CBI
Ministry of Foreign Affairs

CBI Product Factsheet: Exhaust Systems in Eastern Europe

'Practical market insights for your product'

Eastern Europe is a growing market for exhaust systems. The key automotive OEM markets are the Czech Republic, Poland, Slovakia and Romania. The OEM systems for cars are provided by Tier 1 solution providers and not by sole component suppliers. There is demand for exhaust system components in the aftermarket sector, even when limited to crash repair, replacements in vehicles over 10 years old and hobby cars. The consolidated aftermarket sectors in Poland and Romania are particularly appealing.

Product definition

Exhaust systems are grouped under the label "Exhaust" (HS codes 87089210; 87089220; 87089235; 87089290) and are part of the sub-category "Parts, components and accessories for all kinds of common automotive vehicles", under Automotive Parts and Components. This Product Factsheet discusses the market for exhaust mufflers/silencers and exhaust pipes as well as the related trims and tube suspension parts for Eastern Europe, including Poland, the Czech Republic, Hungary, Bulgaria, Romania, Slovakia and Slovenia.

Product specifications

Quality

Compliance with European and international standards on safety is required, as is as conformity with existing EU and national legislation and manufacturing practices.

Materials

Exhaust systems and parts for exhaust systems are typically made of steel, preferably corrosion-resistant steel types.

Catalytic converters are typically made from a combination of stainless steel and precious metals, such as platinum, palladium and rhodium. Traces of manganese and cerium are also added. Very small amounts of nickel and copper are used in some catalytic converters. However, the European Union has ruled the use of nickel in catalytic converters illegal, while in North America, it is illegal to use copper. Catalytic converters' cores are typically ceramic but they can also be metallic.

Design

Automotive exhaust systems are used on different vehicles with varying specifications. OEMs will have specific commercial and technical requirements for the exhaust system suppliers, while buyers in the aftermarket sector emphasise versatility and short lead times over volume.

Packaging & Labelling

In general, packaging is dependent on the buyer: either the OEM or end user (the aftermarket sector). In the aftermarket sector, the packaging is typically disposable, as it is discarded after being used just once. Returnable packaging is most often used by OEM suppliers, so as to reduce cost and to improve the efficiency of packaging operations. Returnable packaging is not discarded after use and the empty packaging is recycled by the OEM or by a designated packaging operator. In order to export to the EU, product packaging must comply with EU standards. To reduce the harmful impact of packaging on the environment, the EU has instituted legislation concerning the management of packaging and packaging waste.

Considerations for action

- For more information on packaging and packing waste requirements, please refer to the CBI Buyer Requirements database on EU legislation: Packaging and packaging waste

Figure 1: Exhaust systems parts and their packaging

Source: Fotolia

Legislative Requirements

Legislative Requirements: The most important requirement for automotive components is that they comply with the technical standards set by EU legislation in order to guarantee vehicle and environmental safety.

Type-approval is a certification for various types of motor vehicles and their components, which includes agricultural and forestry tractors. The type-approval or certification is valid in all EU Member States and is required when selling any products in the EU. Many automotive components are not approved until the final assembly, in which case certification of individual components is not necessary, although these components will still have to comply with type-approval requirements.

The End of Life Vehicles (ELV) Directive aims to

Considerations for action

- Check with your buyer, or with the approval authority of the country you want to export to, what the specific standards are for the parts you are manufacturing.
- Read more about type approval at the EU Export Helpdesk.
- Check if your buyer uses the International Material Data System (IMDS). This is a collective, computer-based data system developed by automotive OEMs to manage environmentally relevant aspects of the

avoid environmental pollution during the scrapping process through reducing the hazardous materials used in vehicle production. Vehicles must be designed to facilitate proper dismantling and recycling (by coding the components), and the use of heavy metals such as lead, mercury, cadmium and hexavalent chromium is prohibited (with the exception of a few applications).

European emission standards define the acceptable limits for exhaust emissions of new vehicles sold in EU member states. Emission standards are defined in a series of European Union directives, which are progressively introducing an increasingly stringent standard.

different parts used in vehicles. It has been adopted as the global standard for reporting on material content in the automotive industry.

