CBI
Ministry of Foreign Affairs

Exporting metal parts and components to Europe

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CBI Trends:

Metal Parts and Components in Europe

Introduction

The main opportunity for exporters from Developing Countries lies in the provision of solutions for European buyers. Although competition remains fierce, exporters offering competitive prices combined with reliable delivery, flexibility and compliance with corporate social responsibility (CSR) and other new supplier evaluation criteria will be in the best position to benefit.

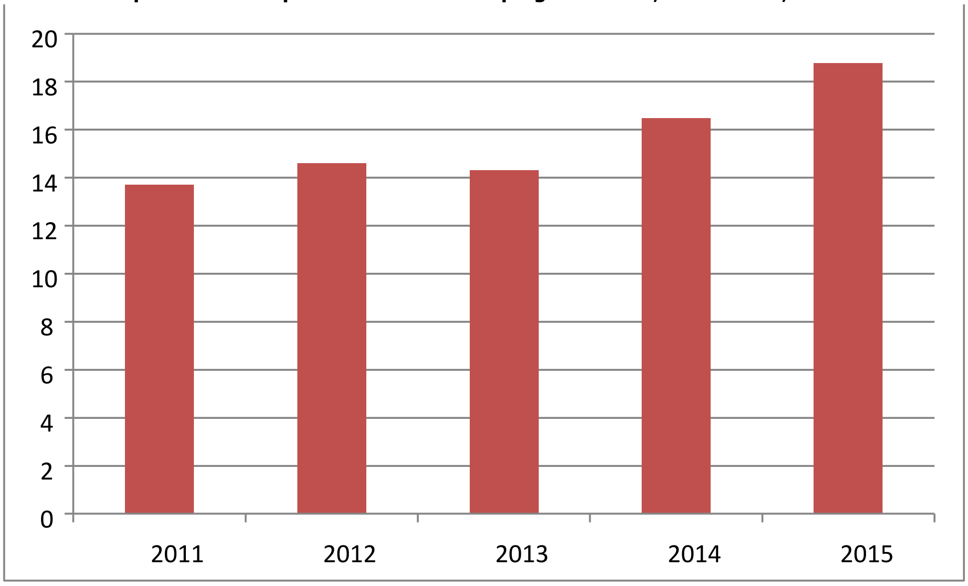
More imports from Developing Countries

The market for metal parts and components from Developing Countries in Europe has shown positive developments. As Figure 1 shows, the import of these goods has increased considerably in recent years to almost €19 billion in 2016. Note that Chinese exports are included in the figures for Developing Country imports.

Some highlights:

- ***The main importing countries of metal parts and components from Developing Countries are 1) Germany, 2) France, 3) the United Kingdom, 4) Italy and 5) Poland.***
- ***Countries that experienced high growth in imports from Developing Countries are Germany, the UK, Poland, the Netherlands, Spain, France and Italy.***
- ***The main importing country is Germany. This country accounted for almost a quarter of the total imports from Developing Countries in 2015.***
- ***The share of Developing Countries in European imports increased from 13% in 2011 to 16% in 2015. China accounted for 2% of the increase. In 2015, China accounted for 66% of total European imports from Developing Countries, while Turkey, India and Vietnam accounted for the largest part of the remainder. Serbia, Bosnia and Herzegovina and Indonesia also experienced strong growth.***

Figure 1: European imports of metal parts and components from Developing Countries, 2011-2015, in € billion

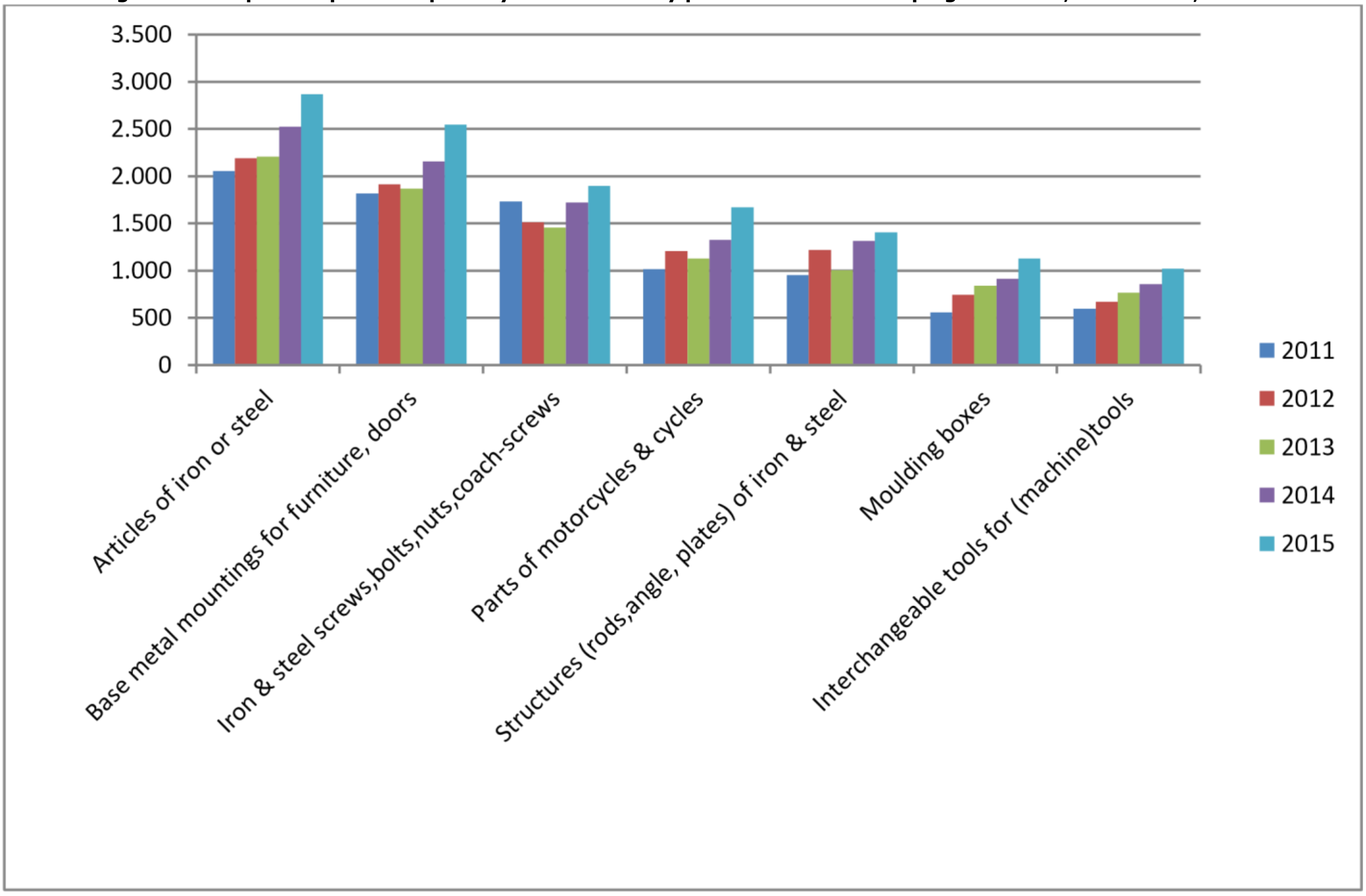


Source: Trademap

An analysis of the European imports of metal parts and components shows that:

- ***There are 17 chapters (out of 32 in total) in the Harmonized System Nomenclature for which Europe imports more than €200 million from Developing Countries.***
- ***Seven chapters account for more than €1 billion of trade, shown in Figure 2. All of these chapters consist of both specialty and commodity products, although certain chapters have a relatively high share of commodity products (e.g. base metal mountings and screws and bolts).***

Figure 2: European imports of specialty and commodity products from Developing Countries, 2011-2015, in € million



In the next few years, it is expected that demand for products from Developing Countries will remain steady in the following chapters: (cast or other) articles of iron or steel and base metal mountings. In addition, high relative growth is expected for:

- ***Dies and moulds and moulding boxes,***
- ***Aluminium structures & parts of structures***
- ***Interchangeable tools for (machine) tools***
- ***Parts of motorcycles & cycles***
- ***Parts of railway or tramway locomotives or rolling stock Base metal mountings for furniture and doors Articles of iron or steel.***

Tips:

- Germany, France and the United Kingdom will continue to be the leading import destinations for Developing Countries in the next few years. Therefore, these countries offer good opportunities to Developing Country exporters. However, you should realise that these are mature markets, and are therefore relatively difficult to enter.
- Dies and moulds and moulding boxes will continue to be on the list of top-performing products. Developing Country producers who can export these products (and the other

products mentioned in the previous section) to Europe continue to have good opportunities.

