

Company evaluation

Local Supplier Development Program

Moldova

ASPA

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1 Task definition of the local supplier development program

In an attempt to foster linkages between MNCs inward-investors in the automotive sector and local suppliers, the Ministry of Economy and Infrastructure approved the Local supplier development Program (LSDP), meant to build on the experience other east and central European countries in linking local suppliers to major foreign investors. The general objective of the Local Supplier Development Program (LSDP) is to increase the competitiveness of the suppliers in the Republic of Moldova to a level that would make them attractive as suppliers for the multinational companies (MNCs) investing in the automotive sector of the Republic of Moldova. The program is divided into three stages and begins with the selection of participants and provision of general technical assistance for a group of around 50 local companies.

2 Short description of the company

ASAP was founded in 1972 and was reorganized into a private company between 1995 and 2000. ASAP produces small to medium sized parts from different metals such as steel, stainless steel and e.g. titanium. The portfolio ranges from power injection nozzles for aircraft to transmission parts and hydraulic components. In addition to the pure service to produce parts, the company develops its own components and manufactures precision tools for machining. These are increasingly customer-specific tools which are not developed by the company itself. To manufacture these products, the company has a large machine park consisting of CNC lathes, milling machines, erosion, and engraving machines. In addition, the company has the competence to harden and temper specially manufactured parts.

The company exports 99% of its manufactured products, of which about a quarter is exported to the European Union. The largest customers are in Germany and France. Other export countries include Slovenia, Switzerland and above all Russia, which accounts for the largest share. The company's turnover in 2019 was about 2,2 million euros, which has been increasing continuously for several years. The company employs about 130 people, 30% of which are highly qualified specialists. Depending on the order situation, the company can deploy them in different shift systems and has a full qualification overview of its employees. The company is ISO 9001 certified.

3 Analysis of the current situation

The following section is intended to present the conditions in production and administration. For this purpose, the existing situation regarding the production environment and its processes will be explained.

3.1 State of the production

The company is located on a very large industrial complex. It looks very well maintained and is continuously renovated. The company has a central warehouse, which unfortunately could not be visited. The raw materials are delivered and stored in one of the halls, and the cutting is also carried out in this area. The materials are marked with chalk and stored on a shelf. A direct categorisation or marking system is not used. For individual customer orders, the material is partly delivered directly by the customer and immediately taken to the machines.

The location includes several halls of different sizes. One of these is the main production hall, another houses special lathes, which have been outsourced during production due to their oil smell. In one of the other halls is the sand-blasting and hardening shop. The main hall consists of different internal areas. There is a large main hall in which numerous turning, drilling and milling machines are located. A further section is equipped with large drilling centres and another with erosion technology. All in all, the company has many machines in different sizes for different purposes. Among the machines are many very old machines, which nevertheless provide satisfactory quality for many jobs. Beside these machines there are very new machines with CNC 5-axis technology. In summary, the properties appear very well arranged and clean. One could see that the company is constantly striving to improve the premises. In one part of the hall new flooring is being set and in another part a restructuring is being carried out. In addition to the large machining areas, there is a quality control office where a 100% inspection of critical dimensions is carried out by qualified personnel. Immediately afterwards there is a refinement for smaller parts. The workplaces are all equipped with high-quality, tested measuring equipment and appear clean. It is unmistakable that great importance is attached to cleanliness and structure.

The production is controlled by "Tech Sheets". Each order with a serial number contains a document in which all production steps, drawings and quality requirements can be found. All steps are checked and countersigned. Unfortunately, there is no uniform transport system for the orders and the folders

with documents are sometimes not directly and clearly assignable. Overall, however, the company appears well standardized and structured.

In general, there is also a lack of adequate safety equipment for the employees. Especially in the machining area with medium-heavy parts, safety glasses and shoes are lacking.

Furthermore, the poor storage of the finished parts has been noticed. There is a warehouse for finished parts, which is not dirty or full, but does not appear to be well structured, marked and sorted.

3.2 State of the administration

In terms of administration, the company is just as well positioned as in production. The administration building is located within the described facility. Like the production halls, it appears well maintained and, together with the premises, in very good condition.

There are clear structures within the company. The processes are largely clear and standardized. Orders are managed in designated departments and raw material requirements are planned. A system manages the actual stock of raw materials and is updated with low latency for removals. Software systems are also used in accounting and order management. However, a holistic system (e.g. ERP software) is not used.

In order to constantly advance and develop the company, 100,000 to 200,000 euros are invested each year in machines or production-related objects, depending on turnover. In general, the company is willing to implement new projects and to place the company on the market with a secure future. Therefore, there is an open company culture, and the company is trying to increase the level of awareness in the EU by renewing its website and by active visits to trade fairs.