- For the emission standards please consult the European Commission Transport & Environment section

Common buyer requirements: In addition to the legislative approval, there are other common buyer requirements. While these are not obligatory in the legal sense, they are implemented by various competitors in the market and are thus necessary in order to compete effectively.

Quality Management: In order to apply for type-approval, production processes need to meet quality management criteria. ISO TS/16949 and ISO 9001 are accepted as standard requirements and EU buyers and manufacturers often insist on them.

Corporate social responsibility (CSR) and the extent to which buyers expect a certain level of social and environmental performance is becoming increasingly important. Bigger EU companies have developed their own CSR policies and require their suppliers (and their sub-suppliers) to conform to these. Signing a supplier code of conduct is often a prerequisite. These codes of conduct generally cover compliance with local laws, protection regarding workers' health and safety, respecting basic labour rights and also business ethics. The implementation of an environmental management system is often a requirement for core suppliers.

Considerations for action

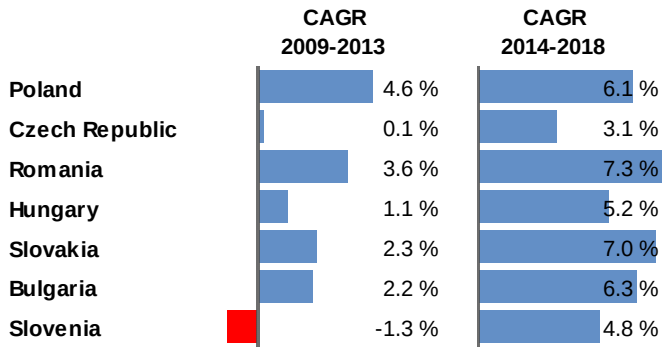
- Implement ISO 9001 and ISO TS/16949, as it is a standard requirement of EU buyers. Click here for more information on ISO TS/16949 at the ISO website

- Most big car brands publish their CSR policies and supplier code of conduct on their websites. An internet search for these may give valuable insight into assessing your company's performance by comparison.
- Implement an environmental management system, such as ISO 14001, as it is a common requirement.

Macroeconomic statistics

In 2013 Eastern Europe saw an average growth of 5.5% after the previous year's 6.8% contraction. Forecasts for 2014 and 2015 growth are estimated at 4.1% and 5.7% respectively. Poland, one of Eastern Europe's largest markets, as well as Romania and Slovakia are all forecast to experience an average growth of more than 6% through 2018.

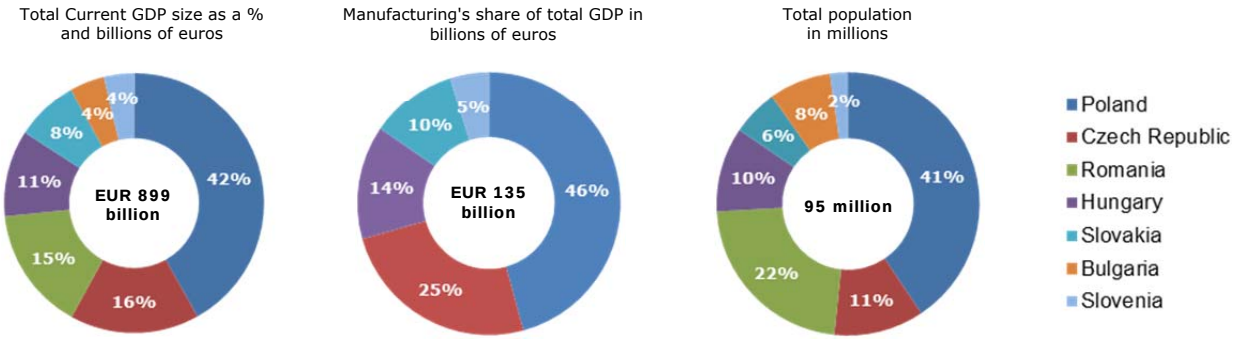
Figure 2: GDP (current prices) Compound Annual Growth Rate (CAGR) for 2009-2013 and estimate for 2014-2018 for selected Eastern European countries



Data source: IMF 2014, World Economic Outlook Database

The value of the GDP for the seven Eastern European countries covered by this document was estimated at €899 billion (or roughly one-tenth of the GDP value for the EU5 countries i.e. the biggest Western European economies: Germany, France, the UK, Italy and Spain) in 2013. Poland is the largest market in Eastern Europe, with a GDP of approximately €377 billion and a production value of €62 billion, accounting for more than 40% of the total GDP and production values for the seven Eastern European nations in question. The Czech Republic is the second largest Eastern European economy with a strong manufacturing base, followed by Romania and Hungary. Bulgaria and Slovenia are relatively small economies, together accounting for less than 10% of the total Eastern European GDP.

