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FINAL REPORT

Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in the Samara Region of Russia

Project UE/RUS/08/002

Reporting date:

20 July 2009

PREPARED BY AUTOMOTIVE CLUSTER OF SLOVENIA WITH INPUTS FROM REGIONAL EXPERTS

GENERAL BACKGROUND INFORMATION

The automotive (component) industry is of enormous importance for the economic development of many regions in the Russian Federation. It significantly contributes to GDP and foreign exchange earnings and employs a large number of people, directly and indirectly. In Samara Oblast alone, the automotive supplier industry includes about 360 registered companies, which provide work for more than 95.000 people. The Samara Region has become a global supplier of a wide range of components into both the Original Equipment Manufacturers (OEMs) and after-markets.

However, the recent economic crisis impacted the car industry severely. At the moment there are several hard-hitting factors affecting the industry: the recent higher plateau of fuel prices, increasing raw material prices and greater pressure from impatient investors, shareholders and banks. However, the most imminent and potentially the most damaging threat has now become the scarce availability of credit. The consequences are evident throughout the industry, with vehicle manufacturers cutting down on shifts, suppliers revising their earnings expectations, and auto dealers slashing prices. The stress is even greater on the smaller Tier 2 and Tier 3 suppliers who make parts for the Tier 1 suppliers. Many are likely to go out of business or to be consolidated because as the market pressure towards vehicle manufacturers augments, they tend to pass the pressure on to their suppliers in terms of price, quality and services.

In order to be able to face this situation, it is crucial that the lower tier suppliers enhance their productivity and competitiveness in the market. In this context, the main objective of this project is to strengthen the small and medium scale component supplier industry in Samara Oblast to meet the stringent requirements of the automotive industry and to facilitate their inclusion in regional and global supply chains. This is being achieved through a strong focus on networking and business partnership building; productivity and quality improvement skills and techniques; and further enhancing SMEs' performance.

Samara Region is ranked among the leading Russian industrial regions. Measured by key indicators for small business development, Samara Region is rated by the Government as one of the top five Russian regions. The production volume of SMEs (products and services) per head in Samara Region is 80 % higher than the average for the Russian Federation.

Industrial production plays the key role in the regional economy. It constitutes 41.6 % of the gross regional product (GRP), and employs 31.4 % of the labor force. One of the characteristics of the industry of Samara Oblast is the high concentration of production. The production volume of the ten largest enterprises in the region constitutes about 60 % of the total amount of the industrial production. Samara Region is characterized by the highest concentration of automotive industry establishments and the highest share of automobile industry in the regional GDP structure among all subjects of Privolzhskiy (Volga) Federal District. The automotive supplier industry in Samara Region includes about 360 registered companies, which amount to an annual turnover of more than EUR 1.350 million, which represents approximately 40% of the total turnover the automotive industry sector. In terms of the workforce, the cluster members represent approximately 47.5% (95,500) of approx. 200,000 people employed in the automotive industry of the Samara region. About 70 % of all cars produced in Russia come from this area. The basic car parts are manufactured by the largest auto manufacturer of the country – AvtoVAZ.

The potential of key economic sectors remained high during the earlier crisis periods in comparison with other regions. Therefore, Samara region has better starting conditions for

innovative development compared to other leading regions (for example, AVTOVAZ was the only one among automotive enterprises showed an increase in the car production. The "Moskvich" company (Moscow) has ceased to exist; the GAZ Company (Nizhniy Novgorod) has stopped manufacturing of cars. Nevertheless, alongside with some new and advanced manufactures, some old enterprises, which have not adapted yet to the new market conditions, still operate in the regional industry.

A significant number of companies that produce cars and auto-components, and render a variety of services, make up the cluster. The total supplier network of AvtoVAZ consists of about 700 companies. Regional car components manufacturers make efforts to coordinate their production and marketing policy, being simultaneously in a position of partners and competitors in the car market and contributing to the various parts of the value chain.

The overall objective of the UNIDO Business Partnership and Cluster Programme for the automotive component industry in Samara Oblast is to strengthen its suppliers to meet the requirements of vehicle and Tier 1 automotive component manufacturers so as to be able to access and sustainable participate in global supply chains and international markets, in particular in the European Union. Within this context, the programme envisages supporting and strengthening the institutional framework for providing practical services to suppliers in the industry sector concerned, achieving three inter-related objectives that are outlined below:

- **Enhancing the performance of suppliers** (in particular local Tier 2 to Tier 4 suppliers that are directly linked to Tier 1 suppliers) in the automotive component industry in the Samara Region to ensure their international competitiveness through enterprise-oriented direct shop floor interventions.
- **Upgrading support institutions** in the Samara automotive industry through strengthening of the institutional set-up and development of a pool of well-trained national engineers and market experts.
- **Creating the capability** to develop an interregional network in the automotive component sector to facilitate access of suppliers in Samara Oblast to international markets by supporting their integration into global supply chains. This assistance will be based on existing cluster development expertise in the automotive industry in the wider region, and especially on the experience gained with the Slovenian Auto Cluster.

The activities between December 2008 and June 2009 have been divided into different phases:

1) ***Project management*** included set-up of project Committee and, defined rights and obligations of Steering Commute and also responsibilities of all sides of project.
2) ***Start- up activities*** included set-up of the national expert team, coordination and clarification the responsibilities of different stakeholders, and the determination of the project management framework.
3) ***Preparation of a detailed cluster assessment study*** were focused on mapping of industry sector of Samara Region, analyzed horizontal and vertical linkages between tiers, assessment of supply chain, mapping major public and business support (financial, training, regional R&D institutions, BDS providers,..)
4) ***SME awareness building and initial training*** were concentrated on continuous improvement processes and the formation of cluster development agents as well as on promotion of exchange of experiences and current practices.

Under the headings of the different phases, progress to date is described. A detailed work plan in the form of a Gantt chart is provided as an attachment.

MAIN ACTIVITIES

1) Project Management

The Automotive Cluster Slovenia (ACS) was taking the lead in preparing, managing and coordinating day-to-day activities as well as in monitoring progress.

The following ACS team members are involved in project activities on a continuous basis:

- ⇨ Dušan Bušen, Team Leader
- ⇨ Urška Gluhak, Team Member, Cluster Development
- ⇨ Lana Hopkinson, Team Member, Cluster Development
- ⇨ Jerko Bartolič, Team Member, Continuous Improvement
- ⇨ Aleš Ilc, Team Member, Continuous Improvements

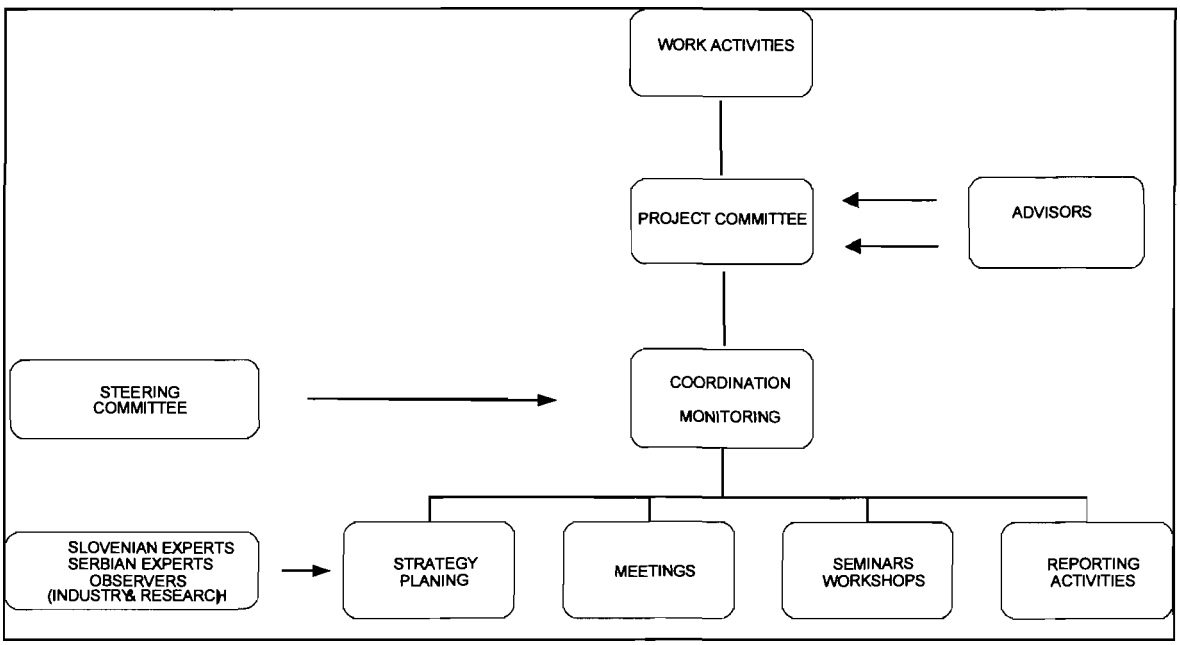
The project team, composed of Slovenian and national experts, was guided by the Steering Committee that was formally established in April 2009. It is composed of members from the Ministry of Economics of Slovenia, Ministry of Economic Relations of Samara region, Russia and UNIDO. All experts were submitting their findings to the Steering Committee for discussion and approval

The main aim of the monitoring activities of the Steering Committee is to ensure that the project is well-implemented and coordinated with other initiatives in the region. The meetings of the Steering Committee involve the relevant Project experts and cluster members, as necessary. It is the responsibility of the ACS team leader to co-ordinate the efficient and effective flow of information between the expert team and the Steering Committee.

In specific key areas, such as upgrading of the institutional capacity of local educational institutions, local business support and advisory institutions, it also appeared useful and appropriate to integrate additional local Russian experts (mostly from companies) and/or observers from research and industrial background into the activities. For this reason, and in addition to managing the day-to-day operational activities of the project, the Project Committee was set up at the same time. It comprises representatives of the Ministry of Economic Relations of Samara and UNIDO as well as national experts. The main role of the committee was implementation of the project plan and coordination with other initiatives in the region.

The members of the Steering and Project Committees are listed in the Annex 4. A graphic representation of the overall Management Framework of the project is provided below.

Graph 1: Management Framework – Samara Project



2) Start-Up Activities

➔ Team of national experts to be selected for cluster development and for counseling of pilot companies

The main objective here was to select a team of national experts who will be in charge of project activities during the start-up phase. More specifically, they will be responsible for the analysis of the automotive sector in the Samara region, the establishment of a baseline for the cluster development and assessment of the pilot companies in productivity enhancement. The main challenge was to invite as many as possible interested experts with relevant skills and knowledge.

During short mission in January 2008, the ACS with support of regional government organized a workshop and meeting with all relevant stakeholders from industry, academia and government. Using that occasion it was requested interest of potential experts.

Stages of selection process were:
1. Defined the profile and basic knowledge for interested area;
2. Defined the special knowledge;
3. Other qualifications.

On the base of received inputs, their reputation in the sector, the following candidates were selected for start-up phase:

⇨ Ravil Gabitov
⇨ Igor Kozyrkin
⇨ Yury Mikheev

For the project follow-up open call for experts has been launched in two local newspapers with relevance to the sector and interviews were held in May 2009. An assessment of the expert for continuation of the work is, however, not part of this contract.

An induction training and study tour for cluster brokers and national engineers is planned for the next project phase. The draft agenda is attached in Annex 3. The main goal of study tour will be to strengthen cooperation between Russian and Slovenian companies and to learn from Slovenian best practices in cluster development and productivity enhancement methodology in practice.

➔ **Elaboration of Memorandum of Understanding, clarifying the responsibilities of counterparts and the roles of participating stakeholders/parties.**

CEOs of automotive component suppliers in the region were briefed about their potential roles and responsibilities if they were to participate in the company counseling activities. Once companies have been selected, a Memorandum of Understanding will be signed to formally enshrine these responsibilities. The main challenge was to get as many companies as possible interested in participating in the counseling activities or program.

The program was presented to stakeholder during two awareness workshops in February and March. After the workshop companies CEOs were contacted by national counselors and received questionnaires to be fulfilled as well as instructions. The selected companies would be obliged actively participate on the work groups meetings and on seminars and training organized within the projects. Participating companies are obliged to submit space, data and documents to the counselors, counselors are obliged to announce their visit on time, prepare training and materials and to keep information received from companies as confidential. Participation in the program is free for the selected companies; companies should take care about the cost for their own staff related to the project program.

As already mentioned, based on having passed the assessment process, every selected company will be visited to sign MoU and to analyze their starting point for productivity enhancement.

3) Preparation of Detailed Cluster Assessment Study

The Cluster assessment study is composed of two parts:

- Analytical framework for performance evaluation of participating companies and baseline
- Assessment study of the auto component industry in Samara

Both documents are provided as separate documents in Annexes 2 and 3. The following text describes the cluster background, and the approach and methodology used as well as reports on the main findings and conclusions.

Cluster Background

The development of Samara Automotive Cluster has been shaped by a number of factors. Over the past few years the technological development of the cluster was driven by theoretical research of the Engineering Academy. The cluster strategic vision of the current stakeholders differs significantly in terms of the organizational structure and the role of the cluster members from the 'classical' definition of clusters. The original concept of the cluster development in Samara region did not envisage an independent co-ordination and management structure. Therefore, in terms of the 'classical' definition, the cluster in Samara does not exist as such, and is currently only a project of the Engineering Academy (PO RIA). Therefore, it is impossible to evaluate the effectiveness of the cluster development efforts to date.

Therefore, it can be concluded that currently, there is only a geographical concentration of isolated automotive component manufacturers in Samara region, focused mainly on supplying components to AVTOVAZ.

On the whole, the changes in the sector of automotive component manufacturing in Samara region have been determined by individual changes among the producers which so far have proven to be negligible and sometimes even negative, given the outdated nature of the equipment, lack of appropriate changes in their management and production organization structure.

Therefore, the implementation of this project is viewed as extremely timely and useful for the future competitive development of the cluster in Samara region.

Approach and Methodology – Company Evaluation

After the kick-off meeting, letters were prepared to invite the all potential participating companies for the assessment phase. Based on received recommendations of Government of Samara region and AVTOVAZ the comprehensive questionnaire has been prepared and sent to those companies. For pre-selection of participating companies, visits at almost all of potential companies had been undertaken. Before assessing some of filled questionnaires have been received, but not all. Some of them have still not been received.

