

CBI MARKET SURVEY**THE CASTINGS AND FORGINGS MARKET IN FRANCE****Publication date: March 2007****Report summary**

This CBI market survey discusses, among other things, the following highlights for the castings and forgings market in France:

- Major end users of castings and forgings are the engineering and construction industry. Both industries are among the largest in the EU and have good prospects for 2007.
- The French production of metal castings decreased 7% in the period 2001-2005, while the production of forgings increased 4%. Both industries ranked third in the EU, far behind Germany and behind Italy, but ahead of Spain and the UK.
- A major trend that affects the French casting and forging production is the growing number of innovative applications of aluminium and magnesium. Furthermore, the growing care for the environment leads to an increased use of electric variable speed drives, engines, turbines, motors and generators. As a result, prospects for cast and forged parts in such applications are bright.
- Total import value increased 14% in the period 2001-2005, while the volume decreased 2%. Compared to 2001, the total share of developing countries (DCs) grew from 2.5% to 3.7% in 2005. The DCs' share in French imports grew the fastest in the product groups articles of iron, steel or base metal and parts of machinery, railway equipment or vehicles. In most product groups, China was the most important DC supplier, while other countries that were well represented in the different product groups were Turkey (number two in most product groups), South Africa, Mexico, Brazil and Tunisia. Among the DCs that saw the largest increase in supplies to France were Mexico, Serbia Montenegro, Bosnia and Herzegovina, Vietnam and China.

This survey provides exporters of castings and forgings with sector-specific market information related to gaining access to France. By focusing on a specific country, this survey provides additional information, complementary to the more general information and data provided in the CBI market survey 'The castings and forgings market in the EU', which covers the EU in general. That survey also contains an overview and explanation of the selected products dealt with, some general remarks on the statistics used as well as information on other available documents for this sector. It can be downloaded from <http://www.cbi.eu/marketinfo>.

1. Market description: industrial demand and production**Industrial demand**

Because no demand data for castings and forgings are available, it has been decided, in consultation with industry experts, to focus on two major end user industries in the EU that offer good opportunities for developing country (DC) exporters: the engineering and the construction industry. Since in both industries many cast and forged parts and products are used, the production output of both industries is a good indication for the demand for cast and forged parts in these industries. Although the automotive industry is a very large segment, DC exporters of castings and forgings are advised not to focus on this sector. Quality requirements are usually very high, competition mainly focuses on price, and, above all, the order quantities involved are far too large for the average DC exporter.

Engineering industry

The French production in the engineering industry grew 13% in the period 2001-2005, totalling almost €75 billion in 2005. While production in the mechanical engineering industry grew 24% in the period 2001-2005, the production in the electrical engineering industry declined 3% in the period 2001-2005, due to replacement of some of the production to low cost countries

(LCCs). The large French engineering industry ranked third in the EU, far behind Germany and behind Italy, but ahead of the UK and Spain. Refer to Table 1.1 for more information on the market size of the several engineering categories, as well as the estimated shares of castings and forgings in these categories.

Table 1.1 French engineering production, by category and including the production value share of castings and forgings, 2001-2005, € million

	Share of castings and forgings*	2001	2005	Change '01-'05
Total engineering		68,082	74,864	13%
Mechanical engineering		38,301	47,314	24%
Lifting and handling equipment	10%	6,750	8,015	19%
Non-domestic cooling and ventilation equipm.	10%	5,473	5,600	2%
Pumps (70%) and compressors (50%)	50-70%***	4,262	5,418	27%
Agricultural machinery	30%	3,751	4,067	8%
Machinery for mining and construction	15-25%	2,771	3,082	11%
Engines and turbines, ex. aircraft, vehicle	40%	2,120	3,070	45%
Bearings, gears and other driving elements	50%	2,552	2,794	9%
Valves and taps	60-70%	2,341	2,336	0%
Machine tools, woodworking mach., welding equipm.	**	2,463	2,207	-10%
Machinery for food, beverage and tobacco processing	25%	1,952	1,986	2%
Machinery for textile, apparel and leather production	60-70%	981	961	-2%
Industrial furnaces and furnace burners	10%	853	801	-6%
Machinery for metallurgy	20-25%	359	454	26%
Machinery for paper and paperboard production	25%	464	391	-16%
Electrical engineering		29,781	27,550	-3%
Electrical distribution and control apparatus	5-10%	11,255	11,200	0%
Electrical equipment for engines and vehicles	5-25%	4,190	4,300	3%
Electric motors, generators and transformers	30-40%	3,875	3,600	-7%
Electric domestic appliances	5-25%	3,188	2,800	-12%
Other electrical equipment	5-25%	1,712	1,400	-18%
Lighting equipment and electric lamps	5-25%	1,113	1,150	3%
Accumulators, primary cells and batteries	5-25%	906	900	-1%

* Based on estimations of industry experts and the German Foundry Association.

