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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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Project

for preparing an impact study of EU integration on the automotive industry in the countries of Central and Eastern Europe

SUMMARY REPORT

Budapest, Hungary

September, 2002 – March, 2003

BACKGROUND AND JUSTIFICATION

OBJECTIVES

Define issues of and scope for a technology foresight study on challenges and opportunities of the EU integration process to the automotive production chain in the Central and Eastern European countries.

OUTPUTS

The final output in general is to provide advice for governmental decision makers in Central and Eastern Europe based on the lessons learnt from the automotive industry with regard to the transformation of automotive industries to cope with the competitive pressure of the EU market.

- Final thesis and hypothesis on the automotive industry in Czech Republic, Hungary, Poland and Slovak Republic.
- Executive summary on each country study
- Country studies on each selected country
- Report on the Technology Foresight Summit 2003

METHODOLOGY

Three methods were applied:

- Desk work to collect data and information for the country studies. It was applied by all participants for preparing their own country study.
- Consultations, interviews and workshops with key local manufacturers. Participants applied it in their information screening and to test their thesis and hypothesis.
- International workshops were held twice. The first was a kick-off meeting where besides technical issues participants also discussed the professional issues of country studies. The second was a workshop on findings of country studies and formulating general thesis and hypothesis on the impact on the EU integration in the automotive industry in Czech Republic, Hungary, Poland and Slovak Republic.

PARTICIPATION

Participants were experts on automotive industry. From the selected countries outstanding scholars were invited to lead nation project on the research of automotive industry. They invited national experts representing their own national automotive industry, government, and scientific community. From each country the following project leaders were in charge of their national project:

- Czech Republic Project leader: Milan Maly, University of Economics, Prague.
- Hungary Project leader: Erzsébet Czakó, BUESPA
- Poland Project leader: Michal Jaworsky, Warsaw School of Economics, Warsaw.

 Slovakia – University of Economics, Bratislava. Project leaders: Milos Bikár and Ján Lesinsky

DOCUMENTATION

During the project the following documents were prepared and finalized. Please find the short ones (number 1, 2, 3, 4, 6, 8 and 9) in the Annex and the long ones (number 5 and 7) attached.

- 1. Project description, including:
 - Objectives and activities
 - Schedule
 - List of participants
- 2. Kick-off meeting agenda
- 3. Outline for the country studies
- 4. Preliminary hypotheses on the impact of EU integration on the automotive industry in Czech Republic, Hungary, Poland and Slovak Republic.
- 5. Four country studies (Czech Republic, Hungary, Poland and Slovak Republic)
- 6. Working documents for the workshop on first results on EU integration on the automotive industry in the countries of Central and Eastern Europe
- 7. Executive summaries on each country study
- 8. Suggested statements for a regional Technology Foresight exercise
- 9. Report on the Automotive Industries at Cross-Roads, Technology Foresight Summit 2003, Budapest March 30, 2003

LANGUAGE

The meeting was conducted in English and all the documentation were prepared in English as well. Some participants also prepared country study in their national language.

TIME AND VENUE

The project started in September 2002 and completed in March 2003.

National research for preparing country study was hosted by the universities of project leaders.

International workshops were held in November 4, 2002 and February 7, 2003 at the Budapest University of Economic Sciences and Public Administration (BUESPA), Fővám tér 8, Budapest/Hungary.

FINANCIAL ARRANGEMENTS

The project was financially supported by UNIDO. The financial management of the project was responsibility of the BUESPA. All costs occurred until the end of October 2002 was in kind contribution of BUESPA.

For the selected and invited participants a round trip transportation for the most direct and economical route between the home country and Budapest was arranged and paid for by UNIDO, in accordance with UNIDO's Financial Regulations. The participants had to await their formal travel authorization and were not allowed under no circumstances purchase their own tickets. Any additional costs incurred upon deviations from the authorized route had to be covered by the participants.