The assessments have the following procedure:

- introduction (thank you for reception, short project presentation, presentation of experts and their role)
- presentation from visited company, discussion and open questions raised by company

The final, more in-depth version of the company performance analyses will require further enterprise visits and will be prepared during the course of the counseling activities. Preliminary assessments in those companies showed over average level of motivation and commitment to join the project. Companies have already reached at least basic quality and management standards, over average tendency to improve quality and process of continuous improvements and over average clear strategy in relation with Samara region average.

Companies were selected for participation according to the following criteria:

a. adherence to specifications (not right first time),
b. labor productivity,
c. stock turnover (inventory turn ratio – ITR),
d. delivery schedule achievements,
e. overall equipment effectiveness (OEE),
f. value added per person,
g. Floor space utilization.

Assessment in those companies showed: an above-average level of motivation and commitment to join the project. Companies already reach at list basic quality and management standards, over average tendency to improve quality and process of continuous improvements and over average clear strategy in relation with Samara region average.

Assessment started based on the databases and recommendations of Samara government and AvtoVAZ. Database received as a starting point have not been accurate, a lot of data should be additionally collected on the field. Based on the above and time shortage team of national counselors decided to access with 60 companies from the database of 180 using criteria of company size, reputation and other public accessible data.

The overall company assessment has still not been completed, but a preliminary assessment was undertaken on the basis of the data provided by the questionnaires. As soon as the counseling of the first batch of selected companies has started, the national counselors will undertake a detailed audit in all 24 interested companies to prove data collected in the questionnaires and obtain the starting position for process of productivity improvements. Based on information on the project disseminated in the local media, new companies are approaching to the national counselors and these companies would be evaluated as potential participants of second base. An additional 20-30 questionnaires are expected to be collected until November 2009.

Approach - Cluster Assessment Study

Together with our UNIDO national experts, PORIA, the Government of Samara and the Municipality of Togliatti we prepared and carried out a **one-day introductory seminar** (Kick off meeting) for CEOs. In accordance with the Terms of Reference, the start-up phase of the Project commenced with this kick-off workshop organized by the Project team with the Cluster stakeholders in Togliatti on 19 February 2009.

Participants of the meeting included representatives of the Government of Samara Oblast, Municipality of Togliatti, PORIA, AVTOVAZ, Chamber of Trade and Industry of Togliatti, Togliatti Industrial Technopark, Povolzhsky Quality Club, and a variety of enterprises-suppliers.

In the course of the meeting, the Project team presented the concept of the Project, the example of the recent cluster development project in Serbia and the project work plan. The overview of the recent cluster development efforts was summarized by Prof. Y. Mikheev (PORIA), including the draft "Master Plan"[1] for the development of the cluster as prepared by PORIA for the Government of Samara Oblast, and the related survey.

[1] The 'Master Plan' represents an attempt to conceptualize the key strategic directions of the development of the Cluster. As it was prepared without the consultation with the cluster stakeholders, some of the issues proposed in the plan may not necessarily be endorsed by the Cluster. Particularly, the cluster co-ordination and management mechanism, the issue of involvement of Avtovaz in the management of the cluster and other issues, need to be discussed and shaped further in close collaboration with the cluster actors.

PORIA's technological capacity is important to the cluster, including their ideas on competence centers for automotive suppliers. Their positioning within the cluster as a knowledge provider is clear, while their aspiration to act as a cluster coordination and management unit does not seem to be in line with the specific needs of SMEs in the automotive sector. The specific role of PORIA in project activities will therefore have to be discussed further in meetings with cluster stakeholders.

Later, the meeting with Samara Oblast Government took place, where the Project concept was presented and discussed. The concern of the Oblast Government (the counterpart of the Project) was that they were not formally notified by UNIDO of the launch of the Project.

The kick-off workshop aimed at informing the participants about the Project objectives and the detailed work plan. The Project team also raised awareness among the participants on the issues of cluster development, innovation and linkages between science and industry (with examples of innovation vouchers from Holland and technology brokers from Norway). A better understanding of the importance of the cluster vision and strategic objectives was also achieved.

Methodology - Cluster Assessment Study

The methodology for the industrial and cluster assessment is determined by the following principles and considerations:

- The methodology stipulates collection of both primary and secondary research data.
- The Project adopts a consultative approach and works with a variety of information sources and stakeholders, in order to maximize availability of relevant data, ensure coherence and avoid any duplication with the work already done by the cluster stakeholders.
- Due to the limited project time scale, budget and resources, it will be possible to survey only a limited number of enterprises during the start-up phase. A comprehensive mapping of linkages and survey of the whole number of cluster enterprises (approx. 400 suppliers) and other organizations, should be made at a later stage, with a larger allocation of time and resources.
- All data collected from the surveyed enterprises, will be treated in strict confidence.
- The overall results of the processed questionnaires and relevant cluster-level conclusions will be shared with the Project partners and the cluster stakeholders.
- Further Project capacity building activities and interventions will be based on the results of the survey and reflect the identified real needs of enterprises.

Steps: The following steps will be undertaken to carry out the cluster diagnostic study:

1. **Desk research.** Desk research on the cluster background, development trends, as well as key priority issues and challenges will be part of the cluster assessment.
2. **SWOT analysis.** Preliminary SWOT analysis has been implemented by the Project team and is included in this report. After the survey results are available, the findings of the SWOT analysis will be updated accordingly.
3. **Preparation of the questionnaires.** Two questionnaires have been prepared by the project team: one for the industry analysis, one for cluster-level needs evaluation. Any relevant surveys already undertaken by the cluster stakeholders will be analyzed and taken into consideration, to avoid duplication of effort.

4. **Identification of the participating companies** for the assessment. A letter will be circulated to all cluster enterprises, explaining the purpose of the Project activities and inviting them to take part in the survey.
5. **Obtaining commitment of the companies** wishing to participate in the survey, through a letter of commitment from the company to the Project.
6. **Industry analysis.** A designated questionnaire has been developed for the analysis of participating enterprises, their quality management and performance, as well as their capacity building needs.
7. **Cluster-level needs assessment.** A designated questionnaire has been prepared to assess the perceptions and needs of the cluster, as well as the current level of availability of support infrastructure catering for the cluster development.
8. **Data processing, analysis and reporting.** All collected data will be processed in a systematic manner, and a detailed report will be prepared and made available to all project partners and stakeholders.

Findings – SWOT Analysis

The first results of the SWOT analysis implemented during the mission of 18-21 February by the Project team are included in attachment 3. The results of this analysis will be finalized after the diagnostic surveys have been completed.

The automotive industry has been severely affected by the current crisis, which is not adequately reflected in the SWOT analysis, but captures the opinion of participants in the initial meetings and discussions. The rapid reduction of vehicle sales has had strong reverberations along the supply chain and many jobs may be lost. In this situation, the realization of project objectives, and thus the optimization of processes through the successful implementation of process of continuous improvements, is even more important. The Automotive Cluster of Slovenia will contribute with its experience to reducing the crisis impact to a minimum.

Overall, it is hoped that the automotive industry and its outlook for the future will return to the pre-crisis positive outlook. Quality and productivity enhancement of automotive component suppliers will, in any case, be an important component of any competitiveness and broad-based development oriented strategy.

Findings – Cluster Vision and Strategy

The shared **vision** of the preferred future of the cluster (by 2020) was formulated by the group as follows:

> ***"The Cluster will become a tightly linked network of automotive suppliers acting as a coherent system, competing successfully on the Russian market and integrated into global supply chains (by 2020)".***

In order to achieve this vision, the following **strategy** should be pursued by the cluster:

> ***"To increase competitiveness of the cluster through significant quality improvement, higher added value of its products and internationalization"***

The key **strategic priorities**, which are pre-requisites for the implementation of the vision and Strategy, are:

- To improve the level of quality management and certification in the cluster
- To enhance the R&D and innovation capacity at the supplier level
- To improve the management and engineering skills base, and availability of related support services in the cluster
- To improve communication between the cluster stakeholders, and co-ordination of production, purchasing and marketing activities in the cluster
- To increase the level of FDI in the cluster and enhance the investment attractiveness of the Region
- To integrate the cluster in the global supply chains, particularly within the premium vehicle component segments

The cluster Vision and Strategy will be further discussed and finalized at a later stage of the project, when the results of the industrial and cluster analysis become available.

Findings – Cluster Diagnostic Assessment

The key purpose of the diagnostic assessment was collection and analysis of information on a current status quo of the automotive cluster in Samara Region, definition of specific characteristics of the automotive cluster in Samara region, with the purpose of tailoring of the training and support activities to the needs of enterprises within the Project "Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in Samara region of Russia".

➔ **Mapping of industry sector in Samara Region, including data on category, size, turnover, employment, sales of the companies. This entails classifying all relevant automotive suppliers in the region (Tier 1, 2, 3)**

Besides, the up-to-date database of automobile component manufacturers of the second and third tiers has been developed. At the moment it includes 134 enterprises. Creation of a more detailed database of automobile components manufacturers of Samara Region (the fourth and fifth tiers) would require more significant inputs of time and resources, and can be accomplished during the further stages of the project implementation. Before the survey, some databases of enterprises were available in the area, with a degree of accuracy of information no higher than 70 %.

The diagnostic cluster assessment has been undertaken on the basis of the analysis of the responses of the automotive cluster members and the assessment by the national experts, using 29 indicators grouped into 14 sets (detailed in attachment 2):

1. **Encouraging interactions and linkages within cluster**
2. **Cluster information and analysis**
3. **Cluster identity and awareness**
4. **Access to strategic knowledge**
5. **Access to expertise of knowledge providers**
6. **Support for inter-firm networking**
7. **Support for joint industry-science co-operation**
8. **Establishing crucial elements of the cluster**
9. **Specialized labour supply**
10. **Demand and customers**
11. **Removing regulatory barriers to innovation and competitiveness**

12. **Improving infrastructure**
13. **Social capital**
14. **Science, technology and R&D base**

As a whole, estimations of national experts and participants of cluster have coincided - the preliminary results can be illustrated as follows:

➔ **Summary of the indicators of the degree of development of various aspects of Samara Automotive Cluster (parameters evaluated on the scale from 1-5)**

- 69 % (20) indicators have estimations less than 2 points (on a five-point scale)
- 27,6 % (8) indicators have an estimation from 2 up to 3 points;
- 3 % (1) indicators have estimations from 3 up to 4 points;
- Indicators with estimations higher than 4 points are not present.

The following groups of indicators have lowest estimation:

1. Encouraging interactions and linkages within cluster
2. Cluster information and analysis
3. Cluster identity and awareness
4. Support for inter-firm networking
5. Support for joint industry-science co-operation
6. Establishing crucial elements of the cluster
7. Demand and customers
8. Removing regulatory barriers to innovation and competitiveness
9. Improving infrastructure
10. Science, technology and R&D base

In comparison with other European automotive clusters, the score is relatively low because is still in form of cluster initiative. Education and standardization exist, but to improve indicators from 3 to 7, it is necessary to create professional organization with office and permanent staff; indicators from 8 to 10 would improve through specialized counselors. Due to this reason, UNIDO will seek to integrate national experts to take care of this issue and bridge the gap between educational, business support organization and automotive companies.

➔ **Analysis of horizontal and vertical linkages between tiers in the Samara region**

Throughout last 10 years nobody made efforts to develop linkages in the automotive component cluster of Samara region. Occasionally, there were some attempts by the SOK Company to improve interactions. At various times the factories of SOK group delivered to AvtoVAZ from 37 % to 50 % of automobile components. Some time, with 2003 on 2006, SOK was also completely controlling a sales network of AVTOVAZ and a considerable part of the secondary market of spare parts.

The SOK Company had a good opportunity to become the core of a cluster and to play the important role in development of automotive cluster in Samara region. It was promoted by a number of factors:

- Presence of strong links with AVTOVAZ
- Effective management
- Serious inclusions in modernization of the production facilities
- The readiness to attract foreign partners

However, for political reasons SOK company began to lose its position from 2006 onwards. Now the largest supplier of AVTOVAZ, group "SOK", may be excluded from the market of automobile components. The company «Association of Automotive Technologies» (OAT) has purchased factories manufacturing of automobile components which previously belonged to SOK. OAT was registered on 15 August 2008, in Samara. The company promoters were AVTOVAZ and state corporation "Rostechnologii". The main objective of OAT is production of automobile components for OEMs. The structure OAT included suppliers of automobile components, first of all the Serpukhov and Dimitrovgradsky automodular factories, and also Serdobsky engineering works.

OAT would not influence on project development. Meeting with OAT taken place in June and they have positive attitude to the project. OAT would counsel to the companies, which are including in their ownership structure to join the project and take advantage to participating company.

➔ **Assessment of value chain integration or outlook (structure of supply chain, linkages to external buyers, synergies to other clusters in the country and abroad...)**

On the basis of the information collected during the study of the automobile cluster integrated in attachment 3, it is possible to summarize the following findings:

- The actual number of suppliers of the 1st, 2nd and 3rd tiers of the automobile components involved in manufacturing, is approximately 200.
- The total value added produced by these suppliers is about 600-650 million Euro per year (following the results of 2008), and with the assumption for the multiplier effect, the total annual turnover is about 1000 million Euro.
- The number of workers employed by these suppliers is approx. 25,000 people.
- The number of suppliers (360) quoted previously, must have included all industrial enterprises of Samara region. For example, one of the lists of producers of automotive components that were made available to the Project experts includes suppliers of sand, rubble, scrap, protective clothing, handles for axes, gates for security, stationery and office supplies, toilet paper, and other suppliers to AVTOVAZ.

This very realistic assessment tells us that 25 companies, which submitted questionnaires, represent 60% of added value in Samara automotive industry. The next implication is that we should continue with the assessment process because we did not integrate lower tier suppliers of the value chain. However, with implementation of productivity improvements we would raise competitiveness as whole because this group is representative group of Samara suppliers industry.

Among the most obvious barriers for development of Samara Region there are following factors:

- Lack of human resources with a certain professional skills level;
- Obsolete nature of the Russian scientific and technological assets and poorly developed system of commercialization of new technologies;
- Technological weakness of Russia compared to the world level in the majority of activities and, as a consequence, foreign technologies or products created on their basis, which dominate many segments of the Russian market, including Samara.

➔ **Institutional support**

R&D

According to the results of study, 25 % of suppliers evaluate their potential in research and development as very low. Only 15 % of them have the necessary scientific facilities. At present, R&D in the area of new technologies, materials and components is carried out mainly by the scientific and technical centre of AVTOVAZ, which is also the biggest Russian research, design and technology organization.

Certain tasks are accomplished by specialized bureau of several auto components manufacturers, faculties of high schools and scientific organizations in the region.