** While machine tools have a large share of castings and forgings (40-50%), woodworking machinery (10-20%) and welding equipment (5%) have a far smaller share of castings and forgings.

*** Pumps consist for about 70% of castings and forgings, while compressors consist for about 50% of castings and forgings.

Source: VDMA (2006)

As becomes clear from Table 1.1, several categories contain a relatively large production value share of castings and forgings. Of the most relevant categories, "engines and turbines" (+45%), "pumps and compressors" (+27%) and "bearings, gears and other driving elements" (+9%) performed well. On the other hand, the demand for "machinery for textile, apparel and leather production" declined (-10%), as well as the demand for "electric motors generators and transformers" (-7%). The market position of France in the EU in these main castings and forgings consuming engineering categories was as follows:

- Machinery for textile, apparel and leather production: France ranked 3rd with 8% EU market share, behind Germany (41%) and Italy (28%), but ahead of Belgium (6%) and the Czech Republic (5%).
- Pumps and compressors: France ranked 2nd with 16% market share, behind Germany (34%), but ahead of Italy (13%), the UK (12%) and Belgium (4%).
- Valves and taps: France ranked 3rd with 9% market share, behind Germany (43%) and Italy (22%), but ahead of the UK (7%) and Denmark (6%).
- Bearings, gears and other driving elements: France ranked 3rd with 9% market share, behind Germany (52%) and Italy (18%), but ahead of the UK (4%) and Sweden (3%).
- Machine tools, woodworking mach., welding equipment: France ranked 3rd with 6% market share, behind Germany (53%) and Italy (18%), but ahead of Spain (5%) and the UK (4%).

- Engines and turbines: France ranked 3rd with 15% market share, behind Germany (27%) and Italy (18%), but ahead of the UK (13%) and Finland (7%).
- Electric motors, generators and transformers: France ranked 4th with 8% market share, behind Germany (34%), Spain (11%) and Italy (9%), but ahead of the UK (7%).
- Agricultural machinery: France ranked 3rd with 14% market share, behind Germany (24%) and Italy (23%), but ahead of the UK (8%) and the Netherlands (5%).

The positive global, EU and French economic forecasts for 2007 (+4.4%, +2.3% and +1.9% respectively) and 2008 lead to a substantial strong demand for engineering products in the country. Yet it is difficult to predict to what extent the French manufacturers will benefit, as outsourcing may also increase. However, the European Engineering Industries Association (Orgalime) expects growth in the French engineering production for 2007.

Construction industry

After a growth of 6% in the period 2002-2005, the French construction industry amounted to €177 billion in 2005. In line with the industry's growth in the period 2002-2005, the European Network for Construction Forecasting (Euroconstruct) expects a comparable growth (5%) in the period 2005-2008 to more than €186 billion in 2008. The year 2006 was expected to show the largest growth figures (3.7%). For 2007 and 2008, growth of construction activities in France is forecast to slow down due to a downturn in new residential construction and civil engineering output. The large French construction industry ranked fourth in the EU, behind Germany, the UK and Italy, but ahead of Spain and the Netherlands.

Market segmentation

As far as data are available, the market segmentation of some of the most important materials covered by this survey is discussed in this section.

Castings

As shown by the data in Table 1.2, iron castings primarily go to the automotive industry, and steel castings are especially used in the engineering industry. Please note that these data are only for domestically produced castings, as other data are not available. Although the automotive industry still represented 50% of the use of iron castings in 2005, its share decreased 5% compared to 2001, due to a 19% decrease of iron castings produced for that industry. The same goes for nodular iron, where the share of other industries and the engineering industry grew at the cost of the automotive industry. In the use of steel castings, the engineering industry gained more than 5% share compared to 2002 due to a absolute growth of more than 7%, at the cost of the railway – (-2%), the vehicle (-0.5%) - and other industries (-3%).

Table 1.2 French metal casting production, by segment, 2005, shares

	Iron	Nodular iron	Malleable iron	Steel	Copper	Other alloy	Precision castings
Automotive, cycles and motorcycles industry	50%	58.8%	53.9%	12.2%	18.3%	89.0%	77.5%
Engineering industry	28%						
• Agricultural machinery	-	10.7%	3.4%	2.1%	0.4%	0.2%	0.3%
• Electrical engineering, flow meters, medical industry	-	1.5%	0.7%	0.9%	4.7%	3.0%	5.7%
• Machine tools	-	2.2%	1.6%	0.4%	1.4%	0.6%	1.6%
• Valves, pumps, industrial equipment	-	8.7%	4.3%	9.2%	44.0%	1.8%	2.3%
• Other mechanical engineering	-	4.5%	27.3%	48.8%	7.9%	0.6%	4.5%
Metal – and metal working industry	-	0.5%	0.3%	8.9%	4.7%	0.1%	2.8%
Railway industry	-	2.3%	1.2%	4.2%	2.0%	0.1%	0.0%
Shipbuilding and aerospace	-	2.1%	0.6%	0.8%	4.8%	0.4%	0.0%

	Iron	Nodular iron	Malleable iron	Steel	Copper	Other alloy	Precision castings
industries							
Other*	22%**	8.8%	6.8%	12.5%	11.9%	4.3%	9.7%

*Several industries and applications such as the construction industry and kitchenware.