- There is a growing interest in Asia, not only in terms of supply but also increasingly in terms of markets. European companies are looking more and more for partners in Asia who can play a role in both the supply and the sales of parts and products.

Lower product pricing as result of low raw material costs

In 2015, the global raw material industry was intensely affected by the worldwide overcapacity of oil, steel and aluminium, the strong US dollar and rising distrust in future demand in China. Prices for raw materials such as steel and basic metals decreased heavily. Due to these falling raw materials prices, industrial products were impacted severely as the sales prices of these goods continued to decrease in 2015.

Although the global raw material industry has still struggled in the first half of 2016, it is expected that positive developments will occur in 2016. These positive developments will primarily come from economic recovery in China, a country that plays a major role in the international steel marketplace. Moreover, the consolidation process of the global metals industry is still ongoing. This will lead to the slow recovery of most commodity prices in the coming year, resulting in a slow improvement of sales prices for industrial goods, including metal parts and components.

Chinese switch to specialties was expected, but is hardly visible in Europe

In the past, China has gained most of its market share by exporting low-added-value series-produced products such as manhole covers. For several years industry peers have expected that a growing number of Chinese foundries would increasingly sell specialties to European buyers. However, this has not occurred to the extent previously expected. It is highly questionable whether Chinese foundries will manage to export more specialties to Europe in the coming years, as there are good sourcing alternatives in Central and Eastern Europe, for example.

Competition from China certainly does not make it easier for Developing Country specialty exporters to sell their products to European buyers. At the same time, if the competition does not come from China, then it must come from another place, such as Central and Eastern Europe.

European customers want flexibility

Economic uncertainties and the rising cost of credit in the period from 2009-2014 have led European companies to reduce their stock levels and order lead times year-on-year. These measures have allowed them to reduce their working capital requirements, and thus their overall operating costs. Although the recent decrease in credit costs and metal and steel prices have alleviated the pain to some extent, this trend will continue to impact trade in metal parts and components in the coming years.

In 2016, business in Europe is conducted as follows: companies wait until the last moment before placing orders. They want to receive the products they order as quickly as possible, and at the same time they pay late. This presents opportunities for nearby countries, such as those in the Balkan region or in Central and Eastern Europe. Suppliers in these countries are able to deliver products to European buyers relatively quickly because of the relatively short distances involved. At the same time, it represents a threat to exporters from overseas countries far removed from Europe.

Tips:

- More frequent deliveries can make exporters more attractive for European buyers, but only if they are able to provide the right flow of deliveries at the correct time without generating high stock levels and transport costs within the supply chain.
- Implement flexible logistic concepts (e.g. lean manufacturing, just-in-time delivery, constraint management), or find a distributor with stockholding capability.
- Try to connect the buyer’s enterprise resource planning (ERP) system to your own ERP. This will help you to respond to buyers’ demands more flexibly.
- Implement flexible production concepts so that you can produce smaller batches profitably.
- Improve or maintain your reliability:
- Maintain sustainable trading relationships (do business with *people* and not with companies).
- Organise regular face-to-face meetings (at least twice a year).
- Keep the buyer informed about order progress. In particular, let them know about problems as soon as possible.
- Form alliances, industry associations or export associations to work together on export and logistics challenges.

Supplier evaluation criteria are getting stricter

European buyers have increasingly shifted their focus from initial purchasing costs to all costs involved in sourcing. This is also called "Total Cost of Ownership" or TCO. Every year, more European buyers shift their focus to TCO. This means that they are increasingly looking beyond the invoice value and starting to examine costs related to energy, quality, risks and similar factors. They start to implement the principles of LEAN manufacturing and also LEAN supply chain management. This poses a new challenge to Developing Country exporters. However, exporters who manage to meet the new supplier evaluation criteria will achieve a real competitive edge.

To deal with this development, the metalworking companies in Europe supplying metal parts and components to buyers are increasingly automating their production processes. This enables them to reduce their labour force and increase the overall quality level, for example by making use of 5-axis CNC machining and robots. These changes also allow them to continue to meet the supplier evaluation criteria set by their European customers.

Tips:

- Let buyers know about your capabilities and your ability to meet their evaluation criteria. Be honest and realistic about what you can and cannot do. Keep track of your performance and pass this information on to your buyer or prospective buyer. For example, let them know about your quality performance in relation to mass production quality, defect rates (e.g. 2 parts per million), certification and sample quality. Alternatively, you can demonstrate your delivery performance relative to criteria for delivery times, quantity reliability and buyer satisfaction.
- Implement the principles of LEAN production and LEAN supply chain management with your suppliers and customers.
- Play a proactive role in your buyers' supplier development programmes.
- Manage and meet buyer expectations.
- See our study about Top 10 Tips for Doing Business with European Buyers for more information.

Engineering design services will pay off

Innovation in relation to metal parts and components has so far mainly focused on reducing material consumption and improving functionality, for example by casting or forging a component without the need for additional machining (which is inevitably wasteful).

Certification against ISO14001 – Environmental Management is also increasingly requested by customers. An important element of ISO14001 is energy-based life cycle assessment. The metalworking industry has increasingly used energybased life cycle assessment to develop optimal manufacturing processes. Such assessment takes many factors into account, for instance optimum energy and material consumption together with recycling. The recent focus on making European economies more sustainable will continue to influence product design and the design and engineering of metal parts and components. It also impacts the whole metal supply chain, as the increasing requirement of ISO14001 by large companies sometimes goes further than only the direct supplier.

Tips:

- Show commitment to the environment by making your production process as sustainable as possible. Also look at the opportunities for Certification against ISO14001 – Environmental Management. Use this approach to achieve a competitive edge.
- Mention your engineering design services and other services in your marketing material (website and literature) to differentiate your company from competitors.
- Learn from others by reading relevant publications (such as Metal Working World) or news from leading companies. For example, Componenta has published details of the advances it has made in reducing the weight of machine parts by replacing welded machine parts with innovative cast components.

CSR is an effective unique selling proposition

Corporate social responsibility (CSR) will become the norm in the metal industry, though it may take decades to achieve this. As a result, a growing number of European companies will prefer to deal exclusively with foreign companies that have a CSR policy in line with their own. In the long term, CSR is expected to become a fundamental selection criterion for new suppliers to Europe. Exporters who have implemented a solid CSR policy can use this as a unique selling point.
In the metal parts and components, the focus of CSR strategies has primarily been on human rights and labour conditions.

Tips:

- Show commitment to CSR, and use it to increase your competitive edge.
- Implement CSR as part of your company's culture, provide evidence to back up this claim and tell people about it in your marketing material. Don't wait to be asked; go ahead and offer it.
- Mention your CSR compliance in your marketing material (website and publications) in order to stand out from competitors.

CBI Buyer Requirements:

Metal parts in Europe

Introduction

For Developing Country exporters, the product and production process is subject to three types of requirements:

- ***Musts: legal and non-legal requirements you must meet in order to enter the market.***
- ***Additional requirements: relatively common requirements that most of your competitors have already implemented. In other words, the ones you need to comply with in order to keep up with the market.***
- ***Niche market requirements for specific segments.***

What legal and non-legal requirements must your product comply with?

