CBI
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Exporting pipes and process equipment to Europe

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- ***Which trends offer opportunities?***
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Exporting pipes and process equipment to Europe

The European pipes and process equipment sector offers opportunities for exporters from developing countries. Here you 'll find information that can help you get your pipes or process equipment on the market in Europe.

Main market research questions

- What is the demand?
- Which trends offer opportunities?
- What requirements should your product comply with?
- Through what channels can you get your product onto the European market?
- What competition do you face?

What is the demand for pipes and process equipment in Europe?

Imports of pipes and process equipment (PPE) from low-cost countries and developing countries to Europe will continue to grow in the next few years, albeit slowly. This trend is the result of the increased openness of European companies towards sourcing from developing countries. This positive attitude is driven primarily by strong competition on the market for standard products and high price pressure for both standard and more complex products. In addition, the search for cost-saving models is driving some European buyers to consider sourcing from alternative locations and from different locations for different products. The best opportunities for suppliers from developing countries are in the area of valves, pumps and parts thereof, preferably focusing on the largest European markets (e.g. Germany, the UK, Italy and France).

Which trends offer opportunities on the European pipes and process equipment market?

The trend of ever-increasing imports from developing countries is smoothing, but the market still offers a range of opportunities to exporters from developing countries. Future success is certainly feasible for exporters from developing countries who can offer products that are socially and environmentally responsible and of a good quality at a competitive price. The easiest way to enter the European market is to become a supplier of parts to European manufacturers, as producers from developing countries can offer interesting cost advantages.

Contents of this trend

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1 . Increasing importance of Corporate Social Responsibility

Corporate Social Responsibility (CSR) is already of prime concern to large, multinational manufacturers and distributors in Europe, such as distributor Eriks and valve manufacturer Flowserve. Eriks, for instance, aims to have a supplier sustainability code in place before 2020, while Flowserve has had such a code in place since 2010.

No matter where they come from, companies that are audited by potential customers and found to have failed CSR requirements may get a chance to address the situation. Other companies, which are not paying sufficient attention to labour laws, employee rights and/or child labour issues, may be automatically denied the opportunity to enter the supply chain.

Any European companies with a decent reputation will examine their suppliers' CSR and Human Resources (HR) policies. CSR is expected to become a fundamental (knockout) issue in selection criteria for new suppliers to Europe before 2020. Exporters from developing countries who have implemented a solid CSR policy can use this as a Unique Selling Point (USP). Note that frontrunners in CSR policies are companies from western and northern Europe; in other parts of Europe, CSR can be less of an issue

Tips:

- **Develop and implement a CSR policy, provide evidence to back it up, and market it. Do not wait to be asked, but prepare and offer it directly.**
- **Publicise your compliance to CSR principles in your marketing material (website and literature) for differentiation reasons.**
- **Use your commitment to CSR as a competitive edge.**

2 . Stabilisation of global economy

The global and European economy appear to be getting back to relatively smoother waters after some turbulent years. Although some question marks remain, such as the Brexit situation, the economy in Europe is set to regain growth in the years to come, though at a slower rate than before 2008. The effects of these lower economic growth prospects for Europe on international trade (read: imports) are difficult to predict.

On the one hand, it could lead to lower growth or stabilisation of imports from developing countries, for example because industrial production capacities in Europe will be used more efficiently, which reduces the need for more imports from outside Europe. On the other hand, the demand for competitively priced products from developing countries could get stronger and lead to more imports from developing countries.

The development of European imports of valves, valve parts and pumps from developing countries in the past decade can be seen in Figures 1-3. These figures clearly show that after a dip in 2009, when European imports were badly affected by the financial crisis, imports of valves, pumps and parts are experiencing a steady increase.

Figure 1: European imports of valves from developing countries, by main product groups

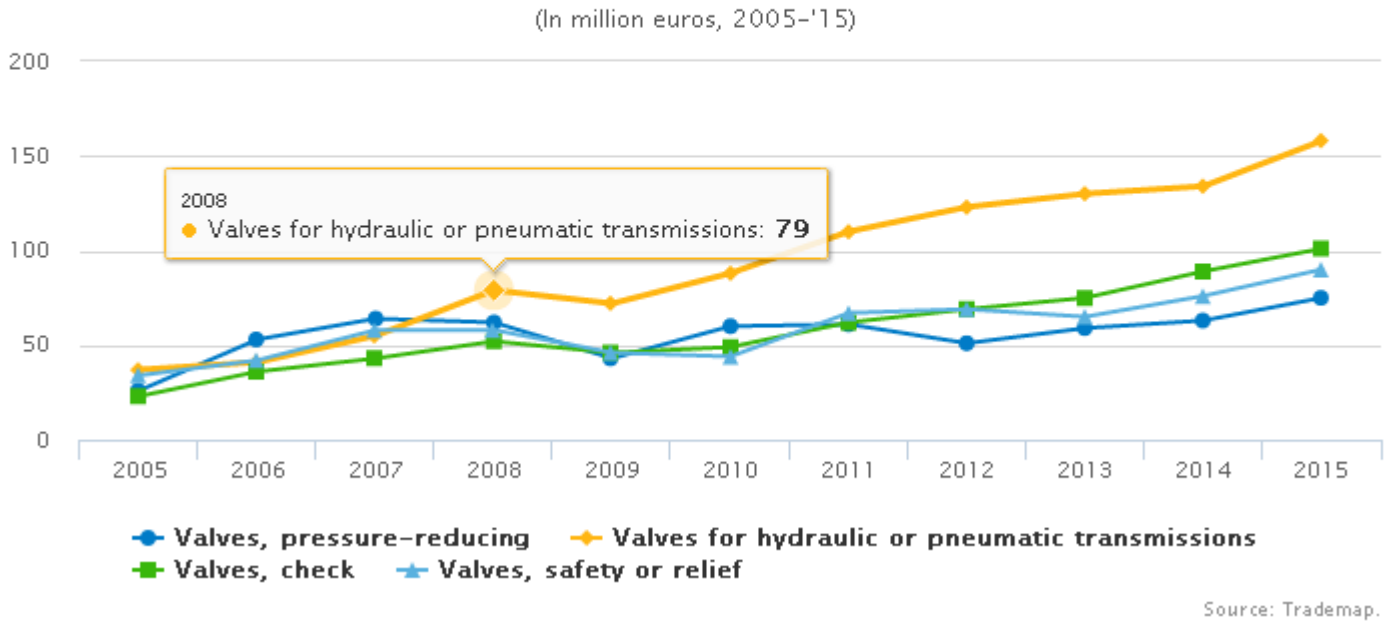
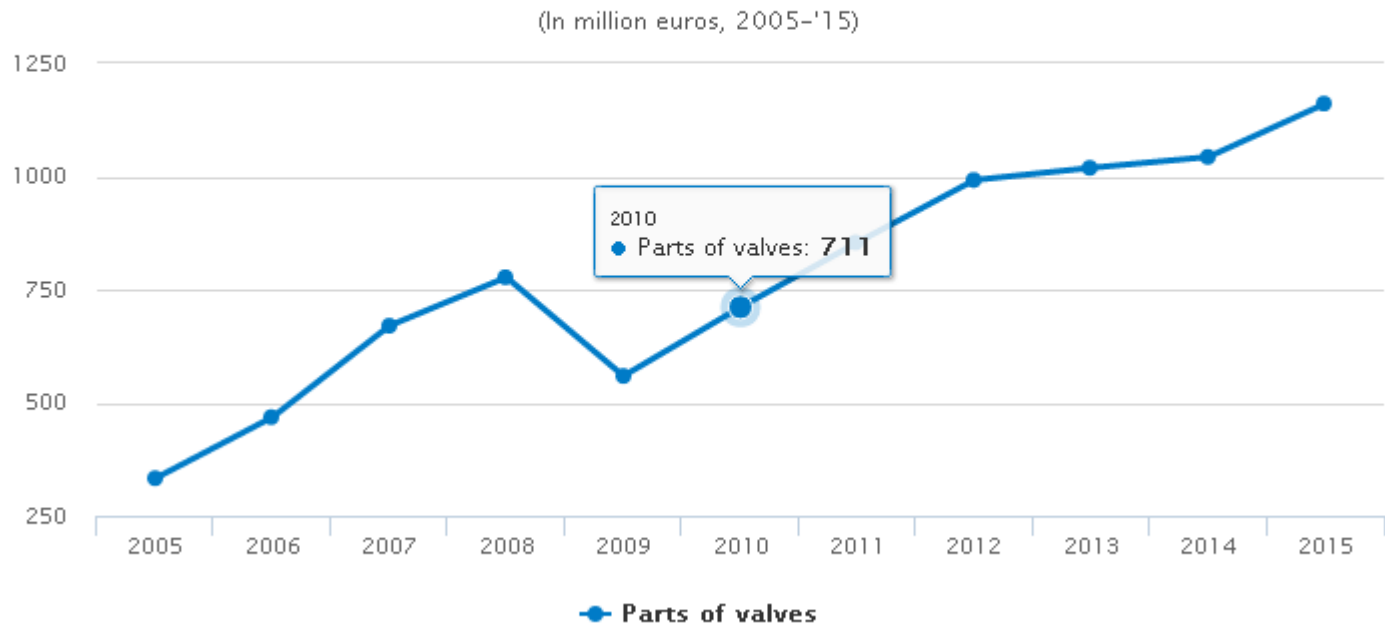
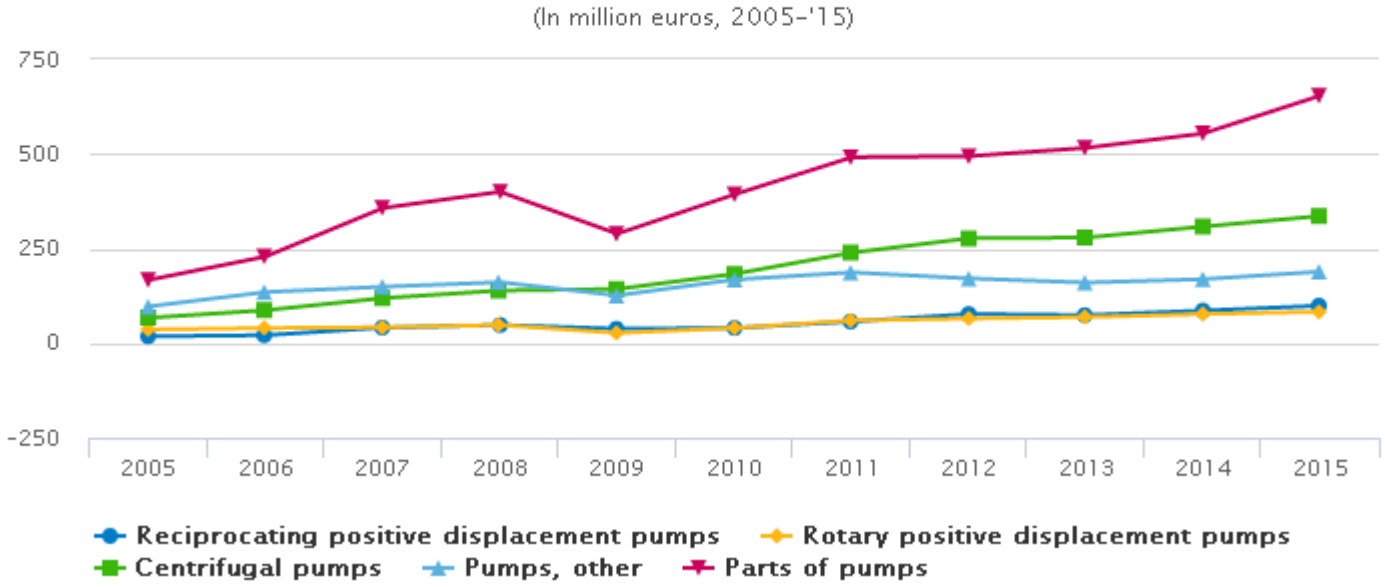


