the key activities for R&D&I development in Slovakia will be: create motivational conditions for better involvement of private transnational companies into the Slovak R&D environment; create better system for active participation of Slovak companies in EU R&D projects (FP8); create conditions for better involvement of Slovak companies into the cooperation with domestic and foreign R&D organizations; increase cooperation of state R&D institutions and universities and private sector; support young innovative entrepreneurs and SMEs mainly in the early stage.
- basic priorities in terms of industrial sectors are: future industries (robotics, logistics and others), new materials, ICT, biomedicine and biotechnology, agriculture, food industry and forestry and energetic.
- Slovak economy depends mainly on the development of big established foreign investors in industrial sectors such as automotive, electrotechnics and ICT. There is very important to ensure support for their suppliers, sub-suppliers and special enterprises including engineering, design and protection of intellectual property, etc. Very important will be ensuring an ideal operation of economy and maintaining big investors in the country. With the respect to this situation it is very important to create system for continuous support of SMEs sector in Slovakia.

- in connection with the new national Innovation Strategy document there is a need to create similar documents (innovation strategies and innovation policies) at regional level for the near future time period.
- there are several practical tools that can be used for increasing innovation activities mainly in SMEs sector. Tools will have an impact not only at national level but at regional level as well (examples of tools: Micro-loan program; Start-up program; Spin-off program; Business angels networks; Clusters program; Incubator program; Knowledge transfer partnership; Research program for SMEs; Emergency assistance program and others in the fields of support programs for education, financial programs, special grants for R&D and innovation, etc.)
- there is a need to establish the Slovak national institution for innovation that will be responsible for the whole implementation of the national Innovation Strategy and realization of all relevant activities in terms of building national innovation ecosystem in connection with regional innovation strategies, and policies.

We guess that this draft will have a huge impact on all industrial sectors in Slovakia and it is a big opportunity for SMEs in automotive industry to be highly involved in the R&D&I activities.

The description of successfully implemented recommendations could be described as follows:

At National level:

- Some of the recommendations and related thoughts were adopted and incorporated into the Draft of Innovation Strategy of the Slovak Republic for the time period 2014-2020.
- Some of the recommendations and related thoughts were adopted and incorporated into Strategy of Automotive Industry Association of the Slovak Republic
- AIA SR took responsibility for designing and building an educational institution called Academy for automotive industry development

At Regional level:

- ACWS created positive awareness about automotive industry in the Trnava Region mainly in terms of needs for building an innovation and educational capacities in SMEs sector
- ACWS was one of the strong partners in creating of educational process for automotive industry at the Faculty of Materials Science and Technology SUT in Bratislava and in the process of dissemination of knowledge from automotive industry companies to the university
- AIA SR started close cooperation with partners in the field of support and promotion of automotive industry, education for automotive, R&D for automotive according to document Strategy of AIA SR till 2016.

At Interregional level:

- ACWS built positive awareness about cooperation possibilities for companies from different project partners regions
- ACWS helped to create conditions for interregional business cooperation development and building partnerships between different organization which could be valuable for automotive industry development
- ACWS and all project partners provided a good environment for creating automotive networks inn the Central Europe thanks to matchmaking events and conferences and other project activities
- ACWS with project partners created possibilities for industrial companies from project partners' countries to create new business relationships at the Ukraine and Russia automotive market.

Recommendations and goals:

- I. Increase level of cooperation between automotive players and other business actors from different industrial sectors and academy sector
 - Goal 1: Create possible ways of cooperation with start-up community for automotive industry (fields: ICT for automotive; new solutions for e-vehicle; new technologies; new material research; etc.)
 - Goal 2: Create cooperation with industrial associations and ministries or government agencies for ensuring a new support inputs and tools for automotive industry (business networking activities, finding financial sources for R&D&I activities, creating automotive friendly environment in terms of developing innovative entrepreneurship, etc.)
 - Goal 3: Help create a new network of Collaborative Innovation Centres (university-industrial innovation centres) which will be used for transfer the latest research results and innovative technologies from universities to the industry
- II. Participate on creation of modern innovative study programs and setting up R&D priorities with focus on automotive industry at the educational institutions in Trnava region (and/or other regions in Slovakia)
 - Goal 4: Closely cooperate with Faculty of Materials Science and Technology of the Slovak University of Technology in Bratislava on creating a new modern and innovatively oriented study programs for development automotive experts and managers. Participate on building R&D laboratories and innovation training centres (management process, ensuring contact network, providing best practices from abroad, etc.)
 - Goal 5: Cooperate on continuous improvement of study programs and training spaces at the secondary technical schools in the Trnava Region
 - Goal 6: Help to involve learning subject Innovation Management into the educational process at all technical and non-technical educational institutions in the Trnava Region.