For most imports of metal parts from Developing Countries, the most important requirements are non-legal. They can be those put in place by the public sector (such as standardisation bodies), or can be industry-led requirements (such as buyer requirements and private standards).

Quality management.

ISO certification is an international requirement that is crucial, as EU players request it. ISO 9001 is a quality management system that is very common, and if you have not done so already, you will need to implement this quality management system and get your certification.

Tip:

- Make sure you have your ISO certification, preferably through an internationally recognised body, as this offers more credibility towards European buyers.

Implement Six Sigma and lean manufacturing to keep up.

Six Sigma and lean production are now crucial requirements demanded by EU buyers. You are advised to implement them in order to remain competitive in the EU marketplace. These methods are management strategies aimed at:

- ***Six Sigma: improving the quality and results of business processes by reducing the standard deviation and increasing process predictability.***
- ***Lean manufacturing: avoiding sending money and resources for any goal other than creating value for the consumer.***

Tip:

- Implementing Six Sigma and lean manufacturing should not only be seen as complying with requirements. These approaches will also help you improve your performance on cost, speed, delivery times and reliability.

Compliance with voluntary standards for quality and safety

Buyers often ask their suppliers to deliver products according to voluntary standards. The large number of different standards makes it hard to determine which ones are applicable and relevant. The standards are often harmonised, overlap and/or complement each other. Which one is the best to follow will depend on your specific situation (e.g. product and market(s) you want to target). In Europe, the following standards are most prevalent:

- ***ISO standards: recognised worldwide and cover a wide variety of products.***
- ***EN-standards: developed by the European Committee for Standardisation and are harmonised throughout the EU.***

ISO standards are often harmonised with EN-standards and published as EN-standards.

- ***National standards: developed by standardisation bodies in EU member states and only asked for and relevant in the specific EU member state. ISO and EN-standards are more common, but some buyers will still work with national product standards.***

Tips:

- source of information once you have Be sure that you understand all standards applicable in a country, or mentioned in an inquiry, before making an offer.
- For more information about specific standards, see our factsheets about specific products, such as aerospace parts.
- Every successful company needs a good compliance strategy. Determine which quality standards are most suitable for the product and market(s) you want to target. EU standardisation bodies are a good done some research.

What legal requirements must your product comply with?

For metal parts and components in general, no specific legal requirements apply. There are, however, three exceptions: parts intended for use in the construction industry, motor vehicles and railway systems.

Also, the Liability for defective products (Directive 85/374/EEC) in fact refers to finished products. The Product Liability Directive states that the European importer is liable for the products put on the European market. In principle, however, the European importer can on a claim to the producer/exporter.

Other general legislation that must be taken into account:

- ***Wood packaging materials used for transport (including dunnage) (Directive 2000/29/EC): Europe sets requirements for wood packaging materials such as packing cases, boxes, crates, drums, pallets, box pallets and dunnage (wood used to wedge and support non-wood cargo).***
- ***Another packaging-related directive is the general directive about packaging and packaging waste (Directive 94/62/EC). This directive prescribes the marking of the kind of packaging material used, and the maximum levels of heavy metals in the packaging material.***

Tips:

- Identify which directives and standards are applicable to your product(s). Identify your product code in the [EU Export Helpdesk] and get an overview of all legal requirements applicable.
- Note that there are general requirements (non-product-specific legislation) on [packaging] and [liability] that apply to all goods marketed in Europe.

What additional requirements do buyers often have?

Environmental performance .

Environmental performance and energy efficiency are some of the issues (potential) EU buyers pay attention to. An increasing number of buyers are looking for green manufacturing methods and stay away from polluting processes wherever possible. On the other hand, energy-saving concepts will get the attention of an EU buyer, as this is what the market is looking for. The extent to which buyers include environmental performance and energy efficiency in their sourcing criteria varies greatly. Most companies that consider this have set up definitions which are made available to potential suppliers.

The environmental management system ISO 14001 is becoming increasingly common. You may therefore consider this system in order to keep up with your competitors. However, ISO 14001 alone will not give you a competitive edge, as many players have already implemented it.

Tip:

- Consider taking an eco-design approach by giving attention to the environmental impacts of the product during its whole lifecycle. Several ideas include: dismantling of parts of final product(s) for later re-use or recycling, lower usage of raw materials, avoidance of mixtures of materials that are difficult to separate and avoidance of hazardous substances/materials.

What are the requirements for niche markets?

Metal parts for food processing equipment.

For metal parts that come into contact with food (thus, metal parts applied in food processing equipment), specific legal health control provisions apply (EC) No 2023/2006).

Tip:

- See our study on metal parts for food processing equipment for more information.

CSR – a diverse picture.

EU companies are increasingly looking at corporate social responsibility (CSR). CSR considers the three Ps: planet (i.e. environmental performance), people and profit. EU companies will have varying degrees and ambition levels of sustainability.

Some companies will (initially) strictly focus on their own operations. Others also look at the CSR performance of their direct suppliers, and in some cases (especially with important issues) the entire supply chain. In these cases suppliers can be asked to comply with supplier's codes of conduct and/or be assessed.

Some companies will even audit their suppliers on CSR and base their selection on this score. The weighting may be as high as 30% of the audit score. On the other hand, there are companies that have not (yet) included CSR in their weighting at all, with the key indicators for relevance lying in brand strength and awareness. Therefore, products sold in the consumer market are more likely to be sold taking CSR into account.

Important CSR issues in the metal parts sector relate to sourcing raw materials, respecting human rights and land rights, ensuring healthy and safe working conditions and focusing on environmental performance. Other CSR issues that can be of importance will depend on the specific issues that are in play in your particular sector, country or region. EU buyers will aim to show due diligence, meaning they will take necessary steps to avoid implications in CSR violations. Part of this can involve making a risk assessment when buying from regions where CSR issues are likely to occur.

Tips:

- Inform yourself about the CSR requirements of your (potential) buyers by checking their website or CSR reports for statements about supplier codes, codes of conduct and the general vision and objectives. See World Steel Association for more information about its sustainability policy. Its members represent about 85% of world steel production. On the members page of the Association, you can find CSR and sustainability reports showing how large multinationals address sustainability issues.
- Regardless of whether your buyers are asking for compliance with CSR issues, it is advised that you address sustainability issues. These issues will become more important in the coming years, and a professional attitude will help you to maintain and find new buyers.
- Certain European partners may also consider certification an added value. In this case, SA8000 on social accountability, or OHSAS 18001 on occupational health and safety may provide a competitive advantage.
- To find out which CSR issues are relevant for your country, refer to the country maps on the websites of UN Global Compact (Human rights), the International Labour Organisation (labour standards including health & safety), Transparency Index (corruption) and Environmental Performance Index (environment). You will have to do more research to determine whether these issues are relevant for your company. Include suppliers in this process and take steps if necessary. CSR Netherlands has developed a tool with which you can find CSR issues that apply to your product and country specifically. Please be aware that none of these sources provide information that is complete and/or specific enough for your situation, and should therefore be considered a starting point. Do more research, include suppliers in this process and take steps if necessary.

