«AUTOMOTIVE CLUSTER OF SAMARA REGION»



# ACSR Presentation 2015



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- The role of the automotive industry in the Samara region
- Cluster organization
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### The automotive industry in the Samara region





### **Cluster Organization**



Supply Chain Optimization

## STRATEGIC GOAL AND MISSION

### **MISSION:**

To increase the competitiveness of our members through the effective use of the synergies of competencies and resources



COMPONENT MANUFACTURERS NETWORK

**GLOBAL CHAIN OF** 

SUPPLIERS

### GOAL:

To become efficiently coordinated network of automotive components manufacturers, integrated into the global automotive supply chain

## SWOT - analysis

STRENGTHS	WEAKNESSES
<ul> <li>The presence of AVTOVAZ on the cluster area with a course on the development of Renault-Nissan Alliance;</li> <li>The high concentration of automotive suppliers;</li> <li>Strong regional educational base;</li> <li>Opportunities for research and development;</li> <li>Geographical position</li> </ul>	<ul> <li>High dependence on a single client;</li> <li>Insufficient investment in technology and equipment in the last decade;</li> <li>Current issues on quality and cost;</li> <li>Lack of companies motivation to invest in new technologies and innovative approaches;</li> <li>Lack of cooperation with the education sector</li> </ul>

# SWOT - analysis

#### **THREATS**

- The potential loss of the market in the future due to outdated technology, poor quality and the level of competitiveness; inability to adapt to new market requirements (safety, environmental protection, vehicle compatibility);
- It is not enough high investment attractiveness of the cluster in the region (administrative barriers, ..);
- Insufficient investment in high-tech sector, where labor costs are less critical;
- Automotive suppliers change their organizational forms to a limited liability company;
- The rise of global auto suppliers

#### **OPPORTUNITIES**

- Investments of foreign auto suppliers in the region;
- Sales growth in the world markets;
- The growth of interest of potential investors in the Russian market due to the favorable exchange rate;
- The ability to maintain the current development by the use of technology;
- Development of engineering services sector by outsourcing key areas of engineering
- Using the region's technology, innovation and production capabilities;
- Political support for cluster development and localization of the automotive industry in Russia and the Customs Union

## **Training Programs**

	Management	Engineering /IT	Introduction of new product	Chain Supplies management	Production Manage- ment	Staff management
<u>Sistems</u>	ISO TS 16949 ISO 14001	PLM	Process of automotive industry products development		VDA 6.3 Special processes management	Careers planning
<u>Quality</u>	Quality Management System	S/R/D- products	APQP PPAP PFMEA	Lower-level supplier management and audit	MSA SPC The price of low quality	
<u>Methods/</u> <u>Tools</u>	Lean Production Strategy	GD&T CAD, CAE, CAX – Catia, ProE, Abaqus	Project management	EDI System Global MMOG	Problem solving / error correction	Работа в команде
<u>Experience</u>					CNC systems and robotics	Special trainings



## Development of Plastic & Metal Components

✓ treatment of measurements and preparation of surfaces for the working out and agreement of style mock-ups for further development of class A surfaces

- ✓ feasibility analyze of Surfaces
- ✓ elaboration of master sections
- $\checkmark$  calculation chains of dimensions and targets of gaps and flashes
- ✓ development and agreement of Class A surfaces
- ✓ development and agreement of 3D components of interior and exterior
- ✓ manufacturability analyze of products
- $\checkmark$  architecture and packaging of necessary works
- $\checkmark$  design of mechanisms

✓ preparation of necessary technical documentation and reports





- ✓ creation of high-quality 2D and 3D finite element models (FEM) on any present CAD systems base
- ✓ strength and fatigue analysis of details and assemblies
- ✓ structural optimization
- $\checkmark$  noise, vibration and harshness (NVH) analysis
- ✓ highly non-linear dynamic, crash and impact analysis
- ✓ manufacturing processes simulation
- ✓ vehicle aerodynamics
- $\checkmark$  climatic and heat transmission analysis
- $\checkmark\,$  analyze and optimize multi-body system performance
- ✓ metal forming



### $\bigcirc$

### Support and maintenance projects for passive safety

- ✓ forming of RFQ
- carrying out selection of direct executor of tests (choice of possible executors, a comparative analysis of commercial proposals, agreement of volumes of tests)
- ✓ preparation of technical specifications
- ✓ preparation of technical concepts
- $\checkmark$  preparing of the schedule of the project
- $\checkmark$  development of test matrix of impact
- ✓ preparation list of parts required for the agreed scope of testing
- $\checkmark$  development of validation plan of properties of passive safety
- ✓ preparation of forecast achievement of project objectives, according to the approved RFQ between the Customer and the Contractor (system integrator) for each control point in accordance with the work schedule
- management of Project Communications (timely exchange of information for decision making, control of the timing and quality of work on the project)
- ✓ engineering control of testing and reporting
- ✓ approval of results with the customer