Figure 2: European imports of parts of valves from developing countries



Source: Trademap.

Figure 3: European imports of pumps from developing countries by main product groups



Source: Trademap.

Tip:

- **In each future scenario mentioned, there are better opportunities for producers from developing countries who are able to supply advanced products. Exporters from**

developing countries should not compete with each other on price (as they lose out to Chinese competitors on price) but on product quality and characteristics.

3 . Risk prevention is becoming more important

Risk prevention by process equipment owners has become more and more important in recent years. The increasing focus on liability issues and emission reduction is responsible for this development. In practice, it can be seen from:

- **More "European origin" casting, machining and assembly requirements from European customers.**
- **More and more quality assurance and non-destructive testing required.**
- **Requirements, legislation and related procedures in some market segments, such as the food and pharmaceutical industry, have got stricter in recent years.**
- **Stricter requirements from European customers. For example, several large companies, including Shell, have implemented and sophisticated their preferred suppliers database in recent years.**
- **Extra quality controls by European end customers (entry controls).**

All these developments make it increasingly difficult to meet European market access requirements. At the same time, this is an opportunity for companies that already comply with or are trying to comply with the relevant requirements. In addition, it is easier to supply parts rather than finished products to European buyers.

Tips:

- **Stay well-informed of European market requirements. For more information about requirements, see our study of EU buyer requirements on the European pipes and process equipment market.**
- **Make use of (European) quality auditors and follow their advice strictly. Be eager to learn and to improve. Examples of reputed auditors are DNV and TUV.**
- **Offer transparency and be honest about your capabilities. A live webcam application on your website showing your production activity might help as well.**

4 . Growing focus on costs

Customers have increasingly been demanding cheaper products in recent years. This is because of the difficult market situation in the European Union. As a result, the availability of private-label products in the European market has grown. Private labelling is particularly gaining ground in countries without significant domestic production (such as the valves market in the Netherlands). This trend offers opportunities to exporters from developing countries that can offer a viable private-label product or product range to European distributors or producers.

European buyers are only interested in products and parts from developing countries if they are cheaper than products made in Europe; for instance, if there is a price difference of at least 25% or even 30-40% with products manufactured in Europe. This is only the case, however, for labour-intensive products, which are products that need a great deal of machining. Labour costs make the difference.

Tips:

- **Benchmark your competitiveness (and landed costs) with players from China, South Korea, Taiwan, and Central and Eastern European countries. Be aware that European producers also relocate to low-cost countries.**
- **Select your most sophisticated products that need a great deal of machining, and focus on these products. The more sophisticated the product, the higher the labour factor in the landed cost price and the greater the interest of European buyers in sourcing from developing countries.**
- **Carry out market research: find potential European private-labelling partners (producers or distributors). Avoid Germany and Italy for private-label activities, as these two countries have huge production capacities available and their private-labelling production mostly takes place domestically.**

5 . Energy efficiency will gain importance

The energy efficiency of processes will draw further attention in the few next years and will increasingly influence the purchasing decision for process equipment. Producers from developing countries that can offer energy-efficient products should use this as a Unique Selling Point.

Tips:

- **Expand to include (further) engineering capacity in-house.**
- **Gain (more) knowledge of applications and energy efficiency issues.**
- **Train engineers to offer advice to customers. Use interesting case studies, such as the example provided below.**

6 . Emission reduction will continue

Inaccurate emissions figures have been a cause for concern in Europe. Obviously, this issue has also gained attention within the pipes and process industry. Not only are there concerns for environmental reasons, but also for financial ones. It is clear that controlling emissions will seriously increase in importance in the years to come.

The conditions that minimise emissions from industrial plants are continuously being honed. Emission control is currently also gaining significance in applications such as valves, pumps (in which mechanical seals have to be applied) and flanges. In the chemical and energy industry, emission control is most definitely a ”hot” topic. Geographically, particularly in western and northern Europe, significant (and increasing) attention is being paid to emission control. Southern, Central and Eastern Europe will also have to adopt the standards that are already being applied by the rest of Europe.