Nominated participant from outside Hungary were provided Hotel accommodation (Single room including Breakfast) for the duration of the kick-off meeting and the workshop. On their side the participants were requested to bear the following costs: all expenses in their home country incidental to travel abroad, including expenses relating to: passport, visa, and any other miscellaneous items.

BUESPA concluded contract with each non Hungarian project leader on behalf of their organization. The contracted amount was to reimburse all costs of preparing country studies. BUESPA concluded contract directly with Hungarian participants and suppliers.

VISA ARRANGEMENTS

Before leaving the home country, participants had to complete all formalities regarding entry and transit visas that they may require for the journey to Vienna, Austria.

CONTACT PERSONS WERE

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Project description

For preparing an impact study of EU integration on the automotive industry in the countries of Central and Eastern Europe

Date: September 2002 - March 2003

Objectives: Define issues and scope to a technology foresight study on challenges and opportunities of the EU integration process to the automotive production chain in the Central and Eastern European countries.

Expected target beneficiaries: Central and Eastern European countries, automotive industry in EU countries.

Expected output: Based on the lessons to be learnt from the automotive industry to provide advice for governmental decision makers in Central and Eastern Europe with regard to the transformation of their industries to cope with the competitive pressure of the EU market.

Activities:

- 1. Discuss problems and issues related to the impact of EU integration on the automobile production chain in selected CEE countries, such as Hungary, Czech Republic, Poland, Slovakia and study the case of Slovenia, Romania and Turkey
- 2. Present research results on the future possible impacts (challenges and opportunities), which the automotive industry in the CEE countries will be facing in their integration process into the European Union
- 3. Formulate first draft proposal on the TF study
- 4. Each country carries out a background study of the TF, related to the first draft proposal
- 5. Formulate an institutional collaboration proposal with clear objectives and expected results
- 6. Prepare a diagnosis on the automotive production chain in the selected countries and in the sub-region and design alternative scenarios for the future development of this production chain.
- 7. Define common issues at regional level and decide on methodology for the TF study

Research institution and coordinator: Budapest University of Economic Sciences and Public Administration (BUESPA)

Its responsibility is threefold. BUESPA elaborates the framework of the impact studies to be carried out in the selected countries and prepares the impact study on the regional automotive industry, and as a coordinator of the project BUESPA will provide inputs on "hot issues" to the Ministerial Round Table.

Tasks of the coordinator:

- 1. Elaboration of the framework of country studies to discuss problems and issues related to the impact of EU integration on the automotive industry in the selected countries
- 2. Building a network of involved organizations in the selected countries
- 3. Coordinating and monitoring the work in the selected countries
- 4. Organizing two workshops in Budapest to share and discuss problems and issues which the automotive industry faces in each selected country
- 5. Formulate first draft proposal and institutional collaboration proposal
- 6. Elaborate the diagnosis and scenarios in the sub-regional context
- 7. Elaborate the framework and methodology of the TF study (impacts of EU integration to the regional automotive industry)
- 8. Present the final report to the Foresight Summit 2003

Involvement of organizations in the selected countries:

Czech Republic – University of Economics, Prague Hungary – BUESPA, Budapest Poland – Warsaw School of Economics, Warsaw Slovakia – University of Economics, Bratislava

Tasks of each involved organization:

- 1. Preparing a country study, including diagnosis and scenarios for the future
- 2. Defining issues and scope to a technology foresight study on challenges and opportunities of the EU integration process to their own automotive industry
- 3. Sharing and discussing first results with other participating countries
- 4. Participating in formulating the first draft proposal on TF study for the region
- 5. Feedback to the involved local stakeholders (strategic partners) to carry out the TF study in relation to the first draft proposal
- 6. Formulate collaborate proposal with clear objectives and expected results

Methodology:

Desk work to collect data and information – all participants, local task in each country Consultations with key local manufacturers – all participants, local task in each country Workshops – kick-off, to discuss first draft and to discuss collaboration proposal