- III. Be strongly involved in the EU funds structures; look for foreign partners for cooperation mainly from automotive industry and build domestic automotive innovative supplier baseline.
- Goal 7: Participate on implementation of international automotive R&D&I projects
 - Goal 8: Look for possible financial sources for realization of R&D&I activities funded by EU
 - Goal 9: Create ACWS training program “How to effectively apply and manage R&D grants”

SLOVENIA

How effective and successful the policy measures are, we can judge only on the long term and therefore it is crucial to follow and monitor the indicators like: number of new products on the market, increase of sales, increase of added value, number of innovations, number of new suppliers, new jobs, IRR and ROA.

Effective industrial policy should assure that the companies and institutions would be able to quickly adjust to new circumstances on the market and also to successfully use the challenges given by the market. Special attention should be given to common research and development by what we would like to keep the pace in the most fast developing industry in the world, assure the development of new products and technologies and thus influence the increased demand. Goal is clear – successful and profitable growth. Key important areas of the industrial policy are still:

- environment and efficient usage of energy
- safety
- comfort
- New materials and technologies to implement the above functions for the user of the vehicle.

However, beside the above mentioned areas, special attention should be focused also on:

- Building of appropriate infrastructure in order to create conditions for work and acquisition of key experts
- Assurance of conditions for global marketing of new products and increasing of competitiveness
- Conditions for development of technological sources of knowledge in regions
- Quality development of the suppliers chain (optimisation of production processes, training and education,...)
- Creation of new competences from fields of ecology, mobility, safety and comfort
- Creation of cooperative network based on important development partners, education and international cooperation;

HUNGARY

The last discussions in the circle of Central-Transdanubian Regional AutoNet Team focused on the following 2 pillars:

- competitive business environment in poles and core areas of automotive industry
- enhancement of competitiveness of domestic companies and networks mainly in the circle of export oriented, innovative actors can be characterized with high added value.

The current policy instruments (in correlation with instruments enumerated in the first chapter) – thanks to effective series of discussions with local policy makers – focused on the following areas:

- Encourage strategic co-operation, networking, and clustering of businesses in the sector;
- Support to companies' innovation to foster the further development of their already existing, marketable products, services and technologies

The main impacts of last years' efforts can be enumerated as follows:

- The automotive industry keeps growing in Hungary
- In the automotive industry R&D demand is growing
- Hungary, as a part of the CEE Area, is the new highlighted regional sub-center of automotive production
- Hungary, as a part of the CEE Area, has the supplier base in global context with effective and efficient innovative ability and capacity

The following findings are saying for themselves:

- there are more than 600 enterprises working within the sector, employing 100,000 people and producing more than 15 billion EUR revenue about 92% of their products and services are exported
- effective cooperation between higher education institutes and production facilities in the field of R&D and the qualification of engineers is essential in the automotive sector

Thanks to instruments, that have been able to support effective and efficient investments in the field of automotive sector for years, Hungary is a favoured destination of foreign investors of automotive industry represented by the most important 4 Hungarian OEM's,

- Audi Hungária Motor Kft.,
- Magyar Suzuki Zrt.,
- Mercedes-Benz Manufacturing Hungary Kft. and Opel Szentgotthárd Autóipari Kft, plus numerous TIER 1-2 suppliers.

Based on the analysis of automotive in Hungary and thanks to the knowledge originated from the AutoNet Network, some policy instruments are recommended by the Central-Transdanubian Regional AutoNet Team for strengthening the effectiveness and efficiency of upcoming EU programming period in our regional context as follows:

1. The development and amendment of network management organizations e.g. of existing clusters via organizational development and process reorganization and introduction of new, relevant and profitable services in automotive sector;
2. Fostering the cooperation or even mergers among networks operating in the automotive industry;
 - fostering international networking aiming to develop effective co-operation with marketable outputs and potential to long-term co-operation;
 - to support infrastructural investments of the networks and their member companies in the field of R+D, applied sciences and product development that has the real potential to reach the market.
 - Co-operation of innovation-oriented consortia's (SME's, R&D actors) joint investments (with the participation of at least 3 actors) + support of management activities of this co-operation
 - Support to complex projects of innovation-oriented developing supply chain
 - Launch innovative experimental projects (experimentation)