The training of employees working in the automobile cluster is carried out by regional higher education institutions, technical training colleges and the AVTOVAZ educational centre.

However, there are instances of effective cooperation. For example, not so long ago the expert of NTC has attend one of modern laboratories of the Samara space university with a view of acquaintance with modern production engineering of assembly and material processing with the help is magnetic-impulse excitation. This production engineering can be quite demanded at manufacture of details for a body of car prototypes, and also in small-lot production.

Study has displayed, that 75 % of suppliers have own measuring both test equipment and instruments, 10 % of them are using laboratories of AVTOVAZ. Frequently it is on mercantile fundamentals. However in case of development of a product innovation or a material by common efforts, NTC is able to do tests free of charge.

40 % of suppliers of automobile components work with CAD/AutoCAD software. For most SME cost of similar software and annual licenses are too high. An exit for such situation would be using of similar software within institutes. Besides, the software package for educational institution costs much more low-costly.

Education

The most of engineering staff (to 80 %) for AVTOVAZ and suppliers to educate the Togliatti State University (TGU) which from the moment of the creation was oriented on AVTOVAZ as on the basic customer for engineering staff, and also the Samara state space university (SGAU) and the Samara state technical university (SGTU).

However, now the most of graduates don't want to work in AUTOVAZ. It is promoted by some reasons:

- Personnel cutting-down
- Low wages
- Turning of social programs
- Image decrease.

Besides, students gain knowledge not according to development trends of modern production engineering, test methods and studies. The out-of-date technical basis of institute does not allow preparing the student possessing knowledge of modern processing methods, the advanced methods of probes and testing services.

As regards future project activities, a greater focus should therefore be placed on strengthening educational institutions in the region and to enhance their collaboration with supplier firms, which could provide interesting jobs and international cooperation in the future. Besides that, the communications problem will be one of the main during project implementation due to the lack of foreign language skills.

➔ **Framework conditions**

One of the important goals of Samara region is development and integration of national innovation systems using efficient usage of cluster initiatives as one of most important part of Strategy for regional innovation development, execution of concrete support mechanisms and motivation for establishment of regional-production clusters.

According to regional strategy new production technologies will need also new management technologies, which is important part of program "Volga Region Automotive Cluster". The main challenge in front of Samara region is how to keep competitiveness Volga region automotive industry as well as whole Russian automotive industry. So cluster has very import position in the Strategy of Samara region development, especially for development and future perspective of regional automotive industry.

Government Support

Some governmental support arrangements of small and medium size enterprises had been introduced of the 1st of January 2009 year and they are listed in attachment 2.

For the time being, it is not foreseen in Samara region any other automotive sector support initiative besides support of PAC (Volga automotive cluster) on cluster development. All measures are very horizontal and trying to establish competitive business and innovative framework. Automotive suppliers would need more support, especially to renew or invest in new production technologies, for training and education in management and leadership approaches, to accelerate integration of education and scientific institution in product and process development.

Bank loans for SME financing

During the last year, banks were the main source of financing for SME development were banks, but arrival of economic crisis has significantly changed situation. Some banks started to longer evaluate requests as a production volumes in many companies declined significantly. The other problem is sharper requirements due bank financial position, high requirements to deposit provision and grown interest rates. Credit cost in commercial banks is more than 20% annual at this time. Enterprises must have very high profitability to be able to take at this loans Banks understate value of enterprise's loan assets as compared with 2008 year about in two times.

For SME support, there exists a special guarantee fund, which provides entrepreneur with funds to guarantee to the bank that loan is secured. Also some other guarantee initiatives are listed in attachment 2. Besides, in Samara region there is "Inter-municipal fund of small size enterprise's support of Samara region" debenture trust according to Federal Law "About state support of small size business undertakings in Russian Federation".

Overall, and taking into account economic crisis, the current conditions for SMEs are very difficult. Measures taken by government authorities at the federal and regional levels are generally indeterminate.
For the next stages of the project, we recommend to focus on the dissemination of UNIDO and ACS best practices to support SMEs through assistance at regional and municipal levels.

4) Awareness Building and Initial Training

All activities carried out relating to headings 1-3 also served to raise awareness among automotive component suppliers in the Samara regions, the regional government and local support and training institutions. More detailed information on these activities was already provided in the Progress Report of the project.

RESULTS ACHIEVED AND FORTHCOMING WORKPLAN

As a result of the diagnostic cluster and company assessments and the various workshops and meetings conducted during the first phase of the project, it is possible to draw the following conclusions and recommendations for the future:

1) Shop-floor interventions, quality upgrading, training of the companies' managers should go in parallel with developing the capacity of trainers, consultants and local experts in supporting individual enterprises and groups of companies in their efforts to upgrade the product quality and innovation potential. Further attempts would be made in next months to mobilize further companies to participate in second batch of program. As could be seen from previous chapters in the report, quite representative group of the companies have been accessed, but we are missing companies from lower tiers in supply chain.

2) Capacity building for the 'triple helix' stakeholders (businesses, academia and government) on cluster-related issues is required at all levels. Government officials would particularly benefit from awareness raising efforts and direct technical assistance in development of cluster support strategies and measures, and awareness of examples of international best practice in supporting cluster development. In this regard is of crucial importance to organize of study tours and to first map, and then intensify collaboration with educational and training institutions.

3) Development of social capital (trust, cooperation, informal networking and formal interactions) is a 'must' if the successful cluster development future is to be secured. Regular meetings, 'business breakfasts', working groups, forums, conferences, round table meetings, etc. need to be organised and involve increasing numbers of relevant businesses, support organisations and other stakeholders.

4) There is a strong need to raise awareness about the benefits of cluster-level collaboration internationalisation of the supply chain among the companies, research and educational institutions and government stakeholders. Further awareness-raising workshops with the involvement of all stakeholders would be highly beneficial.

5) Assistance is required in establishing a robust and dynamic cluster organisation based on close direct involvement with all cluster stakeholders. Cluster co-ordination and management by a recognised cluster manager and the related organisation would enable to encourage the currently weak or non-existent interactions within the cluster

6) Practical assistance in establishing thematic business and research networks and platforms, promoting collaborative innovation, would make it possible to upgrade the technological and innovation potential of the automotive suppliers in the Region.

7) Access to strategic information on the global industry trends and dynamics, challenges and opportunities for the integration into the global supply chains is extremely important. A comprehensive study and subsequent information updates which would be made available and shared by all relevant cluster stakeholders, are necessary for the informed strategic development of the cluster

8) A market-driven internationalisation strategy needs to be developed and implemented with wide participation of all automotive suppliers in the region. Services for internationalisation support, quality improvement and technological upgrading need to be established and facilitated. Practical linkages with suppliers and buyers, as well as other automotive clusters, need to be facilitated.

9) Due to the high cost of CAD/CAM licenses these service should be integrated into scientific and educational institutes, which would deliver solutions to large number of SMEs. Besides, common purchasing of software could be introduced to reduce costs as one of examples to optimize supply chain (also common purchasing of production materials, parts, commodities, etc.)

10) As regards future project activities, a greater focus should therefore be placed on strengthening educational institutions in the region and to enhance their collaboration with supplier firms, which could provide for interesting jobs and international cooperation in the future. An initial mapping and analysis of relevant institutions will be undertaken during the next project phase.

ANNEX 1/2 – WORKSHOP AGENDAS

KICK-OFF WORKSHOP - AGENDA (19 FEBRUARY 2009)
Tolyatti, pl.Svobody, 4, a conference hall (a building of the mayoralty of Tolyatti)

10:00 – 10:30	Welcome address REPRESENTATIVE OF SAMARA REGION GOVERNMENT (SUBBOTIN SERGEY - HEAD OF TRADE AND THE EXTERNAL ECONOMIC COOPERATION DEPARTMENT OF SAMARA REGION ECONOMIC DEVELOPMENT, INVESTMENTS AND TRADE MINISTRY) REPRESENTATIVE OF TOGLIATTI MAYORALTY (KIRPICHNIKOV VADIM - FIRST ASSISTANT OF TOLYATTI MAYOR) Experience from the project in Serbia and presentation of the project DUSAN BUSEN – DIRECTOR, AUTOMOTIVE CLUSTER OF SLOVENIA
10:30 – 12:00	Workshop flow DISCUSS THE PROJECT AND MODALITIES WITH STAKEHOLDERS (MOSKALJUK ANATOLY - DEPUTY OF MAIN DESIGNER, AVTOVAZ, PIMENOV GENNADY - CHIEF OF TECHNOLOGICAL MANAGEMENT OF ACCESSORIES PRODUCTS, SEDUGIN VLADIMIR - DEVELOPMENT DIRECTOR, VAZINTERSERVICE, MIKHEYEV JURY - GENERAL DIRECTOR, PO RIA)
12:00 – 12:20	LUNCH
12:30 – 14:20	Workshop flow DETAILED WORK PLAN (WHO, WHAT, WHEN, HOW)
14:30 – 16:00	Discussion of procedures of interaction within the project Conclusions and closure DUSAN BUSEN, LANA HOPKINSON

LIST OF PARTICIPANTS

The government of the Samara region
Subbotin Sergey Viktorovich - head of trade and the external economic cooperation department of Samara region economic development, investments and trade ministry
Kosova Tatyana Viktorovna - the adviser of management of innovative economy development the ministries of economic development, investments and trade of the Samara region
Barov Maxim Anatolevich - head of project department of the industry ministry of the Samara region

The mayoralty of Tolyatti:
Kirpichnikov Vadim Mihajlovich - first assistant of Tolyatti mayor
Zhidkov Denis Vladimirovich - head of economic development department
Zharinov Dmitry Nikolaevich - head of external economic activity management

Automotive Cluster of Slovenia:
Dushan Bushen – director
UNIDO
Lana Hopkinson - international expert
Alesh Ilch - international expert
Igor Kozyrkin - national expert
Ravil Gabitov - national expert

AVTOVAZ:
Moskaljuk Anatoly Nikolaevich - deputy of main designer
Pimenov Gennady Valentinovich - chief of technological management of accessories products
Commercial and industrial chamber of Tolyatti:
Matveev Vitaly Borisovich – vice-president
Mushkat Vladimir Arkadevich - the chief of a foreign trade activities department

PO RIA
Mikheyev Jury Vikentevich - general director
Dolgih Andrei Nikolaevich - technical director
Krajnov Andrey Petrovich - leading expert
Krasotkina Tatyana Jurevna - assistant of director

VAZINTERSERVICE
Sedugin Vladimir Ilich - development director
JS «Automobile technologies Incorporated»
Nikonov Vasily Vladislavovich - vice-president (representative)
«Tolyatti industrially-technological park » Ltd.
Alfeev Andrey Albertovich- deputy general director
Kurbakov Michael Jurevich- deputy director
Lisovsky Alexey Vladimirovich - deputy director
Lisovsky Andrey Vladimirovich-the chief of a strategic and corporate planning department
Ignatyev Alexander Nikolaevich - the leading lawyer
Volga region's Club of Quality
Vasilchuk Alexander Vasilevich - general director (representative)

Technical management GK "SOK"
Mordvintsev Alexander Mihajlovich - technical director

Baharev Boris Valerevich - the chief of a department

«Factory of climatic systems » Ltd.
Skripnikov Igor Mihajlovich - general director
"SamZAS" Ltd.
Hmara Dmitry Viktorovich – corporate development director

JS "SZPI"
Janchenko Natalia Petrovna - director
"Slavt" Ltd.
Zhydov Nikolay Viktorovich – deputy director

JS "VAZkomplekt"
Kochetkov Alexander Viktorovich - deputy director

Workshop on Cluster Diagnostic Assessment - Agenda

30 March 2009

10.00 – 10.30	**Opening Remarks and Introduction** *Governments of Samara and Slovenia (Ms.Natalia Evteeva)* *ACS (Mr. Dusan Busen)*
10.30 – 11.30	**Competitiveness through Innovation and Cluster Development** - Overview of the concepts of competitiveness, innovation and cluster development, and linkages between these concepts - Clusters as innovation systems - Examples of best practices in innovation and cluster development in the automotive industry *ACS (Ms. Lana Hopkinson)*
11.30 – 12.00	**The first steps of project** - Presentation of the survey methodology - *ACS (Mr. Ravil Gabitov)* - Preliminary results of the Diagnostic Cluster Assessment: State of play, SWOT analysis, development trends and key issues - *ACS (Mr. Igor Kozyrkin)* - Increase of competitiveness of car components manufacturers through participation in the project *(PORIA - Mr.Yury Mikheev)*
12.00 –12.45	**Group Discussion – Q&A**
12.45 – 14.00	Lunch
14.00 – 15.30	**Moderated Discussion and Brainstorming** - Cluster Vision (10 years from now) - Strategic priorities - Potential cluster projects *ACS (Ms. Lana Hopkinson and Mr. Dusan Busen)*
15.30 – 16.30	**Discussion on the Cluster Coordination Mechanism** *ACS (Mr. Dusan Busen and Mr. Ales Ilc)*
16.30 – 16.45	Conclusion and Summary of Next Steps

31 March 2009

A schedule of meetings with the Ministry of the Economy and the Ministry of Industry is foreseen, to receive feedback on progress of the project and agree on the work of the Steering Committee and the overall monitoring process.

1-2 April 2009

Meetings with other key stakeholders.