Planned schedule:

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Deadline/Duration	Task	Organization	
15.10.2002 —	Elaboration of the framework of country studies to discuss	BUESPA	and
30.11.2002	problems and issues related to the impact of EU	UNIDO	
	integration on the automotive industry in the selected		
	countries		
15.10.2002 —	Building a network of involved organizations in the	BUESPA	and
30.11.2002	selected countries	UNIDO	
04.11.2002	Kick-off meeting	BUESPA	and
		UNIDO	
05.112002 —	Preparing country studies	All participants	
15.12.2002			
05.11.2002 -	Coordinating and monitoring the work in the selected	BUESPA	
10.01.2003	countries		
30.01.2003	Defining issues and scope to a technology foresight study	All participants	
	on challenges and opportunities of the EU accession		
	process to their own car manufacturing industry	 	
07.02.2003	Workshop on first results	All participants	
15.02.2003	Diagnosis and scenarios	BUESPA	and
	First draft proposal on TF study	UNIDO	
20.02.2002 —	Feedback on the first draft and suggestions for the	All participants	
05.03.2003	collaborate proposal		
15.03.2003	Formulate proposal	BUESPA	and
		UNIDO	
28.03.2003	Presentation of the diagnosis and scenarios, as well as the	Speakers	
	methodology for the regional TF study on automotive		
	industry to the Foresight Summit 2003		

Language:

All meetings and documents are in English

Budapest, 4 November 2002

Erzsébet Czakó Ph.D Head of Department Business Economics Department BUESPA Zita Zoltay Paprika Ph.D Director for International Affairs BUESPA

Kick-off meeting agenda

for preparing an impact study of EU integration on the automotive industry in the countries of Central and Eastern Europe

BUESPA, Budapest, November 4, 2002.

Aim: to have a shared understanding of the objectives of the project, its time schedule and content of task to be performed

Participants from University of Economics, Prague, University of Economics, Krakow, University of Economics in Bratislava and BUESPA

Moderators: Ricardo Seidl da Fonseca (UNIDO), Erzsébet Czakó and Zita Zoltay Paprika (BUESPA)

Documents to be discussed:

- 1. Project proposal. For preparing an impact study of EU integration on the automotive industry in the countries of Central and Eastern Europe
- 2. Proposal for the Final Report on EU accession impact on the automotive industry in selected EU pre-accession countries
- 3. Suggested framework of country study on the automotive industry in selected EU pre-accession countries
- 4. Outline for the country studies

Expected outcomes

Based on the whole day discussion we would like to finalize and accept the following working documents working with that we complete the project successfully.

- Project proposal esp. dates and tasks of each participants
- Proposal for the Final Report to serve as a common guideline for the final outcome of the Project
- Framework of country study to give conceptual background of each country study
- Outline to provide common structure of the content for the finalizing the country studies

Outline for the country studies

Project

for preparing an impact study of EU integration on the automotive industry in the countries of Central and Eastern Europe

Preliminary Notes

Why did we select the automotive industry?

Trade related to the automotive industry contributed more than one tenths of total trade between EU15 and the Candidate (13) countries in 1999. 70 % of that was carried out between The Czech republic, Hungary, Poland, Slovenia, Slovakia, and Turkey on the other hand, and Germany, France and Italy on the other side. The large influx of foreign direct investment explains these figures. Besides other factors, e special tariff policies and subsidies schemes, and privatization attracted investors. Development of the candidate countries and EU accession will erode some of them. The comparative and competitive advantage of automotive industry in Candidate Countries has changed. What are they and how they can be preserved in a 5-10 year time horizon? We must go beyond statistics for looking answers. We also should be able to map those strategies that are being shaped for managing the forecasted changes.