Most European processing plants and power stations apply the TA Luft standard. This standard not only contributes toward environmental conservation, but also significantly opens up opportunities for the exporter from a developing country to the European market. In the larger European markets, it is considered a ”must have”. Producers from developing countries who are able to meet the requirements of emission-related standards such as TA Luft or ISO 15848 will definitely have a competitive edge.

The growing attention to emission reduction has also led to a growing focus on non-destructive testing and evaluation capacities at the suppliers’ premises. Testing should prove that the products are absolutely safe and leak-free.

Tips:

- **Include low-emission products in your production range. In the valves market, for example, bellow seal valves are considered to be emission-free.**
- **Seriously consider adopting the TA Luft standard.**

- **As it is a difficult and rather technical topic to grasp, Business Support Organisations could play a facilitating role in terms of increasing knowledge among exporters. Experts and/or consultants could be invited to do a training session or seminar with your exporters.**
- **Expand to include (further) test-engineering capacity in-house.**

What requirements should pipes and process equipment comply with to be allowed on the European market?

If you want to export pipes or process equipment to Europe, you will have to comply with various requirements. Most importantly, you need to comply with legislative requirements, mostly related to product safety. Voluntary commitment to quality standards is also increasingly common on the European market.

Contents of this trend

1. What legal and non-legal requirements should your product comply with?

2. What additional requirements do buyers often have?

1 . What legal and non-legal requirements should your product comply with?

The following 'musts' apply to the products and uses listed here

1. **Product safety – applicable to all products,**
2. **Technical requirements for specific applications – standards for when products are used in specific applications including transport pressure equipment,**
3. **Ecodesign for energy-related products – for energy-using or energy-saving products,**
4. **Energy labelling – for energy-related products,**
5. **Chemicals – for products that contain chemical substances,**
6. **Harmful gases and substances – applicable to a wide variety of products such as refrigerators, air-conditioners, fire extinguishers and electronic equipment,**

7. **Food contact materials – for materials coming into contact with food.**

Product safety

The obligation of complying with product safety requirements will firstly be the responsibility of the European company that places the finished product on the market. However, they will often ask their suppliers to comply with the requirements as well. For suppliers of parts, this can translate into demand for more information, test reports or compliance with standards.

CE marking

In addition to the general product safety requirements, there are also several product-specificstandards. This shows that the product complies with harmonised safety, health and environmental requirements. Examples of CE marking and the corresponding European Union directives are:

- **ATEX – applicable to equipment used in potentially explosive atmospheres,**
- **EMC – electromagnetic compatibility for equipment with electromagnetic emissions,**
- **LVD – low voltage directive applicable to electrical equipment with a voltage between 50 and 1000 V for alternating current and between 75 and 1500 V for direct current,**
- **PED – applicable to pressure equipment.**

For parts of products that fall under CE Directives, CE marking is not legally required. Your buyer will take care of the CE marking for the complete product. However, he will expect you to comply with certain standards to ensure that his final product will also be compliant. Buyers of parts can also ask for voluntary CE marking.

Tips:

Use the step-by-step guidance, provided by the European Commission, to qualify for CE marking.

Identify which directives and standards are applicable to your product(s). You can do so by retrieving an overview of all legal requirements applicable in the EU Export Helpdesk, or by checking out the directives applicable to your product group.

Use the links provided on New Approach to find more information for each of the directives.

Contact Open Trade Gate Sweden if you have specific questions regarding access requirements in Sweden and the European Union.

As the process of voluntary CE marking can be expensive, make sure that there is a market potential for the final product before investing in requirements for CE marking

Technical requirements for specific applications

Besides CE marking, additional technical requirements can apply to pipes and process equipment used in specific applications, such as aircrafts and motor vehicles. These concern the essential requirements related to product integrity (such as structure and materials, propulsion, system and equipment), product operation and the organisation's structure.

Ecodesign for energy-related products

The Energy-related Products Framework Directive is a CE Directive specifically for energy-using and energy-saving products. It deals with the environmental impact of products, including their energy consumption throughout their entire life cycle. The general requirements of the Framework Directive are supplemented by specific requirements laid down in implementing regulations for various products. Relevant products include heaters and water heaters andrefrigerating appliances.

Tips:

- **Use the List of Ecodesign measures of the European Union to find out more about the Ecodesign regulations and the products that are covered by these regulations.**
- **If you have questions regarding the Ecodesign Directive, consult the frequently-asked questions document published by the European Union, which summarises questions and answers about the Directive and related implementing regulations.**
- **Stay updated about amendments by taking a close look at the implementing regulation that applies to your product. Article 3 of the regulations provides a timeline for scheduled amendments.**
- **Be aware that European buyers and producers might need to change their products and product specifications due to new legislation. Search for interesting opportunities for older-generation products on the European market, for example by looking on the spare parts market, or by working with European producers that would like to move production of older-generation products to low wage countries.**

Energy labelling

Energy-using products destined for the consumer market must bear specific energy labels when put on the European market. These energy labels communicate information on the energy consumption of the product. Although it is your European buyer who has the responsibility to ensure that products are properly labelled, it is important to familiarise yourself with the necessary requirements. You can be asked to provide your buyer with technical documentation to make up the label.

Tips:

- **Check the EU Export Helpdesk what legislation applies to your product.**
- **Use the energy label generator of the European Commission to find more information about energy labelling of products.**
- **Follow European standards for energy consumption measurements, such as EN 14511:2007 (air conditioners and heat pumps with electrically driven compressors for space heating and cooling) and EN 15332:2007 (heating boilers).**

Chemicals

To avoid environmental damage, the European Union has restricted the use of certain chemicals in the REACH regulation. REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals. For example, REACH states that most measuring devices (such as thermometers and barometers) cannot contain mercury.

Tips:

- **Provide information about the substances that you use to your European buyer, as he is responsible for complying with REACH legislation. Make sure that you know which substances are used in your products and that you provide the information in the way that your buyer wants; for instance, via Material Safety Data Sheets (MSDS) or software in which you declare the chemical content of your product.**
- **To determine in which way you are affected by REACH, see our REACH study.**
- **Check the candidate list of Substances of Very High Concern on the website of the European Chemicals Agency. These might become prohibited in the future.**

Food contact materials

Specific health control provisions apply to pipes and process equipment that come into contact with food,. These rules have been laid down by Commission Regulation (EC) No 2023/2006 on good manufacturing practice (GMP) for groups of materials and articles that are designed to come into contact with food (including metals and alloys). Food contact materials must be manufactured so that they do not transfer constituents to food in quantities that could endanger human health, change the composition of the food in an unacceptable way or deteriorate the taste and odour of foodstuffs.

Tip:

- **The European Union legislation on food contact materials is very strict. Therefore, make sure that you have documentation on toxicology and risk assessment of chemical migration from food contact materials and/or declarations of compliance.**

General requirements on packaging and liability

Note that there is also non-product specific legislation on packaging and liability that apply to all goods marketed in Europe.

2 . What additional requirements do buyers often have? Quality management is crucial

ISO 9001 is a very common quality management system. If you have not done so already, you will need to implement this quality management system and get your certification.

Tips:

- **Make sure that you obtain your ISO certification, preferably through an internationally recognised body as this offers more credibility towards European buyers.**
- **For a full overview of certification schemes in the sector, consult the International Trade Centre (ITC) Standards Map.**

Implement Six Sigma and lean production to keep up

Six Sigma and lean production are now crucial requirements that European buyers ask for. Both are production management strategies:

- **Six Sigma seeks to improve the quality and the results of business processes by reducing the standard deviation and increasing process predictability.**
- **Lean production seeks to avoid sending money and resources for any other goal than creating value for the consumer.**

Implementing Six Sigma and lean production is not only about complying with requirements. It also helps to improve performance on cost, speed, delivery times and reliability.