Participants of a workshop on Cluster Diagnostic Assessment, March, 30th:

Evteeva Natalia	deputy minister	Ministry of Economics
Kovshova Natalia	head of innovation department	Ministry of Economics
Chapyshev Nikolai	main engineer	JS "UMM"
Sedugin Vladimir	project head	JS "VIS"
Pstyga Aleksey	Deputy main industrial engineer	JS "VIS"
Kormushkin Aleksey	chief of department	JS "VIS"
Laychikova Marina	main specialist	Ministry of industry
Zhuchenko Sergei	general director	NPF Sigma Ltd.
Sustretov Sergei	director of manufacture	JS "Lada-Farm"
Mironov Aleksey	chief of a bureau	AVTOVAZ
Potapov Vladimir	consultant	Ministry of industry
Krishtal Mihail	pro-rector	Togliatti State University
Sofin Genady	Development director	ZKS Ltd.
Petrova Marina	consultant	Ministry of Economics
Nikitin Igor	consultant	Ministry of Economics
Lopuhov Alexander	consultant	Ministry of industry
Miheev Urey	general director	PO RIA
Krainov Anatoly	technical director	PO RIA
Krasotkina Tanya	manager	PO RIA
Rulficen Sergei	main specialist	Ministry of industry
Hmara Dmitry	corporate development director	JS SamZAS
Loginov Pavel	deputy chief of manufacture	Stavro-Komplekt Ltd.
Platoshin Dmitry	lawyer-adviser	JS Megaplast
Barov Maxim	deputy minister	Ministry of industry
Zolotilov Alexander	Deputy chief of department	JS Samara cable company
Reutov Denis	head of department	AVTOVAZ
Kochkurov Andrey	director	JS DS-Inspector
Shatalin Andrei	deputy chief of technological department	JS Motor-super
Dvoinina Tanya	manager on marketing	Samara bearing factory
Dmitry Zharinov	Director, Department of Foreign Economic relations	Togliatti mayoralty
Natalia Hrist	leading expert on foreign trade activities	Togliatti mayoralty
Dolgih Andrei	expert	PO RIA
Dusan Busen	director	ACS
Lana Hopkinson	international expert	UNIDO
Alesh Ilc	international expert	UNIDO
Ravil Gabitov	national expert	UNIDO
Igor Kozyrkin	national expert	UNIDO

Participants of a meeting in the Ministry of industry of the Samara region, March, 31th

Barov Maxim - deputy minister, head of project department, Ministry of industry

Natasha Weisert - Industrial Development Officer, UNIDO

Dusan Busen – director, ACS

Alesh Ilc - international expert of UNIDO

Lana Hopkinson - international expert of UNIDO

Igor Kozyrkin - national expert of UNIDO

Ravil Gabitov - national expert of UNIDO

Participants of a meeting in the Ministry of economics of the Samara region, March, 31th

Natalia Evteeva - deputy minister, Ministry of Economics
Natalia Kovshova - head of innovation department, Ministry of Economics
Maxim Barov - deputy minister, head of project department

Kosova Tatyana Viktorovna - the adviser of management of innovative economy development
Natasha Weisert - Industrial Development Officer, UNIDO

Dusan Busen – director, ACS

Alesh Ilc - international expert of UNIDO

Lana Hopkinson - international expert of UNIDO

Igor Kozyrkin - national expert of UNIDO

Ravil Gabitov - national expert of UNIDO

Urey Miheev – CEO, PO RIA

Andrei Dolgih – expert, PO RIA

Vladimir Sedugin – project manager, JS VIS

Participants of a meeting in the Togliatti mayoralty, April, 1st
Vadim Kirpichnikov - First deputy mayor, Togliatti mayoralty

Denis Zhidkov – Director, Department of Economic Development, Togliatti mayoralty

Dmitry Zharinov - Director, Department of Foreign Economic relations, Togliatti mayoralty

Vadim Zhukov – President, Chamber of Commerce and industry of Togliatti

Alexey Lisovsky - deputy director, «Tolyatti industrially-technological park » Ltd.

Olga Lyshova – Acting Rector, Togliatti State University

Natasha Weisert - Industrial Development Officer of UNIDO

Dusan Busen – director, ACS

Alesh Ilc - international expert of UNIDO

Lana Hopkinson - international expert of UNIDO

Igor Kozyrkin - national expert of UNIDO

Ravil Gabitov - national expert of UNIDO

Natalia Hrist – The leading expert on foreign trade activities, Togliatti mayoralty

Participants of a meeting in the HVAC SistemsLtd., April, 2nd

Gennady Sofin - Development director

Natasha Weisert - Industrial Development Officer of UNIDO

Dusan Busen – director, ACS

Alesh Ilc - international expert of UNIDO

Igor Kozyrkin - national expert of UNIDO

Ravil Gabitov - national expert of UNIDO

Aleksey Kormushkin – chief of department

Participants of a meeting in the Ministry of economics of the Samara region, April, 2nd
Natalia Evteeva - deputy minister, Ministry of Economics
Natalia Kovshova - head of innovation department, Ministry of Economics
Kosova Tatyana Viktorovna - the adviser of management of innovative economy development
Natasha Weisert - Industrial Development Officer of UNIDO

Dusan Busen – director, ACS

Alesh Ilc - international expert of UNIDO

Igor Kozyrkin - national expert of UNIDO

Ravil Gabitov - national expert of UNIDO
Urey Miheev – CEO, PO RIA

Andrei Dolgih – expert, PO RIA

Vladimir Sedugin – project manager, JS VIS

Participants of a meeting in the Ministry of industry of the Samara region, April, 2nd

Ivan Babushkin - deputy minister, head of Engineering industry department, Ministry of industry

Maxim Barov - deputy minister, head of Project department, Ministry of industry

Dusan Busen – director, ACS

Alesh Ilc - international expert of UNIDO

Igor Kozyrkin - national expert of UNIDO

ANNEX 3

Study tour for UNIDO national experts – draft programme

1st DAY

08:00 – 10:00	Arrival to Slovenia
10:00 – 12:00	General about today's Automotive Industry ➢ Automotive industry today ➢ Challenges / strategies of OEMs and suppliers ➢ The future of Tier1/Tier2 suppliers
12:00 – 13:30	Lunch
13:30 – 17:30	ACS approach to process of continuous improvement ➢ System approach ➢ Lesson learned
17:30	Wrap-up
19:30 –	Dinner

2nd DAY

09:00 – 13:00	Concepts, Systems, Tools of process of continuous improvements
13:00 – 14:30	Lunch
14:30 – 16:00	Concepts, Systems, Tools of process of continuous improvements – part 2
16:00 – 17:00	Wrap-up
19:00 –	Dinner

3rd DAY

09:00 – 13:00	Decision, enabling conditions and introduction into company
13:00 – 14:30	Lunch
14:30 – 16:00	Decision, enabling conditions and introduction into company – part 2
16:00 – 17:00	Wrap-up
19:00 –	Dinner

4rd DAY

	Visit the production of company CIMOS – Tier 1 supplier (including meeting with management and approach to PCI)

5th DAY

	Visit the production of company REVOZ – OEM and company TPV – Tier 2 supplier (including meeting with management and approach to PCI)

ANNEX 4: MEMBERS OF THE STEERING AND PROJECT COMMITTEES

Steering Committee:

- Mr. Anton Horzen, Directorate General for Foreign Economic Relations, Slovenian Ministry of the Economy
- Ms. Natalya Evteeva, Deputy Minister, Ministry of Economic Development of Samara Oblast
- Ms. Natascha Weisert, Industrial Development Officer, UNIDO

Project Committee*:

- Ms. Natalya Evteeva, Deputy Minister, Ministry of Economic Development of Samara Oblast
- Ms. Nalaya Kovshova, Head of the Department of Innovative Development Economy, Ministry of Economic Development of Samara Oblast
- Mr. Maxim Barov, Head of Project Department, Ministry of Industry, Energy and Technology of Samara Oblast
- Mr. Vladimir Sedugin, Deputy Director, VAZInterservice
- Mr. Dusan Busen, International Expert and Director, Auto-Cluster Slovenia
- Mr. Alesh Ilc, International Expert, UNIDO and ACS
- Ms. Svetlana Hopkinson, International Expert, UNIDO and ACS
- Mr. Yuri Mikheev, Russian Engineering Academy Volga Department (current National Expert Cluster Development)
- Mr. Ravil Gabitov, National Expert Productivity Enhancement, UNIDO
- Mr. Igor Kozyrkin, National Expert Cluster Development, UNIDO

*The national experts form part of the project committee. If additional experts are added or replace existing experts, these will join the project committee, while experts no longer employed will leave their position.

DETAILED WORKPLAN UNTIL END-2009

Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in the Samara Region of Russia
Project UE/RUS/08/002

Reporting date:
20 July 2009

PREPARED BY AUTOMOTIVE CLUSTER OF SLOVENIA WITH INPUTS FROM REGIONAL EXPERTS

#	Item	2008	2009											
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.1.	Analyze and profile Samara automotive component industry sector, the cluster, companies and institutions													
1,2	Roll out of awareness workshops for SME managers and owners on continuous improvement processes													
1.3.	Developing of training material for shop floor interventions													
1.3.1.	Establish a group of experts for validation of training material													
1.3.2.	Adapt basic training to Samara context													
1.3.3.	Develop and document training material, translate in Russian language													
1.3.4.	Integrate UNIDO experts on environmentally sound production and social management as input into training material													
1,4.	Identify and select pilot SMEs for inclusion in the Basic Training Programme													
1.4,1	select participating companies (pilot batch and complete sample), questionnaire, benchmarking, company visits, definition of criteria													
1.4,2	carry out interventions with 3-5 companies													
1.4,3	adapt training material													
1.4,4	roll out training to all sample companies - first workshop, start of counsellors work													
2,1	Finalize Memorandum of Understanding between Samara stakeholders													
2.2.	Cluster diagnosis, SWOT analyses, Institutional support, framework conditions, analytical framework for performance evaluation													
2,3	Adapt comprehensive service framework to the Samara context													
2,4.	Set-up infrastructure; organization of local services provision, e.g. office space, local administration													
2,5	Select and integrate Master Engineers													
2,6.	Select and integrate national Engineers													
2.6,1.	selection of counsellors/national engineers													
2.6,2.	preparation of training material on technical and managerial training for counsellors to trigger mind set change													
2.6,3.	train/re-train national experts / integrate national expertise with a focus on HR development													
2.6,4.	preparation and execution of the study tour in Slovenia													
2,7.	Training of experts and staff of the partner institutions on business upgrading methodology													
2,8.	Providing of continuous service of UNIDO institutional set-up													
3,1	Strategic analysis of Samara cluster competitive position in the automotive component industry, based on the Slovenian cluster experience in the automotive component industry													
3.1.1.	Review existing material													
3.1.2.	Analyze and profile Samara automotive component industry sector and companies													
3.1.3.	Prepare report on Samara automotive component industry													
3.1.4.	Roll out of awareness workshops for SME managers and owners on continuous improvement processes													
3,2	Development of vision and action plan for the whole cluster													
3,3	Cluster broker selection and training													
3,4	Implementation of cluster action plan with identified brokers and counterpart institutions													
3,5	Identification, promotion and implementation of joint SME activities													
3,6	Exploration of market opportunities and development of regional positioning strategies with regards to the interregional cluster initiative													
3.6,1	Study tour of delegation of Samara stakeholders to Slovenia													
3.6,2	Study tour of delegation of Slovenia stakeholders to Samara													
3,7	Capacity building of associations													

Responsibilities/Support:

UNIDO UNIDO/Giovanna Cegie
SLO Government of Slovenia
SER Government of Samara
ACSLO Automotive Cluster Slovenia
ACSAM Automotive Cluster Samara

COMPANY EVALUATION OF THE AUTOCOMPONENT INDUSTRY IN SAMARA REGION

Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in the Samara Region of Russia
Project UE/RUS/08/002

Reporting date:
20 July 2009

PREPARED BY AUTOMOTIVE CLUSTER OF SLOVENIA WITH INPUTS FROM REGIONAL EXPERTS

Title: "Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in Samara region of Russia"

The assessment report have been written by Dušan Bušen based on work of Ravil Gabitov and Igor Kozyrkin as result of mission "Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in Samara region of Russia" based on job description UE/RUS/08/002 based on contract 16001715.

The activity begin on February 1st, 2009 and it last for 3 months till May 1st, 2009.

The overall objective of the UNIDO business partnership and cluster programme for the automotive component industry in Samara region aims strengthening its suppliers to meet requirements of vehicle and 1st tier automotive component manufacturers so as to be able to access and sustain in global supply chains and international markets, in the particular in European Union. Within the context, the programme envisages to support and strengthen the institutional framework providing practical services to suppliers in the industry sector concerned, achieving three inter-related objectives that are outlined below:

- ⇨ *enhancing the performance of Samara region suppliers in the automotive component industry to ensure their international competitiveness through oriented direct shop floor interventions*
- ⇨ *upgrading Samara region support institutions in the automotive industry trough strengthening of the institutional set-up and development of a pool of well-trained national engineers and market experts*

The objectives have not been revised and remain the same.

The first activity was the selection of participating companies. The kick-off events took place on February 18th/19th, 2009 in Togliatti and Samara. The events bring together stakeholders from private, public and academia sector. Main objectives of the project have been presented together as well as role of the partners in the project. At the end of the event UNIDO presented its methodology as well as the successful development of automotive cluster in Slovenia as best practise has been presented. After the meeting letter for all potential participating companies have been prepared. Based on received recommendations of Government of Samara region and AVTOVAZ the comprehensive questionnaire has been prepared and sent to those companies. For pre-selection of participating companies, visits at almost all of potential companies had been undertaken

Assessment procedure:

Before assessing some of filled questionnaires have been received, but not all. Some of them have still not received yet. The assessments have the following procedure:

1. *introduction (thank you for reception, short project presentation, presentation of experts and their role)*
2. *presentation from visited company, discussion and open questions raised by company*

The following companies have been visited:

1. *Togliatti Complekt Avto*
2. *Samarskii podshipnikovii zavod*
3. *Sigma*
4. *SZPI*
5. *Samorim-Industrial Company*
6. *SamZAS*
7. *POLAD*
8. *VAZINTERSERVIS*
9. *Vysokie Technologii*
10. *Zavod Klimaticheskich System*
11. *Komplekt Ltd*
12. *MEGAPLAST*
13. *TPV RUS*
14. *PREVENT-GLOBUS*
15. *StavroComplekt*
16. *Kinelagroplast*

We have been in telephone comunication with the following companies:

1. *Upravlenie Maloy Mechanizacii*
2. *Lada-FARM*
3. *Motor-Super*
4. *TEKNIKAL KONSALTING*

We have been received the questionnaires of the following companies through PORIA:

1. *PHR*
2. *Farm-Plast*
3. *AVTOPLASTINGINIRING*
4. *AVIAAGREGAT*

Assessment of the companies for accessing to the program

According to the main aims of the projects, evaluation of the companies has been based on the following criteria:

1. *CEO commitment*
2. *Management approach*
3. *Information system*
4. *Overall impression and Quality*

Based on the findings on the assessments, which are collected in the evaluation sheet tables, benchmarking and management comparison table (attachments of this report), the following companies are proposed to take part in the first batch of project:

1. *Togliatti Complekt Avto*
2. *StavroComplekt*
3. *Samarskii podshipnikovii zavod*
4. *Sigma*
5. *SZPI*
6. *Samorim-Industrial Company*
7. *SamZAS*
8. *POLAD*
9. *VAZINTERSERVIS*
10. *Zavod Klimaticheskich System*
11. *Kinelagroplast*
12. *Komplekt Ltd*
13. *MEGAPLAST*
14. *Motor-Super*
15. *TEKNIKAL KONSALTING*

The following companies are proposed to take part in the second batch of project:

1. *Upravlenie Maloy Mechanizacii*
2. *Lada-FARM*
3. *PHR*
4. *Farm-Plast*
5. *AVTOPLASTINGINIRING*
6. *AVIAAGREGAT*
7. *Vysokie Technologii*

Assessment in those companies showed over average level of motivation and commitment to join the project. Companies already reach at list basic quality and management standards, over average tendency to improve quality and process of continuous improvements and over average clear strategy in relation with Samara region average.