Automotive industry

Automotive industry is defined by those companies output of that is measured by SITC 78 category. Two sectors can be identified in this industry: car components manufacturers and car producers (assembly plants). Car components manufacturers can be called as sub contractors owned by local or multinational companies. If it is relevant roles of distributors and after sales service companies are also subject of analysis.

Stakeholders (strategic partners) of automotive industry

Any persons, groups and organizations which have long run stake and influence on shaping the future of the local automotive industry belong to this group. They are candidates of panel. The role of panel is to take part formulating the second section of the country study. For example government officials, associations of industry and sectors, top managers of key companies belong to this group.

Structure of country studies

Each country study contains two main sections that require different approaches. Different deadlines are also requested to keep. First section (first four chapters below) is the descriptive part of the study. The second section will deal with major impacts of EU integration. The first section basically relies on analysis of available sources of information and the second relies more on interviews and workshops with stakeholders (strategic partners) of the automotive industry.

Outline for the country studies

Introduction

Description of the local automotive industry when it is appropriate also the sectors of that according to its international competitiveness, size and its technology level. Based on available sources giving current and forecasted facts and data for

- the export/import,
- FDI,
- number of employees,
- key producers and their position in the global automotive industry supply chain,
- local supply chain of the automotive industry,
- market shares
- free zones role in export

Evaluation of the most important strategic factors affecting the actual level of competitiveness of local firms in the automotive industry

Competitiveness: attracting FDI, growing exports, creating jobs, shifts towards higher-level technologies.

Changes of factor costs, skilled labour, domestic market, special tariff policies and subsidies, free zones, supply chain of automotive industry, role of local SMEs.

Identification of the dynamics of these factors in the lights of EU accession

Based on available impact studies, industry analysis and key players strategies: Which factors and how will change by EU accession?

European Union as a regional economic integration brings changes in the following areas:

- Removal of trade restrictions between member states
- Common external trade policy toward non-members
- Free movements of factors of production between member states
- Harmonization of economic policies

Feasible aims of each country

- To upgrade attractiveness to foreign investors, particularly as a base for production for global markets
- To attract further multinational corporations from outside the region who would be more inclined to make investment in production facilities within a large, integrated market
- An integrated market also would facilitate trade in components and specialization among the factories of multinationals.

The deadline of the first three chapters: 10 January, 2003.

Identification and evaluation of factors that are to be critical in determining the industry structure after the accession (products, manufacturing process, and local relationships).

Based on interviews, workshops and forecasts four groups of factors should be identified:

Social factors (human development covering demography, networks, human capital, education and training)

Science and technology (where the emphasis is on technological developments on the one hand, and market opportunities and social needs on the other)

Sector development issues (the stress is on economic development, with activities often focused on enterprise clusters, SMEs, industry associations, etc.)

Territorial vision (where the region is considered as a whole as at he nexus for four main global issues areas: geography (resources, environment, etc.), geopolitics, economy and human development)

Their importance is expected to be evaluated by local experts to identify the most important group of factors.

Screening strategies for managing these factors

Based on interviews, workshops and forecasts: Are there policies and/or strategies for managing factors identified? What are their main objectives? Examples of objectives: economic growth, promoting competitiveness, developing change capacity, creating workplaces, research and development, social orientation.

Who are expected to prepare and/or manage these policies and/or strategies?

Targeted actors might be: policy makers at industry level, national level, regional level, and EU level, businesses at local, regional and global level

	Businesses			
	Local	Regional	Global	
Industry level				
National level				
Regional level				
EU level				
Policy makers				

Conclusions

Basic inputs for the final study. Please see Annex.

References

List of contributors, papers, studies, interviews, workshops.

Annexes

Referred tables, graphs, cases.

Deadline of the second part and completion of the study: 30 January, 2003

Annex 4

Preliminary hypotheses

for the Final report on EU accession impact on the automotive industry in selected EU pre-accession countries

Please find some preliminary hypotheses on the automotive industry below. As a conclusion of each country study please confirm or reject them and if it is appropriate give new ones instead of them.