Tip:

- **Implement Six Sigma and lean production in order to remain competitive in the European marketplace.**

Compliance with technical product standards to guarantee 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 and may overlap or complement each other. Which standard is the best to follow depends on your specific situation (for instance product and market(s) that you want to target). In Europe, the following standards are used most:

- **ISO standards: these are recognised worldwide and cover a wide variety of products.**
- **EN standards: these are developed by the European Committee for Standardization and are harmonised throughout the European Union. ISO standards are often harmonised with, and published as, EN standards.**
- **National standards: developed by standardisations bodies in European Union Member States and only asked for and relevant in the specific European Union Member State. ISO and EN standards are more common but some (and a reducing number of) buyers will still work with national product standards.**
- **Foreign standards: can also be asked by companies that operate in Europe. For example, American standards will mainly be asked in the European Union by American-based multinationals operating in the oil and gas industry that follow these standards. An important difference with American standards is the technical specifications (such as inches instead of centimetres). Examples of American standards agencies are the American Petroleum**

Institute (API), American National Standards Institute (ANSI) and American Society for Testing and Materials (ASTM).

Tips:

- **Make sure that you understand all standards applicable in a country, or mentioned in an inquiry, before making an offer.**
- **For more information about specific requirements for valves and pumps, see our studies about exporting pipes and process equipment to Europe.**
- **Every successful company needs a good compliance strategy. Therefore, determine which quality standards are most suitable for the product(s) and market(s) that you want to target. Consult EU standardisations bodies for more information.**

Environmental performance

Environmental performance and energy efficiency are part of the issues that (potential) European buyers increasingly pay attention to. Buyers are looking for green and energy-efficient products and manufacturing methods. They stay away from polluting products and processes wherever possible.

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 that are made available to potential suppliers.

The environmental management system ISO 14001 is also becoming increasingly common. You may therefore consider it 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 ecodesign approach by giving attention to the environmental impacts of the product during its whole lifecycle. This covers: 1) Easy dismantling of parts of final product(s) for later re-use or recycling, 2) Less amount of raw materials used, 3) Avoidance of mixtures of materials difficult to separate, and 4) Avoidance of hazardous substances/materials.**

Corporate Social Responsibility (CSR)

EU companies are increasingly looking at corporate social responsibility (CSR). CSR looks at the 3 Ps: Planet (for instance, environmental performance), People, and Profit. EU companies will have varying degrees and ambition levels in terms of CSR implementation.

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 those cases, suppliers can be as asked to comply with suppliers' code of conducts.

Some companies will even audit their suppliers on CSR and base their selection on this score. The weighting may even be as high as 30% of the audit score. On the other hand, there are companies who have not (yet) included CSR in their weighting at all.

Important CSR issues in the metal parts sector relate to the sourcing of raw materials, respecting human rights and land rights, healthy and safe working conditions and environmental performance. Other CSR issues that can be of importance will depend on the specific issues that are in play in your specific sector, country or region.

EU buyers will aim to show due diligence, meaning that they will take the necessary steps to avoid implication in CSR violations. Part of this can be to make 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 conducts, and general vision and objectives.**
- **For example, refer to the website of Wärtsilä for more information about their code of conduct to see how large multinational companies address sustainability issues.**
- **Address sustainability issues, regardless of whether your buyers ask for compliance with CSRissues. CSR will become more important in years to come and a professional attitude will help to find and maintain new buyers.**

- **Consider qualifying for the certifications ISO 26000 on social responsibility,SA8000 on social accountability, or OHSAS 18001 on occupational health and safety, as these may provide a competitive advantage if European partners indicate that this has an added value.**
- **Find out what CSR issues are relevant for your country. Refer to the country maps on the websites of UN Global Compact (human rights), International Labour Organization (labour standards including health & safety), Transparency Index(corruption), or Environmental Performance Index (environment). 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. They should be considered a starting point. Do more research, include suppliers in this process and take steps if necessary.**

Through what channels can you get pipes and process equipment onto the European market?

The most prominent targets in Europe are producers of pipes and process equipment (through subcontracting). The best opportunity for producers from developing countries is to focus on a few products that can be considered specialities. For these specialities as well, European producers are the most important target, as some of them may be interested in subcontracting some of their production to low-cost countries. Distributors are also good targets, as they have good access to local markets in the European region.

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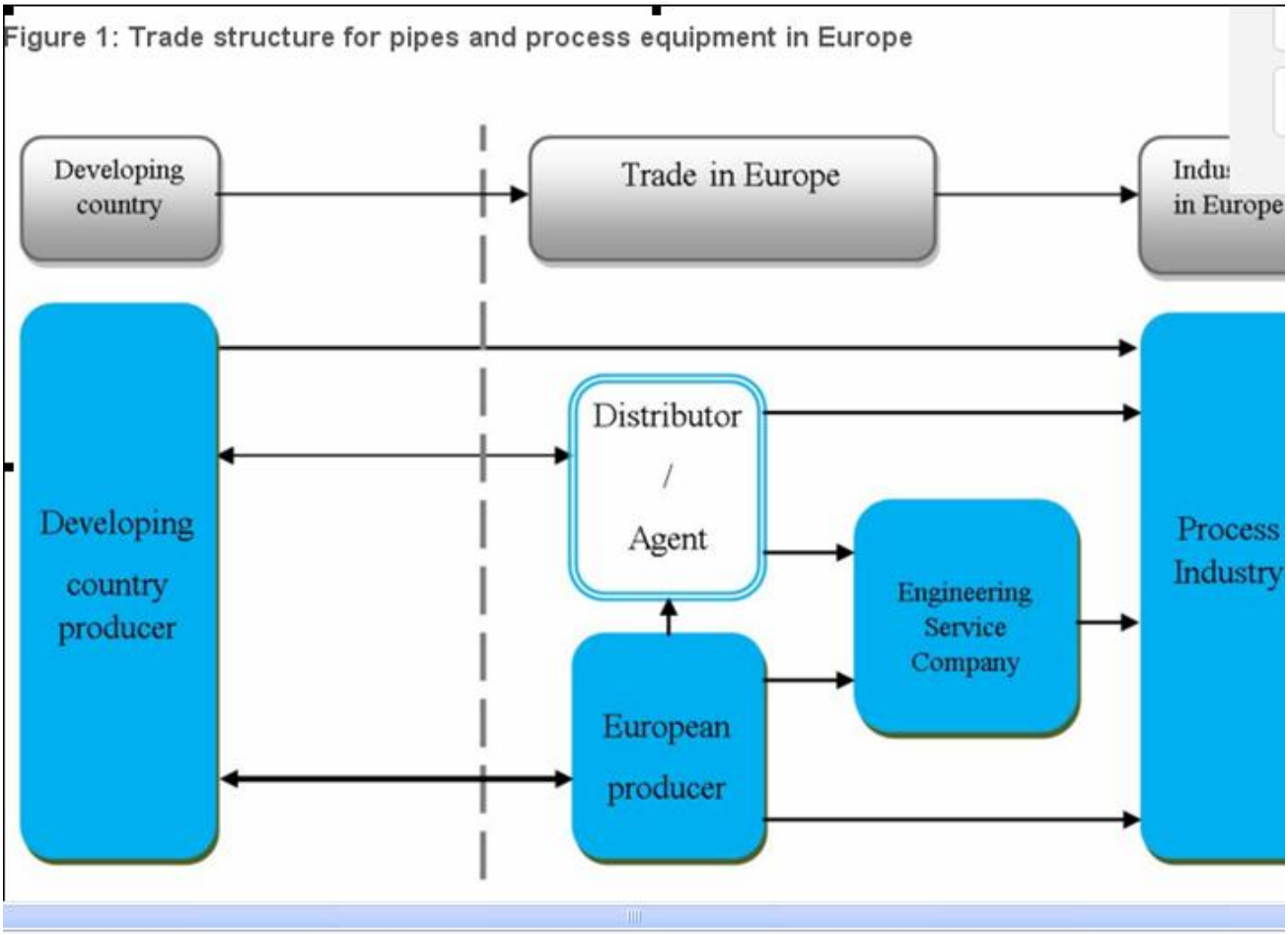
2- Market segments

1 . Market channels

Figure 1: Trade structure for pipes and process equipment in Europe



Distributors and agents

Distributors are attractive targets for exporters from developing countries who aim to export large volumes of commodity-type products, such as most flanges, fittings and common valves. This is because distributors often buy or import commodities in relatively large volumes on a scheduled basis.