### Development & Modernization of Production Equipment

- ✓ Layouts
- ✓ Welding equipment
- ✓ Handlings
- ✓ Storages
- ✓ Conveyors





#### Design of molds and dies

#### Design of molds:

- ✓ analysis, preparation of recommendations to change the design of the component during design of molds,
- $\checkmark$  design of molds
- $\checkmark$  architecture of molds
- $\checkmark$  analysis of molding of the component
- $\checkmark$  simulation of the assembly process
- $\checkmark$  preparation of the necessary technical documentation (2D, specifications)
- $\checkmark$  technical and design support during the manufacture, installation, adjustment
- $\checkmark$  following of the project to the finished product

#### Design of dies:

- $\checkmark$  analysis of the components for the manufacturability
- ✓ analysis of formability
- $\checkmark$  modeling and preparation of drawings for technological process
- ✓ 3d design of Dies
- ✓ preparation of the necessary technical documentation (2D of dies, 2D of technological process, specifications
- $\checkmark$  technical and design support during the manufacture, installation, adjustment
- $\checkmark$  following of the project to the finished product from the line of dies
- $\checkmark$  following of the project till the agreement of the control sample of the product



**Organizational issues** 



Registration of a legal entity NP "ACSR" (june 2014)

Election of Partnership's Board and Director

The Partnership's Board





Moscow Motor Show in Moscow

### **Presentation in activities:**

CEE Automotive forum (Prague)



ACSR stand organization at

Automotive industry and components



## Individual meetings and presentations



#### **Official activities**

3 Cluster meetings were held

NP "ACSR" members' production visiting





Organization of Cluster members' economic mission to AutoEvolution 2014 forum (Kaluga)





Organization of private section for NP "ACSR" members





#### **Official activities**

Preparation for the implementation of UNIDO program in Samara Region for 2015



Training package offer in conjunction with the International Finance Corporation (IFC)



Preparing for the Forum "Automotive industry. Autocomponents 2014 " and organization of speakers visit to the forum (AVL, Magna, PCMAR, Tecos, Gostol TST)







### **Open meetings**

#### February 19, 2015





### NP ACSR entry into the Union of Mechanical Engineers

March 16, 2015 NP "Automotive Cluster of Samara region"



### **Information support**

February 2, 2015

April 8, 2015



**NP ACSR members** 



Presentation of innovative technologies for enterprises of Togliatti





**NP ACSR members** 



Free information day "The new requirements of ISO 9001: 2015"

WITYAEBCKAS







**NP ACSR members** 



International Specialized Exhibition of metal industry and the exhibition "Welding and Foundry" (Celje, Slovenia)

13th FORMA TOOL Tools, Tooling, Tooling machines Celje Showground, 21 - 24 April 2015





### **Participation in forums**

### February 5-6, 2015 (Kazan)

International automotive Forum TIAF 2015



March 25-27, 2015 (Saint Petersburg)

Participation in the leading exhibition of automotive components, spare parts and equipment for maintenance of vehicles of the North-West Russia and the Baltic States "Automechanika"





#### ACSR board member Dusan Busen

Topic: "Prospects of development of Russian automotive components industry"

### March 17-19, 2015

### (Moscow)

Participation in the 18th Annual International Russian Automotive Forum



Interactive discussion on the conduct of automobile business in Russia on "Automotive Cluster of Samara region. Localization features"



### **RESULTS in 2015** Business meetings on March 26 (Saint Petersburg)



#### **Official activities**

ACSR arranged a meeting with foreign manufacturers of automotive components (with the participation of PCMAR Procurement Services)



ACSR took part in the annual Russian Automotive Forum (Adam Smith Conference)





ACSR

ACSR became part of the Committee

on Development cooperation and

localization of production in the





#### **Official activities**

Open meeting with FordSollers and Valeo topmanagers organized A meeting with IFC (International Finance Corporation) and JMAC (Japan Management Association Consultants) top-experts organized

















#### **Official activities**

NP "ACSR" Director V.V.Putkin and board member Dushan Bushen are nominated to the Scientific and Technical Council (STC), the Governor of the Samara Region





ACSR took part in the second meeting of the Committee of the Russian Engineering Union





#### **Official activities**

From May 29 to June 5, ACSR representatives in the delegation of the Samara region visited with business visit Anhui province of China.

During the visit, Samara delegation suggested Chinese partners joint implementation projects





## RESULTS in 2015 Togliatti, June 26 I International Automotive Forum "Autointegration" - 2015

- More than 200 participants
- More then 50 organizations
- More then 20 speakers





 More than 20 federal and regional journalists & Media



### **DIRECTION OF DEVELOPMENT IN 2015**

### AIMS:

- Creation of a communication platform between the members of the cluster and development / intensification of coordination between them;

- The introduction of quality management and lean manufacturing at the enterprises of the cluster

- Implementation of joint projects "turnkey"

- Improving the competitiveness of cluster members

### TASKS:

- Increasing the number of cluster members;

- Providing them a favorable business environment;

- The exchange of experience with participants of regional and national clusters;

 Organization of training programs / training of cluster members personnel;

- Inter-cluster cooperation

«AUTOMOTIVE CLUSTER OF THE SAMARA REGION» NONCOMMERCIAL PARTNERSHIP



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#### «AUTOMOTIVE CLUSTER OF THE SAMARA REGION»

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