Automotive industry will remain a leading industry in every selected country.

Those countries where car manufacturing existed in the 1980s have a more favorable position in maintaining their role in the European automotive industry than those where did not.

Compiled knowledge and experience in the automotive industry will serve as a basis of attractiveness of FDI.

Parent companies are prepared of the EU enlargement. They consider their affiliations in preaccession countries as suppliers in their own supply chain.

Growth of the single European market makes it possible further restructuring at parent company level. This might not lead capacity reduction in the selected countries.

Alternative methods and sophisticated EU conform support will be needed to attract further foreign direct investments in this field.

Local small and medium sized enterprises should and could be supported by the government to be supplier for the multinational companies operating in the selected countries.

The comparative advantage stemming from the lower level wages in the pre-accession countries will remain a competitive advantage in comparison with EU countries. It will be diminishing in the long run only.

EU support for enhancing cooperation in industry specific research and development might upgrade the competitiveness of the selected countries.

Producers of cars and accessories will more and more base their supply on domestic suppliers, this way playing a "hub" role in networks.

In at least some of the pre-accession countries the presence of automobile industry plays a key role in R+D – both by setting technical standards and by establishing research and (mainly) development facilities.

Working Documents

Workshop on first results

EU integration on the automotive industry in the countries of Central and Eastern Europe

UNIDO - BUESPA project

Project leaders on behalf of BUESPA: Erzsébet Czakó (<u>erzsebet.czako@bkae.hu</u>) and Zita Zoltay-Paprika (<u>zita.paprika@bkae.hu</u>)

Project assistant: Dóra Szakonyi (dora.szakonyi@bkae.hu)

Budapest, February 7, 2003

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Workshop on first results

EU integration on the automotive industry in the countries of Central and Eastern Europe

BUESPA, Budapest, February 7, 2003

Background: Participants work in the line with the project proposal finalized on November 4, 2002. Country studies are completed.

Aim: Based on the so far results the workshop is held to share main results of each country study, to discuss main similarities and differences among countries, and to formulate main hypothesis on EU integration of Central and Eastern Europe

Participants (10 persons):

- Milan Maly and Michal Theodor from University of Economics, Prague, Czech Republic
- Michal Jaworsky from Warsaw School of Economics, Warsaw, Poland
- Milos Bikár and Ján Lesisnky form University of Economics, Bratislava, Slovak Republic, and
- Erzsébet Czakó, Judit Gáspár, Isván Jenei, Richárd Szántó and Dóra Szakonyi from BUESPA, Hungary

Moderator: Erzsébet Czakó (BUESPA)

Documents to be discussed:

- 2. Country study of each participants and report on its discussion in home countries
- 3. Presentations of main results of country studies
- 4. Main similarities and differences in automobile industries and expected effects of EU integration
- 5. Proposal for main hypothesis on EU integration

Expected outcomes

Based on the whole day workshop we would like to discuss main issues of country studies and formulate main thesis and hypothesis

- Presentations to show the most important features of each country in the automobile industry
- Structure of executive summary of each country study
- Proposal for main hypothesis on EU integration
- Suggestions for issues on a regional technology foresight study

Schedule of the Workshop

Date: Budapest, February 7, 2003

Location: BUESPA, IX. Fővám tér 9. Budapest, Room 2009

9.00 – 9.10 Opening the workshop.

9.10 - 9.30 Agenda for the workshop

I. Presentation and discussion of country studies

Each participants prepared and presented a 20 minute presentation (Suggested outline please find enclosed. Projector for presenting either slides or power point presentations was available.)