Characteristics of distributors:

- **Distributors can be the link between the exporter from a developing country and the European customer.**

Usually, the distributor also adopts the role of importer.

- **Distributors have several suppliers, who do not know the distributor's customers.**

- **Distributors are one of the most important channels for exporters from developing countries. This is because they have thorough knowledge of local markets and an extensive network in the European target market.**
- **Distributors often have their own stock, which is the reason why they are also called 'stockists'. Products need to be kept in stock, as they have to be available to end-users in the event of an urgent delivery.**

Agents can represent your company in a particular market or country. They are usually in contact with potential buyers for your products and sell the product on behalf of the exporter. You should use agents if you want to maintain direct control of overseas sales, as they must sell at the exporter's price under specified conditions. However, you have to be willing to bear the credit risks of all sales if you choose to use agents.

Characteristics of agents:

- **Agents look for buyers or for manufacturers that are looking for subcontractors.**
- **Agents receive a commission, which depends on variables such as the character of the product and the size of the order.**
- **Agents mostly sell products that do not have to be available from stock, which are usually tailor-made products such as knife valves, lobe pumps and positive displacement pumps.**

European producers of pipes and process equipment (through subcontracting)

These companies have a strong appeal to suppliers of parts, but also potentially for some finished product providers. Subcontracting offers the best opportunities for specialities: (parts of) pumps (particularly special pumps such as positive displacement pumps), some special valves (such as knife valves) and special flanges (for example, flanges with a large diameter).

Characteristics of this channel:

- **European producers can manufacture pumps or valves, among other things.**
- **Exporters from developing countries can act as a supplier of parts and (partly or completely) finished products for European producers, according to the specifications of the European producers. This often concerns labour-**

intensive production, while the European manufacturer takes care of design, research and development.

- The willingness of European producers to form subcontractor relationships with exporters from developing countries differs from country to country. Generally speaking, the German companies take the lead in the European Union in this area, in several cases forming joint ventures with exporters from developing countries. Spanish companies still produce simple products such as standard types of valves themselves. It is expected that they will increasingly outsource the production of these valves as well.
- Scandinavian producers make more sophisticated products in low volumes and they are very much used to subcontracting several production processes.

Engineering service companies

Engineering service companies build, maintain and/or repair machinery and/or plants that contain pipes and process equipment. They are also called 'contractors', as they close the main contract with the process equipment owners.

Characteristics of this channel:

- Engineering service companies only buy from respected brand manufacturers.
- The customers of engineering service companies are process equipment owners such as petrochemical companies, refineries, and water distribution and sewage companies. Note that these process equipment owners may own installations all over the world, which means that they can award installation or maintenance projects for any of these installations to the European engineering service company.
- A major part of the activities of engineering, procurement and commissioning by the service company takes place in the European Union. By contrast, actual installation takes place directly at the end location, which can be anywhere in the world.

Process equipment owners

Process equipment owners are the end-users of pipes and process equipment. They sometimes buy directly from producers in case of high volumes. Characteristics of this channel:

- **Process equipment owners may buy in developing countries, but only from respected brand manufacturers.**
- **Process equipment owners can operate in a wide range of process industries: chemical, power generation, oil and gas, water management, pulp and paper, mining and other general industries.**
- **Process equipment owners may own installations all over the world, which means that they can award installation or maintenance projects for any of these installations to engineering service companies from Europe or elsewhere.**

Ongoing consolidation among distributors

The main expectation among industry experts is that further consolidation among distributors is going to be a main trend in the next years. The distributors that remain will be either wholesalers for a wide range of pipes and process equipment, or distributors specialised in one or only a few market segments. The specialists will increasingly offer engineering support to customers, and therefore they will also require their suppliers to offer engineering support to them.

The ongoing consolidation will reduce the number of potential buyers for exporters from developing countries. At the same time, it is an opportunity for exporters from developing countries, because the average potential sales volume to distributors will increase. However, the larger the distributor, the higher the chance that producers have to meet strict supplier selection criteria (so-called Approved Producers List (APL)). Several of the large distributors operate a vendor performance evaluation program, including on-site assessments, monitoring and evaluation of the quality of the valves produced.

Most exporters from developing countries should focus on specialised distributors, as the generalists usually deal with commodities rather than with the products which exporters from developing countries should focus on. Exporters from developing countries who can offer engineering support have the best opportunities with specialised distributors in the European Union.

Tips:

- **Make an overview of distributors in Europe and map their characteristics and target markets. Choose to target the ones that match with your own target market.**

- **If you target specialised distributors, you need to realise that you have to offer engineering support as well. In that case, develop a sales engineers department in your company.**

2 . Market segments

The market for pipes and process equipment can be divided into specialities and commodities.

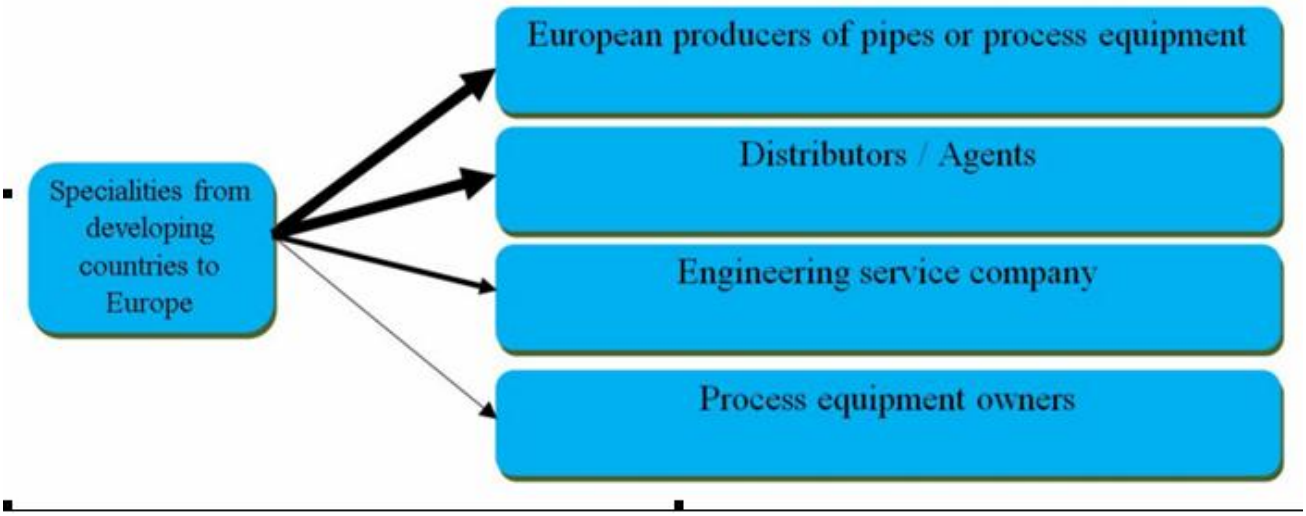
Specialities

Specialities are tailored to the needs of the customer and are therefore less suitable to hold in stock, such as corrosion resistant control valves. The share of specialities in pipes and process equipment products depends on the application of the product. In recent years, China has started to tap into this market as well; however, its share of trade is still limited, leaving clear opportunities to exporters from other developing countries.