Nevertheless, even not qualified the whole assessment team would strongly recommend that also the following companies should join the program due to their high potential to the development of relationships between automotive sectors in Samara region and Slovenia:

- *TPV RUS*
- *PREVENT-GLOBUS*

Table 1:

	Upravlenie Maloy Mechanizacii			
1. The significant investments carried out in last three years.		Development of new products	Loader, rack storages, truck, infrastructure development	upgrade of machine tools, heat-treatment furnaces and tools are purchased
2. Plan for major investments in production capacities in automotive industry in next three years:		Development of 6 new products (air filters pack)	purchase of equipment	problematic within crisis period
3. New products in last three years:	frame of movable glass, water pump	Air filter 2172-1109010,11184-1109010, integral cooling system 2170-1300010	2108-5112230 floor Upholstery centre, 2170-5007503-00 Upholstery of a motor compartment left , 2108-5312032-01 Upholstery of a guard of a limber , 1118-5007502-00 Upholstery of a motor compartment	60 types of bearings
4. Average year of major equipment:	10-12	1,5	40	20-25
5. The proportion of automotive business to the total business:	97	100,00	100,00	50,00
6. The proportion of export to the total business	0	0	0	22,00
7. The supplies to OEM producer:	AVTOVAZ, IzhAvto	AVTOVAZ	N	Y:AVTOVAZ, GAZ, KAMAZ, BELAZ
8. The check of incoming raw material	Y: SPC	Y: tool selection check	Y: selection check	Y: special department exist
9. There Is a documented process for handling incoming quality problems	Y: according to ISO 16949 procedures	Y: according to 8D procedure	Y: "Monitoring and an estimation of activity of suppliers", "Order of steering of untrue products of" a motor compartment "	Y
10. The manufacturing processes are documented	Y: according to APQP	Y	Y: The plot of steering, chart of streams of processes, FMEA-processes, certificates of processes, detail drawings of processes, SADT-diagrammes of processes, workmanship instructions	Y: Control charts, route charts, the special fabrication documentation
11. Part of the end product is checked	Y: SPC	selection check, check to see and tool check	100	100
12. Measuring and test equipment	Linear, volume passes (analogue method), Projector measuring *360 (ПИ 360 ЦВ1А), the Stand* for the control рогибной hardnesses (a code 130)	vibration acceleration stand, measuring of rotary speed, termostat stand	Electronic, mechanical equipment	Optical, chemical, mechanical and other methods, exist special test stands
13. The action plan to reduce scrap rate exists	Y	Y	Y	Y
14. Some measurement for PPM	Y	Y	Y	Y
15. Ability to trace quality problems historically	Y	Y	Y	Y
16. Familiar with the following processes: FMEA , Global 8D, APQP ,SPC, OEE, FTT	Y	Y	Y: FMEA , Global 8D, APQP ,SPC	Y: FMEA , APQP

1. The significant investments carried out in last three years.		N	N	squeezers are purchased (500000 euro)
2. Plan for major investments in production capacities in automotive industry in next three years:	establishment of cutting and sewing shop	up to 3000000 US	N	Y: 1,0-1,5 mln.euro
3. New products in last three years:		glass for LADA 2171	Mouldings 2170, 2172-5607012, Carpet of a luggage compartment of KIA, air filter, a tile of a floor from a block polymer	Bearing parts of front suspensions rezino-metal, weather strips for transformers, a hose pipe inlet
4. Average year of major equipment:	3		2-9	10-15
5. The proportion of automotive business to the total business:	100%	100,00	99,81	80,00
6. The proportion of export to the total business	0%	0,00	0,00	20,00
7. The supplies to OEM producer:		Y:AVTOVAZ	Y: AVTOVAZ, IzhAvto	Y: AVTOVAZ,Ford, UAZ, UralAZ
8. The check of incoming raw material	Yes	Y: check of main specifications	Y: according to "Monitoring procedure"	Y
9. There Is a documented process for handling incoming quality problems	Yes	Y	Y	Y
10. The manufacturing processes are documented	Yes	Y: according to ISO TU 16949 procedures	Y: Processes, instructions, charts of regimes	Y: according to ISO 9001 procedures
11. Part of the end product is checked	100	selection check according to check plan	100% visual control	selection check
12. Measuring and test equipment	Modular table, curves	tear strength stand	*outsourcing to ULIR* AVTOVAZ	Passes, thickness gauges, passes. A tension testing machine, thermostatically controlled chambers, test stand, Mooney's oreometer and others
13. The action plan to reduce scrap rate exists	Yes	N	Y	Y
14. Some measurement for PPM	Yes	Y	Y	Y
15. Ability to trace quality problems historically	Yes	N	Y	Y
16. Familiar with the following processes: FMEA , Global 8D, APQP ,SPC, OEE, FTT	Yes	Y: FMEA, Global 8D, APQP, SPC	Y: FMEA, APQP,SPC	Y

				Vysokie Technologii
1. The significant investments carried out in last three years.	13 casting machines, wheel-abrator machine, blanking machine are purchased	The production engineering of three-component castings is implanted. The production engineering of progressive stamping is implanted.	Investments to production of completing articles for the LADA 1118, LADA 2170 cars	A number of equipment are purchased
2. Plan for major investments in production capacities in automotive industry in next three years:	foundary upgrade, purchase of trimming press and wheelabrator	Y	The development strategy for the period till 2013 exists	Y: up to 100000 - 150000 US
3. New products in last three years:	A number of new casts	a number of new components for LADA PRIORA, LADA KALINA	Clutch plates led 11183/186/21703, Clutch plates press 21703, a hinge strain of a boot lid 1118, pull-rods of a steering trapezoid 1118, the clutch pedal and brake 1118,2170 block, a heater 2111,2170, climatic system 2170	Metal working of aluminum alloys
4. Average year of major equipment:	30	15	25	3-5
5. The proportion of automotive business to the total business:	42,00	98,00	100,00	
6. The proportion of export to the total business	0,00	0,00	0,00	0,00
7. The supplies to OEM producer:	N	Y: AVTOVAZ, GAZ, AVTOFRAMOS, GM-AVTOVAZ	Y: AVTOVAZ, GM-AVTOVAZ	N
8. The check of incoming raw material	Y	Y: by outsourcing to AVTOVAZ	Y	Y:basic mechanical characteristics
9. There Is a documented process for handling incoming quality problems	Y: enterprise standard	There is a documentary procedure which positions order of steering of untrue products in the course of acceptance of completing articles and materials, adjusting, production, deriving of untrue products from a customers.	Y: There are instructions and factory standards (the instruction about an operating procedure on quality of completing articles with suppliers)	Y
10. The manufacturing processes are documented	Y: detail drawings of processes	Y: There are documentary procedures on flow processes	Y: according to TS 16949 procedures	N
11. Part of the end product is checked	30%	Depending on article type	Depending on article type, 100% usually	selection check
12. Measuring and test equipment	Microscopes, spectrometers, breaking tests	General-purpose equipment, special control devices and TESA equipment in the termostat hall	Multiple-purpose (passes and probing devices), special (control and measuring stands)	electronic
13. The action plan to reduce scrap rate exists	Y	N	Y	N
14. Some measurement for PPM	Y	Y	Y	N
15. Ability to trace quality problems historically	Y	Y	Y	Y
16. Familiar with the following processes: FMEA , Global 8D, APQP ,SPC, OEE, FTT	Not all of that	Y	Y	Y: FMEA

				Lada-FARM
1. The significant investments carried out in last three years.	*Line of powdered colouring of* autocomponents. Preparation of production of hand brake levers LADA-2170, LADA-1118. Preparation of production of climate systems LADA-2170, KIA-Spectra. Preparation of production of blocks of treadles LADA-2170, LADA-1118	3 automatic injection machines, 1 extrusion-blown automaton are bought	Motor transport *purchase*	Purchase of a new automatic injection machine, the robot, *additional equipment*
2. Plan for major investments in production capacities in automotive industry in next three years:	"Climatic systems for RENAULT"- 50.730,4 thousand rbl. "Clutch pedals and brakes for RENAULT" - 43 724,8 thousand rbl. - "Clutch pedals and brakes for LADA-2116" - 42 389,0 thousand rbl. - "The Bar of a drive gear of a handbrake for LADA-2116" - 38 610,4 thousand rbl.	Purchase of the equipment for welding	N	in progress
3. New products in last three years:	Heaters for LADA-2170, LADA-1118. Climate Systems for LADA-2170, KIA-Spectra. Blocks of treadles and hand brake levers for LADA-2170, LADA-1118	Heaters for LADA 1118, 11186	cooling modules for LADA 1118, 1119	pallet, radiator feed tank
4. Average year of major equipment:	15-17	10	up to 5	5
5. The proportion of automotive business to the total business:	100,00	100,00	100,00	90,00
6. The proportion of export to the total business	0,00	0,00	0,00	0,00
7. The supplies to OEM producer:	Y: AVTOVAZ, GM-AVTOVAZ, IzhAvto	Y: AVTOVAZ, GM-AVTOVAZ, Ford	Y: AVTOVAZ, VIS-AVTO	Y: AVTOVAZ
8. The check of incoming raw material	Y: Laboratory testing	Y: according to ISO 9001 procedures	Y: selection check	Y: by organoleptic method, laboratory testing
9. There is a documented process for handling incoming quality problems	Y	Y: according to TU 16949 procedures	Y: enterprase standards	Y
10. The manufacturing processes are documented	Y: according to ISO 9001 procedures	Y: according to TU 16949 procedures	Y: according to ISO 9001 procedures	Y: according to ISO 9001 procedures
11. Part of the end product is checked	*Depending on article type,* 100% or selection check	selection check *by measuring* tools	*100% visual control by* assemblers	100%
12. Measuring and test equipment	Multiple-purpose and special	IIRT-5, Gear HDT-VICAT, muffle oven SNOL, dampness evaluator «Sartorius», "FARO" and others	Torque wrenches, test stands of own construction	The temperature indicator, the hardness gauge, calliper
13. The action plan to reduce scrap rate exists	Y	Y	Y	Y
14. Some measurement for PPM	Y	Y	Y	Y
15. Ability to trace quality problems historically	Y	Y	Y	Y
16. *Familiar with the* following processes: FMEA , Global 8D, APQP ,SPC, OEE	Y: FMEA, APQP ,SPC	Y	Y: FMEA , Global 8D, APQP ,SPC	N

			PHR	Farm-Plast
1. The significant investments carried out in last three years.	*upgrade of boiler-house*	Corporation Engel automatic injection machines (including of weight-lifting capacity of 600 tons), corporation Tecmolde moulds, a line on *production of a filter cartridge* of corporation Bartec are purchased		compounding line "Berstorff"
2. Plan for major investments in production capacities in automotive industry in next three years:				
3. New products in last three years:	N	ait filter for LADA 11184, 2170, plastic parts of climatic system for LADA 2170. The facing of the tunnel of a floor for LADA 2170	Projects for Renault L90;B90, LADA 1118, 1117, 1119, 2170;2172;2171	
4. Average year of *major equipment*:	*9*	*5*	8	*5*
5. The proportion of automotive business to the total business:	98	100,00	100,00	85,00
6. The proportion of export to the total business	0	0,00	0,00	
7. The supplies to OEM producer:	Y: AVTOVAZ, Magna-GAZ	Y: AVTOVAZ, GM-AVTOVAZ, IzhAvto	Y: AVTOVAZ, AVTOFRAMOS, Ford	Y: AVTOVAZ
8. The check of incoming raw *material*	Y: according to ISO 9001 procedures	Y: The dampness assaying, the assaying of plasticity of a melt, the assaying of a percentage of ash of *polypropylenes*	Y: laboratory tests	Y: laboratory tests of all incoming components
9. There Is a documented process for handling incoming quality problems	Y: enterprise standard		Y: "Reception and incoming control of materials and accessories". "Steering of untrue products". "Acts on recovery of untrue materials and accessories"	Y: enterprise standard
10. The manufacturing processes are documented	Y	Y	Y: APQP	Y: according to ISO 9000 procedures
11. Part of the end product is checked			Depending on article type, 100% or selection check	100% laboratory tests
12. *Measuring and test* equipment	calibers		Gauging of geometrical magnitudes, gauging of mechanical magnitudes, gauging of physico-chemical composition and properties of substances, thermal and temperature gaugings, chronometry and frequencies, gaugings of electrotechnical magnitudes, gauging of optiko-physical magnitudes	
13. The action plan to reduce scrap rate exists	N		Y	
14. Some measurement for PPM	Y	Y	Y	
15. Ability to trace quality problems historically	Y	Y	Y	Y
16. Familiar with the following processes: FMEA , Global 8D, APQP ,SPC, OEE	Y	Y	Y	Y: FMEA , SPC

		AVTOPLASTI NGINIRING	AVIAAGREGAT	
1. **The significant investments carried out in last three years.**	Development of new products	equipment	equipment	equipment
2. **Plan for major investments in production capacities in automotive industry in next three years:**	100000 euro		equipment	
3. **New products in last three years:**	car trailers	connector 1118-3709315-01	hydraulic advancing cylinder	Details from asphaltic materials
4. **Average year of major equipment:**	1	6	25	4
5. **The proportion of automotive business to the total business:**	100,00	100%	10%	98%
6. **The proportion of export to the total business**		0%	13%	0%
7. **The supplies to OEM producer:**		AVTOVAZ	UAZ	AVTOVAZ, IGAVTO,GM-AVTOVAZ
8. ***The check of* incoming raw material**		Y: laboratory tests *of incoming* components on contract basis	Y: 100%	Yes
9. **There Is a documented process for handling incoming quality problems**		Y: enterprise standard	Yes. STP	Yes
10. **The manufacturing processes are documented**		Y	Y	Yes
11. **Part of the end product is checked**		Depending on product type, from 2 to 100% check	100%	100%
12. **Measuring and test equipment**		Simple measuring tool, passes, measuring means, the test stand	Test stands, plate-measuring engines	The complete set of the equipment for finished product trial
13. **The action plan to reduce scrap rate exists**		Yes	Yes	Yes
14. **Some measurement for PPM**		Yes	Yes	Yes
15. **Ability to trace quality problems historically**	Y	Yes	Yes	Yes
16. **Familiar with the following processes: FMEA , Global 8D, APQP ,SPC, OEE, FTT**	Y: FMEA , SPC	Y: FMEA , SPC	YES	YES