4 Rating of the company according to the EFQM model

The assessment was carried out based on the EFQM model as of 2020. The 2020 model focuses on three fundamental questions:

- Direction: Why does the organisation exist? What is its purpose? Why exactly does it pursue the current strategy?
- Execution: How does the organisation intend to achieve its purpose and implement its strategy?
- Results: What has the organisation achieved so far? What does it intend to achieve in the future?

For this purpose, a total of 81 standardised questions were created in the run-up to the assessment, which were answered by the company tour and interviews conducted by the consultants from IPOL and BIS. The categories of the questions range from technical equipment, production and working conditions, logistics processes to general administration and management tasks. In addition, the strategic orientation and the ability of the management were evaluated.

The answers to these questions were classified in a similarly predefined grid and awarded points (from 0 to 5). For a comparison of the three consultant teams, the first seven companies were compared in pairs, so that the classification of the answers was standardised.

The resulting answers were weighted and distributed according to the seven EFQM sub-criteria. A single question can therefore be included in two EFQM criteria with different weightings. The seven sub-criterias are linked to the three fundamental questions.

- 1 Purpose, vision, and strategy (**Direction**)
- 2 Organisational culture & leadership (**Direction**)
- 3 Engaging stakeholders (**Execution**)
- 4 Creating sustainable value (**Execution**)
- 5 Driving performance and transformation (**Execution**)
- 6 Stakeholders perceptions (**Results**)
- 7 Strategic and operational performance (**Results**)

Each company receives a rating according to the answers to the questions which is summarized into two rating.

4.1 Rating of the three fundamental questions

The first rating shows the performance for the three main questions. Each rating is compared to the average of all companies, which have been reviewed. The results are shown in figure 1.

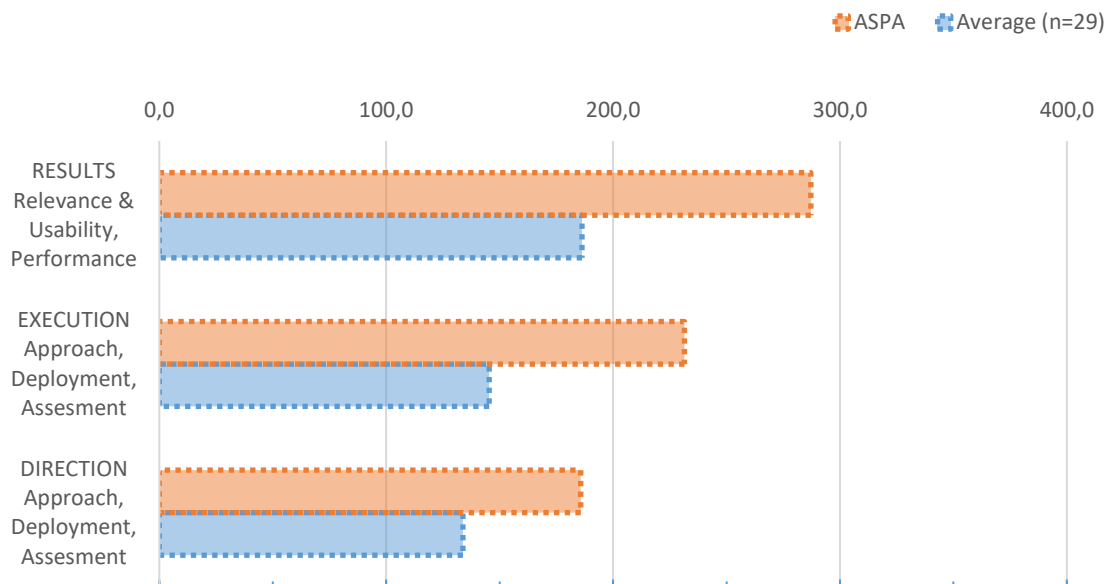


Figure 1: Rating - three fundamental questions

ASPA achieves a very high value of 46% for the “DIRECTION” sector thanks to its determination, willpower, and good organisation as well as corporate culture. All strategies are aimed at further improving the company. To this end, clear structures are created, and investments are made in capable personnel and modern production systems. This is one of the highest values in the overall assessment of the 29 companies.

Within the “EXECUTION”, the company also achieved a very high score of 58% of the total points. By achieving ISO 9001 and high-quality standards as well as the very good production conditions, the company can create sustainable value. Here too, the company achieves one of the highest scores.

The company achieved the highest score in the “RESULTS” sector with a total of 72%. In this area, the company's perception and how its strategies and visions have already been implemented is recorded. The company achieved the high score due to the clearer content line, the high customer and employee satisfaction. Many strategies are already in the initial stages of

implementation and create confidence in the future viability of the company among external interest groups.