GERMANY

The SEDC works, according to its given tasks, not only project based in the automotive industry but also strategic in this and similar branches. Ideas, concepts, projects and strategies were developed together with local and regional stakeholders, experts, companies, networks, institutions and ministries, which seem to be successful and full of opportunities for regional economic development. With these results the SEDC contributes in developing policy recommendations together with similar institutions in Saxony.

In the case of automotive industry especially innovations and future-oriented developments were accompanied by the SEDC directly and focused:

- I. First by internal industry managers working only for specific industry sectors, where they are linked very intensively in the region;
- II. Second by new settlements or expansions of already existing automotive companies;
- III. And third by supporting companies and promoting their successes, which want to export in foreign markets and look for cooperation in neighbouring regions.

With all these steps the SEDC can give an intense contribution to a successful growth of Saxony's automotive industry, and influence also the decision makers on policy level on recommendations.

Next to the general recommendation to promote the location of Saxony in the world-wide automotive industry by all its strengths and opportunities, the main tasks of all future recommendations still will be:

- Safing/Extending current jobs in automotive industry
- Establishing new settlements of automotive companies or new expansions of existing ones
- Supporting suppliers in looking in other sectors as well, where they can invest their know-how
- Driving forward the internationalization of SME's
- Strengthening/Safeguarding the excellent R&D institutions in Saxony, dealing with automotive aspects and link them to projects and production – especially in the field of E-Mobility and battery technology

CZECH REPUBLIC

Pulsation System testing, laboratory launched by PP7, supports two proposals at one time, which is Businesses cooperation with Universities as well as Research & Educational initiations with positive impact. The laboratories utilize university potential and involve supplier in automotive with its own R&D facilities. There has been already

Regarding to developing competitiveness of institutions individually, in this case implementing new educational materials that positively interconnected the industry educational requirements with the focus of vocational and training schools. The result is the development of students' key competences in order to simplify their integration and adoption into the working processes. That strengthens the employability of graduates and consequently increases the competitiveness of the companies in automotive as well.

During the 4 quarter of 2012 MSAC (PP7) has verified the educational textbooks implementation within participated training and vocational high school. The verification comprised of educational textbooks utilization in Logistics and Lean Processes and application of training games. Schools have proved the maximum utilization and further development of educational textbooks. Students positively assessed the overall condition of training along with the training games. They consequently propose the lean philosophy and other lean methods in their classes. It allows them to implement the knowledge instantly following the Value Add activities.

Overall aim of activities between Businesses, Research & Educational and Governmental institutions in order to reach common intentions need to be synchronized and consequently logical actions launched. Specific recommendations that Cluster defined are:

- Knowledge chain support
- Business boosting
- Research and education improvements.

Activities should lead in:

- Quicker adaptation process of students
- Strategy unification of interrelated institutions
- Creation of the region of excellence in selected areas that are supported
- Better transferable results of R&D results

POLAND

In **LOWER SILESIA**, policies of supporting automotive industry in the region were included in recently elaborated document of Regional Strategy. As previously mentioned, thanks to the fact, that Lower Silesia Agency for Economic Cooperation was an active participant of several steering committees and workgroups in the framework of preparing the Regional Strategy document, we achieved to include some of our recommendations to the Regional Strategy for the period of 2014-2020. The policy of innovation aims to connect the rising potential of our technical high schools with the needs of automotive industry. Because of the fact that the process of creating new policies has just been finished and now the Lower Silesia region will pass to the next step, that will bring us to the policies implementation, it is hard to definitively define the impact of the policies on the regional automotive sector. However, the process of preparing a strong and high-specialized scientific background for the entrepreneurs has been mentioned in the Regional Strategy.

It is important to underline that the policy of innovations in Lower Silesia was based on the Regional Strategy of innovation elaborated in 2005. The Strategy for Innovation was updated in 2011, in order to define new innovation policies for the period 2011-2020. The main economic goal of mentioned Strategy is building a strong, competitive and innovative economy of Lower Silesia in order to achieve a high and stable pace of economic growth and rising attractiveness of Lower Silesia as a perfect place to invest.