TABLE 2: Evaluation 1st round of company-visits/ questionnaires

	CEO commitment	*Management Approach*	*Information System*	*Overall Impression Quality*	Participation in project recommended (1st or 2nd batch):
Upravlenie Maloy Mechanizacii	Not very good understanding for project.	Focused on current problems	Yes	Not very new tools, machines.	***2nd***
Togliatti Complekt Avto	Very committed. Good understanding for project. Looking for foreign partners.	Sense of private business	Basic	Very new tools, machines. Very clean.	
StavroComplekt	Very committed. Good understanding for project. Have a lot of contacts with foreign partners.	Very good sense of private business	Basic	Very old tools, machines	
Samarskii podshipnikovii zavod	General understanding for project	Some sense of private business	Basic	Very old tools, machines	
Sigma	Very committed. Good understanding for project. Looking for foreign partners.	Very good sense of private business	No	New tools	
SZPI	Good understanding for project. Looking for new markets and OEMs.	Sense of private business	Basic	Some ecology problems. A lot of hand processes	
Samorim-Industrial Company	Very good understanding for project. Looking for foreign partners, new markets and OEMs.	Best sense of private business	Yes	Quality OK. Old tools and machines but investments coming.	
SamZAS	Very good understanding for project. Looking for foreign partners, new markets and OEMs.	Very good sense of private business	Yes	Old tools and machines but investments coming.	
POLAD	General understanding for need for quality-improvement (but some ego problem). Looking for new markets and OEMs.	Some sense of private business	Yes	Very good tools, machines. Very clean.	
VAZINTERSERVIS	Very good understanding for project. Looking for foreign partners, new markets and OEMs.	Very good sense of private business	Yes	Partly old machines but already some new investments made. A lot of hand processes.	
Vysokie Technologii	Very good understanding for project.	Sense of private business	Yes	Very new tools, machines. Very clean. New investments are coming	***2nd***
Zavod Klimaticheskich System	Very good understanding for project. Looking for foreign partners, new markets and OEMs. Very	Very good sense of private business	Yes	Partly old machines but already some new investments made. A lot of hand processes.	

	committed. Ambitious.				
Kinelagroplast	Some understanding for project.	Very good sense of private business	Yes	Very good tools and machines	
Komplekt Ltd	Very good understanding for project. Very committed.	Very good sense of private business	Yes	Very new tools, machines. Very clean. New investments are coming. Very good impression.	
Lada-FARM				Very new tools, machines.	***2nd***
MEGAPLAST	Very ambitious. Some understanding for project.	Very good sense of private business	Yes	Partly old machines but already some new investments made.	
Motor-Super	Very good understanding for project. Very committed.	Very good sense of private business	Basic	Very new tools, machines.	
PHR				New tools, machines.	***2nd***
Farm-Plast	Good understanding for project.	Sense of private business		Very new tools, machines.	***2nd***
TPV RUS	Very good understanding for project.	Very good sense of private business		A lot of investments are planned	
AVTOPLASTINGINIRING				New tools, machines.	***2nd***
AVIAAGREGAT				Very old tools, machines	***2nd***
TEKNIKAL KONSALTING		Sense of private business	Yes	Very new tools, machines.	
PREVENT-GLOBUS	Very good understanding for project.	Very good sense of private business		A lot of investments are planned	

ASSESSMENT STUDY OF THE AUTOCOMPONENT INDUSTRY IN SAMARA REGION

Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in the Samara Region of Russia

Project UE/RUS/08/002

Reporting date:

20 July 2009

PREPARED BY AUTOMOTIVE CLUSTER OF SLOVENIA WITH INPUTS FROM REGIONAL EXPERTS

1. *Cluster Background*

The stakeholders of the cluster have included in 2005-2008: the Government of Samara Oblast, AVTOVAZ, Engineering Academy PORIA, and several automotive suppliers.

The development of Samara Automotive Cluster has been shaped by a number of factors. Over the past few years the technological development of the cluster was driven by theoretical research of the Engineering Academy. The cluster strategic vision of the current stakeholders differs significantly in terms of the organizational structure and the role of the cluster members from the 'classical' definition of clusters. The original concept of the cluster development in Samara region did not envisage an independent co-ordination and management structure. Therefore, in terms of the 'classical' definition, the cluster in Samara does not exist as such, and is currently only a project of the Engineering Academy (PO RIA). Therefore, it is impossible to evaluate the effectiveness of the cluster development efforts to date.

In the Samara region, the agglomeration of automotive enterprises with the traditionally vertically integrated supply chain and a critical mass of enterprises do exist, however, and very practical clustering efforts should be consistently applied, in order to ensure the future successful development of this industrial agglomeration into a fully-fledged, competitive cluster.

Another factor that has influenced the automotive cluster development in Samara region is the disproportionate and overestimated role of a single automotive vehicle producer in the formation and development of the cluster, which was assumed so far. There has been a lack of understanding that the cluster should act as independent body of automotive components manufacturers and support institutions which aims at improving their competitiveness and integration into the global supply chains, oriented to a wide range of automotive vehicle producers.

Therefore, it can be concluded that currently, there is only a geographical concentration of isolated automotive component manufacturers in Samara region, focused mainly on supplying components to AVTOVAZ.

On the whole, the changes in the sector of automotive component manufacturing in Samara region have been determined by individual changes among the producers which so far have proven to be negligible and sometimes even negative, given the outdated nature of the equipment, lack of appropriate changes in their management and production organization structure.

Therefore, the implementation of this project is viewed as extremely timely and useful for the future competitive development of the cluster in Samara region.

2. *Approach and Methodology – Company Evaluation*

The kick-off events took place on 18-19 February 2009 in Togliatti and Samara. The event brought together stakeholders from private and public sectors as well as from academia. The main objectives of the project were presented together as well as role of the partners in the project. At the end of the event, UNIDO presented its methodology as well as the successful development of automotive cluster in Slovenia as a best practice case. After the meeting, letters were prepared to invite the all potential participating companies for the assessment phase. Based on received recommendations of Government of Samara region and AVTOVAZ the comprehensive questionnaire has been prepared and sent to those companies. For pre-selection of participating companies, visits at almost all of potential companies had been undertaken. Before assessing some of filled questionnaires have been received, but not all. Some of them have still not been received.

The assessments have the following procedure:

- introduction (thank you for reception, short project presentation, presentation of experts and their role)
- presentation from visited company, discussion and open questions raised by company

The final, more in-depth version of the company performance analyses will require further enterprise visits and will be prepared during the course of the counseling activities. Preliminary assessments in those companies showed over average level of motivation and commitment to join the project. Companies have already reached at least basic quality and management standards, over average tendency to improve quality and process of continuous improvements and over average clear strategy in relation with Samara region average.

Companies were selected for participation according to the following criteria:

a. adherence to specifications (not right first time),
b. labor productivity,
c. stock turnover (inventory turn ratio – ITR),
d. delivery schedule achievements,
e. overall equipment effectiveness (OEE),
f. value added per person,
g. Floor space utilization.

Assessment in those companies showed an above-average level of motivation and commitment to join the project. Companies already reach at list basic quality and management standards, over average tendency to improve quality and process of continuous improvements and over average clear strategy in relation with Samara region average.

Assessment started based on the databases and recommendations of Samara government and AvtoVAZ. Database received as a starting point have not been accurate, a lot of data should be additionally collected on the field. Based on the above and time shortage team of national counselors decided to access with 60 companies from the database of 180 using criteria of company size, reputation and other public accessible data.

It turned out to be quite difficult to motivate companies to participate in the process due to negative experience from past because several institutions are looking for such information and no reply has been usually received. On the other side it was necessary to use personal network since almost no reply has been received on e-mailing.

The overall company assessment has still not been completed, but a preliminary assessment was undertaken on the basis of the data provided by the questionnaires. As soon as the counseling of the first batch of selected companies has started, the national counselors will undertake a detailed audit in all 24 interested companies to prove data collected in the questionnaires and obtain the starting position for process of productivity improvements. Based on information on the project disseminated in the local media, new companies are approaching to the national counselors and these companies would be evaluated as potential participants of second base. An additional 20-30 questionnaire is expected to be collected until November 2009.

3. *Approach - Cluster Assessment Study*

Together with our UNIDO national experts, PORIA, the Government of Samara and the Municipality of Togliatti we prepared and carried out a **one-day introductory seminar** (Kick off meeting) for CEOs. In accordance with the Terms of Reference, the start-up phase of the Project

commenced with this kick-off workshop organized by the Project team with the Cluster stakeholders in Togliatti on 19 February 2009.

Participants of the meeting included representatives of the Government of Samara Oblast, Municipality of Togliatti, PORIA, AVTOVAZ, Chamber of Trade and Industry of Togliatti, Togliatti Industrial Technopark, Povolzhsky Quality Club, and a variety of enterprises-suppliers.

In the course of the meeting, the Project team presented the concept of the Project, the example of the recent cluster development project in Serbia and the project work plan.

The overview of the recent cluster development efforts was summarized by Prof. Y. Mikheev (PORIA), including the draft "Master Plan"[1] for the development of the cluster as prepared by PORIA for the Government of Samara Oblast, and the related survey.

The presentations were followed by lively discussions. The participants expressed their approval of the planned Project activities, emphasizing the good timing and relevance of the proposed actions, particularly related to improvement of quality and enhancing the cluster competitiveness. Some issues related to the interaction between AVTOVAZ and its suppliers were discussed, with various scenarios related to working with system integrators and potential development of the system level expertise within the cluster of automotive suppliers in Samara Region.

Participants asked the Project team numerous questions about experience and relevant examples from Slovenia and other countries. One of the burning concerns related to the development of R&D capacity within the cluster and weak linkages between science and industry, was voiced by one of the participating enterprises. The Project team provided successful examples of possible solutions to the challenge of bridging the gap between academia and businesses (e.g. innovation vouchers in Holland, technology brokers scheme in Norway, etc), which were received with great interest by the cluster members.

The subject that induced particularly lively discussions was that of the cluster co-ordination and management. Particularly, the issues related to the need (or the contrary) of direct involvement of AVTOVAZ in the operational management of cluster activities, were discussed at length. The question of relationships with AVTOVAZ at the level of system integration stimulated particularly lively debates. For future activities, it was agreed that AVTOVAZ will be integrated into those project activities related to company upgrading and cluster development.

Programme on 20 February 2009:

The Project Team visited PORIA (with the active participation of the representatives of the Ministry of Industry and Ministry of Economy) and had detailed discussions with them on the planned activities of the Project as well as on PORIA's cluster development efforts and plans.

PORIA's technological capacity is important to the cluster, including their ideas on competence centers for automotive suppliers. Their positioning within the cluster as a knowledge provider is clear, while their aspiration to act as a cluster coordination and management unit does not seem to be in line with the specific needs of SMEs in the automotive sector. The specific role of PORIA in project activities will therefore have to be discussed further in meetings with cluster stakeholders.

[1] The 'Master Plan' represents an attempt to conceptualize the key strategic directions of the development of the Cluster. As it was prepared without the consultation with the cluster stakeholders, some of the issues proposed in the plan may not necessarily be endorsed by the Cluster. Particularly, the cluster co-ordination and management mechanism, the issue of involvement of Avtovaz in the management of the cluster and other issues, need to be discussed and shaped further in close collaboration with the cluster actors.

Later, the meeting with Samara Oblast Government took place, where the Project concept was presented and discussed. The concern of the Oblast Government (the counterpart of the Project) was that they were not formally notified by UNIDO of the launch of the Project.

The kick-off workshop aimed at informing the participants about the Project objectives and the detailed work plan. The Project team also raised awareness among the participants on the issues of cluster development, innovation and linkages between science and industry (with examples of innovation vouchers from Holland and technology brokers from Norway). A better understanding of the importance of the cluster vision and strategic objectives was also achieved.

4. Methodology - Cluster Assessment Study

During the mission of 18-21 of February 2009, the Project team has finalized the methodology and the approach to the diagnostic phase of the Project, and made the first steps in the diagnostic process.

The methodology for the industrial and cluster assessment is determined by the following principles and considerations:

- The methodology stipulates collection of both primary and secondary research data.
- The Project adopts a consultative approach and works with a variety of information sources and stakeholders, in order to maximize availability of relevant data, ensure coherence and avoid any duplication with the work already done by the cluster stakeholders.
- Due to the limited project time scale, budget and resources, it will be possible to survey only a limited number of enterprises during the start-up phase. A comprehensive mapping of linkages and survey of the whole number of cluster enterprises (approx. 400 suppliers) and other organizations, should be made at a later stage, with a larger allocation of time and resources.
- All data collected from the surveyed enterprises, will be treated in strict confidence.
- The overall results of the processed questionnaires and relevant cluster-level conclusions will be shared with the Project partners and the cluster stakeholders.
- Further Project capacity building activities and interventions will be based on the results of the survey and reflect the identified real needs of enterprises.

Steps: The following steps will be undertaken to carry out the cluster diagnostic study:

1. **Desk research.** Desk research on the cluster background, development trends, as well as key priority issues and challenges will be part of the cluster assessment.
2. **SWOT analysis.** Preliminary SWOT analysis has been implemented by the Project team and is included in this report. After the survey results are available, the findings of the SWOT analysis will be updated accordingly.
3. **Preparation of the questionnaires**. Two questionnaires have been prepared by the project team: one for the industry analysis, one for cluster-level needs evaluation. Any relevant surveys already undertaken by the cluster stakeholders will be analyzed and taken into consideration, to avoid duplication of effort.
4. **Identification of the participating companies** for the assessment. A letter will be circulated to all cluster enterprises, explaining the purpose of the Project activities and inviting them to take part in the survey.
5. **Obtaining commitment of the companies** wishing to participate in the survey, through a letter of commitment from the company to the Project.
6. **Industry analysis.** A designated questionnaire has been developed for the analysis of participating enterprises, their quality management and performance, as well as their capacity building needs.

7. **Cluster-level needs assessment.** A designated questionnaire has been prepared to assess the perceptions and needs of the cluster, as well as the current level of availability of support infrastructure catering for the cluster development.
8. **Data processing, analysis and reporting.** All collected data will be processed in a systematic manner, and a detailed report will be prepared and made available to all project partners and stakeholders.