**The construction industry accounts for 8%, while other industries include also the above mentioned industries of which specific data for iron are not available.

Source: Les Fondateurs de France

Forgings

Unfortunately, no segmentation data for forgings are available. However, according to industry experts it can be assumed that the major end user of forged products is the automotive (cars and trucks) industry (40-60%), followed by mechanical engineering (5-25%) and agricultural machinery (5-20%). Other industries that may have a share of 1-10% are mining machinery, railways, aerospace equipment, construction, electrical engineering, maritime and the power generation industry.

Production

Castings

Table 1.3 shows an indication of the production of castings in France. The data have been collected by the French Foundry Association (Les Fondateurs de France) and are based on data of member companies. In 2005 the French production of metal castings totalled 2.3 million tons, a decrease of 7% compared to 2001. The decline in production value in the period mentioned was smaller: -5% to €5.3 billion in 2005. The major cause of the decline was the declining demand of the domestic automotive industry, but the French industry was also reported to have some difficulties in the export market due to competition from Central and East European (CEE) countries and China. In 2005, the country was home to 153 large ferrous metal foundries, a decline of 16% compared to 2001. In the same period, the average turnover per employee increased 10% to almost €150,000, an amount which is the second largest in the EU, behind Germany. The large French foundry industry ranked third in the EU, far behind Germany and behind Italy, but ahead of the UK and Spain.

Table 1.3 French production volume of castings by type, 2001-2005, 1,000 tons

	2001	2003	2005	Change '01-'05
Total	2,530	2,517	2,341	-7%
Ferrous metal	2,135	2,127	1,968	-8%
Iron	1,007	924	897	-11%
Nodular iron	1,007	1,091	956	-5%
Malleable iron	6	4	1	-83%
Steel	115	108	114	-1%
Non-ferrous metal	395	390	373	-5%
Copper alloy	26	28	26	1%
Light and ultra light	332	329	318	-4%
Zinc	33	29	25	-24%
Other alloy	4	3	3	-3%

Source: Committee of European Foundries Associations (2006)

In addition to Table 1.3, the group of ferrous metal castings declined 4% in value in the period 2001-2005. Contrary to that trend, in the period 2003-2005 the production value rose by 12%, while the volume declined 7%. In this period, this incongruity was mainly due to the fact that rising raw material prices were passed on to the customer in the form of price tags. The group of non-ferrous metal castings declined 7% in value in the years 2001-2005. While in 2005 the share of ferrous metals and non-ferrous metals of the total production volume was 84% versus 16%, in total production value this ratio was 56:44, for a large part due to the difference in raw material prices.

Forgings

Table 1.4 shows an indication of the volume of forgings production in France. In 2005, the members of the French Forging Association (AFF) produced 521,000 tons of forgings, an increase of 4% compared to 2002. The medium-sized French forge industry ranked third in the EU, far behind Germany and Italy, but far ahead of Spain and the UK.

Table 1.4 French production volume of forgings , by type, 2002-2005, 1,000 tons

	2002	2003	2004	2005	Change '02-'05
Total	503	488	515	521	4%
Drop forging, press and upset forging	370	358	380	394	6%
• Production of forging industry (subcontracting)	281	272	290	303	8%
• In-house production of the automotive industry	89	86	90	91	2%
Cold forging	66	64	70	60	-9%
• Production of cold forging industry	66	64	70	60	-9%
• In-house production of consumer industries	-	-	-	-	-
Open die forging	53	53	50	53	0%
• Ring rolling	-	-	-	-	-
• Other open die forging***	53	-	-	53	0%
Close die forging for non-ferrous metal	15	14	15	14	-7%
Number of forge plants	80	80	78	76	-5%

Source: Euroforge (2006)

* i.e. producers of flanges and fittings, piping, connectors, armatures, tools, machineries, etc...

** excluding forged steel bar, blanks and railway rolling stocks.

*** excluding forged steel bar, blanks and railway rolling stocks.

As shown by Table 1.4, in the period 2002-2005 drop forging, press and upset forging grew 6%, open die forging remained stable and cold forging declined (-9%). As total production increased 4% in 2002-2005, the decreasing number of factories of AFF members since 2002 (-5%) implies a growing output per factory (+9%).

