



CBI
Ministry of Foreign Affairs

CBI Product Factsheet:

Moulds for Plastic and Rubber in Europe

Introduction

Although production of plastic and rubber products in Europe is still far from the pre-crisis level, the demand for moulds for plastic or rubber has increased year-on-year since 2010. In spite of this market growth, end users of moulds increasingly focus on the costs of their moulds, forced by economic circumstances. It has caused severe price competition, with the result that low wage countries in Europe such as Poland and Romania, have come off best. The leading mould supplier to Europe, China, has also faced some challenges recently, but appears to be able to meet the requirement for more advanced moulds. Although such trends are challenging, mould makers from Developing Countries should not wait, but enter Europe before normality returns.

Product description

Moulds, in general, are used to produce a wide variety of plastic, rubber, glass, and mineral products, as well as products of soft metals such as aluminium and zinc. These products include parts for motor vehicles, aircraft, appliances, electronics and electrical products, housewares, consumer products, furniture, military items, and medical products. The most common mould is the (injection type) mould for plastic parts production, and virtually all plastic products in our everyday life have been produced in moulds.

Note that only a small part of the moulds for plastic and rubber production is used for the production of rubber parts.

When 'moulds for plastics or rubber' are referred to in this survey, this concerns the selection of products in Table 1 of Annex 1, unless stated otherwise. All HS codes belong to CN chapter 8480, Paragraph 71.

Geographic scope

The geographic scope is the European Union area. However, in certain parts of this survey (Trade statistics, Macro-economic indicators, Market channels and segments, and Useful sources), the focus is on a select group of countries: Germany, France Italy, Czech Republic, Spain, the United Kingdom, Poland, and Austria. These countries are considered to have good potential for Developing Country mould makers, as they are the largest importers of moulds for plastics or rubber in Europe. When 'focus countries' are referred to in this survey, this concerns the selection of these eight countries, unless stated otherwise.

Product specifications

The major characteristics used to differentiate moulds for plastics or rubber are precision, complexity and quality. Packaging requirements are also explained below, and furthermore, Pictures 1-6 show some examples of moulds for plastics or rubber production.

Precision

In the moulds industry, the term "precision" is used to describe the accuracy of a mould, including the extent to which the mould meets specified measurement tolerances, such as within 0.24 mm. Therefore, some moulds are more "precise" than others. The mould must produce accurate part features, so that when the tooling pulls apart to eject a formed part, there are no blemishes, deformations, or surface imperfections on the moulded piece. The accuracy of the mould is critical because errors may adversely impact the performance of the finished product. TDM producers can achieve repeatable dimensional tolerances of plus or minus 0.0001 mm.

General levels of precision are defined by the tolerances required according to end use of the part. An example of low-level precision in a moulded product would be a plastic bucket, where significant variances in dimensional tolerances are acceptable. Medium-precision moulds would be those where fit and function are important, but not critical to end use. Examples of medium-precision moulded products include computer housings, computer keyboard bezels, facsimile machine housings, and clock faces. High-precision products would be those where fit and function are critical to the end use. High-precision products may have pieces that are required to snap-fit or screw together, such as caps and closures for food containers. Another example of a high-precision product is a cell phone housing, as it is relatively small, the holes for the dialling buttons must be accurate, and the front housing, back housing, and battery door must all snap together perfectly for a tight fit. Still other examples of high-precision moulds are those used to produce highly functional or dependable items, such as automotive under-the-hood components and medical devices.

Notwithstanding the clear categorisation of certain types of products, definitions of what constitutes low-, medium-, and high-precision items vary by product application and end-use market. Therefore, the final use and intended market segment or consumer group affect the levels of precision needed and the subsequent degree of accuracy built into the required mould and tooling.

Complexity

Complex moulds are defined by the degree of internal detail, internal action, or technological integration within the mould. For example, a mould that is complex might have numerous cavities to fabricate multiple pieces in a single casting or incorporate internal movement for ejection of the part or the formation of internal holes or undercuts. Complex moulds are used to form objects from innovative materials, (e.g., new types of plastic resins or composite materials). Moulds incorporating hot runner systems, where no solid trails of plastic running in the mould between the parts and the injection moulding machine are created, would also be considered complex moulds.

Quality

Quality, as a specification, reflects consistent application of a range of design ideas and manufacturing performance that results in a mould that will fulfil the needs and desires of the customer. Within the concept of quality are design ideals that result in good life, performance, durability, and increased maintainability of the mould. Performance includes higher production efficiencies (more parts per cycle and more cycles per hour) and less downtime of the production unit in which the mould is incorporated. Product life and durability suggest a mould that will continually produce parts to specification without excess wear, fatigue, or premature breakdown.

Other aspects that can be related to quality are creativity and craftsmanship. Creativity is involved in the design of the mould and is constrained by cost limits and customer specifications. Intrinsic to producing a quality mould is craftsmanship. A last element that can be mentioned here is the selection and use of materials, parts, and components of appropriate quality, as that also defines the final quality of the mould.

Labelling and packaging

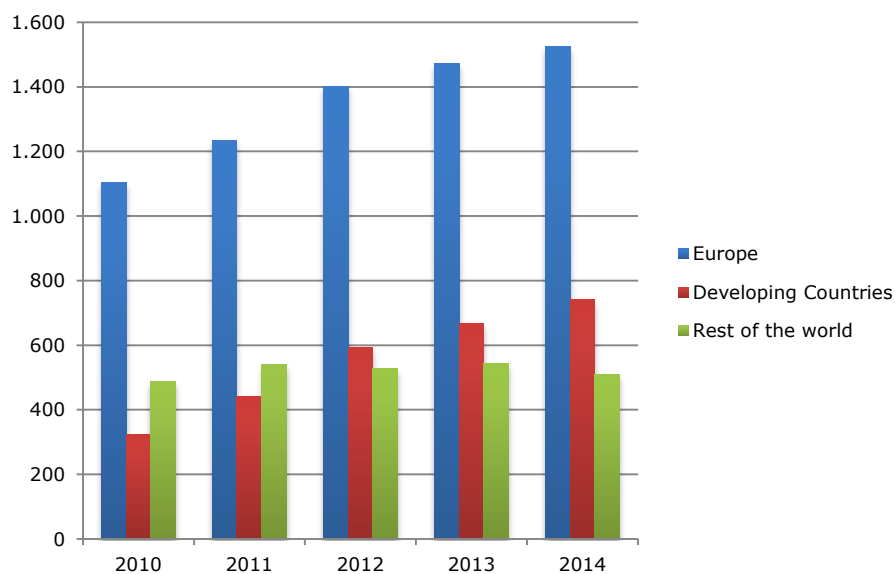
Moulds can be considered as large and expensive metal parts. Therefore, they are coated with a rust preventative before being packed and shipped, and packaging must be perfect. Oilpaper may be used to avoid the dispersion of the protective oil, or sometimes hermetically, vacuum-sealed synthetic pouches are applied. The outer package is a heavy box and all empty space in the box must be filled up to prevent the product from moving in it. The package for ocean transportation may be wooden pallets or iron pallets wrapped in plastic sheeting and packed with metal strips. The sizes of the boxes depend on the weight per box and handling possibilities. Moreover, it could very well be the case that the customer has his own (additional) packaging requirements and preferences. It is common that individual box packaging or other modes are available upon request.