CBI Channels and Segments:

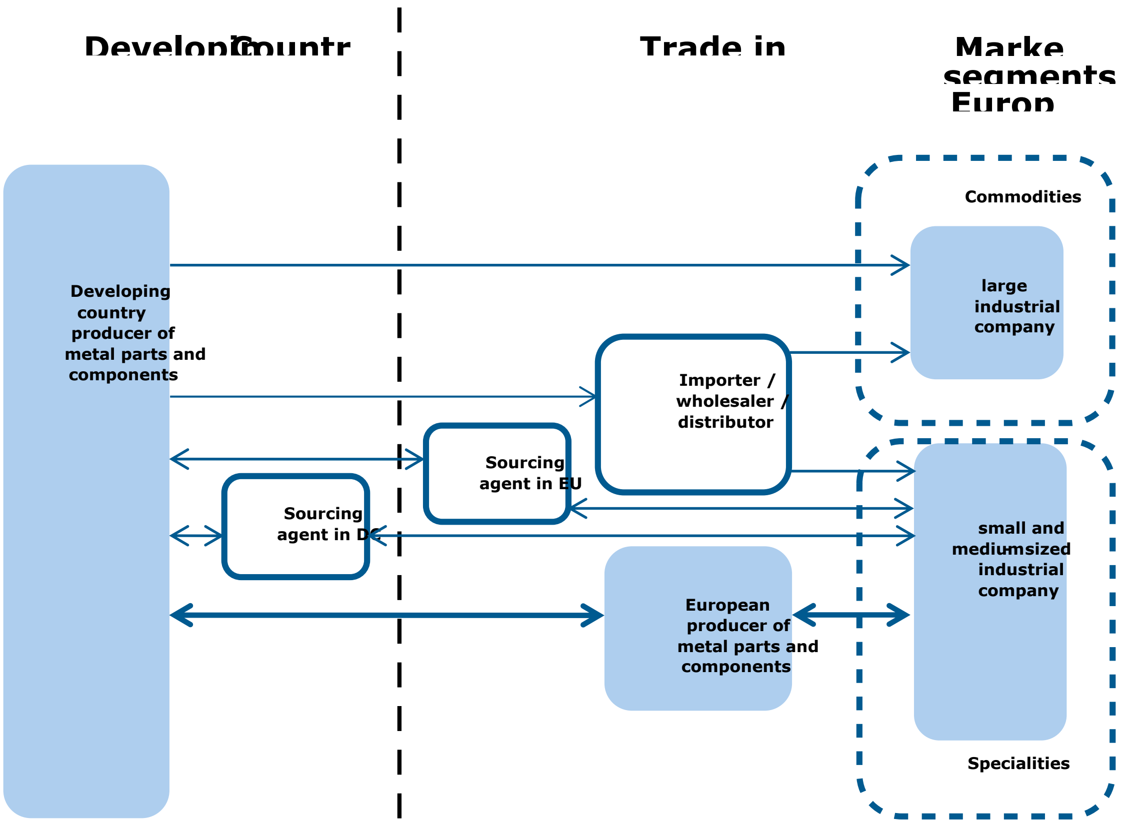
Metal Parts and Components in Europe

Introduction

Developing Country manufacturers of tailor-made metal parts and components (specialties) should focus on subcontracting for or partnering with European producers who operate in the same field. Other options for entry to the European market include sourcing agents and importers. In the case of commodities, Developing Country exporters can choose between indirect trade via importers, and direct trade with large industrial companies in Europe.

Market channels

Figure 1: Trade structure for metal parts and components in Europe



Source: Interviews with industry experts (2012-2015)

Sourcing agent in Developing Country

- **Offers logistics, marketing and communication services for companies wishing to source from this specific country or region.**
- **Sourcing agents match supply in Developing Countries with demand in Europe.**
- **For exporters of commodity products (which are large volume products that can be kept in stock and are available on demand) from Developing Countries, a sourcing agent can help to keep the focus on production. In the case of specialty products, there will be more communication with the final customer. Because the sourcing agent will not be able to deal with all technical application specific issues.**
- **China and India are home to sourcing agents. In other Developing Countries, these agents are hard to find.**
- **They have a thorough knowledge of production capabilities and the capacities of suppliers of metal parts and components in their country.**
- **Sometimes the sourcing agent in a Developing Country also supports a European company in the search for a reliable partner in a Developing Country.**

Sourcing agent in Europe

- **Offers logistics, marketing and communication services for suppliers wishing to find customers in a specific target market in Europe.**
- **In the case of commodity products, the only thing a Developing Country exporter has to focus on is production. In the case of specialty products, there will be more communication with the final customer because the sourcing agent will not be able to deal with all technical application-specific issues.**
- **Sourcing agents can be seen as match-makers, especially for specialties. European companies which are not satisfied with their current supplier may contact the sourcing agent, seeking a solution for their problem. In turn, the sourcing agent could then make use of sourcing agents in Developing Countries. Together they can define the best sourcing solution for the product. Sourcing agents are also an interesting option for European companies that are unfamiliar with global sourcing.**
- **Most sourcing agents have several suppliers, enabling them to offer the buyer the best solution.**
- **Usually, the sourcing agent does not hold stock. However, in some cases sourcing agents are asked by their buyers to hold (some) stock in order to be able to supply them faster.**
- **A sourcing agent and an importer are not the same, as there are differences in responsibilities and margins.**

Importer/wholesaler/distributor

- **These intermediaries are attractive targets for Developing Country exporters. This is because they import large volumes of commodity-type products on a scheduled basis. Examples of commodities are fittings and flanges, screws, bolts and nuts, springs and base metal mountings.**
- **Importers have several suppliers for a wide range of products.**
- **In most cases, the European companies in this group can be characterised as distributors. They not only stock the product, but also distribute the products to customers. At the same time, they also have an import function.**
- **Importers buy on their own account, and their activities increasingly focus on additional services around the product itself, such as marketing, quality assurance, sourcing and transferring knowledge, stock keeping, fast delivery and after-sales service.**

Producer of metal parts and components (subcontracting)

- **These companies offer strong potential for the supply of most metal parts and components. This is logical as metal parts and components tend to be specialties and the majority of trade therefore takes place directly. Directly also means: without the involvement of any intermediaries.**
- **Subcontracting takes place according to the buyers' specifications.**
- **An advantage of subcontracting is that the Developing Country exporter only requires a little exporting experience.**
- **The willingness of producers to form subcontractor relationships with Developing Country exporters differs from country to country. Generally speaking, German companies take the lead in Europe in this area and, in several cases, have formed joint ventures with Developing Countries exporters.**
- **Subcontracting often concerns labour-intensive production.**

Large industrial company

- **Large industrial companies in Europe buy parts and components and produce modules (sub-assembly) or finished products.**
- **These companies buy commodities from intermediaries or directly (commodities and sometimes specialties in high volumes) from producers both in and outside Europe, and specialties directly from European and sometimes Developing Country producers.**
- **Some of these companies have their own International Purchasing Offices (IPOs) in Developing Countries, and exporters have to deal with the local IPO team.**
- **Quality and reliability are major selection criteria. Several large industrial companies manage supplier selection programmes with strict selection criteria. These companies know that starting a new supplier relationship takes time and effort on both sides and that quality failures may occur in the first few months.**

- **Large industrial companies can be potential partners for Developing Country exporters of commodities if the European company needs large volumes of these commodities.**

Tips:

- As there are many ways of exporting, it is important to choose your partner carefully depending on your strategy.
- It is recommended to cooperate with European producers of metal parts and components (subcontracting), as these companies offer strong potential for your supply.
- European companies often not only look for a company with supplying capacities, but also increasingly seek partners who are able to market and sell products made in Europe as well. Developing Country producers who are able to meet these specifications certainly improve their possibilities.

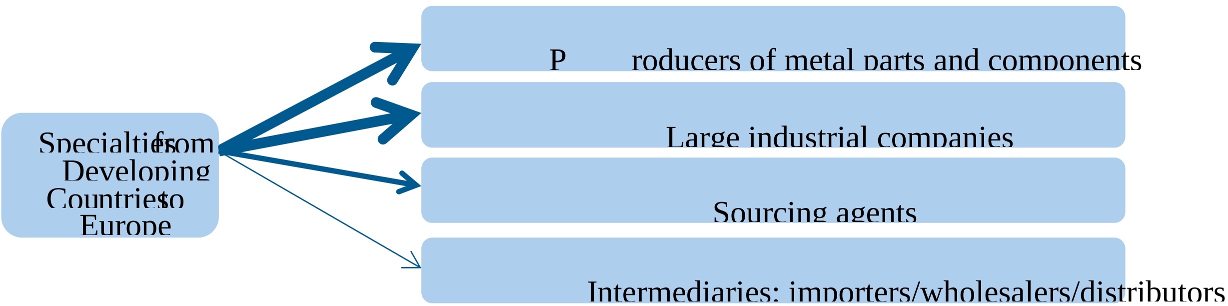
Market segments: specialties and commodities

In general, the market for metal parts and components can be divided into specialties and commodities. Since specialties offer the best opportunities for most Developing Country producers, the focus here is on specialties.