Major players

The largest French ferrous metal foundries are:

- Manoir Industries - <http://www.manoir-industries.com> (also large production of forges)
- Howmet - <http://www.howmet.com>
- Feursmetal - <http://www.feursmetal.fr> (part of the AFE group)
- Hachette Et Driout - <http://www.ahd.fr>
- Metaltemple - <http://www.metaltemple.fr> (part of the Teksid group)

The major French non-ferrous metal foundries are:

- Favi Le Laiton Injecte - <http://www.favi.com> (copper die casting)
- Bronze Alu - <http://www.bronze-alu.fr>
- PCC France - <http://www.pccstructurals.com/locations/france>

The largest French forges are:

- Aubert Et Duval - <http://www.aubertduval.fr> (member of Eramet)
- Gevelot Extrusion - <http://www.gevelot.fr>
- Forges De Courcelles - <http://www.forges-courcelles.fr>
- Ascoforge Safe - <http://www.ascoforge-safe.com>

Trends in industrial demand and production

The major trends that influence the casting and forging demand and production in France are:

- A growing number of innovative applications of aluminium and magnesium. This trend is expected to continue, as the automotive industry seeks new ways to save weight and gain fuel efficiency and performance. Moreover, other segments will benefit from these experiences.
- The care for the environment has become a strategic political issue. In the power generation industry, the search for energy efficiency and the limitation of CO₂ and NO_x

emissions – which is sometimes called the “Kyoto Effect” – has led and should lead to the increased use of electric variable speed drives. The engines, turbines, motors and generators markets will also show good growth due to the Kyoto effect. As a result, prospects for cast and forged parts in such applications are bright.

- The transformation of Central and East European (CEE) countries into market-oriented economies is beneficial to the French engineering-, foundry- and forge industry. A division of labour has arisen which enables French firms to utilise a cheap labour supply to improve price competitiveness in international markets. Especially for end products that face quick price erosion, the price pressure on components and systems leads to relocation of production.
- In recent years, a lot of engineering production has been outsourced to LCCs and many multinationals already have their own subsidiaries in LCCs. So far, outsourcing often concerns large volumes of labour-intensive and standard products and parts that can easily be made in LCCs. Industry experts expect the trend to continue even more in the future, which may lead to a deceleration of demand growth for castings and forgings in the French engineering industry.

Opportunities and threats

The main opportunities and threats for DC exporters are:

- + Price pressure on components and systems (refer to Section 4) as a result of an increasingly global competition, leading to increased sourcing in LCCs.
- + Growing engineering and construction markets lead to an increasing demand for castings and forgings.
- Shift of engineering production towards LCCs, which may lead to a deceleration of demand growth for castings and forgings of the French engineering industry.

Useful sources

First of all, important sources are European trade associations such as:

- European Committee for Valve Industry - <http://www.ceir-online.org>
- European Committee of Textile Machinery Producers - <http://www.cematex.org>
- European Engineering Industries Association - <http://www.orgalime.org>
- European Foundry Association - <http://www.caef-eurofoundry.org>
- Europump - <http://www.europump.org>
- Federation of National Forging Associations (Euroforge) - <http://www.euroforge.org>

More can be found in the CBI market survey covering the EU market. Furthermore, per segment some country specific sources are available, such as:

French engineering associations

- Association for Pumps and Compressors - <http://www.scc-france.com>
- Association of International Enterprises in Mechanics and Electronics – <http://www.ficime.fr>
- Association of Mechanical Transmissions Industries - <http://www.unitram.org>
- Federation of Mechanic Industries - <http://www.fim.net>
- French Association for Manufacturing Technologies - <http://www.symop.com>
- French Association of Internal Combustion Engine Manufacturers - <http://www.scmci.fr>
- French Ministry of Economy, Finance and Industry - <http://www.industrie.gouv.fr>
- French Pump, Compressor and Valve Industry Association – <http://www.profluid.org>
- French Textile Machinery Manufacturers Association - <http://www.ucmtf.fr>
- French Tractors and Agricultural Machines Manufacturers Association - <http://www.sygma.org>
- French Trade Association for Pumps and Valves - <http://www.afpr.fr>
- Hydraulics & Pneumatics - <http://www.unitop-france.com>
- Industry Portal – <http://www.machine-outil.com>
- Metalworking and Engineering - <http://www.gimef-france.com>
- Technical Centre for Mechanics Industries – <http://www.cetim.fr>

French construction and other associations

- French Construction Federation - <http://www.ffbatiment.fr>
- French Shipbuilders Association - <http://www.cscn.fr>
- National Federation of Public Works - <http://www.fntp.fr>