What is the demand for moulds for plastics or rubber in Europe?

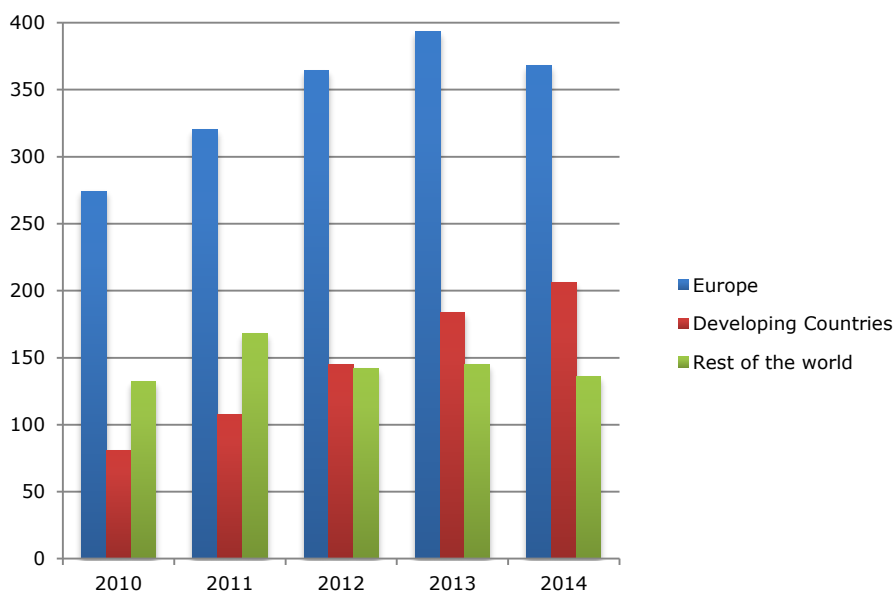
Imports

Figure 1-9: Imports of moulds for plastics or rubber to Europe and focus countries by main origin (2010-2014), in € million