Specialties

Specialties are parts made according to the buyer's specifications. Since specialties are tailored to the needs of the buyer, they are not so suitable for holding in stock. More than 90% of all metal parts and components are specialties. Mainly China and India have started to tap into this market in recent years, but their market shares are still relatively limited, leaving clear opportunities for exporters from other Developing Countries.

Figure 2: Segmentation of the Specialties market



Source: Globally Cool (2012)

The main characteristics of this market will remain as follows in the short to medium term:

- **The buyer specifies product requirements.**
- **Buyers are European producers of products who require metal parts and components (and may also be large industrial companies), sourcing agents and intermediaries.**
- **Intermediaries have a low market share (less than 5%), while direct trade with European producers of endproducts and of metal parts and components represent quite a large proportion of all transactions (about 75%). Sourcing agents account for about 20% of trade.**
- **Margins are higher than for commodities, the precise level depending on the level of care and attention required by the product and the costs and risks involved in the sourcing process.**

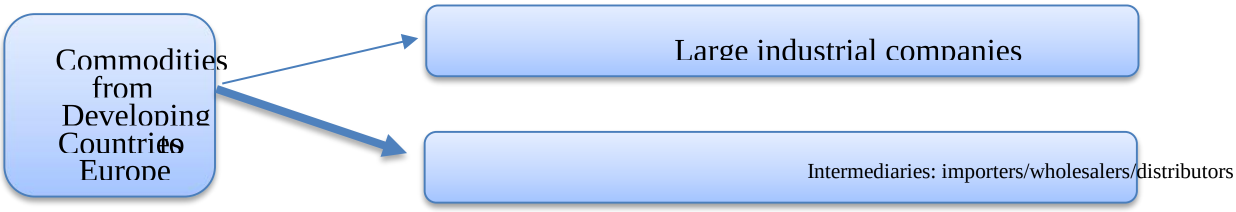
Tips:

- Improve your export sales and marketing skills. Use a European style of marketing, follow up quickly on initial opportunities and be honest about your capabilities. Also build strong relationships with customers, keep in touch and meet with each other every year.
- Focus on a limited number of specialties targeted at specific market segments. Pick out one or two of your products, core technologies or services that are truly unique and in which you have a competitive edge.
- Offer the “best costs of ownership”. This means the best quality/price ratio for your product and your delivery performance.
- Establish your company as a benchmark for your industry peers.

Commodities

Sales of commodities such as mainstream fasteners and base metal mountings accounts for approximately 10% of the total market. China often dominates the commodity markets in Europe and competes mainly on price, leaving limited opportunities for other Developing Countries.

Figure 3: Segmentation of the commodities market



Source: Globally Cool (2012)

The main characteristics of this market will remain as follows in the medium term:
High degree of rivalry between the many Developing Country exporters in the market, particularly from China. This leads to price competition.
Only 25% of trade in Europe is direct trade, the rest is indirect trade.
Margins are relatively low with an average of 5-10%. They reflect the level of care and attention an intermediary has to give to the sales and handling process. Products that do not need much extra care, such as finished and ready-to-use products, will be sold with a smaller margin than products that need extra handling or even need to be stored.

Tips:

- Exporters from Developing Countries should find a way to escape from commodity products within their market, focusing on specialty products instead. For example, fastener producers should focus on exports of specialty fasteners.
- Think of ways to get support from CBI or a local industry association.

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CBI Competition:

Metal parts and components:

Iron and Steel Castings in Europe

Introduction

The iron and steel castings industry is diverse. Consequently, buyer power ranges from very high to extremely low. Buyers appreciate sound relationships with foundries and do not switch easily. Competition in the European market is expected to intensify slightly in the next few years, as more foundries from Developing Countries will meet European requirements every year and start to export to Europe.

The price level of European foundries remains high. Developing Country suppliers of castings as well as other metal parts and components will thus be in a good position if they can offer prices at least 25% lower than their European counterparts. If this is not the case, European buyers will not perceive any benefit in switching to new Developing Country suppliers, unless they face quality or delivery problems with their current suppliers.

For Developing Country exporters it is important to strategize: if you cannot be competitive in terms of price, you could look for success in the delivery of specialty products.

More competition from supplying countries outside Europe

The foundry industry in Europe is dominated by Germany, Spain, France, Italy, Turkey and Poland.
Together these countries account for almost 85% of ferrous metal castings production in Europe. Non-ferrous metal castings production is even more concentrated; Germany and Italy alone account for more than 50%.

Looking at leading suppliers to Europe in the category of metal parts and components (there are no details for iron and steel castings) shows the following: Germany is the leading supplier, accounting for more than 20% (with a value of more than €25 billion) of total supplies to Europe. Germany is followed by China (11% share) and Italy (8% share). The following countries round out the top ten: Czech Republic, Poland, Austria and France (each with a 4% share)
Spain, the Netherlands, Switzerland, United States of America and Taiwan (each with a 3% share)

With a share in European supplies of 11% (or €12.5 billion), China is the largest exporter to Europe from the group of Developing Countries. This is mainly due to its ability to offer competitive prices. China and 12 other countries (listed below according to share size) add up to 97.5% of all European imports of metal parts and

components from Developing Countries. These figures are more or less the same for iron and steel castings. However, exact figures for that category are not available.
Turkey (good for 1.7% of European imports, equal to €2.0 billion)
India (1.1% share, €1.3 billion)
Vietnam (0.4% share, €497 million)
Malaysia and Thailand (each with a 0.3% share, €365 and 370 million respectively)
Serbia, Bosnia and Herzegovina, Tunisia (0.2% share)

Mexico, Indonesia, South Africa (0.1% share)The strongest growth in exports to Europe was realised by Indonesia (+18% on average per year in the period 2011-2015), Vietnam (+17%), Bosnia and Herzegovina (+14%) and China (+9.6%).

Tips:

- Most metal parts and components, including cast articles made of iron or steel, are imported from countries with relatively well-developed metal industries, like India and China. Producers from these and other Developing Countries only have opportunities if they meet strict European requirements in terms of quality and price.
- Manufacturers in South Eastern European countries such as Bosnia and Serbia should benefit from the relatively short transport distance to the rest of Europe.

Market entry: A few more Developing Country exporters will qualify for entry to the European market in the next decade

It is expected that a certain number of foundries from Developing Countries will manage to meet European quality standards each year in the coming years. This trend is the result of ongoing European buyer interest in Developing Country suppliers, which encourages these suppliers to invest time, effort and money in achieving compliance with European quality standards.

Several of these foundries will focus on quality products, which appeal more to European buyers. However, European buyers will only be interested if Developing Country foundries can offer a price advantage of at least 25% compared with their local (European) suppliers. This is necessary to cover the European buyer's costs and the risks involved in global sourcing. Or, if the current supplier is already in a Developing Country, then the savings must be 5-10% or it will not be attractive enough to switch.

There are no specific legal requirements for iron and steel castings in general, though there may be legal requirements related to the product a part is used in. These could be general product safety requirements or specific requirements such as CE marking. Some industries with specific legal requirements for products and their parts are the construction industry, the automotive industry and the rail industry. Another example is the aerospace industry: getting European airworthiness certification (EASA approval) for processes and parts is particularly demanding for suppliers in this field.