Figure 3: Key 2013 macroeconomic indicators for Eastern Europe, in billions of euros (population in millions)



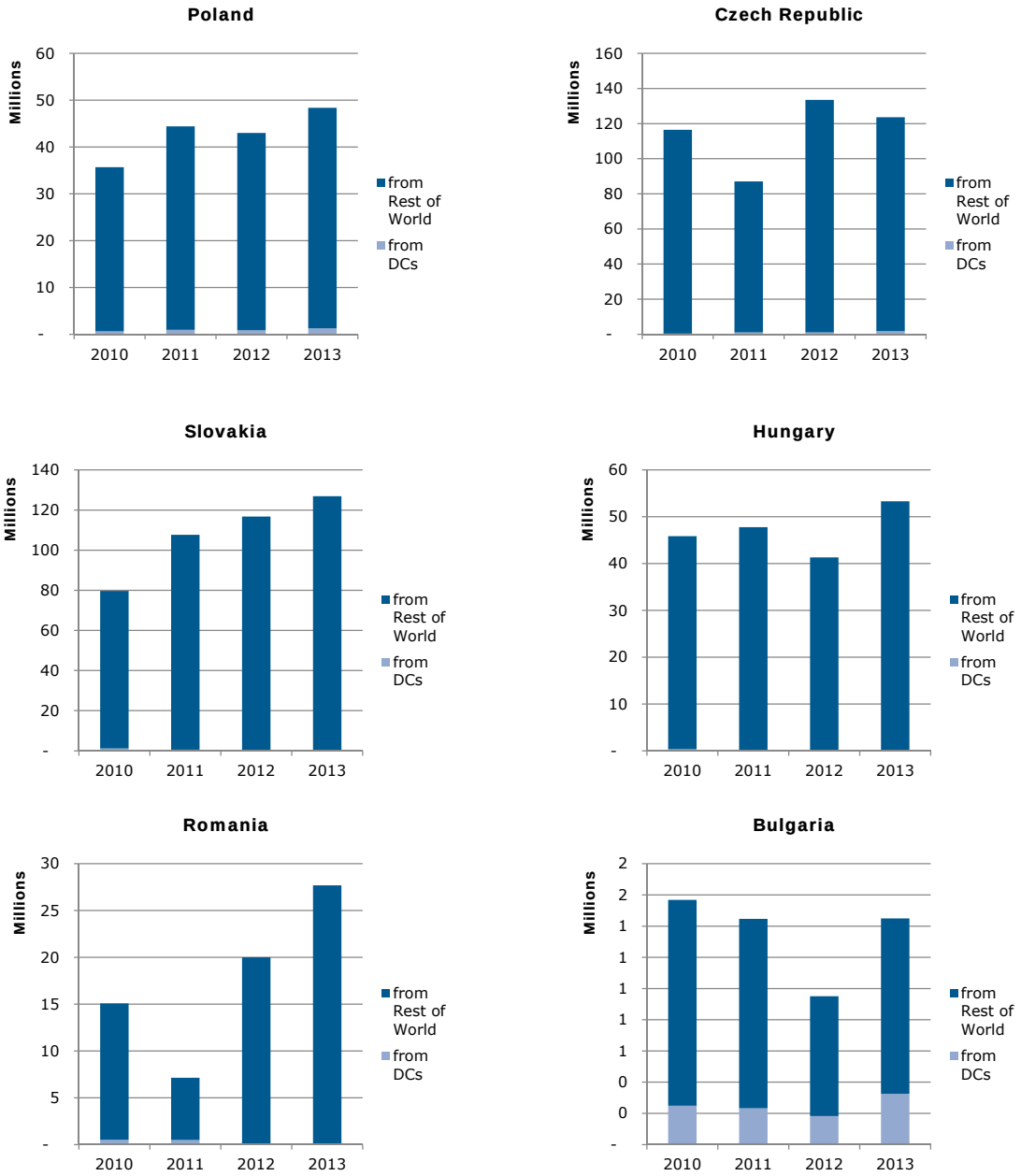
**No data available for Bulgaria and Romania*
Data source: IMF and OECD 2014