5. *Findings – SWOT Analysis*

The first results of the SWOT analysis implemented during the mission of 18-21 February by the Project team are presented below. The results of this analysis will be finalized after the diagnostic surveys have been completed.

Strengths	Weaknesses
• Presence of original equipment manufacturer (OEMs): Avtovaz with the recent involvement of Renault and Nissan; • A large number of suppliers of automotive components representing a critical mass, considerable depth and diversity; • Good supply of highly qualified workforce • Competitive international prices reinforced with the current weakness of the ruble (as a consequence of the financial crisis) • A strong regional tradition and culture of manufacturing and, therefore, much tacit as well as formal knowledge/skill; • Strong regional knowledge base (9 universities and a number of R&D and engineering institutions) • Availability of automotive research facilities at the local universities and research institutes; • Vacant production facilities • Ability to master and deliver new tasks within a relatively short timescale • Very supportive public sector (Regional Government of Samara Region and Municipal Government of Togliatti) • Strategically advantageous geographical position with access to key markets and the presence of the basic infrastructure with access to other regions through the waterways (the Volga River), motorways, air and railway connections.	• Extreme dependence of suppliers on one customer (Avtovaz) and the related technological lock-in • Lack of investment over several decades and continued utilization of out-dated equipment and methods; • Over-concentration on low value components. Many firms struggle to compete on costs for 'old technologies' and too few are involved in newer high-value areas; • Lack of capital funds and sources of finance for new investment and development • Lack of local electronics or communications industry to support developments in high value vehicle technologies; • Lack of quality engineering services sector integrated with the major global players; • Lack of good development facilities at the suppliers' level; • Lack of high-level management skills among the managers within the supply base; • Lack of information, business and innovation support services in the cluster • Lack of cooperation with the education sector, especially universities; • Little evidence that small or medium-sized supply companies are gearing themselves to the global trends, e.g. e-commerce, and online trading and design. • Ongoing concerns about quality and costs (e.g. few companies have ISO TS 16949 certification)

Opportunities	Threats
• Permanent growth of the global markets • Investment by new OEMs in the region (Renault and Nissan) • Investment by some foreign suppliers in the cluster enterprises; • Growing interest from new investors attracted by the large Russian market and favourable current exchange rate • Possibility to provide niche opportunities in current developments, by exploiting technological change; • Potential to 'leap-frog' to new areas not yet at the exploitable stage of development, and to develop public policy geared to such possibilities; • Development of the engineering services sector, due to the outsourcing of key design and development activities by OEMs and the major suppliers; • Exploiting the region's engineering, innovation and production capacity; • Development of engineering solutions to meet increasing environmental and safety concerns and legislation • Dissatisfaction of customers with low quality and performance of goods from China and South-East Asia • Assistance from foreign countries through the programmes of development support • Policy support of the Federal Government to cluster development • Current support of the Federal Government for local production (e.g. increased import duties on foreign vehicles, incentives to Government institutions for purchasing Russian-made vehicles, etc)	• Possible further loss of markets due to old technologies, poor quality, low competitiveness of the cluster and inability to adapt to the new market requirements (e.g. safety, environment, restrictions on CO2 emissions, etc) • Insufficient investment attractiveness of the cluster and region for foreign investors (various administrative barriers, etc) • Market instability and the adverse financial crisis consequences • Movement to other regions of production that is currently produced by the region; • The lack of local joint design or purchasing authority, which means that the region could get bypassed in future developments; • The movement of the production of vehicles and components to lower cost regions and countries: this applies not only to labour intensive processes but also to high technology manufacture; • Insufficient engagement in high value technologies where labour and other costs are less critical; • The growth of European and global supply matrices with no boundaries; • Instability of the exchange rate

The automotive industry has been severely affected by the current crisis, which is not adequately reflected in the SWOT analysis, but captures the opinion of participants in the initial meetings and discussions. The rapid reduction of vehicle sales has had strong reverberations along the supply chain and many jobs may be lost. In this situation, the realization of project objectives, and thus the optimization of processes through the successful implementation of process of continuous improvements, is even more important. The Automotive Cluster of Slovenia will contribute with its experience to reducing the crisis impact to a minimum.

Renault and AvtoVAZ are now organized as two parallel structures. Both structures have experienced a good development on the market and even forecasts for the next six months look fine. As stated above, the development of 2nd and 3rd tier suppliers is not as fast as needed because of the companies' limited competencies and capacities to compete regionally and internationally. This could however be overcome by project activities e.g. by integrating relevant representatives (e.g. responsible for product and supplier development) into project activities.

Overall, it is hoped that the automotive industry and its outlook for the future will return to the pre-crisis positive outlook. Quality and productivity enhancement of automotive component suppliers will, in any case, be an important component of any competitiveness and broad-based development oriented strategy.

6. *Findings – Cluster Vision and Strategy*

The morning kick-off meeting 19 February was followed by an afternoon round-table discussion on the topics related to the cluster vision and strategy.

The shared **vision** of the preferred future of the cluster (by 2020) was formulated by the group as follows:

> ***"The Cluster will become a tightly linked network of automotive suppliers acting as a coherent system, competing successfully on the Russian market and integrated into global supply chains (by 2020)".***

In order to achieve this vision, the following **strategy** should be pursued by the cluster:

> ***"To increase competitiveness of the cluster through significant quality improvement, higher added value of its products and internationalization"***

The key **strategic priorities**, which are pre-requisites for the implementation of the Vision and Strategy, are:

- To improve the level of quality management and certification in the cluster
- To enhance the R&D and innovation capacity at the supplier level
- To improve the management and engineering skills base, and availability of related support services in the cluster
- To improve communication between the cluster stakeholders, and co-ordination of production, purchasing and marketing activities in the cluster
- To increase the level of FDI in the cluster and enhance the investment attractiveness of the Region
- To integrate the cluster in the global supply chains, particularly within the premium vehicle component segments

The cluster Vision and Strategy will be further discussed and finalized at a later stage of the project, when the results of the industrial and cluster analysis become available.

7. *Findings – Cluster Diagnostic Assessment*

The key purpose of the diagnostic assessment was collection and analysis of information on a current status quo of the automotive cluster in Samara Region, definition of specific characteristics of the automotive cluster in Samara region, with the purpose of tailoring of the training and support activities to the needs of enterprises within the Project "Facilitating International Market Access for Manufacturing Suppliers in the Automotive Component Industry in Samara region of Russia".

➔ **Mapping of industry sector in Samara Region, including data on category, size, turnover, employment, sales of the companies. This entails classifying all relevant automotive suppliers in the region (Tier 1, 2, 3)**

Besides, the up-to-date database of automobile component manufacturers of the second and third tiers has been developed. At the moment it includes 134 enterprises. Creation of a more detailed database of automobile components manufacturers of Samara Region (the fourth and fifth tiers)

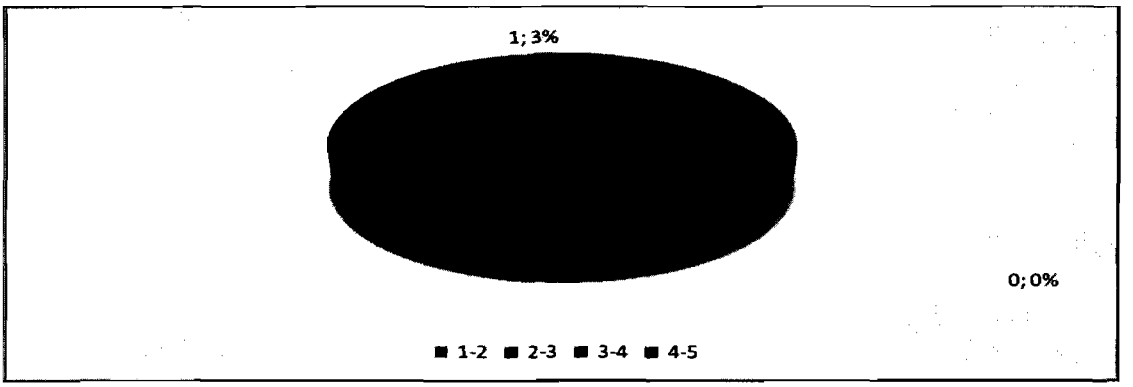
would require more significant inputs of time and resources, and can be accomplished during the further stages of the project implementation. Before the survey, some databases of enterprises were available in the area, with a degree of accuracy of information no higher than 70 %.

The diagnostic cluster assessment has been undertaken on the basis of the analysis of the responses of the automotive cluster members and the assessment by the national experts, using 29 indicators grouped into 14 sets:

1. **Encouraging interactions and linkages within cluster**
   a. Establishment of platforms for dialogue, broker schemes, formalizing communication channels for networking
2. **Cluster information and analysis**
   → Cluster statistics, strategic studies, regular benchmarking and analysis
3. **Cluster identity and awareness**
   a. Creation of a cluster brand, external promotion of cluster members' competencies
4. **Access to strategic knowledge**
   → Information on global technology and sector-related trends relevant to the cluster activities
   → Information on new markets, customers and new business opportunities
   a. Information on publicly funded R&D and technology transfer programs
5. **Access to expertise of knowledge providers**
   → Business support services and training
   a. R&D and innovation support (development of new products, research projects, protection of intellectual property rights, technological assistance, etc)
6. **Support for inter-firm networking**
   → Support for export and internationalization networks
   → Support for coordinated purchasing and sales
   → Public procurement for consortia of firms
   → Development of quality certification and technical standards
   a. Incentives / funds for multi-firm projects
7. **Support for joint industry-science co-operation**
   → Incentives for collaboration between universities and enterprises
   a. Funding for technology transfer programs
8. **Establishing crucial elements of the cluster**
   → Attracting inward investment to the cluster where there are gaps in the chain of local suppliers
   → Improving incentives for foreign direct investment (FDI)
   → Attracting major R&D facilities
   a. Attracting new firms and support to start-up firms
9. **Specialized labour supply**
   → Provision of management and technical training
   → Establishment of cluster skills centers
   a. Attracting talent to the region
10. **Demand and customers**
    a. Public procurement contracts for new products and technologies
11. **Removing regulatory barriers to innovation and competitiveness**
    a. Focus groups and platforms for the tax and regulation reform (environment, labour, fin. markets, competition policy)
12. **Improving infrastructure**
    a. Provision of infrastructure, communications, transport and land use planning to strengthen the cluster
13. **Social capital**
    a. Support to personal and business networks
14. **Science, technology and R&D base**
    → Investment in public scientific/technical technical institutions within the cluster boundaries
    → Improvement of education and skills
    → Investment in partnerships between research institutions and enterprises, and in joint cluster R&D

As a whole, estimations of national experts and participants of cluster have coincided - the preliminary results can be illustrated as follows:

➔ **Summary of the indicators of the degree of development of various aspects of Samara Automotive Cluster (parameters evaluated on the scale from 1-5)**



- 69 % (20) indicators have estimations less than 2 points (on a five-point scale)
- 27,6 % (8) indicators have an estimation from 2 up to 3 points;
- 3 % (1) indicators have estimations from 3 up to 4 points;
- Indicators with estimations higher than 4 points are not present.

The following groups of indicators have lowest estimation:

1. Encouraging interactions and linkages within cluster
2. Cluster information and analysis
3. Cluster identity and awareness
4. Support for inter-firm networking
5. Support for joint industry-science co-operation
6. Establishing crucial elements of the cluster
7. Demand and customers
8. Removing regulatory barriers to innovation and competitiveness
9. Improving infrastructure
10. Science, technology and R&D base

The average estimation on this group of indicators makes 1.64 points. The lowest estimation (less than 1.5 points) is within the groups of parameters related to communication between members of the cluster and interactions of members of cluster with the research organizations and support institutes.

The average estimation of development of Samara automotive cluster on a five-point scale is 1.8 points (36 % on 100 point scale).

In comparison with other European automotive clusters, the score is relatively low because is still in form of cluster initiative. Education and standardization exist, but to improve indicators from 3 to 7, it is necessary to create professional organization with office and permanent staff; indicators from 8 to 10 would improve through specialized counselors. Due to this reason, UNIDO will seek to integrate national experts to take care of this issue and bridge the gap between educational, business support organization and automotive companies.

➔ Analysis of horizontal and vertical linkages between tiers in the Samara region

As a result of meetings and questioning it was clarified, that many participants are anxious to participate in this project together with their direct competitors. We had to explain, what exactly joint participation of such suppliers will well affect their business and that only by common efforts is possible to solve the common problems.

Throughout last 10 years nobody made efforts to develop linkages in the automotive component cluster of Samara region. Occasionally, there were some attempts by the SOK Company to improve interactions. At various times the factories of SOK group delivered to AvtoVAZ from 37 % to 50 % of automobile components. Some time, with 2003 on 2006, SOK was also completely controlling a sales network of AVTOVAZ and a considerable part of the secondary market of spare parts.

The SOK Company had a good opportunity to become the core of a cluster and to play the important role in development of automotive cluster in Samara region. It was promoted by a number of factors:

- Presence of strong links with AVTOVAZ
- Effective management
- Serious inclusions in modernization of the production facilities
- The readiness to attract foreign partners

However, for political reasons SOK company began to lose its position from 2006 onwards. Now the largest supplier of AVTOVAZ, group "SOK", may be excluded from the market of automobile components. The company «Association of Automotive Technologies» (OAT) has purchased factories manufacturing of automobile components which previously belonged to SOK. OAT was registered on 15 August 2008, in Samara. The company promoters were AVTOVAZ and state corporation "Rostechnologii". The main objective of OAT is production of automobile components for OEMs. The former top-manager of the Russian Open Society "United Power Systems" Vladimir Avetisjan became the chairman of the board of the newly created company. The structure OAT included suppliers of automobile components, first of all the Serpukhov and Dimitrovgradsky automodular factories, and also Serdobsky engineering works.

The sphere of interests of OAT also covers the eight factories of SOK group - "Autolight", "Osvar", "Belzan", "Schetmash", "VIS", "Komplet-LTD", "Rosavtoplas" and "Motor-super". They produce automotive lighting equipment, electronic gears, plastic details and other products.

OAT is interested in not only companies of SOK group but also other similar factories across all Russia. It can be any domestic enterprise making components for passenger and lorries, autobuses and other transport facilities.

OAT made an announcement of their business development; however a detailed plan has not been publicized. Attempts of national experts to contact the workers or principals OAT have not been successful. OAT is management significant influence on supply chain development. Meetings have been held with the enterprises belonging to OAT structure. They have willingly responded to participation in the project. There were no problems in establishing dialogue with representatives of these suppliers; they were willing to be contacted and participate in the program.