Tariffs vary depending on the HS code under which a casting is classified. For example, the tariff for agricultural equipment parts is 0%. Tariffs for other parts can be much higher, but several countries may benefit from a preferential 0% tariff.

Tips:

- The CBI website offers more insights on European buyer requirements.
- Offer European buyers the “best costs of ownership”. This means the best price/quality ratio for your product and its delivery.
- The ITCs Market Access Map provides you with information on gaining access to global and European markets.
- The TARIC database gives more details on EU import tariffs. Note that it is only possible to claim a preferential tariff treatment if you have a Certificate of Origin.
- Through partnerships with European buyers these buyers may support you to meet the quality standards.

Product competition: Material requirements are set to rise in the medium to long term

Substitution is not one of the main issues in the foundry industry, as the unique characteristics of iron and steel make substitution difficult. However, substitution has been observed in some sectors, such as the automotive industry. Metal parts have been replaced by plastic parts in cars where possible, but the main risk of substitution is that more stringent material requirements are likely to be in place in the medium and long term.

Company competition

Buyer power: Buyers prefer to stay with reliable suppliers

The relationship between foundries and buyers will continue to be very important in the coming years. Although switching costs seem to be low because moulds are usually owned by the buyer, it is most likely that switching to another foundry also requires investments in new tooling, dies or moulds, as well as building a new relationship. Hence, buyers prefer to stay with suppliers they have found to be reliable. This makes it difficult for Developing Country exporters to start trading with European buyers. At the same time, however, it offers opportunities for a reliable and long-term trading relationship.

Concerns about product quality also depend on the reputation of the country of origin of the castings. For example, many companies still think that castings produced in Chinese foundries are not of the same quality as those produced in Europe. European foundries have built up a lead in speciality castings which require complex designs, minimal tolerances and strict material specifications.

Tips:

- Improve your process quality by implementing improvement programmes such as Lean Manufacturing, Six Sigma or total quality management.
- Improve your delivery reliability to meet European (buyer) requirements. For example, establish a warehouse in Europe, perhaps in partnership with other exporters from your country. Or argue the need for an adequate transport infrastructure in your own country and implement an ERP (enterprise resource planning) system in your company.
- If your country has not yet built up a positive image in the eyes of European buyers: ○ Strive to be an exception to the rule.
  ○ Work in your sector association to set up a collective campaign to improve the country’s image in this field. ○ Find out about positive developments in your country, and pass on this information to your buyers.

Supplier power: Suppliers of raw materials used by foundries are less powerful under current market conditions

The suppliers of the metals used by foundries have traditionally been in a strong position with respect to foundries, though current market conditions may challenge this predominance.

The metals industry operates on a much larger scale than the foundry industry, and the fact that metals are traded on world markets tends to even out metal prices in different countries. There are only about 800-900 steel producers worldwide with 15 companies accounting for almost 40% of global steel production. Meanwhile, the total number of foundries in the world is much higher.

The global metals industry has continued its process of consolidation in recent years as companies focus on improving their financial strength, increasing their

negotiating power with customers (including foundries) and suppliers, and boosting capacity utilisation. This consolidation process has strengthened the bargaining power of the customers (the metal companies, including foundries) until recently.

In addition, although steel is traded on world markets and tends to have equivalent prices in different countries, regional differences in material costs do exist, reflecting local market conditions and transportation costs.

For example, the relatively strong competition between steel producers in China in 2014-2016 resulted in very competitive steel prices. This happened both in China and globally, as China plays such an important role in the global steel industry.

Another example: In several Developing Countries there is no local metal production. As a result, the metal must be imported from other countries, Thus reducing the competitiveness of metal parts and components producers in these countries. Examples of such countries are the Philippines, Egypt and Vietnam.

For more information about the influences of China's movements on the global steel industry, see our study CBI Trends: Metal Parts and Components in Europe.

Tips:

- In the context of the above-mentioned trends, you should do your best to make as much use of locally available raw materials as possible while ensuring that you pay no more than world market prices for your materials.
- You should draw up a supply contract with your main material suppliers, stipulating that you pay no more than world market prices (plus transportation costs) for your materials.
- Select one of your top employees for the post of materials manager. In view of the large role that raw materials costs play in the cost price of your products, you need a highly qualified person in this position to monitor price and quality trends and to order the raw materials you need.
- Be aware that you are at a competitive disadvantage if your country needs to import metals, as is the case for various types of metals in countries such as Tunisia, Vietnam, Egypt and the Philippines.

Degree of rivalry: Degree of rivalry for specialties will remain small

There is relatively little rivalry between European foundries in the high-quality product range. What matters to them is establishing a good relationship with their clients. Buyers will not switch to another foundry as long as they are satisfied with quality and delivery reliability. These good foundries therefore have very little need to compete with one another. In contrast, there is a high level of rivalry among foundries delivering standard series-produced products with low added value, such as manhole covers. The main source of competition here is low wage countries like China.

Most exporters in the Developing Country group come from China, followed by India and Turkey. The export from other Developing Countries is increasing, although the degree of rivalry remains low. China has managed to gain a big share of the market for low-added-value series-produced products. A large part of the supply of such commodities comes from China, but several European companies are still producing them for the local market. Most Developing Country exporters are not so interested in these products, as these commodities cannot easily be sold at competitive prices on the European market.

Since China is expected to remain strong in low-added-value, large-volume products, Developing Country exporters would do better to focus on specialty products both now and in the years to come. There are particularly good chances
High quality metal parts in low quantity for:

- **High quality assemblies of metal parts**
- **Moulds**

Tips:

- As a Developing Country supplier, you must realise that you are only likely to be successful in selling commodities to European buyers if your price is competitive compared to Chinese products in particular.
- If you cannot be competitive in terms of price, you could look for success in the delivery of specialty products. Focus on a limited number of products aimed at specific market segments to improve your chance of gaining a foothold in the European market. Concentrate on one or two products, core technologies or services that are truly unique and in which you have a competitive edge.
- It is important to offer the "best costs of ownership" for such specialty products. This means the best quality/price ratio for your product and your delivery performance. Without this, you will be unable to compete with European and other Developing Country suppliers.

CBI Trade Statistics:

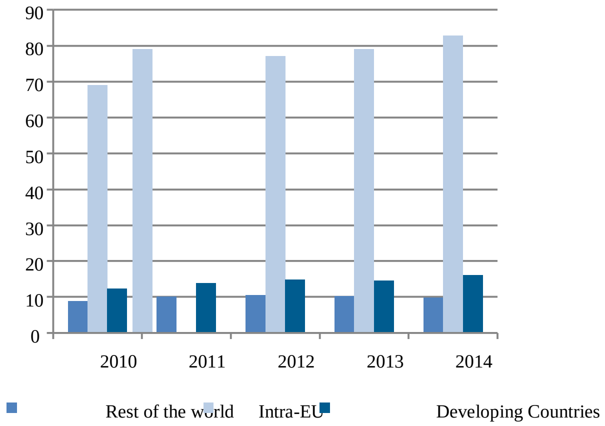
Metal Parts and Components in Europe

Introduction

Imports of metal parts and components from low-cost countries and developing countries (DCs) are likely to stabilise over the next few years. The European market only offers opportunities to producers of metal parts and components who can compete with producers from Europe and the dominant suppliers from outside Europe, such as China and India. Price, quality, service level and communications that meet the expectations of the European customer will remain the basis for successful exports to Europe.