The detailed assessment in Figure 2 clearly shows - especially in comparison with the other companies - that the company drives the Moldovan average in all sub-sectors, especially in “Strategic & Operational Performance”.

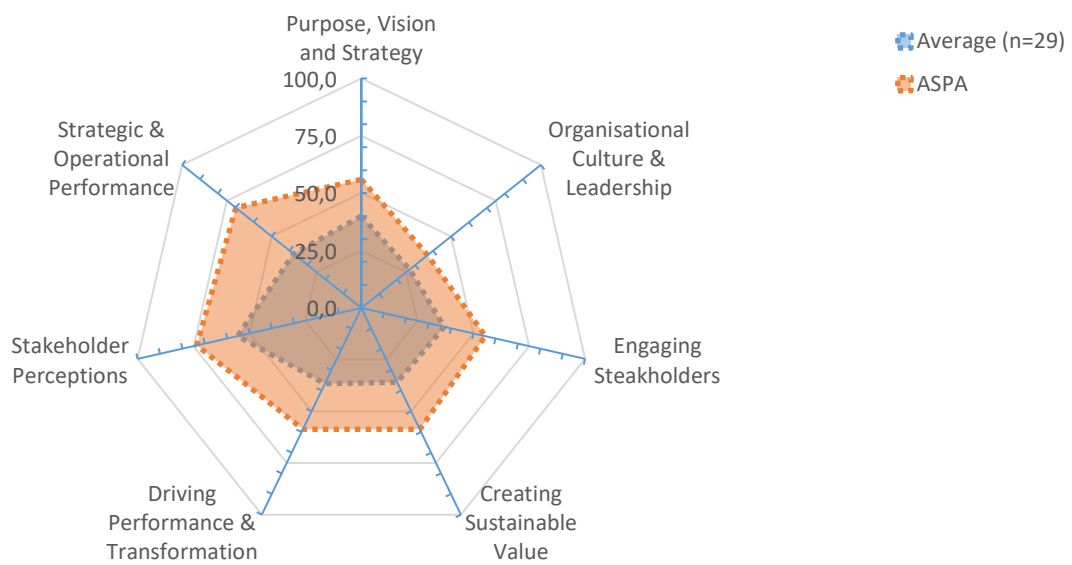


Figure 2: Rating according to the EFQM model

5 Proposal of actions for improvement

First, general strategies were developed for the suggestions for improvement, which are based on the status of the companies. For example, the supply of automotive parts is only possible if the technical equipment meets the latest standards and the administration is already equipped with at least basic IT technology.

For some companies, this step is currently still too big, so that alternatives are also proposed.

The first suggestions for improvement relate to the improvement of core processes and activities. This means that neither new products nor new markets will be opened. Another approach is to open new (European) markets by increasing exports. This step leads to an increase in turnover, which in turn leads to further steps such as technical renewal. The idea of improving the relationship with the MNC is in line with the service provider's strategy. Although no parts are produced for use in the automotive industry, supporting services are offered. These may include equipping the factories with, for example, special load carriers. Another possibility is that individual technologies are used for production by the companies acting as an extended workbench.

The proposed strategy for ASPA is to focus on promoting sales to multinational companies and enhance their core process

5.1 Improve core process

To enable products to be sold to MNCs, the following tasks to improve core processes must be successfully completed:

Time line	2020					2021										2022												
ACTION	46	50	1	5	9	13	17	21	25	29	33	37	41	45	49	1	5	9	13	17	21	25	29	33	37	41	45	49
WIP-Parts handling																												
Work safety																												
Finished Goods / Raw material storage																												
Production Flow																												

Figure 3: Timeline – Improve core process

5.1.1 WIP-Parts handling

As explained before, the company uses "Tech sheets" for the production process. To avoid confusion of several jobs and to implement a better structure, containers should be introduced. Each container reflects one order or a part of one. All necessary documents are attached to the container. For larger orders, the container can be realized with a special trolley.

It is estimated at about 6,250 €, which corresponds to 250 € per container resp. trolley. To make the effect even more useful, a clipboard on the containers with order number would be recommended.

5.1.2 Work safety

The obvious problems in occupational safety will not remain hidden from potential customers. Therefore, occupational safety measures must be tightened up by providing the necessary equipment and by controlling the wearing of protective equipment. Regarding the equipment, the following needs to be improved:

- Safety shoes
- Safety goggles

Another point that contributes to safety at work is to ensure basic cleanliness in production. During the tour, several empty plastic bottles, dirty tools, and untidy workplaces were discovered.

This work can be done with an investment in equipment of approx. 3,900 € for safety shoes and glasses.