As previously reported several recommendations proposed by DAWG has been included in the brand new Regional Strategy. However, we are now in the time of passing from the period of updating the policies of supporting innovation to the time of implementation of defined policies. For the moment we can say that several recommendation has been included in the Strategy and we are expecting them to have a real impact on the upcoming funding period in terms of improving innovation processes. The essential task for the local authorities is to take care on the real implementation of accepted policies, because only in that way they can contribute to develop the local automotive industry.

Lower Silesia, with its geopolitical advantages is an attractive investment destination. Because of its proximity with Germany and Czech Republic, as well as its high level of technical education the region has already attracted several automotive entrepreneurs. To develop the regions' potential it is recommended to:

- support the process of foreign direct investment through active promotion and involvement of regional policies

- support the process of building the cooperative ties (through trainings, joint study visits, special grants or loans to joint ventures the inclusion of such activities in the planning in EU funds for the years after 2013, consulting the training packages from the EU funds)
- greater availability of technical schools, universities with their science resources for the needs of the market (everyone who wanted to cooperate with these academic institutions knows it is quite a hard work), preparing joint programs of educating staff in automotive sector along with industry organizations (it concerns engineering level of education as well as professional one), implementation of joint science projects between business and academic institutions, incorporating the idea of building industrial and technology parks located in Special Economic Zones.
- Preparation of regional analysis of influence over new trends in communication solutions, supporting the security of fuels delivery, changes in regional infrastructure, “refuelling” car batteries, bio fuels availability, providing transport security.

In **SUB CARPHATIA**, Tech support policy in Podkarpackie has different character. In Podkarpackie there are two economic zones. These zones are adopted are mainly innovative companies including companies in the automotive industry. Such companies have a lot of support because:

- Surface to production and service are leased at rates lower than the market
- Companies in the area benefit from tax exemptions,
- Have easy access to tech suppliers,
- The regional authorities are also trying to help at the start of this activity.

As mentioned earlier, local team members have no direct impact on the legal changes for businesses. They can only indirectly influence trying. But all changes that can be made to not have a chance to break due to the crisis.

Nevertheless, these entities still indirectly affect the development of entrepreneurship in Podkarpackie. It is proven consulting services pro-innovative lead the designs enable the development of new technologies. A perfect example is Regional Development Agency Joint Stock Company MARR who led a project to initiate development of the electric vehicle market in Poland, and the development of distributed generation using renewable energy sources. The project has contributed to the Polish energy independence, and improves the care of the environment. The project was brought to life Cluster Green Cars

All are dependent on cars, but what is the future of the industry overloaded with excess services, too large installed capacity and the limited diversification of products? The production volume and thus sales of new cars are most important for vehicle manufacturers, and the struggle for the amount of sales continues.

Currently, the most important issue for Europe is to overcome the crisis because then it will be easier to affect law changes. There are many issues to be improved because only improve conditions makes it easier to operate for the companies. It is mainly to reduce the fiscal burden of the state, as it is the main burden for them.

ITALY

During the very first Recommendations, Comunimprese, together with its Associated Institution - POLIAUTO - really urged **LOMBARDY REGIONAL GOVERNMENT** for action with reference to the backing of partnership and cooperation among industry, R&D sector and universities together with the allocation of economical resources for the development and support of cluster activities.

It is clear that the encouragement of twinning projects and activities among economical operators and R&D sector is underpinning the empowerment and development of innovation capacities within the sector, serving to confront global crisis and pave the way for a long-term growth. Regional and national policies have run in line with the recommendations.

It is possible to count in Lombardy at least on two different measures that have been launched to follow up the support for the automotive industry in Lombardy, into the direction of backing innovation capacities, sustainable development and investment in innovations :

A. One call for proposal for the establishment of High-Tech Districts in Lombardy, including the automotive one.

This invitation is intended to identify and recognize the aggregations of research organizations, and companies present in Lombardy Region, possibly supported and promoted also by other institutional actors, economic and territorial both public and private, which, through the creation of plans and annual projects of industrial research, experimental development and higher learning, are capable of producing scientific impacts and economic benefits, by promoting structural changes in the Lombardy region and allowing a technological leap in the field of reference.

These subjects will have the opportunity to participate in future initiatives of promotion and/or funding of the Region of Lombardy and/or the Ministry of Research and contribute to the development, strengthening the areas identified as strategic and to make it more attractive and competitive the research in Lombardy.