9.30 – 9.50 Country study presentation I

9.50 – 10.00 Questions and answers

10.00 - 10.20 Country study presentation II

10.20 - 10.30 Questions and answers

10.30 -10.50 Country study presentation III

10.50 -11.00 Questions and answers

11.00 – 11.20 Coffee break

II. Building shared knowledge

Based on the presentations this part aimed at revealing the most important similarities and differences of automobile industries in the region

11.20 -13.00 Main similarities and differences in automobile industries in the region

13.00 - 14.15 Lunch

III. Formulating working documents

This session was to summarize main conclusions and to support formulating working documents. Inputs are from the previous session and some proposals will be distributed.

14.15 - 15.45

- Structure of executive summary of each country study
- Main hypothesis on EU integration
- Suggested issues on a regional technology foresight study

Outline for the country study presentations

There are key issues participants are requested to present. Based on country studies some problems and questions are also formulated to support our discussion.

Automotive industry in the national economy in 2000s

Based on macroeconomic data: output, employment, exports and imports, foreign direct investments. Main trends in the 1990s.

Main features of the automobile industry

Market trends (demand and supply). Key automobile firms and the supply chain pyramid. Are there clusters to support competitiveness of the automobile industry? Role of multinational and local firms.

Identified impacts on EU integration

Effects on macroeconomic environment and automobile industry. Achievements so far.

Challenges of EU integration in the long run

Market development. Attracting and sustaining foreign direct investment: what are the key drivers? Challenges for national government and key industry players.

Issues for further research and a regional technology foresight study

Are countries in the region compete or complement each other in the European automobile industry? Is the region an emerging market in car sales?

SUGGESTED STATEMENTS FOR A REGIONAL TECHNOLOGY FORESIGHT EXERCISE

Based on the Czech, Hungarian, Polish and Slovak country studies, the workshop on the research findings and feedbacks from project leaders, Attila Chikán and Zita Zoltay-Paprika (BUESPA) the following preliminary statements were formulated.

The role of foreign direct investments (FDI)

- 1. The automotive industry is FDI and export driven in each country.
- 2. Automotive industry is a key sector in the industrial production and its importance remains and will increase after EU accession.
- 3. Compiled knowledge and experience in the automotive industry so far will serve as a basis of attractiveness of further inward FDI.
- 4. There is a paradigm shift in FDI attractiveness. The emphasis is getting onto the attaining factors.
- 5. Improvement of productivity at enterprise level is the main factor in attainment of FDI in the automotive industry.
- 6. Those countries where car manufacturing existed in the 1980s have a more favorable position in maintaining their role in the European automotive industry than those where did not.

Expected challenges at national economy and industry level

- 1. The role of national government will change in upgrading competitiveness of the national automotive industry.
- 2. New incentives and measures for further investments are required.
- 3. New economic factors will gain importance such as: human and material resources, energy, infrastructure and logistics.
- 4. Role of the automotive industry will increase in financing the development of crucial factors including education.
- 5. The automotive industry plays a key role in R+D, both by setting technical standards and by establishing research and (mainly) development facilities.

Market trends

- 1. Market growth potential in the region is above that of the EU countries.
- 2. Average age of car fleets is higher than EU average. Rejuvenation of car fleets creates opportunity for market growth.
- 3. Purchasing power of potential buyers depends on growth of GDP and favorable buying conditions.
- 4. Predictable macroeconomic policy also will support the rejuvenation of car fleets.
- 5. Competition among dealers will result in affordable car prices.

Challenges of EU integration

- 1. EU accession at the level of legal harmonization has completed in key areas.
- 2. Parent companies are well aware of the EU rules and their subsidiaries adopted as well.
- 3. EU directives enforce the rejuvenation of car fleets and environmental protection.