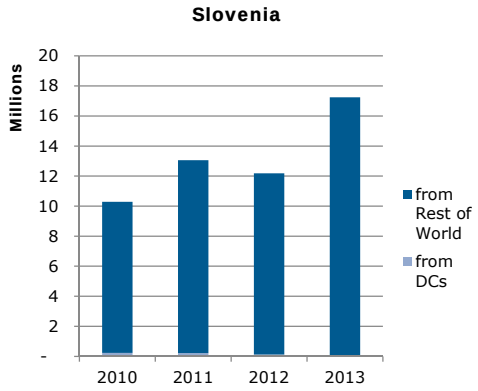
Trade Statistics

Imports and exports:
Eastern Europe imports roughly €399 million worth of exhaust systems. Taken together, the Czech Republic and Slovakia represent nearly 63% of the total imports of exhaust systems to Eastern Europe. The imported parts are shipped mainly from Eastern and Western Europe as well as other developed countries such as Korea.

The value of exhaust system imports from the Developing Countries (DCs) to Eastern Europe is currently minimal (less than 1% of all exhaust system imports in 2013), and it has been declining since 2010.

Figure 4: Total import of exhaust systems in Eastern European countries, 2010-2013, in millions of euros (the range of the y-axes varies by country due to different import levels)

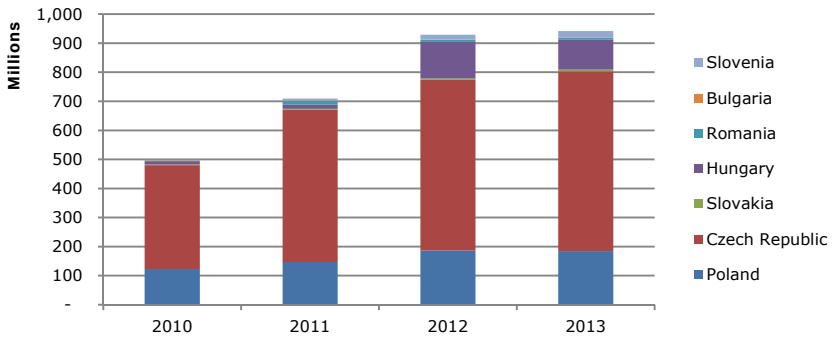




Data source: Eurostat 2014

Eastern European exhaust system exports are increasing at a high rate. Between 2010 and 2013 they almost doubled to €942 million (from €498 in 2010). The key destinations are Germany, the rest of the EU and Russia. Although the separate components related to exhaust systems are not included in these figure, their role in countries like Slovakia, Slovenia, Hungary and Romania is significant. It is interesting to note that Romania has an established export trade with respect to exhaust system parts to developing countries such as Morocco, Iran, India and Colombia, as opposed to the most common export destinations for Eastern European countries - the EU and Russia.

Figure 5: Total Export of exhaust systems from Eastern European countries, 2010-2013, in millions of euros



Data source: Eurostat 2014

Market trends and opportunities

Eastern Europe is in a prime position to capitalise on the decline in the European automotive market, with lower labour costs, a solid infrastructure and locations close to major Western European markets. Before the economic crisis started in 2008, many European OEMs invested in production sites across Eastern Europe. Few of these plants have been closed and production volumes have remained stable. Eastern Europe looks set to remain a strong hub of automotive manufacturing for the near future, although the risk does exist that OEMs may move people intensive operations to lower-cost regions, such as North Africa. This again provides an opportunity for DC exporters to do business with these countries.