Imports

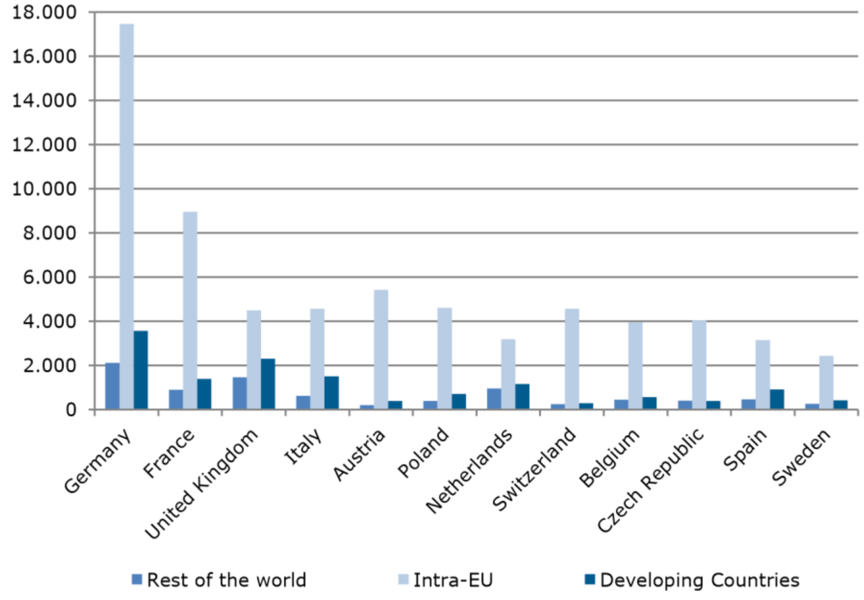
Figure 1: European imports, by main region of origin, € billion



Source: Trademap (2015)

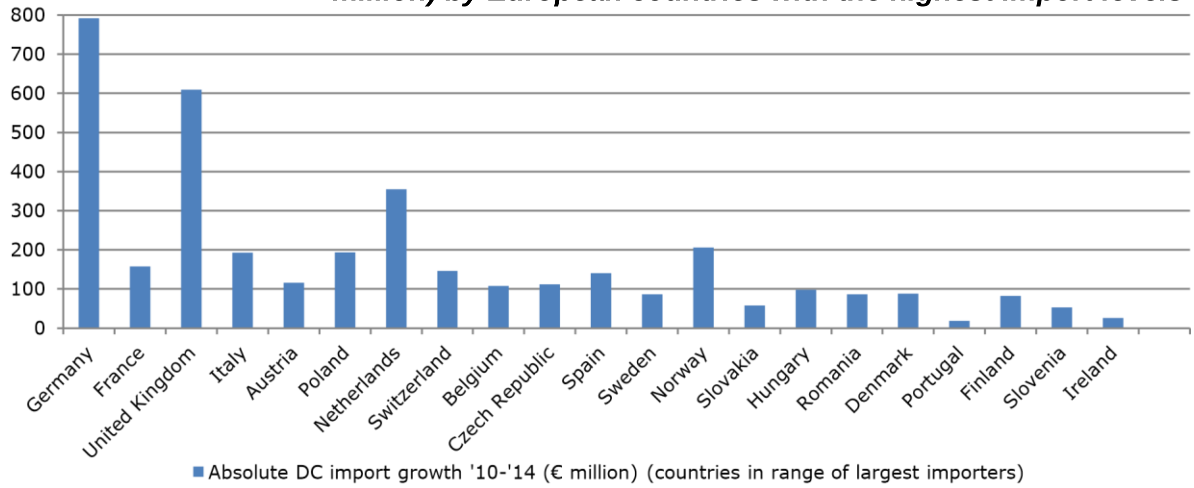
Imports of metal parts and components from DCs reached €16 billion in 2014, a 10% growth compared with 2013 (€14.6 billion). Their share in total European imports has remained relatively stable in the period 2010-2014 (between 13% and 15%).

Figure 2: Main importers, 2014, € million



Source: Trademap (2015)

Figure 3: Absolute growth of imports from developing countries in the period 2010-2014 (€ million) by European countries with the highest import levels



Source: Trademap (2015)

The growth of European imports from developing countries was largely due to strong growth in demand from Germany, followed at some distance by the UK, the Netherlands, Norway, Poland and Italy. As Figure 3 reveals, other countries showing substantial growth in imports from DCs were France, Spain and Switzerland.

Countries with the highest relative growth in imports from DCs were Spain, Finland, Slovenia, Belgium, Switzerland, UK, Netherlands and Norway.

As mentioned above, Germany was in first position, accounting for more than one-fifth of total European import by value in 2014. France was in second position (10%), followed by the UK and Italy (8% and 6% respectively). If only imports from

developing countries are considered, the top-4 ranking is slighly different, with Germany in first place (22%) followed by the UK (14%), Italy and France (both 9%).

Leading suppliers from developing countries

China is responsible for the lion's share of imports coming from developing countries. Eight other DCs (Turkey, India, Thailand, Vietnam, Malaysia, Serbia, Bosnia-Herzegovina and Tunisia) each accounted for more than 1% of total DC exports to Europe. Together, these 9 countries represented 94% of all DC; most other developing countries have not yet reached the industrialisation level needed for exporting to Europe.

China will remain the main supplying country in the group of developing countries for the foreseeable future, but the growth of Chinese exports is expected to slow down in comparison with recent years. In the period under review, China scored the highest absolute growth of exports to Europe (+€2.2 billion in total), followed by Turkey (+€573 million), India (+€398 million), Thailand (+€198 million), Vietnam (+€155 million) and Bosnia-Herzegovina (+€91 million).

Vietnam's exports are expected to continue to grow (both as a percentage and in absolute figures) in the next few years. The same goes for some countries in South-Eastern Europe, in particular Serbia and Bosnia-Herzegovina.

Leading products from developing countries

The most widely imported products from developing countries in the next few years will continue to be iron or steel castings and other products and base metal mountings.

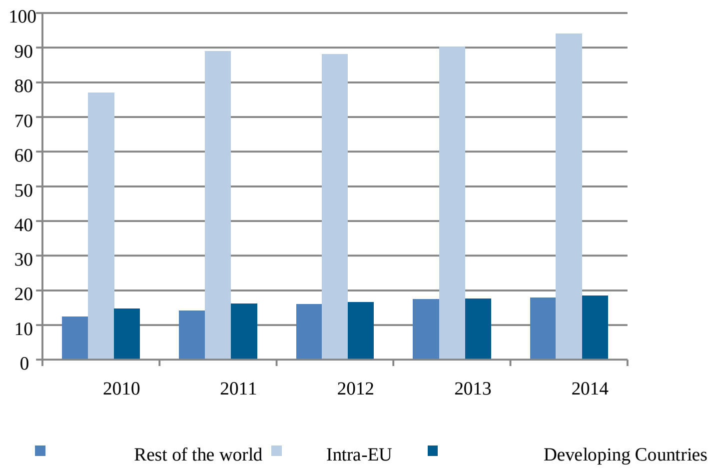
- One of the best performing product groups is dies and moulds, imports of which from developing countries have continued to perform strongly in the past decade.This may well become the largest product group within the next 10 years.

Tips:

- The best opportunities are for DC exporters of metal parts and components produced in a highly labour-intensive process.
- The top three importers (Germany, France and the UK) will continue to be the leading import destinations in the next few years. As a result, they offer good opportunities for DC exporters. It should be realised, however, that these are mature markets and therefore relatively difficult to enter.
- Germany will continue to be the main destination in Europe. Although they value and trust their own manufacturing industry, there is an increasing trend towards use of metal parts and components from developing countries.
- Countries like India and China have the technology needed to manufacture most cast-iron or steel products. Producers from other developing countries only have a chance of breaking into the European market if they can meet the stringent European pricing requirements.
- Dies and moulds will continue to be among the top performing products. DC producers who are able to export these products to Europe will continue to have good opportunities.
- Manufacturers in South-Eastern European countries such as Bosnia-Herzegovina and Serbia should benefit from the relatively short transport distances to the rest of Europe.