For the medium term, these main characteristics remain:

- **The product specifications are defined by the customer.**
- **Customers in Europe are producers of pipes and process equipment (through subcontracting), intermediaries (indirect trade) or engineering services companies and process equipment owners (direct trade). Figure 2 shows that subcontracting is most common for the export of specialities to Europe.**
- **The share of trade through intermediaries is low (less than 20%), while the share of direct trade and trade with European producers of pipes and process equipment is rather high (80%).**
- **Margins for European buyers are in the range of 20-50%. It depends on the level of care and attention that must be given to the product. In addition, it also depends on the costs (and risks) involved in the sourcing process.**
- **In the years to come, the market share of specialities will continue to increase, due to process equipment owners that continue to strive for cost reduction, reduce risks, and therefore increasingly automate processes. This offers opportunities to producers from developing countries who can fulfil that specific need.**

Figure 2: Trade structure for specialities in Europe



Commodities

The market for commodity-type products is dominated by China. The Chinese exporters compete mainly on price, leaving very limited opportunities for other developing countries. For the medium term, these main characteristics remain:

- **The leading market channel is via distributors.**
- **There is strong competition among commodity producers, mainly on price.**
- **Customers in Europe are intermediaries (indirect trade: distributors/agents) or engineering services companies and process equipment owners (direct trade).**
- **In contrast with the specialty market, only 10-20% of commodity trade in Europe is direct trade, the balance is for indirect trade.**
- **Margins are relatively low and maximally 20%. They reflect the level of care and attention that 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.**

Although the commodity market does not seem to be very attractive, some opportunities may arise now and then. For example, in recent years, valve users in Europe have increasingly demanding service requirements. It includes aspects such as higher pressures and temperatures, and very high abrasive and/or corrosive services.

In addition, low emission valve testing requirements have become a common industry standard. As a result of this development, some European valve manufacturers have focused on producing speciality valves for these demanding customers. As a result, these manufacturers have neglected the commodity valves to some extent. According to some experts, if this development will continue, it could seriously hamper the supply of certain commodity valve types in Europe and even on a global scale.

Tips:

- **Stay well-informed of trends and developments in the global market. Visit trade fairs and contact your network partners on a regular base to stay up to date on recent trends. If a specific type of commodity faces availability problems, this could offer good opportunities to producers from developing countries.**
- **Check our list of top tips on How to Find Buyers in Europe.**

What competition do you face on the European market for pipes and process equipment?

Imports of valves from developing countries to the European Union region will show a small growth in the next few years. This trend is the result of the increased openness of European countries towards sourcing in developing countries. Approved Producers Lists (APLs) will remain important in the next years and exporters from developing countries should focus on those companies that don't have such strong supplier selection criteria in place. However, it does not mean that market entry is easy: barriers are considerable and the high degree of rivalry makes competitive pricing elementary.

Contents of this trend

1- What are the opportunities and barriers when you try to enter the market?

2- What are substitute products?

3- How much power do you have as a supplier when negotiating with buyers?

4- Who are your rivals?

1 . What are the opportunities and barriers when you try to enter the market?

Entry barriers for complete products are high

There are high entry barriers in place for exporters who want to enter the European market:

- **Strict legislation and regulations,**
- **Image problems in terms of quality for certain developing countries such as Colombia, Peru, China and India,**
- **Difference in quality demand in Europe: northern Europe requires higher product quality and consistency than southern Europe.**

Valves produced for the European market must be designed and manufactured with an emphasis on:

- **Low emissions,**
- **Safety,**
- **Simple maintenance,**
- **Ease of operation,**
- **Long and reliable service life.**

Important requirements that must be met are compliance with the Essential Safety Requirements of:

1. **the Pressure Equipment Directive (PED) 97/23/EC,**
2. **in the case of potentially explosive atmospheres, the ATEX Directive 2014/34/EU.**

Entry barriers for parts are lower

It is less difficult to supply valve parts to European valve manufacturers (through subcontracting) than to supply finished valves to European buyers. In that case, exporters from developing countries do not have to meet the strict product requirements that apply to finished products.

Although parts (subcontract) production can be considered as an easier market access, it does not mean that there are zero chances to sell finished valves in Europe. Take note of the following:

- **Putting your own brand in the market is the most difficult market entry in Europe. It is only possible if you can rely on strong financial resources.**
- **The market for technically advanced valves is less competitive than for commodity-type valves. For example, NORSOK M-650 approved valves of duplex and high alloys are made by only a limited number of manufacturers in- and outside Europe. These manufacturers possess strong negotiation power against their customers.**
- **A good option to enter the European market is a cooperation agreement with a European valve manufacturer (sell your valves under his label).**
- **If you try to sell finished valves, go for new projects with no restriction of a specific vendor listing (also called APL). The oil and gas industry and the chemical and processing industries are examples of industries in which vendor listings are common use. Go for projects in industries that do not use vendor listings and thus have relatively low entry barriers; for example, the water and wastewater industry and construction industry.**

Tips:

- **Read more about the European market and its opportunities for developing country producers at the CBI Market Intelligence platform.**
- **For more information, see our study of EU buyer requirements on the European pipes and process equipment market.**
- **Consult the Market Access Map (MAcMAP) of the International Trade Centre (ITC) for tariff information related to your specific product and target country.**
- **Develop a professional website and promote it among your target group. Use it to provide a service to your customer by displaying instruction manuals and guides. Also place your product catalogue on your website. In other words, strive for a professional marketing and sales approach.**
- **Keep track of changes in technical requirements. Contact your country's national standards body (in practice, also the ISO member in your country), which can provide you with information on the standards that are currently under development or are being revised and that may affect your business. The standards body should also be able to give you information on international or regional standards that are under development or revision, especially those that the body is involved in. If information in other regions is required, the standardisation body will be able to obtain the information from its counterparts worldwide.**
- **Discover the opportunities of subcontracting by European valve manufacturers. Promote yourself as a perfect subcontract opportunity to them. Give a clear**

impression of your production facilities by using photos and video. Impress potential customers, but be honest.

- Always consider the presence of patents for your type of valves in target markets. Use a tool such as WIPO Patentscope for searching patents worldwide.

2 . What are substitute products?

Valves are unique products that cannot be replaced by other products. One type of valve could be replaced by another type of valve, or changing quality requirements (material requirements, or finishing requirements) could also lead to valve replacements.

Since valves are unique products, valves demand will remain constant over the years. However, as hand-operated valves continue to be replaced by automated valves, the valves market is forecast to show a growing demand for the latter. This offers opportunities for exporters from developing countries who can supply automated valves.

Tips:

- Automated valves engineering requires a different set of engineering skills, but the rewards may be significant. Collaborate with companies that may already possess these skills and that are already manufacturing automated valves.
- Examine the trends and developments related to automated valves in your current customer base and act accordingly.

3 . How much power do you have as a supplier when negotiating with buyers?

Supplier reduction programmes strengthen buyer power

Large and medium-sized buyers continue to attempt to reduce the number of suppliers (both distributors and producers of valves) from which they buy. Their main aim is to reduce the size and diversity of their inventory, and to reduce their working capital. The few suppliers that remain are only allowed to supply these products that are on the buyer's APL.

Several market segments in Europe are marked by ongoing consolidation, caused by facility closures and sell-offs in the past few years. In practice, this has especially led to strengthening of buyer power for commodity valves.

Generally, the buyer power for both valves and valve parts can be rated as strong. This is because the companies that are buying valves tend to be larger than the companies that are producing valves. The more buyers are considered as 'large accounts' by the valve manufacturers, the more power these buyers have to negotiate prices. Buyer power also varies in different market segments. In market segments that can be defined by 'critical applications', such as the chemical and power generation industry, the power of customers is relatively high.

Tips:

- **Perform market research; make use of the sources listed in CBI's documents available on CBI's market information portal. Map the European buyers for your valves, find out which of these buyers do not have an APL in place (scan their website, or if necessary call them) and find the distributors who supply to them. Target these distributors.**
- **Exporters from developing countries do not have a good chance to get listed on the APLs of buyers. Therefore, focus on companies that do not have such strong supplier selection criteria.**
- **If you are a new developing country producer to the European market, focus on a limited number of products (for instance your best products) for specific market segments. With this approach, you make maximum use of your strengths.**
- **Focus on market segments with less critical applications, such as the water and wastewater industry. In these markets, buyer power is relatively low.**

Supplier power continues to be strong

The principal raw materials used in manufacturing valves are machined castings and forgings (relatively customised materials), and relatively standard materials such as fasteners. The supplier power for customised materials is strong. However, in case of relatively standard materials, supplier power is low, as they are usually available from a wide variety of sources. In addition, switching costs in moving between suppliers are minimal.