The manufacture of exhaust systems is subject to strict requirements and can be a demanding process. The OEM market is dominated by well-established Tier 1 and Tier 2 players, and European legislation means that standards are very high. In addition,

logistical costs are high, as exhaust systems take up space during shipping and storage. So the most attractive countries for DC suppliers are not necessarily the major OEM markets of the Czech Republic and Slovakia, where a DC supplier would need to compete with well-established players that have a clear technical and logistical advantage. Instead, the aftermarket sectors of high-population countries such as Poland and Romania may provide opportunities for low-cost aftermarket exhaust systems that can also be supplied by non-branded DC suppliers.

The Czech Republic and Slovakia are the biggest import markets for exhaust systems in Eastern Europe, each with estimated imports of €125 million in 2013. While the imports to the Czech Republic have been growing at a low rate of 2% annually since 2010, in Slovakia growth over the same time period has been at a rate of almost 17% per year, making Slovakia well-positioned to become the biggest import market in Eastern Europe for exhaust systems. Hungary and Poland are mid-sized markets with roughly €50 million worth of exhaust system imports each. Bulgaria meanwhile has the highest share of brakes and brake parts imports originating from developing countries (roughly 22.5%), indicating willingness to source components from this part of the world.

For more information on automotive market trends and opportunities, please refer to CBI Trend Mapping for Automotive Parts and Components.

Price

Apart from the distribution of new parts, the aftermarket for automotive parts also encompasses the vigorous distribution of used or overhauled parts and components. Pricing depends on supply chain positioning. The aftermarket sector, in particular, is very discount-driven and has varied mark-ups at each distribution step for different parts and components. Due to the large variation in parts types and models, it is difficult to provide a general overview of exhaust system prices, but it is possible to provide some insight into the margins imposed by different players in the supply chain. Based on the margin ranges, DC suppliers selling to a tier 3 supplier in the OEM supply chain could price their products at between 64% and 81% of the OEM delivery price.

OEM supply chain	Margin
Tier 1 supplier delivering to OEM	6-8%
Tier 2 supplier delivering to tier 1	6-15%
Tier 3 supplier delivering to tier 2	10-25%
Aftermarket OES supply chain	**Margin**
Tier 1 delivering to OEM for OES sales through approved service chain	10-30%
Tier 1 delivering to OEM for OES sales through independent outlets	10-25%
OEM delivering OES parts through its approved service chain	25-65%
OEM delivering OES parts through independent outlets	30-50%

In order to better ascertain prices of specific products and models, check the internet to determine the appropriate range, or talk directly to wholesalers and/or retailers. The price of branded spare parts will not differ greatly among the various countries. Those players who are active in several European countries have largely harmonised their prices, and any differences in pricing may be because of different logistical and local costs. In the Original Equipment sector, the price is set by contracts of four years or more, which usually include a 3-5% price reduction each year after the first year. In the aftermarket sector, the prices are negotiated every year.

Main sources

- European Commission's macroeconomic publications
- IMF – a good source for macroeconomic information
- OECD – a good source for macroeconomic and industry-specific information
- European Commission's Directives and Regulations pertaining to motor vehicles, their trailers, systems and components
- CLEPA - the European Association of Automotive Suppliers

- ACEA - the European Automobile Manufacturers Association
- Ernst & Young's Automotive information - Automotive information – a good source of automotive information
- Ernst & Young's European Automotive Survey 2013 – interviews mostly with automotive suppliers
- Inovev - Worldwide automotive knowledge platform that offers free-of-charge and fee-based content
- Trade fairs are a good place to network, to meet buyers and to promote your company. The most prominent automotive trade fairs in Eastern Europe are: the Sofia Motor Show (site in Bulgarian) – Bulgarian automotive trade fair; Motor Show Poznań – Polish automotive trade fair; Bucharest Auto Show and Accessories - Romanian automotive trade fair; AUTOSALON Brno - Czech automotive trade fair; Autosalon Bratislava (annual) - Slovak automotive trade fair

More information
CBI market information:

- CBI Buyer Requirements: Automotive Parts and Components
- CBI Buyers' Black Box: Automotive Parts and Components
- CBI Market Channels and Segments Automotive Parts and Components
- CBI Market Competitiveness Automotive Parts and Components

This survey was compiled for CBI by the Global Intelligence Alliance