French castings, forgings and related associations

- French Forging Association (AFF) - <http://www.fim.net>
- French Foundry Association (Les Fondateurs de France) - <http://www.fondeursdefrance.org>
- French Foundry Research Institute (CTIF) – <http://www.ctif.fr>
- French Titanium Association - <http://www.titane.asso.fr>

2. Trade: imports and exports

Imports

Total imports

In 2005, France was the second largest importer of castings and forgings in the EU, far behind Germany, but also far ahead of the UK and Italy. Since 2001, the total import value increased 14% (partly caused by the increasing raw material prices; refer to Section 4), totalling €28.0 billion (18.8 million tons) in 2005. In the same period, the import volume decreased 2%. The most important suppliers were Germany, Belgium and Italy. Beside China, other major DC suppliers to France were Turkey, Tunisia and Brazil. Compared to 2001, the total share of DCs grew from 2.5% to 3.7% in 2005.

Imports by product group

Table 2.1 shows that, except parts of machinery, railway equipment or vehicles, all product groups increased in value between 2001 and 2005. Articles of iron, steel or base metal showed the largest growth (36%). With regard to volume of imports, copper and zinc products decreased (-9.4%) as did iron and steel products (-8.1%). The import volume of articles of iron, steel or base metal grew the fastest of all (28%), followed by parts of machinery, railway equipment or vehicles (20.5%), light and ultra light products (18.8%) and plastics and rubber products (18.1%). In most product groups, China was the most important DC supplier, while other countries that were well represented in the different product groups were Turkey (number two in most product groups) and South Africa (1% in light and ultra light products), Mexico and Brazil (iron and steel products) and Tunisia (1% in articles of iron, steel or base metal). The DCs' share in French imports of some product groups showed good growth compared to 2001. These product groups are articles of iron, steel or base metal (growing from 5.1% to 7.4% in value and from 4.9% to 8.3% in volume) and parts of machinery, railway equipment or vehicles (growing from 2.1% to 4.0% in value and from 3.1% to 6.9% in volume). Among the DCs that saw the largest increase in exports to France were Mexico, Serbia Montenegro, Bosnia and Herzegovina, Vietnam and China. Regarding all intra EU imports, a very small part of these may be re-exports, but the exact value is unknown, as Eurostat does not allow such detailed analysis.

Table 2.1 Imports by France and leading suppliers to France, 2001 - 2005, share in % of value

Product	2001 € mln	2003 € mln	2005 € mln	Leading suppliers (%)	Share (%)
Total	24,585	23,127	28,023	Intra EU : Germany (24), Belgium (17), Italy (13) Ext EU excl DC: USA (9), Switzerland (2), Japan (1) DC : China (1), Turkey (0), Tunisia (0), Brazil (0), India (0), Mexico (0)	81 15 4
Copper and zinc products	855	645	896	Intra EU : Germany (38), UK (15), Italy (13) Ext EU excl DC: Switzerland (3), USA (2), Japan (1) DC : China (2), Turkey (1), Iran (1), Peru (1), India (0), Serb.Monten. (0)	89 7 5
Plastic and rubber products	2,896	3,048	3,402	Intra EU : Germany (27), Italy (18), Belgium (14) Ext EU excl DC: USA (4), Switzerland (3), Japan (1) DC : China (1), Turkey (1), India (0), Tunisia (0),	88 10 3

Product	2001 € mln	2003 € mln	2005 € mln	Leading suppliers (%)	Share (%)
				Thailand (0), Morocco (0)	
Parts of machinery, railway equipment or vehicles	8,517	7,014	7,765	Intra EU : Germany (20), Italy (11), Belgium (6) Ext EU excl DC: USA (29), Switzerland (3), Canada (2) DC : China (2), Turkey (1), Brazil (0), India (0), Thailand (0), Tunisia (0)	57 39 4
Articles of iron, steel or base metal	3,392	3,728	4,607	Intra EU : Germany (26), Italy (18), Belgium (10) Ext EU excl DC: USA (3), Switzerland (2), Taiwan (1) DC : China (5), Turkey (1), Tunisia (1), India (0), Brazil (0), Malaysia (0)	83 10 7
Iron and steel products	6,865	6,810	9,137	Intra EU : Belgium (33), Germany (23), Italy (12) Ext EU excl DC: Switzerland (1), Russia (0), USA (0) DC : Mexico (0), Brazil (0), Tunisia (0), Iran (0), South Africa (0), China (0)	96 2 2
Light and ultra light products	2,059	1,881	2,224	Intra EU : Germany (26), Belgium (12), Italy (11) Ext EU excl DC: Switzerland (6), USA (4), Russia (1) DC : Turkey (1), South Africa (1), China (1), Bahrain (0), Morocco (0), Mauritius (0)	85 11 4