In more than 50% of the relationships with suppliers of customised materials, valve producers from developing countries prefer batch sizes that are relatively small for their suppliers. It means that the position of the suppliers is relatively strong. This is not set to change in the next few years. Exporters from developing countries have to accept this situation, or should take action to counter this situation. Since valve manufacturers from developing countries have a relatively weak position against

their suppliers, the main opportunity for them is to secure a continuous supply of input materials.

Note that the power of suppliers depends a lot on the customer-supplier ratio. The smaller a valve or valve parts manufacturer is, the weaker his bargaining power against suppliers

Tips:

- Continually monitor the business conditions of your suppliers to manage competitive market conditions and to avoid potential supply disruptions.
- Consider a merger or acquisition strategy and look for merger or acquisition candidates.
- Consider a vertical integration strategy, meaning that you strive to acquire your key suppliers. In case you have your own foundry or forge, your power against your supplier may strengthen.
- Stay well-informed on trends and developments in the global valves supply and demand situation and act accordingly.
- See our study of market channels and segments on the European pipes and process equipment for more information.

4 . Who are your rivals?

Pricing will remain key in the years to come

The European market will remain highly fragmented and therefore competitive, despite on-going consolidation activities in the valves industry in the past years. Only about 2% of European valve companies have sales in excess of €10 million. The main competitive drivers continue to be price, reputation, timeliness of delivery, quality, proximity to service centres and technical expertise, as well as contractual terms and previous installation history.

Taking the economic situation of the past few years and the forecast for the coming years, pricing is and will continue to be a leading influential competitive factor in the European market. Price competition tends to be more significant for original equipment orders than aftermarket services.

An important development among European valve users is increasingly demanding service stipulations. It includes aspects like higher pressures and temperatures, and

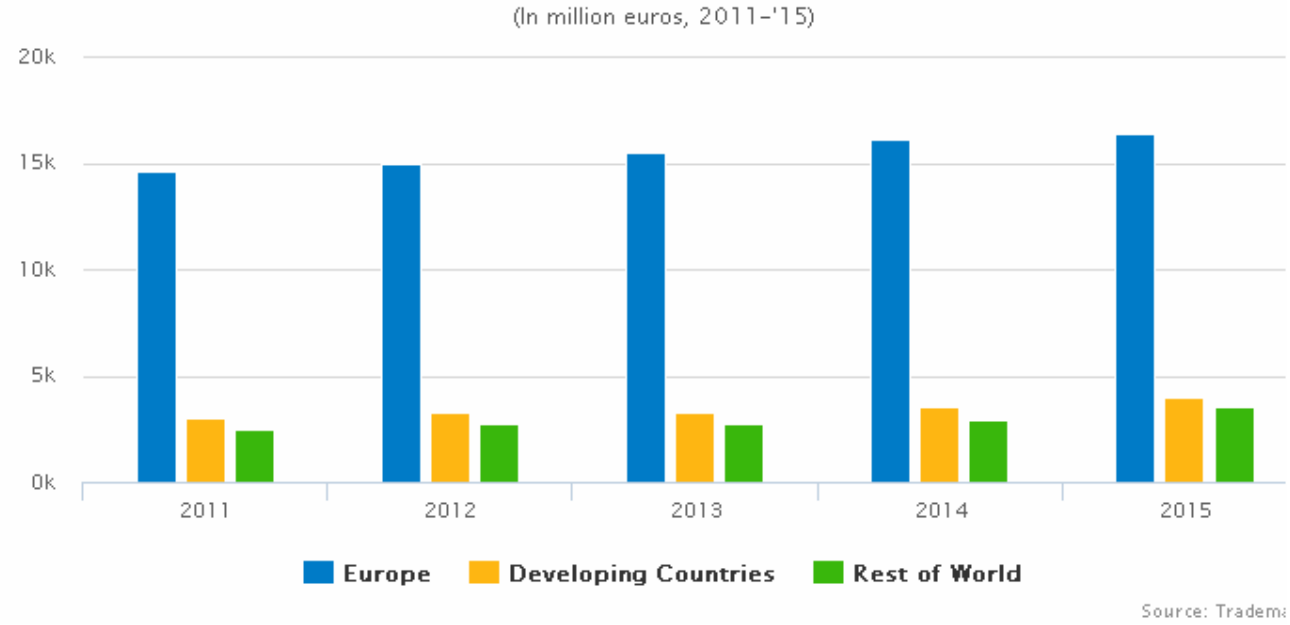
very high abrasive and/or corrosive services. In addition, low emission valve testing requirements have become a common industry standard.

As a result of this development, some European manufacturers have focused on producing speciality valves for these demanding customers. As a result, these manufacturers have neglected the commodity valves to some extent. According to some experts, if this development will continue, it could seriously hamper the supply of certain commodity valve types in Europe and even on a global scale.

Valves imports from developing countries have grown rapidly

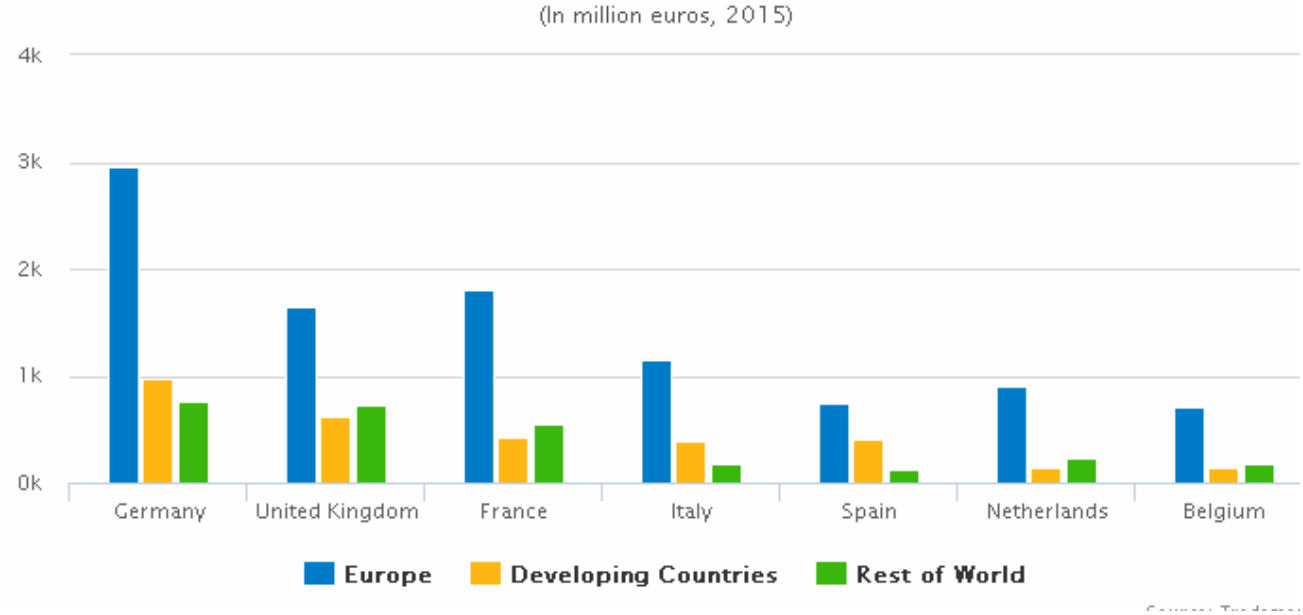
The European imports of valves are dominated by the supply from European countries (see Figure 1). However, the import from developing countries and the rest of the world is increasing more rapidly. As a result, the share of intra-European supply is decreasing, while the import share from developing countries increased from 15% to 17%.