4. One of the greatest challenges will be the recycling of used cars in long run.

Competitiveness of enterprises in the automotive industry

- 1. Parent companies are prepared for the EU enlargement. They consider their affiliations in the investigated pre-accession countries as suppliers in their own supply chain.
- 2. Extension of the single European market makes further restructuring feasible at parent company level. This will not lead capacity reduction in the investigated countries.
- 3. Multinational producers of cars and accessories in the region will extend their supply base regionally. This way they will play a "hub" role in the automotive networks.
- 4. Competition among locally owned small and medium sized enterprises will increase. They should and could be supported by the national governments to be supplier for the multinational automotive companies.
- 5. The comparative advantage stemming from the lower level wages in the pre-accession countries will remain a competitive advantage in comparison with EU countries. It will decrease in the long run.
- 6. EU support for expanding cooperation in industry specific research and development will upgrade the competitiveness.
- 7. Automotive industry in the investigated countries enhances the competitiveness of the EU automotive industry in the Triad.

Report

On the Automotive Industries at Cross-Roads, TF panel meeting

Technology Foresight Summit 2003, Budapest, March 29, 2003

- Erzsébet Czakó, BUESPA Dept. of Business Economics -

Current situation

Automotive industry has become a substantial industry in the region since the beginning of the 1990s. The economic role of automotive industry is eminent by its role in national GDPs, exports and employments in the region.

The automotive industry was shaped by foreign direct investments (FDIs) in the 1990s and restructuring enterprises that operated in the socialist era as well. The industry is concentrated: some settled multinational players are dominant. They have a pull effect on the development of international and national suppliers.

The government policies and measures had an eloquent role in attracting foreign direct investments and supporting settlement of multinational companies. Stable political and economic situation, well-educated inexpensive workforce, relatively cheap infrastructure and resources and geographical location also have made the region attractive.

Global tendencies and trends

Automotive industry is a global industry. Main trends are driven by customers' expectations and technological advancement in the most developed countries and regions. Safe mobility of peoples and goods with environmental concerns are the most important expectations of customers. Environment and energy, safety and information technology are key areas in the technological advancement. Technological advancement is shaped by technical developments and new solutions in the value creation process. Technical developments are triggering around module specific innovations, application of electronic components, alternative drive systems, and use of innovative materials. New solutions in the value creating process are shaped by the manufacturing technology, and the relationships among manufacturers and their suppliers. High quality and increasing flexibility are the main driving forces in that. Research and development is getting a must at every level in the supply chain. On a global screen car manufacturing and its suppliers are getting more concentrated.

The automotive industry is in a relatively rapid change process. A not longer period than 10 year is recommended as a time scope for forecasting trends and scenarios.

Challenges

The vehicle fleet in the region needs rejuvenation. Old cars and later on gradually wreckages can block the rejuvenation process of vehicle fleet if the purchasing power of customers stagnates in the region. This pessimistic trend will make the recycling of old vehicles in the region more expensive than it is forecasted in the EU.

Industry competitiveness based on only low level wages is a threat. The long term success of the automotive industry in the region depends on how quickly companies can strengthen their integration into the global, especially the European automotive supply chains. Three factors can be emphasized for supporting integration. It depends on the improvement of enterprise

competitiveness, the participation and integration of enterprises in automotive R+D projects and integration into the upper tier enterprises at the automotive supply chain.

There are some challenges ahead of national governments. EU accession will modify the so far applied policies and measures. Government perception on the need for supporting the increase competitiveness in the automotive industry may result in EU conform policies and measures. If initiatives and measures neglect the global and regional features of the automotive industry and concentrate only on short run priorities that may weaken the position of the region in the global automotive industry.

Opportunities

Based on the long term forecasts car market will grow faster in the region than in the European Union. Purchasing power of customers and development of transport infrastructure drive market growth.

Big pressure on cost reduction in the automotive supply chain may provide a good chance for automotive companies in the region. Most of them may upgrade their position in the supply chain by research and development (R&D). R&D is about technical development and process innovations. Technical developments are to support the shift towards higher value added activities and process innovations are to increase efficiency of enterprises.

Governments are requested to provide EU conform policies and measures for attracting new FDIs and more importantly background for upgrading value added activities especially at the lower tier of the supply chain. Stable economic policy and infrastructure development can both encourage FDIs and support car market growth.