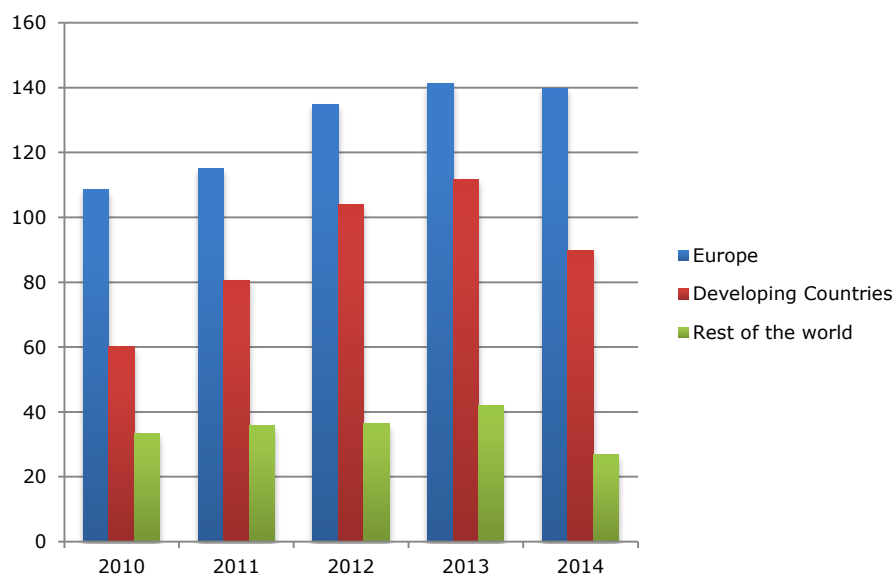
Europe



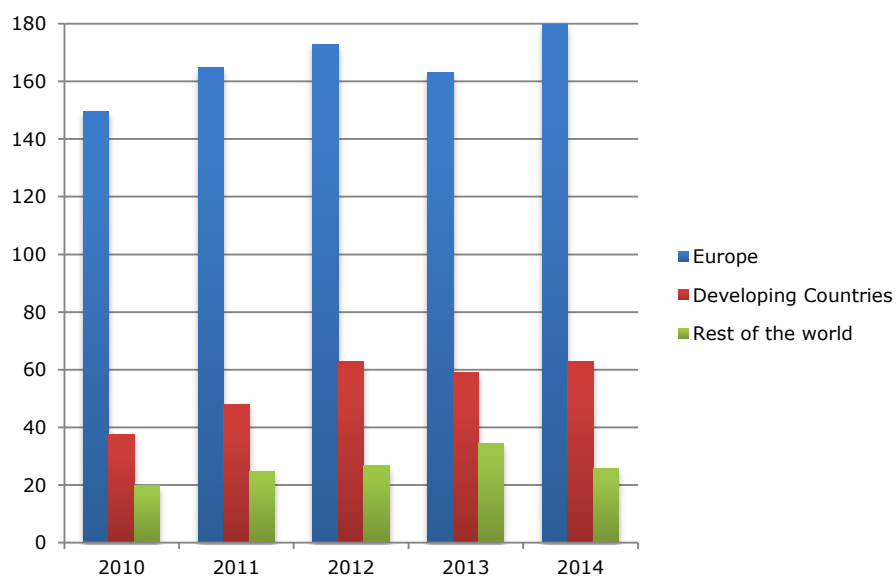
Germany



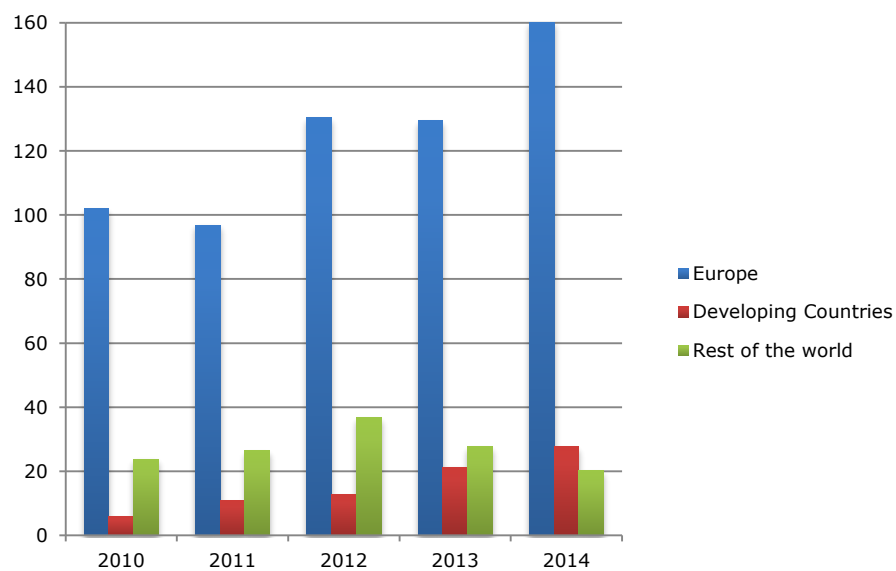
France



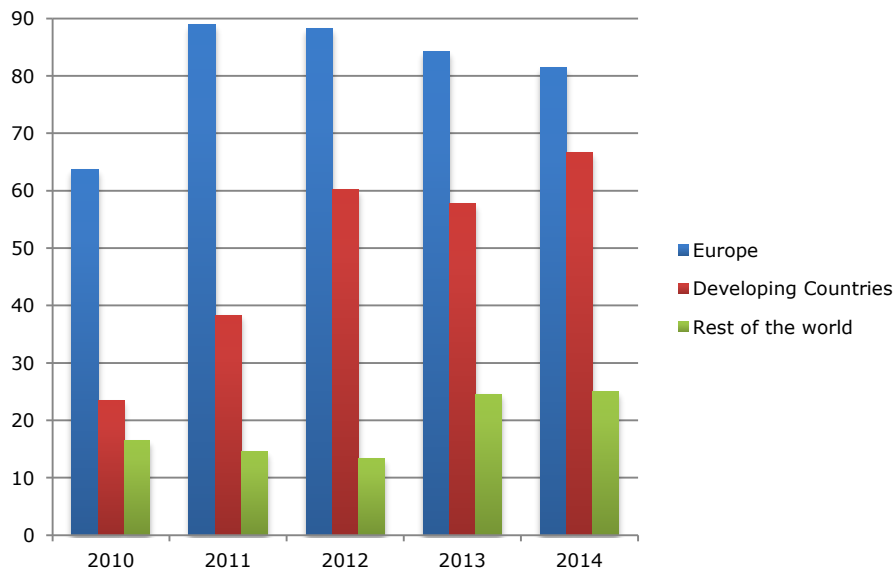
Italy



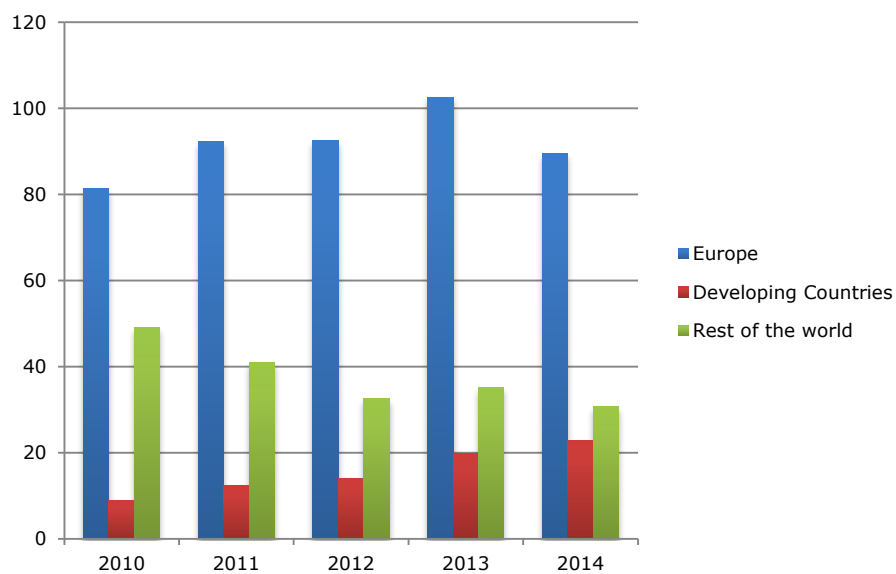
Czech Republic



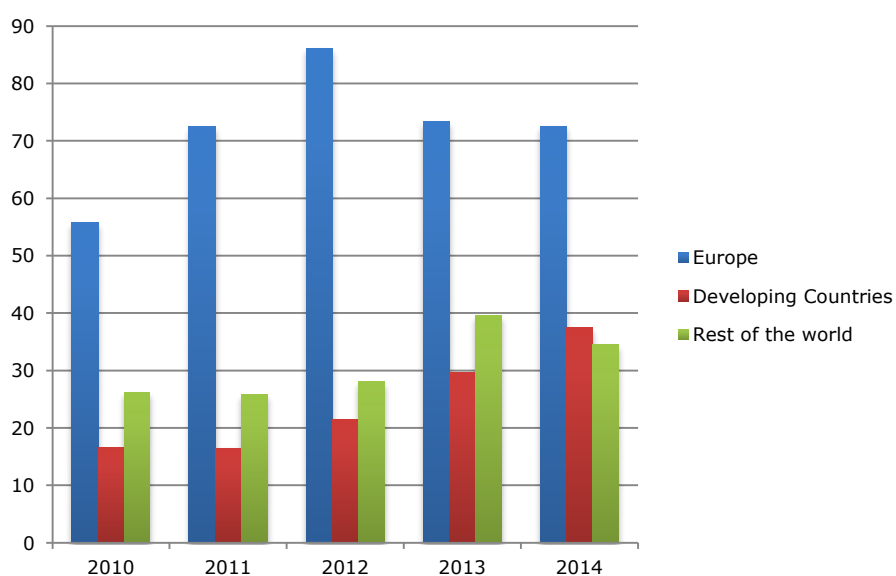
Spain



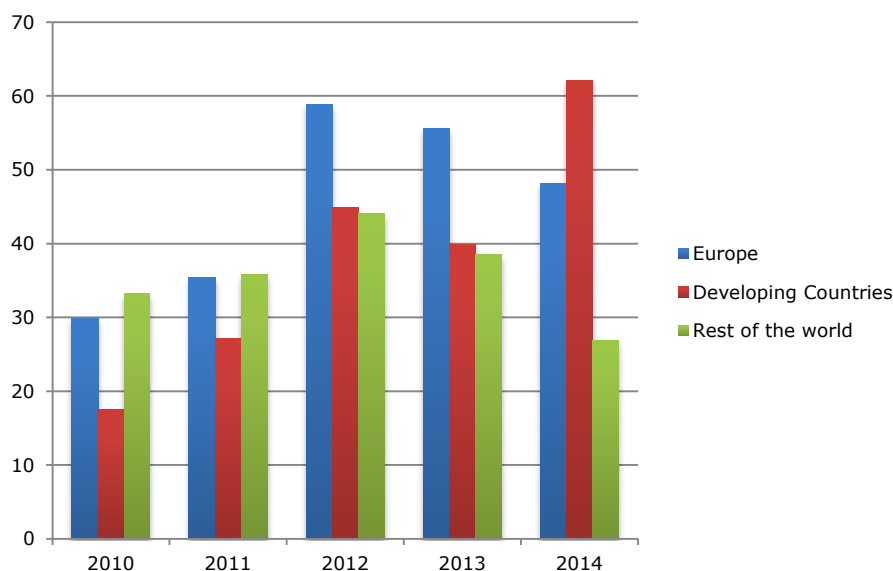
Austria



Poland

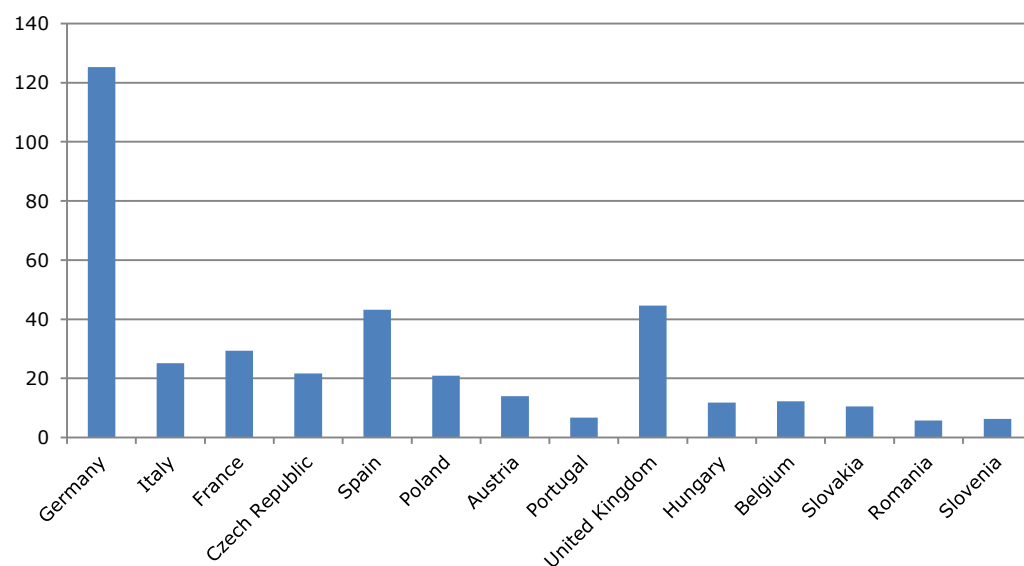


United Kingdom



Source: Trademap

Figure 10: Absolute growth in imports of moulds for plastics or rubber from developing countries (2010-2014), in € million (countries in range of largest importers)



Source: Trademap

- European imports of moulds for plastics or rubber reached a value of €2.8 billion in 2014. Average annual growth in the period 2010-2014 was an impressive 9.7% (note that this was partly due to the weak reference year 2010). Imports increased sharply in 2011 (16%) and 2012 (14%), with lower growth rates in 2013 (6.3%) and 2014 (3.5%). As demonstrated by these recent positive developments, to a significant extent, the ongoing trend towards stricter environmental regulations in Europe in recent years has stimulated the demand for new moulds.
- The share of European imports from developing countries has continued to increase from one year to the next. Although it took some time to exceed the share of 17% (reaching 16.5% and 16.9% in 2009 and 2010, respectively), it jumped to 20% in 2011. In 2012, it increased even further to 23%, reaching a share of 25% in 2013. In 2014, the share of imports from developing countries increased further to 27%. In the coming years, the share is expected to grow in the direction of 28%-30%.
- The eight focus countries represented nearly 75% of all European imports in 2014.

- The leading importer is Germany, followed by Italy, France, Czech Republic, Spain, Poland, Austria, Portugal and the United Kingdom. Germany is also the leader in terms of imports from developing countries imports, ahead of France, Spain, Italy, the United Kingdom, Poland, Czech Republic and the Netherlands.