Source: Eurostat (2006)

Exports

The total export value of France showed an increase of 11% in the period 2001-2005, totalling €27.5 billion (19.8 million tons) in 2005. In the same period, the export volume increased 5%. In total export value France ranked third in the EU in 2005, far behind Germany and behind Italy but far ahead of the UK, Belgium and the Netherlands. The largest exported product group was iron and steel products (€10.0 billion in 2005), followed by parts of machinery, railway equipment or vehicles (€7.8 billion). Only exports of parts of machinery, railway equipment or vehicles (-13%) declined, but this was compensated for a large part by the strong growth in exports of iron and steel products (30%), copper and zinc products (24%) and plastic and rubber products (23%). Probably a small part of exports is re-exports to other EU countries, but the exact value is unknown, as Eurostat does not allow such detailed analysis.

Opportunities and threats

- + France is the second largest importer of castings and forgings in the EU
- + Total import value increased in recent years
- + Increasing share of DCs in total imports
- Imports from China grew fast and represented a considerable share of DC imports in 2005.

Useful sources

- EU Expanding Exports Helpdesk - <http://export-help.cec.eu.int/> → go to: trade statistics
- Eurostat – official statistical office of the EU - <http://epp.eurostat.cec.eu.int> → go to 'themes' on the left side of the home page → go to 'external trade' → go to 'data – full view' → go to 'external trade - detailed data'

3. Trade structure

Trade channels

The most common target groups for DC exporters are Original Equipment Manufacturers (OEMs), subcontractors of OEMs, agents, importers and foundries or forges. Although there are several options, supplying directly to OEMs and subcontractors of OEMs has some advantages and could be one of the most interesting trade channels, because there is a larger chance of a long-lasting relationship. DC exporters should therefore put efforts into building supplier relationships with OEMs and subcontractors of OEMs in the EU. By working together, DC exporters have the best chances in succeeding as they are able to offer higher-added value products to EU customers. Please refer to the CBI market survey covering the EU market for castings and forgings for a detailed explanation on the trade channels in this sector. Please refer to Table 3.1 for some examples of companies in France that may be interesting to DC exporters.

Table 3.1 Some examples of potential trade partners in France

Company	Type; Products	Website
Agco	Production; agricultural machinery	http://www.agcocorp.com
ALSTOM Power Turbo machines	Production; energy equipment	http://www.alstom.com
Claas Renault Agriculture	Production; agricultural machinery	http://www.claas.com
CMF	Production; greenhouse construction	http://www.cmf-groupe.com
GE Energy Products France SNC	Production; energy equipment	http://www.ge.com/fr
Honda Europe Power Equipment	Production; engineering products	http://www.honda-fr.com
Irrifrance Industries	Production; irrigation installations	http://www.irrifrance.com
John Deere	Production; agricultural machinery	http://www.deere.com
KSB SAS	Production; valves and pumps	http://www.ksb.fr
Kuhn	Production; agricultural machinery	http://www.kuhn.fr
Tecumseh Europe	Production; compressors	http://www.tecumseh-europe.fr

Source: Facts Figures Future (January 2007)

Useful sources

Section 1 ('Useful sources') and Section 6 ('Selecting a suitable trading partner') contain some very useful sources to find potential trade partners in France.

4. Prices and margins

Prices and margins

It is very difficult to give a general idea of the price structure in this industry, as prices and margins differ to a great extent. They may depend on size of the order, length and type of distribution chain, terms of delivery, added value / finishing and materials concerned. Bearing this in mind, some rough indications of margins in the chain could be given. Agents work with margins between 3-7%, for importers this is 15-35%. The margin depends on the level of care and attention an intermediary has to give to the process. A product that does not need much extra care, like finished and ready-to-use products, such as valves, will be sold with a smaller margin than a product that needs extra handling or even needs to be stored. Major trends that affect the costs and revenues of French castings and forgings production are price pressure, increasing raw material and energy prices and wage costs:

- Prices and margins are and will continue to be under pressure. In the last few years, the global economic recession, problems within the EU economy and the global competition have placed severe pressure on the prices and therefore on the margins of intermediate goods in the supply chain. Therefore, importers/agents and OEMs as well as their suppliers keep on looking for opportunities to reduce cost prices by 10-30%.
- In recent years, rapidly increasing prices of materials like plastics, aluminium, steel and scrap steel, have caused problems in the industry, although French producers have tried to translate soaring raw material prices into material-cost surcharges as soon as possible.
- The recent rapid increase in electricity prices in France has affected the competitiveness of the industry as far as those price increases were higher than in other regions. Especially commodity production was badly hit by the high energy costs, as its prices are set globally and therefore increases in energy costs that occur solely in France can not be passed on to the customers without significant losses in market share.
- Wage costs still account for a large share of the average production costs in the industry. In 2005, France ranked ninth in the EU with regard to wage costs per man-hour in the metal industry (€21.38), less expensive than Sweden and Austria, but more expensive than the UK and Ireland.