5.1.3 Finished goods / Raw material storage

As has already been described, the finished parts warehouse is in a condition inappropriate to the rest of the company. There is a lack of shelves, structure, and a monogamous organisation.

The company is therefore recommended to set up special shelves and a storage system for the finished parts warehouse. Orders are assigned unique numbers; stock is maintained by a system and smaller parts are sorted into uniform plastic boxes and stored with a marking system.

The situation is similar with your raw parts warehouse. The warehouse is in good condition, but here too there is no uniform system. The types of steel are sometimes not easily identifiable and there is no possibility to store plates properly. It is therefore recommended:

- Mark all raw material parts (Maybe by colouring metal tubes)
- Store different types of steel in different areas
- Divide Custom order Materials and normal materials

The implementation is estimated to take about 12 weeks and cost 7,000 €.

5.1.4 Production Flow (Optional)

With reference to WIP handling, the jobs cannot currently be monitored digitally.

As orders increase and the volume of organisation increases, it is recommended that the tech sheets be digitised. Within the production you will find feedback terminals which are equipped with barcodes.

On the trolleys, which contain an order or a lot, the order is printed out with the processing steps. After completion of a production step, a logistician brings the trolley with the parts to a transfer area, scans the order and the next processing step can be carried out.

In this way the progress can be monitored, and the employees can be relieved in their search for orders.

5.2 Multinational companies (MNCs)

To enable products to be sold to MNCs, the following tasks must be successfully completed:

Time line	2020		2021												2022														
ACTION	46	50	1	5	9	13	17	21	25	29	33	37	41	45	49	1	5	9	13	17	21	25	29	33	37	41	45	49	
Business plan																													
English-speaking sales administration																													
IATF 16949																													

Figure 4: Timeline – MNCs

5.2.1 Business plan

The requirements of MNCs for storage and production conditions are very high. In the medium term, therefore, the storage and production conditions must be adapted to these. To determine the amount of this investment, a calculation with the following content must be made:

- Investment costs in new machines and tools
- Investment in infrastructure (storage area for end products, production area, electricity, compressed air supply)
- Operating costs
- Contribution margin per part
- Margin for the new business

The preparation requires about 8 weeks' time, 500 € internal personnel costs and 7,500 € external consulting costs.

5.2.2 English speaking sales administration

Staff must be built up to actively address potential new customers. To this purpose, a full-time job must be created for acquisition and marketing. The requirements for this position are experience in sales, especially in the preparation of sales documents.

The tasks of the new sales staff will be the creation of meaningful sales documents (brochures, website, letters for potential customers) in the first 3 months. In the following months, customers will be actively approached.

To enable sales growth, you need to gain knowledge about possible supplier parts and required technologies in the automotive industry. To this end, build up links MNCs and organize visits with the help of your newly recruited sales representative and the Free Economic Zone BALTI. During your visit, look for products that you can manufacture with your technology and try to get a foot in the door of the companies.

The personnel costs (full costs) amount to approx. 9,600 € per year (~800 € per month) and should initially be an investment without direct sales success.

5.2.3 IATF 16949

To become more attractive as a supplier of automotive parts, certification according to IATF 16949 is required. This certification enables to address potential customers in the automotive industry directly.

The way to certification is in three steps:

- Implement and document standard processes
- Start the certification process
- Obtain the certificate

A great deal of internal effort must be put into standardizing the process and producing the documentation. These tasks can be carried out internally by the production management and can be charged with internal personnel costs of about 8,000 €. The subsequent consultation can be carried out by a consultant who will name the necessary documents and help with the preparation. If the certification is successful, the certificate is issued. The consultation and certification will cost about 32,500 €. The time span from start to finish is estimated at about 9 months.

6 Conclusion

In summary, the company is in a good situation and needs to expand their markets as well as their level of production. The organisation may be able to produce smaller metal parts for different industries and thus also for suppliers to the automotive industry. Furthermore, it is possible to produce automotive serial components in this company and therefore it can become an automotive supplier.

The company must first find new solutions for its own product structure to strengthen exports, especially to MNCs. The tasks in this direction should be almost completely carried out by the company by employing suitable personnel in international sales. The further steps towards certification within automotive (IATF 16949) can then be taken.

The company must also first make its own efforts in marketing their technologies and think about new markets for their products and technologies. The company must therefore first implement the first action points under its own efforts before it can consider placing orders.

ASPA has a high potential. The management is ready to implement new things and drive change inside the company through high investments. The company aims at partial serial production and owns partly new machines, especially for milling. Therefore, the company achieves an above-average result and ranks in the best field off all companies.

Ilmenau, 22.10.2020

A handwritten signature in black ink that reads "Daniel Nägelein". The signature is written in a cursive style with a large initial 'D'.

Daniel Nägelein

Head of Process Management at IPOL GmbH