- The import of moulds for plastics or rubber is expected to demonstrate moderate growth (around 1%-4%) in the next few years, as the global trade of moulds continues to expand

Leading suppliers

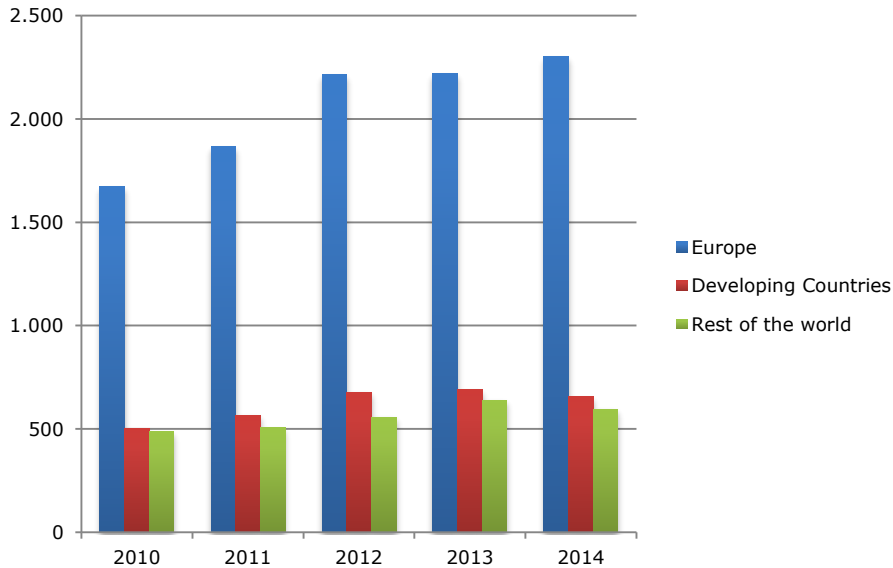
- China occupies a very strong position as the leading supplier of moulds for plastics or rubber to Europe, representing 23% of total European imports. Intra-European trade represents a large share of European imports, with Germany, Italy, Portugal, and Czech Republic amongst the top six suppliers.
- Switzerland is by far the largest supplier in the category 'rest of the world', followed by South Korea and Japan. This indicates that a considerable amount of moulds for plastics or rubber are still not produced in Europe, but imported from the home countries of the world's leading industrial conglomerates.
- Imports from developing countries are dominated by China (€631 million), followed at some distance by Turkey (€35 million in 2014), India (€12 million), Bosnia and Herzegovina (€11 million), Serbia (€8 million), Malaysia (€7 million), Vietnam (€6 million), Mexico (€5 million) and Tunisia (€4 million).
- Amongst the leading suppliers to the eight focus countries, China dominates the list of suppliers from developing countries. Turkey and India export to several European countries, while Malaysia has especially robust exports to Germany. Other developing countries that play a role in exports to the focus countries include Bosnia and Herzegovina (particularly to Austria), Tunisia (especially to France) and Serbia (to several countries). To date, Denmark has been the only European destination for Vietnamese exports.

Tip:

- Benchmark your company against your peers from mainly China, but also from Turkey and India, as well as those from European countries. Several factors can be taken into account, such as market segments served, perceived price and quality level, countries served, etc. One source that could be used to find exporters of moulds for plastics or rubber per country is [ITC Trademap](#)