AutoNet Network has signed a Memorandum of Cooperation with the members of the newly born High-Tech District in Lombardy. AutoNet Project provides a concrete and reliable ready-to-network Platform for the Lombardy companies in search of automotive players globally with whom to create international contacts, alliances and business.

B. One call for proposal for the outgoing of Lombardy economical production systems in international markets.

This initiative is urging projects to improve the positioning of the production systems in an international context also with respect to the institutions and universities/research centres abroad. The project that each production system intends to carry out may consist of several actions, intended to implement a strategy of internationalisation of the production systems. Each project receives an envelope of nearly 300.000€.

The car market is one of the most competitive markets for its characteristics such as heterogeneity of customers, the very high competition and the growing number of potential entrants. There are more than 100 companies medium-large in Lombardy that operates in different sectors including automotive, having as reference markets of Italy, Europe, South America and the Far East. There are numerous small- and micro-enterprises suppliers of medium/large business referred to above, as regards both the components and the molds and equipment.

The automotive production system must be understood in the broadest possible sense and therefore not only referring to the automotive and industrial production but also to the following subjects:

- producers of automotive components for cars, motorcycles, industrial vehicles and vehicles.
- manufacturers (OEM) of motorcycles, agricultural vehicles, industrial vehicles and caravans.
- manufacturers of machinery, plant and equipment (molds, assembly equipment, and systems for the industrial automation).
- suppliers of services: design, CAD/CAM design, prototyping, simulation, computer science and organizational consulting).
- testing Laboratories for mechanical, electrical, crash test, failure analysis, acoustic tests and electromagnetic compatibility.

The economic crisis in recent years has led to a slowdown, in the automotive sector, for the demand of finished and semi-finished products. In Italy, in particular, the production and sales have reached levels much lower than for the period 1993-1996 and it is assumed that before the 2015 it will not be returning to a level of production of the pre-crisis level.

In an economic context as the current it becomes fundamental for the Lombardy SMES, and in general for all SMES, to implement strategies not only to increase their competitiveness, but also, in some cases, to ensure their survival. One of the strategies that can be implemented is represented by the internationalization process that is made necessary not only by the national economic crisis but also by the need to allow SMES a development process through:

- creation of economies of scale by high volumes of production
- increase of turnover
- acquisition of new customers and suppliers
- acquisition of new knowledge and skills
- establishment of relations of cooperation with foreign producers.

As a part of his cluster activities, Comunimpresa is launching and promoting this Internationalisation through knowledge - Training Programme addressing managers of automotive companies and drawing on a similar experience and activities carried out by ACWS in the Slovak Regions, picked as an example of best practice to enhance managerial capacities of the human resources involved in the automotive sector.

The key target groups are current cluster members, automotive OEMs suppliers ranging from Tier 1 to Tier 3 located in the Lombardy Region.

The Training Programme is drawn, as a pilot educational initiative stemming from a wider Project financed by the Lombardy Region Government aiming at giving concrete support to tackle in a strategic manner the changes required increasing the international competitiveness of the automotive sector.

Project Promoter is Politecnico di Milano - Department of Mechanical, in concert with System Brescia Pro Brixia, Project Manager, Special Company of Chamber of Commerce of Brescia. Comunimprese is playing as facilitating and strategic partner.

The Law no. 580/93 has attributed to the Italian Chambers of Commerce the faculty to give life to defined structures Special Companies, called to carry out activities and interventions that require operating slenderness, speed and specific technical competence in the field of services to offer to companies within the territory. In 1995 the Chamber of Commerce of Brescia founded Pro Brixia, Special Company operating in accordance with the rules of private law and provided with administrative and financial autonomy.

The action of Pro Brixia aims to exploit the productive fabric from Brescia, with the primary mission of supporting the businesses in the region in an effort to extend its range to the international markets.

The Internationalisation Project carried out by Pro Brixia, to which the Training Programme pertains, is funded by regional funds with an envelope of more than €200.000.

After the pilot edition, the Promoter, the Organizer and Comunimprese will draw on this pilot phase and experimentation to make due adjustments and revisions, and propose other Training Programme editions for the future to come, relying eventually on new public or private funds. AutoNet members will be involved in the internationalization process of Lombardy Automotive Cluster to the possible extent. Measures that are in line also with the necessity to strengthen the role and position of the newly-born automotive cluster, Poliauto, ready to lead new interventions for the amelioration of the sector worldwide.