Please refer to the CBI market survey covering the EU market for castings and forgings for a detailed explanation on these major trends.

Useful sources

Sources of prices include, among other things:

- CAEF Eurofoundry - <http://www.caef-eurofoundry.org>

- Eurofer – <http://www.eurofer.org/statistics/scrap.htm>
- European Engineering Industries Association (Orgalime) – <http://www.orgalime.org>
- London Metal Exchange – <http://www.lme.co.uk>

5. Market access requirements

As a manufacturer in a DC preparing to access France, you should be aware of the market access requirements of your trading partners and the French government. Requirements are demanded through legislation and through labels, codes and management systems. These requirements are based on environmental, consumer health and safety and social concerns.

Legislative requirements

National legislation in EU countries is compulsory for all products traded within the country concerned. Therefore, as an exporter in a developing country you have to comply with the legislative requirements that are applicable to your products. For information on legislation go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select your market sector, and the EU country of your interest in the category search, click on the search button and click on legislative requirements for an overview of all documents on legislation in France

Non-legislative requirements

Social, environmental and quality related market requirements are of growing importance in international trade and are often requested by European buyers through labels, codes of conduct and management systems. For information on non-legislative requirements, go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select your market sector and the EU country of your interest in the category search, click on the search button and click on your subject of interest under non-legislative requirements for an overview of all documents on the subject concerned in your country of interest.

Packaging, marking and labelling

Legislative requirements

You can download information on requirements on packaging, marking and labelling in specific EU countries from the CBI website. Go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select your market sector and the EU country of your interest, click on the search button and click on 'market surveys' for an overview of documents on the country of your interest.

Customer requirements

Packaging should always ensure that the products arrive dry and undamaged in Europe, but in practice, shipments have been and are still sent back to the supplier due to bad packaging. The websites below on packaging may be helpful to exporters in order to pack properly and to prevent bad packaging. If an import duty -no matter the country of origin- applies to a component that enters the EU, the exporter should be able to show a certificate of origin. Furthermore, a Bill of Lading (B/L) and a commercial invoice are obligatory. If a 0% duty applies, the so called Eur 1 Form for ACP countries for customs tax exemption is common. Refer to the CBI market survey covering the pipes and process equipment market in the EU for more information.

Tariffs and quota

Developing countries benefit from several trade preferences. The most important one is called 'Generalised System of Preferences' (GSP). Following this system, most import tariffs from DCs of castings and forgings are zero, although it also depends on the degree to which the products cause, or threaten to cause, serious difficulties to producers of similar or directly competing products. Furthermore, there are practically no quotas. To determine import duties and/or quota for your own product(s) and from your specific country, consult the Taric database, as

mentioned below. Refer to the CBI market survey covering the castings and forgings market in the EU for more information.

Useful sources

Tariffs and quota

- European Customs in France - <http://www.douane.gouv.fr>
- Export Helpdesk for Developing Countries - <http://export-help.cec.eu.int>
- Taric database - http://ec.europa.eu/taxation_customs/dds/en/tarhome.htm: type the 4, 6 or 8 digit HS code (if known) or type the keyword of your product.
- VAT tariff information - http://ec.europa.eu/taxation_customs/taxation/vat/traders/vat_number/index_en.htm

Packaging

- International Safe Transit Association - <http://www.ista.org>
- Material Handling Equipment - <http://www.ie.ncsu.edu/kay/mhetax/UnitEq>: examples of packaging and pictures.
- PACKit module of the International Trade Centre - <http://www.intracen.org/ep/packaging/packit.htm>

6. Business practices

Selecting a suitable trading partner

There are many ways to find potential trading partners in France. In this section, the focus will be on the internet, sources in your own country and the target country. In general, remember the following cultural tips when you visit French trade partners:

- Creating a network of personal business alliances is important in France.
- If there is no knowledge of French, apologise for not speaking the language.
- In business French can be very direct. They do not hesitate to ask probing questions.
- Written communication is formal.
- An appointment is necessary for a meeting. If there is a delay, telephone immediately.
- Meetings are for discussion, not to make decisions.

Internet

Some examples of available sources to find clients, besides the ones mentioned in Section 1:

- Direct Industry - <http://www.directindustry.com>
- Europages – <http://www.europages.com>
- Fondateurs de France; member list - <http://www.fondateursdefrance.org/annuaire/index.php>
- Kellysearch - <http://www.kellysearch.com>
- Kompass – <http://www.kompass.com> (mostly fee based, but the free part is useful too)
- Thomas Global Register Europe - <http://www.trem.biz>

For more details on how to search some of these databases, please refer to the CBI Export Manual 'Digging for Gold'.