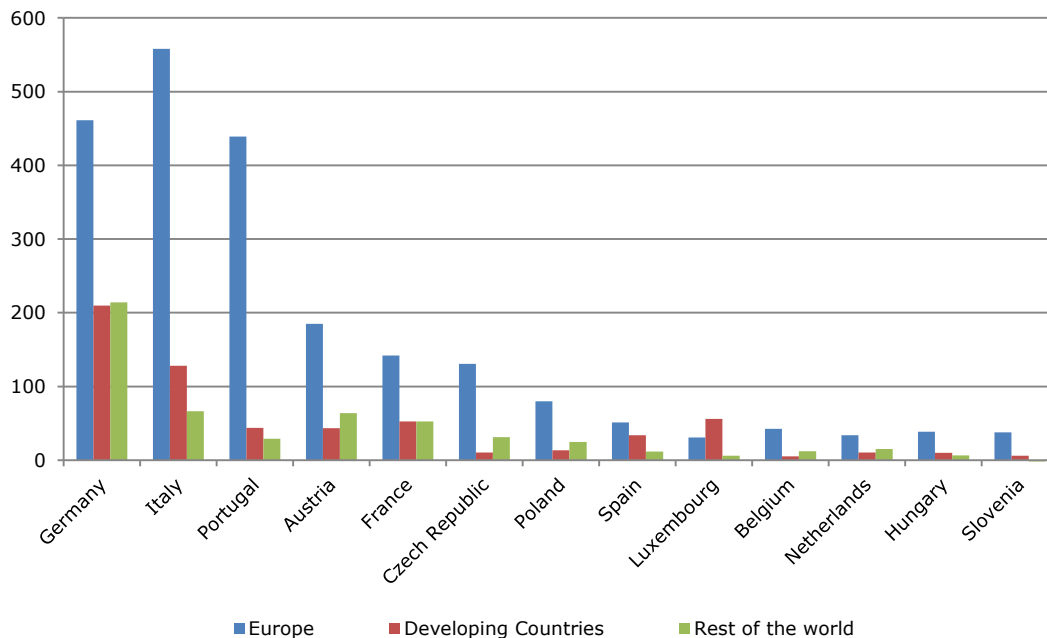
Exports

Figure 11: Exports of moulds for plastics or rubber from Europe, by main destination (2010-2014), in € million



Source: Trademap

Figure 12: Leading exporters of moulds for plastics or rubber (2014), in € million



Source: Trademap

- European exports of moulds for plastics or rubber reached a value of €3.6 billion in 2014. The average annual rate of growth in the period 2010-2014 was 7.5% (note that this was partly due to the weak reference year 2010).
- The share of European exports to developing countries decreased slightly during the period under review, having declined from 18.9% in 2010 to 18.5% in 2014. Most exports are intra-European

trade (more than 60% of all imports). The share of exports to developing countries is expected to remain at 19%-20% in the coming years.

- The eight focus countries represented 73% of European exports in 2014.
- The leading exporter is Germany, which accounts for one quarter of total exports in Europe. Italy is in second place (21%), followed by Portugal (14%), Austria (8%), France (7%) and the Czech Republic (5%), while Poland, Spain and the United Kingdom are amongst the smaller exporters in Europe (accounting for between 1%-3% of all European exports).
- German exports to developing countries represent more than 30% of all European exports to developing countries. Italy is in second place, followed by Luxembourg and France. The leading developing country destination is China.
- In the next few years, European exports of moulds for plastics or rubber are expected to demonstrate slight to moderate growth (in the range of 1%-5%).

Production

Figure 13: European production of moulds for plastics or rubber, 2010-2014, € million

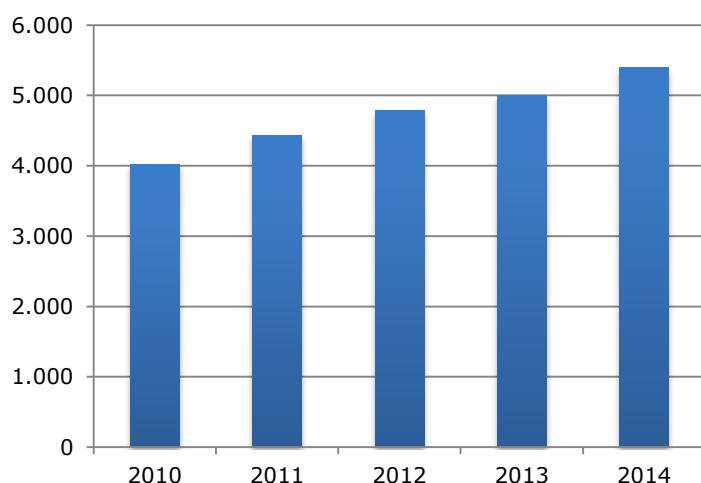
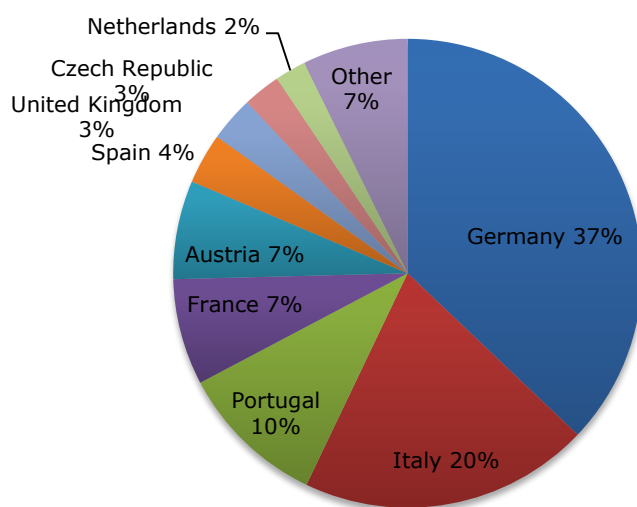


Figure 14: Main European producers of moulds for plastics or rubber, 2014



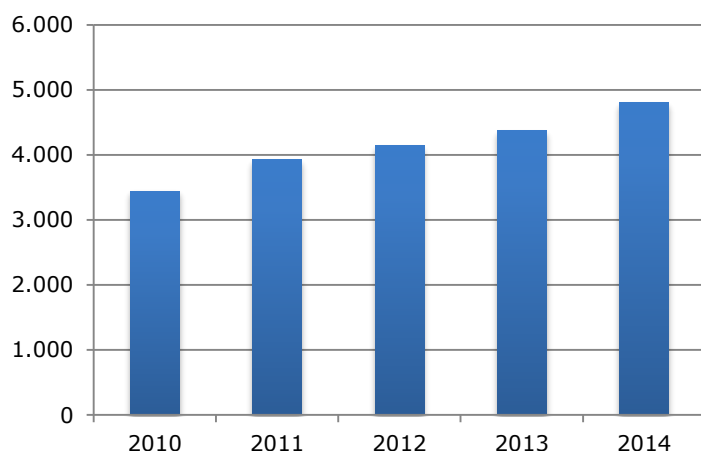
- European production totalled €5.4 billion in 2014, after an average annual increase of 7.6% in the period 2010-2014. Following a dip in the period 2009-2010, European production output experienced a long period of recovery, increasing from €4.0 billion in 2010 to €5.4 billion in 2014. The recovery was due to increased spending activity in the end-user industries, which led to growth in the demand for moulds, and thus in exports.
- Germany accounted for more than one third of total European production in 2014. In Germany, as well as in other European countries, most mould makers are small and medium-sized companies.
- The majority of European demand is met through local production. European production is characterised by relatively few mould makers in most countries.
- In recent years, producers from Central and Eastern European countries have emerged as competitors for Western European producers.
- Western European production suffered most in France, where the production of moulds has declined by an average of 9% per year. It should be noted that this decline was caused in part by the relocation of plastic parts production (predominantly for automotive purposes) to Central and Eastern European countries (i.e. the end users of moulds for plastics relocated).

Tip:

- As shown in Figure 14, in addition to Germany, Italy, Portugal, France, Austria, the United Kingdom and Spain have considerable production output. The presence of mould makers in these countries offers subcontracting opportunities for mould makers from developing countries.