Figure 1: European import of valves by main origin



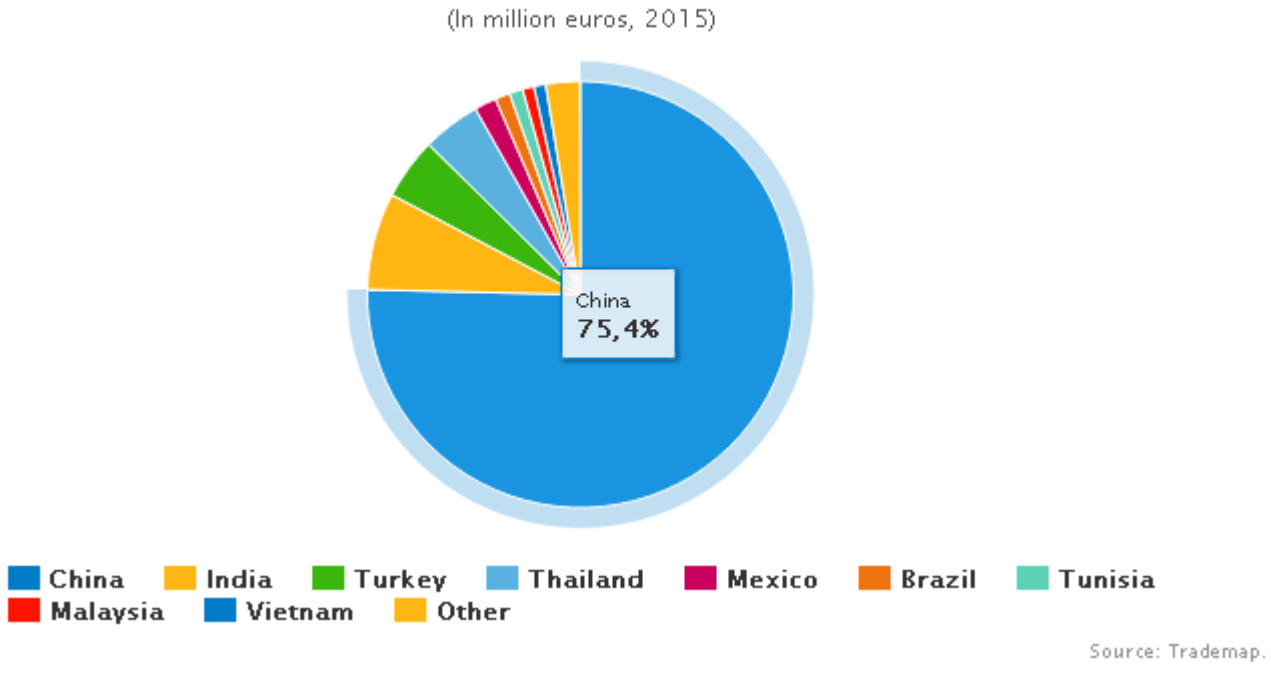
Germany is the largest market for valves suppliers, followed by the United Kingdom and France (see Figure 2). The import from developing countries in 2015 reached €965 million in Germany, €621 million in the United Kingdom and €418 million in France.

Figure 2: Leading European importing countries of valves



The valves import from developing countries amounted to almost €4.0 billion in 2015. Among the developing countries supplying the most are China, India, Turkey and Thailand. Together, they represented 92% of the total European import from developing countries. Figure 3 clearly reveals the dominant position of China. The competition from China is also mentioned by several European industry sources as very strong and even unfair, because of government support to Chinese producers.

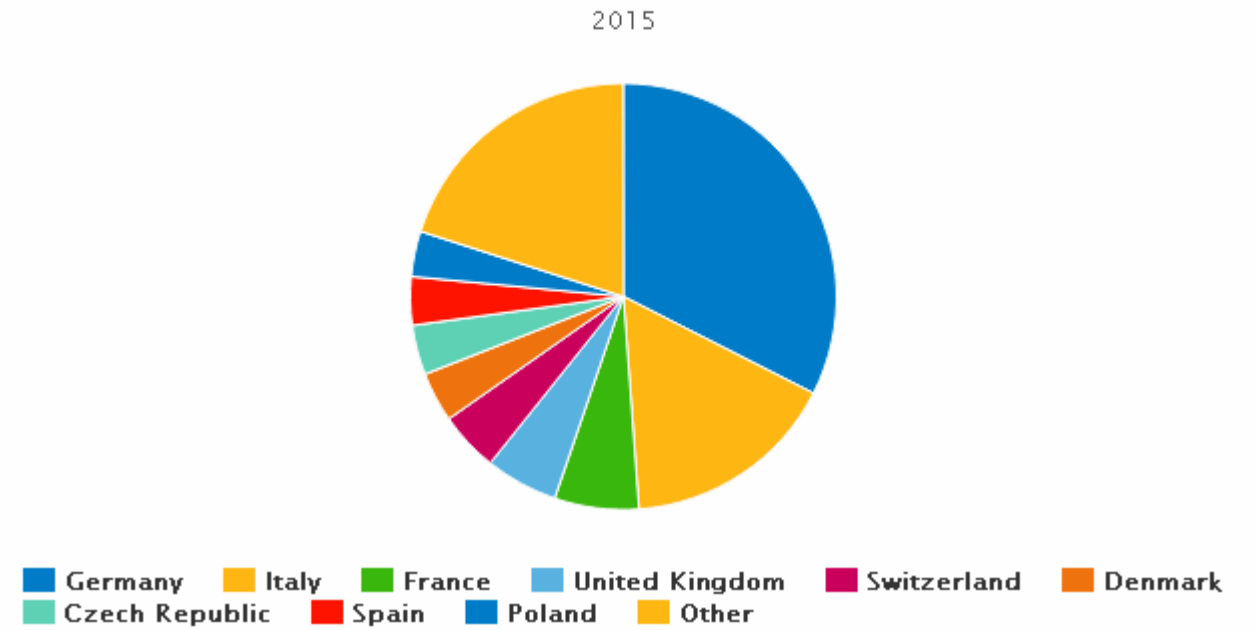
Figure 3: Leading developing country suppliers of valves



Of the top leading developing countries, Vietnam grew the fastest: 21% per year on average between 2011-2015.

The import of valves from within Europe reached €16 billion in 2015. The European supply is dominated by Germany and Italy, as shown in Figure 4. Together, they accounted for 49% of intra-European supply. Interesting to note is the growth rate of German supply. The European import by Germany increased by 5.0% per year, and as a result the import share of German supply increased from 30% to 32% over four years' time.

Figure 4: Leading European suppliers of valves



Tips:

- **To conquer a position in the European valves market, you have to offer the best in every aspect of the business. Create benefits compared with other suppliers, for example:**
  - **Good price/quality ratio (related to competitive pricing, mentioned below).**
  - **Offering speciality valves, such as knife valves or triple eccentric ball valves.**
  - **Quick response time to customers.**
  - **Offering low total cost of ownership.**
  - **Maintaining quick delivery times.**
  - **Offer quick service and repair times.**
  - **Maintain an experienced technical sales team adapted to the high European sales standards.**
- **Strive for professional marketing and branding of your products which is in line with European buyer expectations.**

Source : CBI, Centre for the Promotion of Imports from Developing Countries, www.cbi.eu

- **Price your products competitively when entering the European market. The more common the product, the more competition you will face and the lower your margins will be.**
- **If competitive pricing is difficult for you, focus on speciality items, as the competition is less strong in this segment.**
- **Stay well-informed of trends and developments in the global valves market. Visit trade fairs and contact your network partners on a regular base to stay up to date on recent trends.**
- **Check our list of top tips on How to Find Buyers in Europe.**
- **Try to benefit from potential availability problems of specific types of commodity valves.**
- **Benchmark your competitiveness (and landed costs) with players from China, India and Turkey, but also with players from European countries such as Germany and Italy. Be aware that European producers also launched production facilities in low-cost countries in the past years.**
- **Define your (export) product strategy, also based on your competitiveness benchmark.**
- **Conduct your own statistical trade analysis at Trademap.**