A competitive automotive industry in the pre-accession countries can enhance the EU competitiveness in the Triad and may have a push effect on the automotive industry in other NIS countries.

Suggested statements for a regional TF exercise

A regional TF exercise is recommended to map future trends and enhance competitiveness of automotive industry in the region.

Based on the TF panel contribution and the screening research in Czech Republic, Hungary, Poland and Slovak Republic, 5 fields are suggested for a TF exercise (for details see Annex):

- 1. The role of foreign direct investments (FDIs)
- 2. Expected challenges at national economy and industry level
- 3. Market trends
- 4. Challenges of EU integration
- 5. Competitiveness of enterprises in the automotive industry.

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SUGGESTED STATEMENTS FOR A REGIONAL TECHNOLOGY FORESIGHT EXERCISE

Based on the Czech, Hungarian, Polish and Slovak country studies, the workshop on the research findings and feedbacks from project leaders, Attila Chikán and Zita Zoltay-Paprika (BUESPA) the following preliminary statements were formulated.

The role of foreign direct investments (FDI)

- 7. The automotive industry is FDI and export driven in each country.
- 8. Automotive industry is a key sector in the industrial production and its importance remains and will increase after EU accession.
- 9. Compiled knowledge and experience in the automotive industry so far will serve as a basis of attractiveness of further inward FDI.
- 10. There is a paradigm shift in FDI attractiveness. The emphasis is getting onto the attaining factors.
- 11. Improvement of productivity at enterprise level is the main factor in attainment of FDI in the automotive industry.
- 12. Those countries where car manufacturing existed in the 1980s have a more favorable position in maintaining their role in the European automotive industry than those where did not.

Expected challenges at national economy and industry level

- 6. The role of national government will change in upgrading competitiveness of the national automotive industry.
- 7. New incentives and measures for further investments are required.
- 8. New economic factors will gain importance such as: human and material resources, energy, infrastructure and logistics.
- 9. Role of the automotive industry will increase in financing the development of crucial factors including education.
- 10. The automotive industry plays a key role in R+D, both by setting technical standards and by establishing research and (mainly) development facilities.

Market trends

- 6. Market growth potential in the region is above that of the EU countries.
- 7. Average age of car fleets is higher than EU average. Rejuvenation of car fleets creates opportunity for market growth.
- 8. Purchasing power of potential buyers depends on growth of GDP and favorable buying conditions.
- 9. Predictable macroeconomic policy also will support the rejuvenation of car fleets.
- 10. Competition among dealers will result in affordable car prices.

Challenges of EU integration

- 5. EU accession at the level of legal harmonization has completed in key areas.
- 6. Parent companies are well aware of the EU rules and their subsidiaries adopted as well.
- 7. EU directives enforce the rejuvenation of car fleets and environmental protection.
- 8. One of the greatest challenges will be the recycling of used cars in long run.

Competitiveness of enterprises in the automotive industry

- 8. Parent companies are prepared for the EU enlargement. They consider their affiliations in the investigated pre-accession countries as suppliers in their own supply chain.
- 9. Extension of the single European market makes further restructuring feasible at parent company level. This will not lead capacity reduction in the investigated countries.
- 10. Multinational producers of cars and accessories in the region will extend their supply base regionally. This way they will play a "hub" role in the automotive networks.
- 11. Competition among locally owned small and medium sized enterprises will increase. They should and could be supported by the national governments to be supplier for the multinational automotive companies.
- 12. The comparative advantage stemming from the lower level wages in the pre-accession countries will remain a competitive advantage in comparison with EU countries. It will decrease in the long run.
- 13. EU support for expanding cooperation in industry specific research and development will upgrade the competitiveness.
- 14. Automotive industry in the investigated countries enhances the competitiveness of the EU automotive industry in the Triad.