Apparent demand

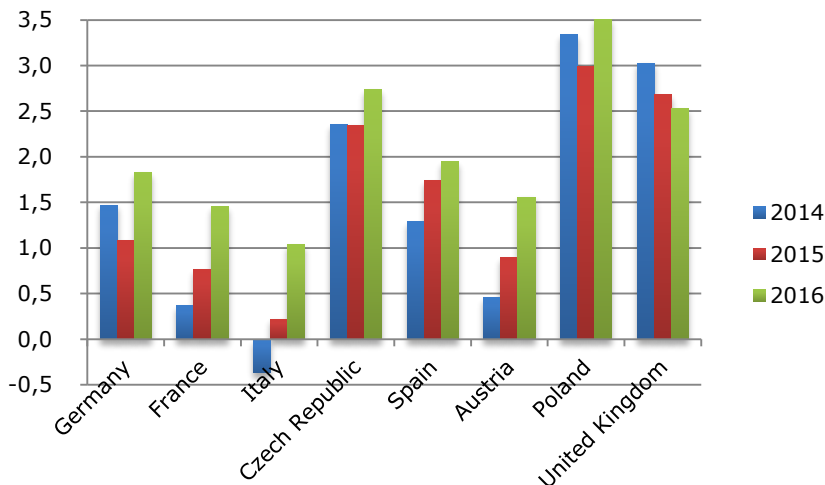
Figure 15: Apparent demand of moulds for plastics or rubber in Europe, 2010-2014, € million



- In 2014 European apparent demand amounted to a total of €4.8 billion, following an average annual increase of 8.7% in the period 2010-2014. Note that demand in Europe was very weak in 2009-2010, when it was hit by the economic turmoil, which led companies to postpone investments in new purchases.

Macro-economic indicators

Figure 16: Real GDP, % change from previous year



Source: OECD Economic Outlook 96 database

- The major determinant of moulds demand is spending activity in the end-user industries. Mould demand depends mainly on the requirement for new equipment and the level of investments in new products in a wide range of industries. In general, both are stimulated by economic growth. However, note that some market segments are relatively stable (e.g. packaging and medical), others are very sensitive and not always following GDP development (e.g. automotive), while electronics and the engineering industry have a cycle that mostly corresponds to GDP development.
- In each focus country, GDP is expected to exhibit continued year-to-year growth in the next few years. This will apparently provide a sound basis for continuous demand and import growth in the coming years.
- The profitability of moulds imports is influenced by the €:US\$ exchange rate, as moulds sourced globally are paid in US\$. While earlier forecasts did not predict this exchange rate to surpass 0.80 until 2020, it reached this point in June 2015, with an exchange rate of 0.90. This is having a major effect on import prices. Particularly if it persists for several years, this situation is likely to have a negative impact on the level playing field of European imports paid in US dollars, relative to local European production.

Tips:

- Although GDP growth forecasts are improving, pricing is, and will continue to be, an important influential competitive factor. Competitive pricing is elementary for Developing Country exporters planning to enter the European market, while quality and service levels must also meet customers' requirement.
- If the value of the euro remains at the current low level, producers from developing countries should increasingly focus on reducing costs in order to remain competitive in the European market.

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What trends offer opportunities on the European market for moulds for plastics or rubber?

The emergence of new technologies has either changed the way moulds are made or affect the market for moulds in Europe. It has enabled more precision with smaller moulds and increasingly complex shapes. Another trend has been the continuous price pressure because of the end users' need for efficiency and productivity gains. In short, these are the leading trends that shape the plastic and rubber moulds industry. One last trend that is described below is the recent emergence of 3D printing. More details can be read below.

Advanced technologies enable shorter lead times

The compression of product life cycles in many key industries (such as automotive, appliances, electronics, and telecom), which is due to competitive pressures, has forced mould makers to adapt to these product cycles by shortening their lead times to supply moulds to the end users. Mould makers have managed to do so by using advanced technologies, such as Computer Numerical Controlled (CNC) machining, high-speed machining, hard milling, solid modelling, 5-axis machining, 'lights out' – unattended machining, and – last but not least – automated quality control data management.

Furthermore, a shorter product life cycle also means a reduction in the number of products made with a specific mould. This has led more demand for flexible and modular design of the mould, making flexible and modular production with the mould set possible.

Tips:

- Developing Country mould makers have to keep their lead times as short as possible. They should apply advanced technologies if necessary to realise this.
- The lack of automated quality controls could deter potential mould buyers, who might believe that non-implementing firms allow too much variation in their finished products. Automated quality control data can also be linked with design and manufacturing data, leading to improved operations.

Smart TDM in demand

Mould makers are becoming increasingly important for the European industry. Probably the best example is the automotive industry. As a result of the ongoing rise in fuel costs and stricter environmental regulations in Europe, this industry has increasingly focused on lighter and more fuel efficient vehicles and engines. This not only involves lighter parts, but it also involves other materials to be cast. The ongoing developments related to reinforcing materials like glass and carbon fibres has enabled the use of these materials as compounds for plastic moulding parts for automotive applications. All these developments require mould makers to make smart moulds that enable flexible manufacturing and automation.

Tips:

- Developing Country exporters able to supply 'smart' moulds specified to customer needs have better chances in the European market.
- Meeting European environmental regulation and producing solutions that can help potential European buyers to reduce environmental hazards is an important and ever increasing trend that should be exploited strategically by Developing Country exporters.

Price pressure has led to transfer of production

For a few decades, price has become increasingly important in Europe. Factory overhead costs for most European moulds makers were high, partly because firms operated at less than full capacity as a result of intense competition. In contrast, many Chinese mould makers operate 24 hours a day, 7 days a week, utilising their machinery capacity by almost 100%. Another factor is the high and rising cost of labour in European countries such as France, Germany, and the United Kingdom. To take advantage of lower labour costs, producers from these countries have invested in Spain, Portugal, Italy, and in central European countries such as the Czech Republic, Poland, and Hungary. More recently, southern European companies have invested in production capacity in central and eastern European countries, such as Poland and the Czech Republic. As a result of this strong competition in Europe, most of the simpler, lower-tolerance moulds production has moved to Developing Countries, especially China. High-tolerance, highly engineered work has remained in western Europe, but has been facing growing competition from Chinese mould makers in recent years as well.

Tip:

- Developing Country exporters must be aware of the general opinion about international sourcing of moulds, and should try to anticipate where possible. For example, according to the British Gauge and Tool Makers Association (GTMA), the benefits of sourcing moulds within Europe are: higher quality, shorter lead time due to a shorter production as well as transportation time, and a lower carbon footprint.

Drop in low-tech market has changed role of China

According to several market players, recent years have been marked by a considerable decrease in the low-tech market. To tackle this development, the Chinese industry is changing; the mould makers are shifting more and more to the high-tech segment. This trend is expected to strengthen in the next few years, as both end users and consumers want to have the same quality of their products worldwide.

Tip:

- Although mould makers all over the world may consider their Chinese colleagues as huge competitors, the primary challenge for mould makers from Developing Countries is not to beat China. This may sound a little bit strange. However, the trends listed here should make mould makers realise that it is all about quality of their mould and – not further mentioned here, but also important – their service to the end user, in case of direct selling to end users. The quality of the mould involves [several issues](#), such as the endurance and productivity.