Your own (DC) country

- Diplomatic and consular representatives and public and private trade promotion bodies
- The French Embassy in your country. Find it at <http://www.embassyworld.com>.

France

- "Commercial route" site provides a list of sites where agents can be found (click 'sites utiles') – <http://www.laroutedescommerciaux.com>
- Federation of French Commercial Agents – <http://www.comagent.com>
- French Chamber of Commerce - <http://www.acfci.cci.fr>
- Juridical information about commercial agents - <http://www.acojur.com>
- Trade associations for individual product groups mentioned in 'Useful sources' in Section 1.

Also see CBI's Export Planner (<http://www.cbi.eu>), an export manual that provides information on the different steps to be taken during the export process to the EU market.

Reaching an agreement with your trade partner

Drawing up an offer

In the industry, custom made offers are most common, as every product and application differs. Tailor made offers are provided to clients that have asked the exporter for a quotation. A common price calculation is the 'pricing based on real costs'. The exporter adds all his costs for labour, raw materials and other expenses. Some other suggestions to convert an offer into an order: always treat the client as special, for instance by making a telephone call to ask whether the offer (and the brochures or samples, if applicable) has arrived and ask whether additional information is needed. This allows an extra contact moment with the client. Also respond fast to enquiries, since companies in France expect such a response within 3 days. Some more points of interest you could consider when setting an export price can be found in the CBI market survey covering the castings and forgings market in the EU.

Method of payment

Most transactions are executed with a Letter of Credit. One of the advantages of this method is that subsidies, if any, are only granted with L/Cs.

Terms of delivery

The most common delivery conditions in the industry are the FOB and CIF condition (Cost Insurance & Freight). CFR (Cost & Freight) occasionally occurs as well. In other occasions, it is possible that clients arrange their own transport. Then, Ex Works could be the delivery condition. However, supplier and client are free to negotiate and agree whether quotations and subsequent trade are based on CFR or FOB prices.

Sales promotion

For DC exporters, trade press and trade fairs are among the most important promotional tools; they are briefly discussed below. For more information, also refer to CBI's Export Planner and Your Image Builder – <http://www.cbi.eu>, as well as the CBI market survey covering the castings and forgings market in the EU.

Trade press

The magazines with global coverage may present country-specific information:

- Aluminium International Today - <http://www.aluminiumtoday.com>
- Foundry Trade Journal - <http://www.foundrytradejournal.com>
- Furnaces International - <http://www.furnacesinternational.com>
- Incast - <http://www.investmentcasting.org/incast.asp>
- Metalforming - <http://www.metalformingmagazine.com>
- MetalMag (metal in construction) - <http://www.metalmag.com>
- Steel Times International - <http://www.steeltimesint.com>

Furthermore, some relevant French magazines are:

- Industries & Techniques - <http://www.industries-techniques.com>
- La Forge - http://www.euroforge.org/page/forging_magazines.html
- La Revue de Metallurgie - <http://www.revue-de-metallurgie.fr>
- Le Magazine de Metallurgie – <http://www.metallurgie.enligne-fr.com>
- Matériaux et Techniques – <http://www.sirpe.com>
- Mécanique et Industries – <http://www.elsevier.fr>
- Usine Nouvelle – <http://www.usinenouvelle.com>

Trade fairs

Visiting and participating in a trade fair abroad can be an efficient tool to communicate with prospective customers. It provides more facilities for bringing across the message than any

other trade promotional tool. It can also be an important source of information on market development, production techniques and interesting varieties. Next to Midest, which is the most important trade fair, other relevant trade fairs are also listed in Table 6.1. Find more trade fairs at <http://www.eventseye.com> and <http://www.auma.de>.

Table 6.1 Trade fairs of castings and forgings in France

Trade fair	Products	Website	Frequency, Date and Location
Chaudronnerie	Boiler making, sheet-iron works, pipes, techniques of assembly and welding	http://www.chaudronnerie-expo.com	triennially, October, Paris
Elec	Electric engineering	http://www.exposium.com	December, Villepinte
Form & Tôle	Sheet metal industry	http://www.industrie-expo.com	annually, March, Lyon
Industrie Lyon	Industrial design and industrial production	http://www.industrie-expo.com	annually, March, Lyon
Industrie Sud	Design & fabrication	http://www.industrie-expo.com	annually, March, Lyon
Midest	Industrial subcontracting	http://www.midest.com	annually, November, Paris

Source: AUMA, Eventseye, Facts Figures Future (2007)

This survey was compiled for CBI by Facts Figures Future in collaboration with Kommanet.

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