Recommendations made by Comunimprese and its Associated Institution had been followed: the promotion of internationalization, and the boost of innovation and quality districts, are emerging as the key factors to overcome the crisis that has hit the corporate system from 2008 and revive the sector. These specific interventions have been recently launched, since one year or so, and still there is a need to wait to be able to evaluate their impacts on the system.

Comunimprese is actually recommending to remain on the track of the policies already outlined and carried out so far, as well focusing on the strengthening of the newly-born cluster PoliAuto, which is now undergoing a process of constant growth in terms of credibility and operability, steering and participating to the major initiatives designed to empower its members.

The policies of the **PROVINCE OF REGGIO EMILIA** are based on some assumptions:

- the automotive sector has strategic importance as cornerstone for the local economy, providing quality employment to millions of workers in the EU;
- this sector is central to many other economic activities, delivers affordable and desirable products, meets consumer demands, based on a competitive market for automotive products and services;

Unfortunately the automotive industry has undergone a transformational evolution over the last two decades. Compared to just 20 years ago, the industry is now building different, more complex products: the increase in efficiency necessary to accomplish these changes have come about as a result of painful structural change that has significantly increased collaboration between automakers and suppliers. The industry is therefore functioning under a different operational structure for which the business practices and departments of both automakers and suppliers were not conceived.



EXECUTIVE SUMMARY

In the **Introduction** we can read the Autonet "**Framework Policy Document**" where Autonet Partners agreed that the automotive industry is crucial to Europe's prosperity, because the EU is the largest producer of motor vehicles in the world. A large pool of skilled workforce is employed in the automotive industry, a sector playing a strategic role as key driver of knowledge and innovation. Central Europe, in particular, is considered to have become "Europe's Detroit" with its high concentration of motor vehicles production, due to low-cost but highly skilled labour, EU membership and good transport links with the West.

The sector, though, is highly suffering from global crisis that has affected the supply and sub-contracting network, the manufacturing (motor vehicles, motorcycles and parts thereof), as well as RTD institutions that collaborate with industry on innovative projects. The negative impact is clearly visible in all European regions, which appear to be seriously damaged by jobs cut, declining tax revenue, decreased production, arrest of RTD and implementation of innovation projects.

In **Chapter One** there is a **short overview of the Project** with specific objective is to promote CE region and its actors as an ideal area for creating new processes, materials or products in automotive industry. AutoNet project proposed trans-regional matchmaking opportunity by creating "AutoNet" as a permanent business network supporting actors of automotive industries from CE regions. Actual partners are:

1. AUTOMOTIVE CLUSTER – WEST SLOVAKIA – SK
2. BUSSINESS INTEREST ASSOCIATION ACS, AUTOMOTIVE CLUSTER OF SLOVENIA (SI)
3. WEST-PANNON REGIONAL DEVELOPMENT COMPANY (HU)
4. SAXONY ECONOMIC DEVELOPMENT CORPORATION (DE)
5. PROVINCE OF REGGIO EMILIA (IT)
6. MORAVIAN-SILESIA AUTOMOTIVE CLUSTER (CZ)
7. WIELKOPOLSKA AGENCY FOR ENTERPRISE DEVELOPMENT (PL)
8. LOWER SILESIA AGENCY FOR ECONOMIC COOPERATION (PL)
9. COMUNIMPRESE SCARL (IT)

AutoNet Network signed seven Memorandum of Collaboration with major automotive networks all over Europe, such as:

- CLEPA (EUROPEAN ASSOCIATION OF AUTOMOTIVE SUPPLIERS)
- EASN (EUROPEAN AUTOMOTIVE STRATEGIC NETWORK)
- AUTOCLUSTER NETWORK
- CLUSTERS CORD
- PLASTIC CLUSTER IN ZLIN REGION
- AC CENTROPE (AUTOMOTIVE CLUSTER CENTRAL EUROPE)
- INNOVMAT (PLATFORM OF INNOVATIONS AND TECHNOLOGIES IN THE FIELD OF MATERIAL SCIENCES).

European Union awarded Project AUTONET, led by 9 partners from 7 CE countries, with a financial contribution to strengthen the conditions for innovation in car industry and support the re-launch of its competitiveness.