3D printing

Although 3D printing is a global trend, it seems that it will not influence the conventional plastic moulding market in the near future. This is because the conventional moulds remain necessary for production runs that are too small to justify the cost of injection moulds and too large for the yield rate of 3D printers. What is more, 3D printing polymers and resins have high costs, compared to the cost of conventional polymers. At the same time, innovations in this market could quickly shift current balances. For example, the Arburg company's Freeformer 3D printer was introduced at K-Plast 2013, impressing the crowds with its ability to print in 3D using conventional polymers. Although it will suppress polymer costs, its yield continues to be determined by the time it takes to print, in addition to the cost of the machinery. The printer has been available for purchase throughout Europe since early 2015.

Tip:

- Although 3D printing is unlikely to affect the market for conventional plastic in the near future, stay abreast of trends in this area, so that you will be able to take advantage of any interesting developments

What requirements should moulds for plastics or rubber comply with to be allowed on the European market?

Requirements can be divided into: (1) legal requirements you must meet in order to enter the market and (2) additional requirements, which are those 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.

You can find a general overview of the [EU buyer requirements for motion control](#) on the Market Intelligence Platform of CBI. Additional information on gaining access to the European market is available from the [EU Export Helpdesk](#), the [ITC Market Access Map](#) and the [ITC Standards Map](#).

Legal requirements

As moulds for plastics or rubber are only parts used in manufacturing processes, virtually no legislative requirements are applicable. The only relevant legislation is related to packaging:

- The REACH directive ([Directive 1907/2006/EC](#)) is relevant for the protective and anti-corrosion oils used in the packaging. In practice, this means that an exporter from outside Europe has to provide information on the chemicals/oils used in the product.
- 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](#). This directive prescribes the marking of the kind of packaging material used, and the maximum levels of heavy metals in the packaging material.

For moulds for plastics or rubber, [a 1.7% duty](#) is levied on European imports from third-party countries, among which is also China. Several countries benefit from a preferential 0% tariff, for example Turkey and South Africa. Note that it is only possible to claim a preferential tariff treatment with a Certificate of Origin.

Tips:

- Make sure that your wood packaging materials qualifies for the European market. If you are not sure, ask your wood packaging materials supplier for clarity. Your wood packaging materials supplier should take any further action required in order to comply with the Directive. If the supplier is unable to do so, you can possibly switch to another supplier.
- Exporters from a country with a preferential 0% tariff have a small competitive advantage versus competitors from countries without such a preferential tariff.

Additional requirements

- The customer's primary requirements will be related to the actual mould, as described in the subsections on 'Precision', 'Complexity', and 'Quality' in the section on 'Product specifications'.
- One important trend that has shaped the European mould-making industry in the past decade has to do with a reduction in lead times (i.e. the time from order to delivery to the end user). In response to efforts to reduce these lead times, mould makers have started to perform many of the steps in design and manufacturing concurrently, rather than sequentially. In some instances, mould makers order many of the raw materials (e.g. steel) and begin initial machining operations even before the final design has been approved by the customer.
- In a typical case, the mould maker receives electronic files describing the part for which the customer would like the mould maker to build a mould. The part and tool designs are created with computer-aided design (CAD) software. Once the design of the mould is complete, the mould maker develops the computer instructions (computer-aided-manufacturing [CAM] software), which drive the machine tools in the fabrication of components for the mould.
- Various machine tools are typically used to cut and polish the various parts of a mould, including high-speed machining centres and five-axis machining centres, electrical-discharge machines (EDMs) and grinding machines. Most machine tools are computer-controlled, and the mould components are produced or purchased, and then assembled and fitted together. Quality inspection is usually performed during most stages of production. Some mould makers then produce some sample parts in their own facilities (if they own plastic injection-moulding machines).

What do the trade channels and interesting market segments for moulds for plastics or rubber look like in Europe?

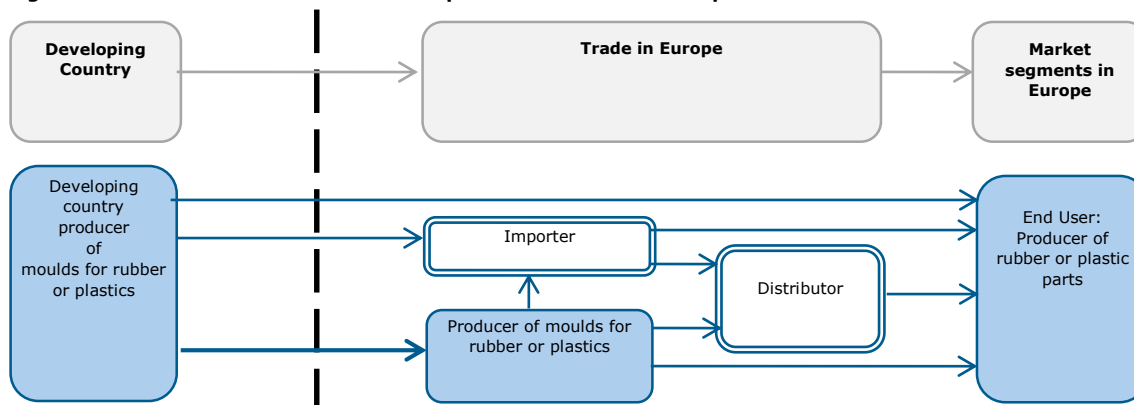
European mould makers are the foremost trade channel for plastic and rubber mould makers from Developing Countries. Mould makers in Europe usually employ subcontractors, including those from low-cost countries, which can be low-cost European countries as well as Developing Countries.

There are a few other trade channels. However, these are less important. They include direct sales with end users of moulds and trade with distributors. The best way to approach prospects in Europe is to exhibit at the leading European trade fairs, such as Fakuma or K-Plast in Germany.

The end users of moulds for rubber or plastics production are rubber or plastics moulding companies that produce parts and components. These companies can be independent, mostly small and medium-sized companies that produce parts for their customers, or part of a larger company that produces the final product and most parts itself.

Figure 17 displays the available European trade channels for Developing Country exporters of moulds. As the thickness of the arrows emphasises, the European mould maker (producer) is by far the most important trade channel for the Developing Country mould maker. Another, less important, channel is the intermediary channel (importers/distributors). A brief discussion on these channels follows after Figure 17, including a short list of companies that can be interesting prospects in the focus countries. Note that sources to find prospects are included in the section "[Useful sources](#)". For additional information on finding buyers, consult the [CBI document on Finding Buyers in the Motion Control Industry](#). Another important resource is the [CBI document on Doing Business in the Motion Control Industry](#).

Figure 17: Trade structure for moulds for plastics or rubber in Europe



Europe is home to several interesting players. As each company is unique, with its own customers, market segments, and products, the profile of the potential partner is very important. You are very likely, however, to find a match. Below follows a short list of examples of prospects for each focus country.

Germany

- Plastic processors with in-house mould production: [GKT](#), [Hitex Industries](#), [ITM Kunststofftechnik](#), [Lausberg Kunststofftechnik](#), [SK Schmidt](#), [Waschke](#).
- Producer of moulds: [Hasch Plastic](#), [Herbert Tiemann](#) (incl. plastic injection moulding), [New Plastic](#), [Constin](#), [Müller](#), [Rekuplast](#).