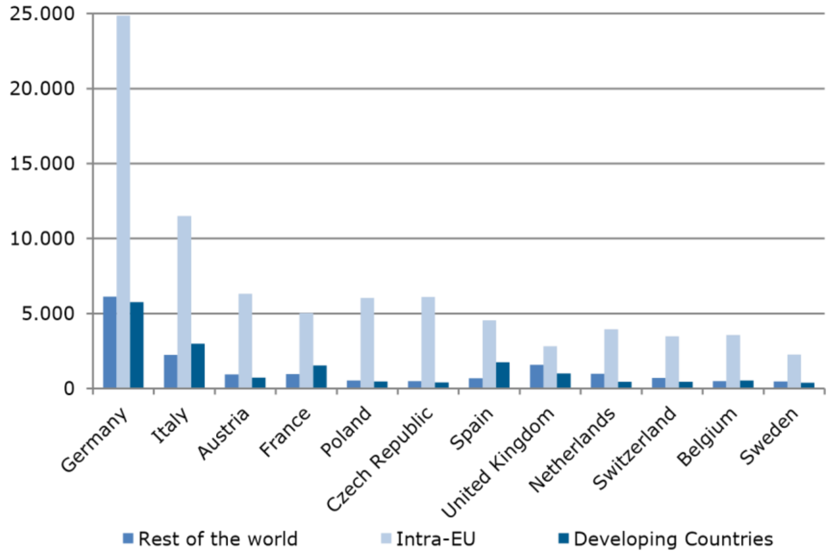
Exports

Figure 4: European exports, by main destination, € billion



Source: Trademap (2015)

Figure 5: Main exporters in 2014, € million



Source: Trademap (2015)

Europe continued to be a net exporter of metal parts and components in the period under review, as can be seen from a comparison of Figures 1 and 4. The total trade surplus varied between €14 and €22 billion per annum, but showed an overall upward trend in the period 2010-2014. This reflects a growing export orientation of the metal parts and components production industry in Europe.

Europe will retain its position as a net exporter of products in this sector in the next few years, though imports from developing countries are expected to rise.

Europe ran trade surpluses in 25 out of the 33 product groups studied in the period under review.

The largest European net-importer position is for cycle and motorcycle parts (€2.3 billion in 2014), reflecting European dependence on imports of such parts from outside Europe (in particular, Asia). Another product group where Europe has a substantial trade deficit is fasteners.

Tips:

- Most metal parts and components for the European market are tailor-made. It follows that most trade takes place through subcontracting to European manufacturers. From that point of view, the large production output in Europe remains an opportunity for DC exporters. This situation will continue for the foreseeable future, as subcontracting offers many opportunities to DC exporters.
- To sum up, the European market offers good opportunities to DC exporters of cycle and motorcycle parts and fasteners.

Production

Much of the European demand for metal parts and components is supplied by local production (estimated at €470-570 billion at 2014 prices). This figure reflects the enormous size of the metalworking sector in Europe: it employs over 4 million people, which is more than 10% of the total manufacturing employment in the region.

The European metal parts and components industry is a typical SME-based industry. It consists of 400,000 companies, 95% of which employ fewer than 50 people. In terms of output, over 75% of total output is generated by small and medium-sized enterprises.

Further analysis shows that leading producers are France, Germany, Italy, Spain and the UK (the EU5), which account for about three quarters of all metalworking products made in Europe.

Although European metal parts producers are big users of steel (they are responsible for 60-70% of all steel consumption in Europe), they have limited negotiating power in dealings with the big steel suppliers. They also have limited negotiating power on the demand side, since many of their customers are much bigger than they are. Another important characteristic of this sector is that many companies are subcontractors delivering intermediate products to end-product manufacturers.

A regional split may be distinguished between Central and Eastern Europe on the one hand, and the other European countries on the other. The metalworking industry in the former region is relatively labour-intensive, but the low productivity here tends to be partially compensated by low labour costs.

The last strong year for the European metal parts and components industry was 2011, when output rose by almost 7%.
Market confidence started to decline in the second half of 2011. Several European economies showed negative growth in 2012 and 2013, and other factors such as a temporary low level of construction activities continued to have an adverse impact on the market in this period. Demand recovered slightly in 2014 (about 2% average growth compared with 2013), supported by improved market confidence in various countries.

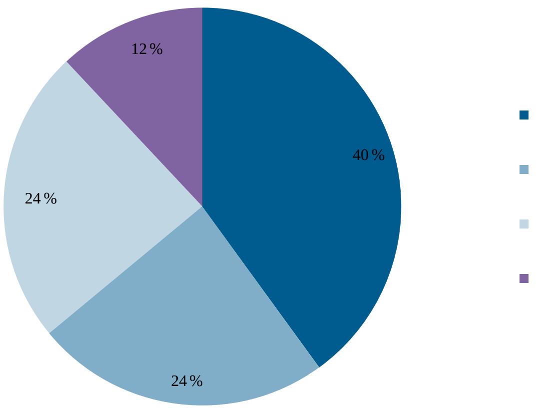
It is predicted that GDP for the EU as a whole will grow by 1.8% in 2015 and by 2.1% in 2016 (European Economic Forecast, Spring 2015). Market demand is thus expected to show gradual improvement in the short term.

Tips:

- The European market for metal parts and components is mainly based on subcontracting, and thus evidently offers good opportunities for subcontractors who are able to meet the European quality standards and delivery times and who provide cost benefits in comparison with competitors.
- Central and Eastern European countries are generally considered to be competitive in terms of production (labour) costs. DC exporters should be prepared for competition from suppliers from these countries.
- In fact, the cautious market climate that has been seen in the past few years is neither a serious threat nor a major opportunity in itself for DC exporters. Regardless of the products a DC exporter trades in, the European market offers huge scope for the sale of products from developing countries. Price, quality, service level and communications that meet the expectations of the European customer remain the basis for successful exports.

Industrial demand

Figure 6: Segmentation of European production



Source: Orgalime (2014)

The demand for metalworking products1 in Europe is somewhere in the range of €470-570 billion. Imports from outside Europe and exports to outside the region roughly balance each other; this means that the demand is more or less equal to local production. The demand can be divided into 4 main segments as can be seen from Figure 6.

Approximately 60% of the total market for metalworking products is supplied by subcontracting. The other 40% (mostly tools and finished metal goods such as fixings, fasteners and gardening products) is distributed to consumers mainly via retail chains or distributors.

[1] *This is a wider range of products than the metal parts and components that are the main topic of this document. For example, the trade statistics do not include the whole group of boilers, containers and packaging, while coverage of castings and forgings is incomplete.*

The largest demand comes from the mechanical engineering industry, followed by the construction and automotive industries. This applies to the whole region on average, as the situation in individual countries may differ. For example, the automotive industry plays a major role in the two leading markets of France and Germany (70-80% and 35-45% respectively).

Further analysis of the region shows that the leading markets are France, Germany, Italy, Spain and the UK. These five countries account for about three-quarters of the demand for metalworking products. At the same time, since local demand is mostly fulfilled by local production, these countries also account for the same share of production in Europe.

Tips:

- The European market is mainly a subcontracting market and it therefore offers opportunities for subcontractors.
- Each country has its own characteristics in terms of demand. Before deciding which countries to focus on, exporters should be aware of these market characteristics.
- The top 5 markets generally offer good opportunities; however, France is generally considered to be relatively closed to international trade in metal parts and components.

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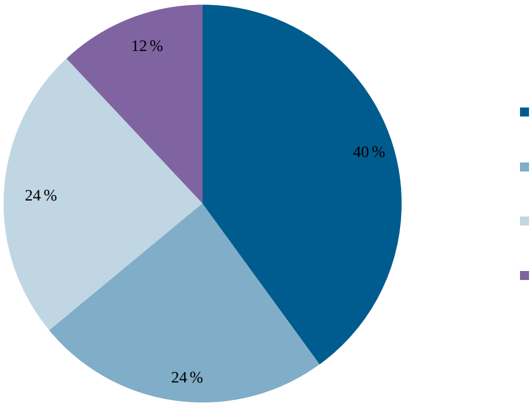

Source: Orgalime (2014)

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