In achieving this goal, part of project activities were addressed to research on framework conditions of automotive industry within relevant territories in CE and, starting from there, outline recommendations to be reported as input to policy-decision-makers in order to stimulate their action to revive the sector. In **Chapter Two** it is well described that one of the principal target of AUTONET project has been **to stimulate exchange of experiences and knowledge between the project partners, and to initiate productive cooperative projects among partner regions**. From the beginning, AUTONET member institutions took the distinctive distribution of responsibilities in their regions in the automotive field into consideration. The political and institutional structures vary considerably among European member countries at the regional level and in certain cases responsibilities are shared among several actors within a single region for a single industry. Keeping this in mind, **AUTONET partners made it a priority to extend the reach of networking activities to other relevant actors in their regions**. This open and welcoming approach led to cooperative activities in different fields. AUTONET partners strongly collaborated with other Automotive Networks, establishing relationships, inviting them to join AUTONET activities and facilitating communication and the wider and faster dissemination of best practices and cluster management organizations. Moreover, it targeted to initiate cross-border cooperation projection, with a strong emphasis on SMEs.

AutoNet's feedback along regional competitiveness realm complemented the overbearing aim of CARS 21 group, which was set to make a contribution to the worldwide competitiveness of the EU automotive industry. By expanding the results of CARS21, AUTONET served for effective governance at all levels of European Union and assisted competitiveness inducing regulation making; especially in on multidimensional issues like exhaust-emission levels regulations and their economic impacts. In this sense, **AUTONET Network took the intrinsic policy feedback function of existing automotive-themed projects to the next level**, thanks to the broader geographical and organizational reach of the other networks with which collaboration started during three years activities.

In **Chapter Three** there is a "State of the Art" description of it's actually going on in Europe regarding Legislation and Policies regarding Automotive Industry in Europe. In fact, the European Commission just tabled, on 8th November 2012, **the CARS 2020 ACTION PLAN**, aiming at reinforcing this industry's competitiveness and sustainability heading towards 2020. The Commission proposes a massive innovative push by streamlining research and innovation under the European Green Vehicle Initiative. Innovation in the automotive industry will also be stimulated through a comprehensive package of measures to reduce CO₂, pollutant and noise emissions, to drive improvements in road safety and develop technologically-advanced intelligent transport systems (ITS).

In parallel, the Commission also proposes to address the immediate problems in the car sector; in response to a fall in demand on European car markets and plant closure announcements, the Commission will bring together car producers and trade union representatives and Ministers of Industry ahead the next Competitiveness Council to review measures for dealing with the present crisis in a co-ordinated way. The car industry is important throughout Europe and a European response is needed.

This response should focus on addressing overcapacity, social and technological investment, as well as state aid and demand-side measures, followed by a discussion at the political level.

The action plan presented by the European Commission aims to help strengthening the EU's automotive industry between now and 2020. It builds on the vision for industry competitiveness and sustainability in 2020 and recommendations how to achieve this vision contained in CARS 21 Final Report. On this basis, the Commission proposes concrete actions to be taken on issues of emissions, research financing, electro-mobility, road safety, new skills, smart regulation, trade negotiations and international harmonization. **The action plan, which comes at a time when the automotive industry is facing particular pressure due to a strong decline of the EU market and structural overcapacities, includes concrete actions to help tackling these difficulties.** It is also the first deliverable of the New European Industrial Policy outlined in the Commission's October 2012 Communication (see IP/12/1085). The Action Plan is comprised of **four pillars**, each encompassing concrete actions proposed by the Commission, which are to be implemented by the Commission, Member States and regional authorities over the next years:

1. Investing in advanced technologies and financing innovation

To strengthen the competitiveness of the European car industry and to maintain its technological leadership, it is essential to increase the resources for research and promote rules and standards, which will help to boost innovation.

2. A stronger internal market and smart regulation

To attract investment and maintain a strong car base, the European Union needs a stable and predictable framework able to promote innovation without imposing unnecessary burden.

3. Global markets and the international harmonisation of vehicle regulations

By 2020, 70% of new growth will be in the emerging economies. The car sector will also face a similar trend. While the demand in mature markets will remain stable, demand will steadily increase in the global market. To help the European cars to be exported and take the opportunity of new growing markets, it is important to promote the internationalisation of the European car industry, effective access to market, harmonisation of standards and technical rules.