France

- Plastic processors with in-house mould production: [Brisard](#) (rubber), [City Plast](#), [OPS Plastique](#), [Outinov](#), [Polymer Michro Tech](#), [Siliform](#).
- Producers of moulds: [C3D Precision](#), [Centre Plastique](#), [MTO Plastics](#), [Simon](#).

Italy

- Plastic processors with in-house mould production: [MMT](#), [O.Zeta](#), [Sabe Plastic Technology Solutions](#), [Techno Plast](#).
- Producers of injection moulds: [AS Sala Stampi](#), [Comiplast](#), [FORM](#), [G.R.G.](#), [Isolanplast](#), [LM&P](#), [Tecnobairadi](#).

Czech Republic

- Distributors: [BIO-GEO-ECO](#) (materials and equipment incl. moulds), [VMM](#) (various metal products incl. moulds).
- Plastic processors with in-house mould production: [Formy Plasty](#), [Mifer](#), [Onivon](#).
- Producers of plastic injection moulds: [Axacnc](#), [Carbonsmay](#), [Incot](#), [Loreta](#), [Maplast](#).

Poland

- Producers of parts with in-house mould shop: [Form Plast](#), [Wabex](#), [W-M](#), [Utescheny](#) (German company).
- Producers of plastic injection moulds: [Elwik](#), [Macromolds](#), [Mecacontrol Polska](#) (subsidiary of Spanish Group Mecacontrol), [Pronar](#), [Metal Nit](#).

Austria

- Producers of plastic injection moulds: [Brandt](#) (incl. dies), [Camo](#), [Hintsteiner](#), [IFW](#) (for pipes), [MK-Kornfeld](#), [Moser Spritzguss](#), [Schoefer](#), [Starlim Sternr](#), [Tröst](#), [Ulbrichts](#), [Zitta](#), [ZKT](#).
- Leading producer of injection moulding technology: [Engel](#).
- Plastic processor with in-house mould production: [Neidlinger](#).

What are the market prices for moulds for plastics or rubber?

Within Europe, mould makers producing moulds for the production of automotive goods, household appliances, housewares, and electronics, have been feeling a downward price pressure since the middle of the former decade. This is because producers of consumer goods have been forced to rationalise their production, including the sourcing of moulds due to increasing competition in their markets.

Despite the significant capital investment in equipment required by mould makers in general, labour is by far the largest single component of production costs. Wages in Europe are relatively high, although in some countries they are of course significantly lower than in Germany, for example. As a rough indication, hourly rates in Germany are in the range of €16-18, while these in Czech Republic are only between €4-5.

As Table 1 reveals, the price of European imports of moulds for plastics or rubber remained relatively stable in the period 2008-2012. In 2013, the average price declined, which could be caused by lower metal prices, combined with strong competition in the market. The growth in 2014 can be explained by the recovery of steel prices, driven by economic recovery (particularly in the manufacturing sector) in the developed economies.

Table 1 also shows the increasing price level of imports from Developing Countries. This trend is especially caused by the higher prices that must be paid for moulds sourced in China, but at the same time, it should be mentioned here that more technologically advanced moulds are imported from China since recently. This can be explained by the huge decrease in the low-tech moulds market in recent years, as end users and final customers want to have the same quality for their products worldwide. As a result, the Chinese industry has begun to change; the moulder makers are shifting more and more to the high-tech segment. This will go faster in the next few years.

Table 1: Prices of European imports of moulds for plastics or rubber (€ per kilogram)

	2006	2008	2010	2011	2012	2013	2014
Total imports	16.4	17.7	17.5	17.5	17.3	16.8	18.5
Imports from...							
Europe	14.4	17.1	16.6	16.5	15.6	14.2	17.1
Developing Countries	13.0	13.1	14.2	14.5	15.8	16.9	17.0

Source: Eurostat (2014)

While imports from Developing Countries increased in price level, intra-European imports showed the opposite trend: declining price levels (until 2013). The major reason for this decline is the growth of the relatively low-cost producing countries such as the Czech Republic, Poland, Romania as suppliers to other European countries. The price increases in 2014 were caused by 1) recovery in steel prices (as mentioned earlier) and 2) the loss of market share by producers from the low-cost countries in Central and Eastern Europe.

Tip:

- Opportunities arise for those Developing Country mould makers able to compete with the relatively low-cost mould makers in central and eastern European countries, such as Poland and Romania. One thing in which Developing Country mould makers should stand out, for example, is their ability to speak fluent English or even other languages, such as German or French.

Useful sources

Company directories

- International: [ABC Direct](#), [Europages](#).
- Austria: [Austrian commercial agents database](#), [Firmen ABC](#).
- Czech Republic: [Firmy Cesko](#).
- France: [Cyclex](#).
- Germany: [Rotes Buch](#), [Fakuma](#), [German Trade Portal](#), [iXPOS](#), [Wer liefert was?](#)
- Italy: [Azienda in fiera](#), [Italy Business](#).

Industry and trade associations

- International: [EUROMAP](#), [Plastics Europe](#).

- Austria: [Advantage Austria](#).
- France: [Federation of Plastic Processing](#), [French Union of Plastic and Rubber Equipments Manufacturers](#), [Profession Plastique](#).
- Germany: [Association of German Machine Tool and Die Makers \(VDWF\)](#).
- Italy: [Association for Importers and Distributors of Machinery, Technologies and Tools](#), [Italian Association of Precision Moulds and Equipment](#), [Italian Federation of Chemical Industry](#).

Trade fairs

- Czech Republic: [Plastex Brno](#).
- France: [CCG](#), [FIP Solution Plastique](#).
- Germany: [EMO](#), [Euromold](#), [Fakuma](#), [K-online](#), [Nortec](#).
- Italy: [Eurostampi](#), [Plast](#).
- Poland: [Central European Plastics and Rubber Exhibition \(CEPLAST\)](#), [EPLA](#), [Eurotool](#), [Mach Tool](#), [Plastpol](#).
- Sweden: [Elmia Polymer](#).
- Other European countries: The Netherlands: [ESEE](#), [Kunststoffen](#), Hungary: [Industria](#), Estonia: [Instrutec](#), Finland: [Muovi Plastics](#).

Trade magazines

- International: [European Tool & Mould Making \(ETMM\)](#), [Injection world](#).
- Austria: [Industrie Magazine](#), [Österreichische Kunststoff](#).
- France: [Plastiques Caoutchoucs](#).
- Germany: [Kunststoff Magazin](#), [Werkzeug & Formenbau](#).



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Annex

One paragraph (paragraph 71) in chapter 8480 of the CN Nomenclature is dedicated to moulds for rubber or plastics. In addition, refer to Table 1 below for the classification. Table 1 also shows the list of Prodcom codes used for the production statistics of moulds for rubber and plastics.

Table 1: Selected products, based on CN and Prodcom nomenclature

Subsector and product groups	CN code	Prodcom code	Description
Flywheels			
moulds for rubber or plastics	848071-00,10,90	29562470	injection or compression type moulds for rubber or plastics

Source: CN and Prodcom Nomenclature