OAT would not influence on project development. Meeting with OAT taken place in June and they have positive attitude to the project. OAT would counsel to the companies, which are including in their ownership structure to join the project and take advantage to participating company.

➔ **Assessment of value chain integration or outlook (structure of supply chain, linkages to external buyers, synergies to other clusters in the country and abroad...)**

During the missions in Samara Region the Project team was decided to prepare the fact about actual state in Automotive Industry in Russia Federation and Samara Region:

⇒ Samara Region is ranked among the leading Russian industrial regions.

⇒ Samara Region is rated by the Government as one of the top five Russian regions.
⇒ The production volume of SMEs (products and services) per head in Samara Region is 80 % higher than the average for the Russian Federation.
⇒ Industrial production constitutes 41.6 % of the gross regional product (GRP), and employs 31.4 % of the labour force.
⇒ One of the characteristics of the industry of Samara Oblast is the high concentration of production.
⇒ Samara Region is characterized by the highest concentration of automotive industry establishments.
⇒ Samara Region Automotive Supplier Industry:

- Includes 360 registered companies
- Annual turnover EUR 1.350 million (40% of the total turnover the automotive industry sector)
- 200,000 people employed in Automotive Industry (the cluster members represent app. 47.5%).

⇒ 70 % of all cars produced in Russia come from this area.

The results of the study undertaken within the framework of this Project, have not confirmed all of the data quoted above. On the basis of the information collected during the study of the automobile cluster, it is possible to summarize the following findings:

- The actual number of suppliers of the 1st, 2nd and 3rd tiers of the automobile components involved in manufacturing, is approximately 200.
- The total value added produced by these suppliers is about 600-650 million Euro per year (following the results of 2008), and with the assumption for the multiplier effect, the total annual turnover is about 1000 million Euro.
- The number of workers employed by these suppliers is approx. 25,000 people.
- The number of suppliers (360) quoted previously, must have included all industrial enterprises of Samara region. For example, one of the lists of producers of automotive components that were made available to the Project experts includes suppliers of sand, rubble, scrap, protective clothing, handles for axes, gates for security, stationery and office supplies, toilet paper, and other suppliers to AVTOVAZ.

The automotive component supplier industry of Samara Region includes:

⇒ 200 registered companies
⇒ annual turnover is more than EUR 1000 million
⇒ total added value is EUR 650 million (represents app: 25% of the total turnover in the automotive industry)
⇒ 145,000 people employed in the automotive industry of the Samara region (the cluster members represent app. 17%, 120,000 people are employed by AVTOVAZ).

This very realistic assessment tells us that 25 companies, which submitted questionnaires, represent 60% of added value in Samara automotive industry. The next implication is that we should continue with the assessment process because we did not integrate lower tier suppliers of the value

chain. However, with implementation of productivity improvements we would raise competitiveness as whole because this group is representative group of Samara suppliers industry.

Among the most obvious barriers for development of Samara Region there are following factors:

- Lack of human resources with a certain professional skills level;
- Obsolete nature of the Russian scientific and technological assets and poorly developed system of commercialization of new technologies;
- Technological weakness of Russia compared to the world level in the majority of activities and, as a consequence, foreign technologies or products created on their basis, which dominate many segments of the Russian market, including Samara.

A significant number of companies that produce cars and auto-components, and render a variety of services, make up the cluster. The total supplier network of AvtoVAZ consists of about 700 suppliers from Russia and abroad. Regional car components manufacturers make efforts to coordinate their production and marketing policy, being simultaneously in a position of partners and competitors in the car market and contributing to the various parts of the value chain. This confirms correctness of project focus and companies selection.

→ *Institutional support*

R&D

According to the results of study, 25 % of suppliers evaluate their potential in research and development as very low. Only 15 % of them have the necessary scientific facilities. At present, R&D in the area of new technologies, materials and components is carried out mainly by the scientific and technical centre of AVTOVAZ, which is also the biggest Russian research, design and technology organization.

Certain tasks are accomplished by specialized bureau of several auto components manufacturers, faculties of high schools and scientific organizations in the region.

The training of employees working in the automobile cluster is carried out by regional higher education institutions, technical training colleges and the AVTOVAZ educational centre.

The Scientific and technical Centre of AVTOVAZ created in 1986 (NTC) has embraced all advanced test methods and development of materials, nodes and cars which existed at that moment. All of suppliers of materials and auto components carried out testing services at their facilities. This provided assistance to suppliers; however, it seriously restrained independent technical development of suppliers.

At the moment of the study, because of the problems of financing, most of test equipment was obsolete. NTC tries to upgrade the outdated test equipment. Virtually all testing laboratories are certified by independent bodies. Specialists of laboratories have high qualifications, the proportion of specialists holding a Master's degree (M.Sc.) is high.

However, in connection with cutting-down of advanced design expenditure and decrease of level of financing of research and development most of scientific directions are reduced, specialists of a narrow specialization are forced to train for new professions and directions. For example, over the last 5 years in NTC developments such promising developments as magnetic-pulsing production engineering, production engineering of hypersonic and thermal welding of polymers, vacuum production engineering of thin-film overages etc., have been stopped. The development of laser production engineering, welding practices and rations has serious difficulties.

Suppliers of automobile components and materials who have begun the activity since 2003 already initially planed developing of own test and exploratory laboratories. In the most it was development engineers of polymeric materials. Today modern testing laboratories have such suppliers as "Farm-Plast", "Lada-Farm", «KinelAgroPlast» and others. These suppliers are in a condition status today to independently develop a new compounding and a new material.

Unfortunately, there are not enough examples of suppliers that could discover possibility to invest money in new processes. For example, company "Megaplast" one of the first companies has introduced water jet cutting of plastic, laser cutting of polymers.

In most cases it was depended only from perspective vision of CEO or owners of business. During the period 1998-2000 most of institutes had contracts of research works with AVTOVAZ, in the core within sphere of theoretical researches, material test, and more rare creations and headings of new processes. It allowed institutes to maintain staff of scientific employees and to explicate perspective directions on the basis of pay-back.

Since 2003-2004 financing of R&D contracts began to be reduced. It has led to serious decrease of developments in the field of R&D, to a staff reduction of institutes, a struggle peaking between institutes for a public finance. As consequence, mutual linkages between institutes in the Samara region are not ideal now.

It was promoted also by bureaucratic and corruption barriers from AVTOVAZ. On a declaration of one of CEO of institute at this moment, for execution of a R&D contract they have to gain signatures as minimum from 40 persons of AVTOVAZ. It demands improbable force and financial abatement from institutes.

Besides, out-of-date technical basis of institutes does not allow ensuring accomplishing of conditions and demands of most customers.

However, there are instances of effective cooperation. For example, not so long ago the expert of NTC has attend one of modern laboratories of the Samara space university with a view of acquaintance with modern production engineering of assembly and material processing with the help is magnetic-impulse excitation. This production engineering can be quite demanded at manufacture of details for a body of car prototypes, and also in small-lot production.

Study has displayed, that 75 % of suppliers have own measuring both test equipment and instruments, 10 % of them are using laboratories of AVTOVAZ. Frequently it is on mercantile fundamentals. However in case of development of a product innovation or a material by common efforts, NTC is able to do tests free of charge.

40 % of suppliers of automobile components work with CAD/AutoCAD software. For most SME cost of similar software and annual licenses are too high. An exit for such situation would be using of similar software within institutes. Besides, the software package for educational institution costs much more low-costly.

Education

The most of engineering staff (to 80 %) for AVTOVAZ and suppliers to educate the Togliatti State University (TGU) which from the moment of the creation was oriented on AVTOVAZ as on the basic customer for engineering staff, and also the Samara state space university (SGAU) and the Samara state technical university (SGTU).

However, now the most of graduates don't want to work in AUTOVAZ. It is promoted by some reasons:

- Personnel cutting-down
- Wages low level
- Turning of social programs
- Image decrease.

Besides, students gain knowledge not according to development trends of modern production engineering, test methods and studies. The out-of-date technical basis of institute does not allow preparing the student possessing knowledge of modern processing methods, the advanced methods of probes and testing services.

As regards future project activities, a greater focus should therefore be placed on strengthening educational institutions in the region and to enhance their collaboration with supplier firms, which could provide interesting jobs and international cooperation in the future.

The result of an existing education system is that only 1% employees from supplier speak English, most management. This critical situation makes certain demands to methods of project implementation. We recommend translating into Russian all project documents, including training programs, before their discussion with the Russian partners. Otherwise there are a lot of chances to meet irritation and misunderstanding of the Russian partners. May be it would be useful to engage training language programs in project frameworks. The communications problem will be one of the main during project implementation.

→ Framework conditions

One of the important goals of Samara region is development and integration of national innovation systems using efficient usage of cluster initiatives as one of most important part of Strategy for regional innovation development, execution of concrete support mechanisms and motivation for establishment of regional-production clusters.

According to regional strategy new production technologies will need also new management technologies, which is important part of program "Volga Region Automotive Cluster". The main challenge in front of Samara region is how to keep competitiveness Volga region automotive industry as well as whole Russian automotive industry. So cluster has very import position in the Strategy of Samara region development, especially for development and future perspective of regional automotive industry.

Government Support

Some governmental support arrangements of small and medium size enterprises had been introduced of the 1st of January 2009 year:

- The legislation for tax audits had been improved. Prohibition of SME recurring tax audits had been introduced during three years.
- Networking discounts for small and medium size enterprises had been appointed. 15 kilowatt-hours per month are given by fixed price of SME. It is a very small quantity. Actually electricity prices for SME are grown from 1.01.2009 year to 40-60%.
- The state plans to give lending's 30 billion ruble's for SME development. Due to the large number of SMEs, credit will only be available to about 1% of SME. Priorities are declared in federal law, there is no sector priority. Funds are available to company, which present proposal on the public call, which includes business plan with requested attachments.
- Federal program of Ministry of economic development of Russia on 2009 year for SME support is 10.5 billion rubles. Again, only about 1% of SME also will get the support. The support program of small and medium size enterprises in regions will be financed on next conditions 70% – federal centre and 30% - regional budgets. Priorities are declared in federal law, there is no sectoral priority. Low success rate is due to available funds. Funds

are available to company, which present proposal on the public call, which includes business plan with requested attachments.

- The state promised to reduce interest rates for loans, starting from 2010 year. However, since 1 January 2009 year costs for plant facilities has grown: gas – to 19,6%, electricity - to 19%, freight service by rail – to 14%;
- From the 1 January 2009 a new tax rate on profit is applicable in Russia — 20 percents instead of previous 24 %.
- A procedure of VAT reimbursement will be simplified; the time duration of document accordance is prolonged to 90 days. For technology equipment importers to Russia, VAT is not applicable if that equipment is not produced in Russia.
- The law to discount privatization process for employers is taken, for those who have rented municipal property more than three years, giving top right to redeem municipal areas. Became an owner, small size business will reduce its costs appreciably. However, municipalities usually block the law by preparing property sale auctions and as consequences cancellation of rent contracts. Municipal property is than given to municipal non-profit-making enterprises.
- Regional governments have a right to reduce a tax on non expert taxation system from 15% to 5% (on profits minus costs). In Samara region the tax will be reduced to 10%. This taxation system is used about 14% of SME. Also about 50% of SME use the system "United tax on imputed earnings", 20% use the non expert taxation system – 6% tax from turnover. For these enterprise categories the additional taxation discounts are not foreseen.

Suppliers have indicated that local authorities will increase their demands for tax payments.

For the time being, it is not foreseen in Samara region any other automotive sector support initiative besides support of PAC (Volga automotive cluster) cluster development. All measures are very horizontal and trying to establish competitive business and innovative framework. Automotive suppliers would need more support, especially to renew or invest in new production technologies, for training and education in management and leadership approaches, to accelerate integration of education and scientific institution in product and process development.

Bank loans for SME financing

During the last year, banks were the main source of financing for SME development were banks. Interest rates were acceptable and reached 12-16% on annual basis during the first three quarters of 2008 year. For the most SMEs this has been acceptable due to the fast growing market in Russia.

However, the arrival of economic crisis has significantly changed situation. Some banks started to longer evaluate requests as a production volumes in many companies declined significantly. The other problem is sharper requirements due bank financial position, high requirements to deposit provision and grown interest rates. Credit cost in commercial banks is more than 20% annual at this time. Enterprises must have very high profitability to be able to take at this loans Banks understate value of enterprise's loan assets as compared with 2008 year about in two times.

For SME support, there exists a special guarantee fund, which provides entrepreneur with funds to guarantee to the bank that loan is secured. At this moment, the most famous program of SMEs support is related to Moscow credit assistance Fund of SMEs which consists in giving a guarantee by bank-creditors by liabilities of its debtors — representatives of SMEs. From April 2008 onwards, the Fund also gives credit guarantees to small size enterprises in Samara region. The Fund can give a guarantee to bank-creditor in size to 50% of the financing taking into account percentage. In that way, client has to provide by deposit only 50% from the sum of credit. The Fund guarantee is given to agents at agreed conditions. An enterprise has to be included to regional roll of SMEs, realize its activity more than 6 months and does not have overdue tax payment debts to all budget levels.

Besides, in Samara region there is "Inter-municipal fund of small size enterprise's support of Samara region" debenture trust according to Federal Law "About state support of small size business undertakings in Russian Federation". The Fund is non-profit-making organization. The Fund founders are: Municipal fund of small size business undertakings support of Novokuybyshevsk city, Municipal fund of small size business undertakings support and social and economic development of Sergiev district "Razvitie" ("Development"), Minicipal fund of small size business undertaking support of Neftegorsk district of Samara region "Sodeystvie" ("Assistance"), Municipal fund of business undertaking support, small size enterprises and social and economic development of Kinel city "Sodeystvie" ("Assistance"). The Fund accumulate budget and off-budget resources, earning from its activity, but also earning getting as credit percentage of SME. The Fund gives credits and credit guarantees on discount conditions for SME.

Overall, and taking into account economical crisis we can make a conclusion of the difficult conditions availability for SME existence, not only in Samara region, but also in Russia as whole. Measures taken by government authorities at the federal but also on regional level are generally indeterminate. Therefore, the experience of ACS and UNIDO in supporting SMEs in a concrete and effective manner will be crucial during the implementation of the project.

On the next project development stages we recommend to focus industry on introduction UNIDO and ACS experience of small size business undertakings support at the regional and municipal governments.