4. Anticipating adaptation and softening the social impacts of industrial adjustments

Under this pillar, confronted with difficult economic situation of declining EU market, structural overcapacity and announcements of plant closures the Commission proposes to bring together Industry Ministers, industry and trade union representatives in order to come up with coordinated actions to tackle the overcapacities, ensure the necessary investments and that national demand and supply-side support measures are in line with internal market and competition rules. The Commission proposes also to support the creation of a European Automotive Skills Council, which will bring together existing national organisations conducting research on skills and employment in the automotive sector, encouraging the use of European Social Fund (ESF) for workers' retraining and re-skilling in the new financial perspective of the Structural Funds.

There is also a suggestion to re-launch the inter-service task force to study and follow up the main cases of automotive plant closures or significant downsizing and to identify good practice and promote an anticipative approach in restructuring in consultation with representatives of the automotive-intensive regions, employment authorities and the sector's stakeholders. Last recommendation is to encourage Member States to make use of labour flexibility schemes and their co-financing by ESF in support of the suppliers who might need additional time to find new clients following a closure/downsizing of an automotive plant.

FINAL RECOMMENDATIONS

The following **chapters (Four to six)** are structured as a survey about different situations concerning Central Europe Automotive Industry. Partners were asked:

- to make a resume of the policies (at regional/national level adopted during the last 3 years) in order to support automotive industry (Chapter Four)
- to make a resume of his process of cooperation and results of policy recommendations at regional level
- to make a resume taking into account each following topic:
 - a) state of art of the policy support of innovations in Automotive industry in the region
 - b) description of successfully implemented recommendations/reasons of failure of the recommendations
 - c) summary of recommendations for future years and their goals

The resumes are very interesting **and demonstrate how AutoNet Partners had already taken the four Pillars of Cars 2020 Action Plan in account during project's activities.** There is also a possible comparison between the first round of recommendations (made during 2011 under AutoNet framework) and Cars 2020 pillars.

The first argument related to the importance **to prepare well educated and trained staff, through a tight cooperation between automotive companies and technical schools (Pillar 4 - Anticipating adaptation and softening the social impacts of industrial adjustments)** AutoNet partners specifically recommended the increase of the quality of education in European technical high schools, their cooperation with automotive sector, the unification of their curriculum including its update on an ongoing basis, and a view on the creation of new knowledge, skills and competences in the field of ecology, eco-mobility, security and comfort.

Secondly AutoNet Partners agreed on the need **to keep on enforcing partnership and cooperation among R&D sector, universities and automotive industry**, being the latter the leading investor in research activities capable to drive the development and diffusion of new technologies and innovations able to be competitive on the market (**Pillar 3. Global markets and the international harmonisation of vehicle regulations**). In parallel they all called for the continuous support of a strong cluster policy, capable to optimize resources, knowledge, skills and efforts, avoiding dispersion and promoting the excellence of a region.

The acknowledgement and the interlink between CE leading regions of excellence, might contribute to best-practices transferability and increase international visibility.

Finally AutoNet Partners recommended **easier access to funds for investment in development projects**, asking the political interlocutors **to allocate economical resources through the launch of founding programmes financing research initiatives that might boost the innovation within the sector (Pillar 1. Investing in advanced technologies and financing innovation)**.

The first Policy recommendations revision collected and assembled single and personal analysis conducted by each AutoNet partner willing to hand over to the policy-decision-makers a few recommendations to push their intervention and attention towards new lymph to the automotive sector.

Some regions may benefit from the backing of new or ongoing partnership and cooperation among industry, R&D sector and universities together with the allocation of new envelopes of economical resources for the development and support of cluster activities, as it was the case in Lombardy Region.

Some others still claim for a better coordination among R&D interlocutors and the industrial sector and the spin of ventures among them through the allocation of concrete investments that might boost the necessary innovation capacities in favour of development.

Equally is urgently recommended the establishment of an instrument for systematic coordination addressed to the preparation and implementation of EU projects, being able to rely on a to-be consolidated international networking of all the stakeholders to be involved.

Finally It is greatly highlighted **the focus on e-mobility which has been a policy area of new trends and sustainable developments** for the Saxony and Lombardy Region, that is absolutely in line with EU's "clean fuel strategy", announced on 24th January 2013 by European Commission, an ambitious package of measures to ensure the build-up of alternative fuel stations across Europe with common standards for their design and use.