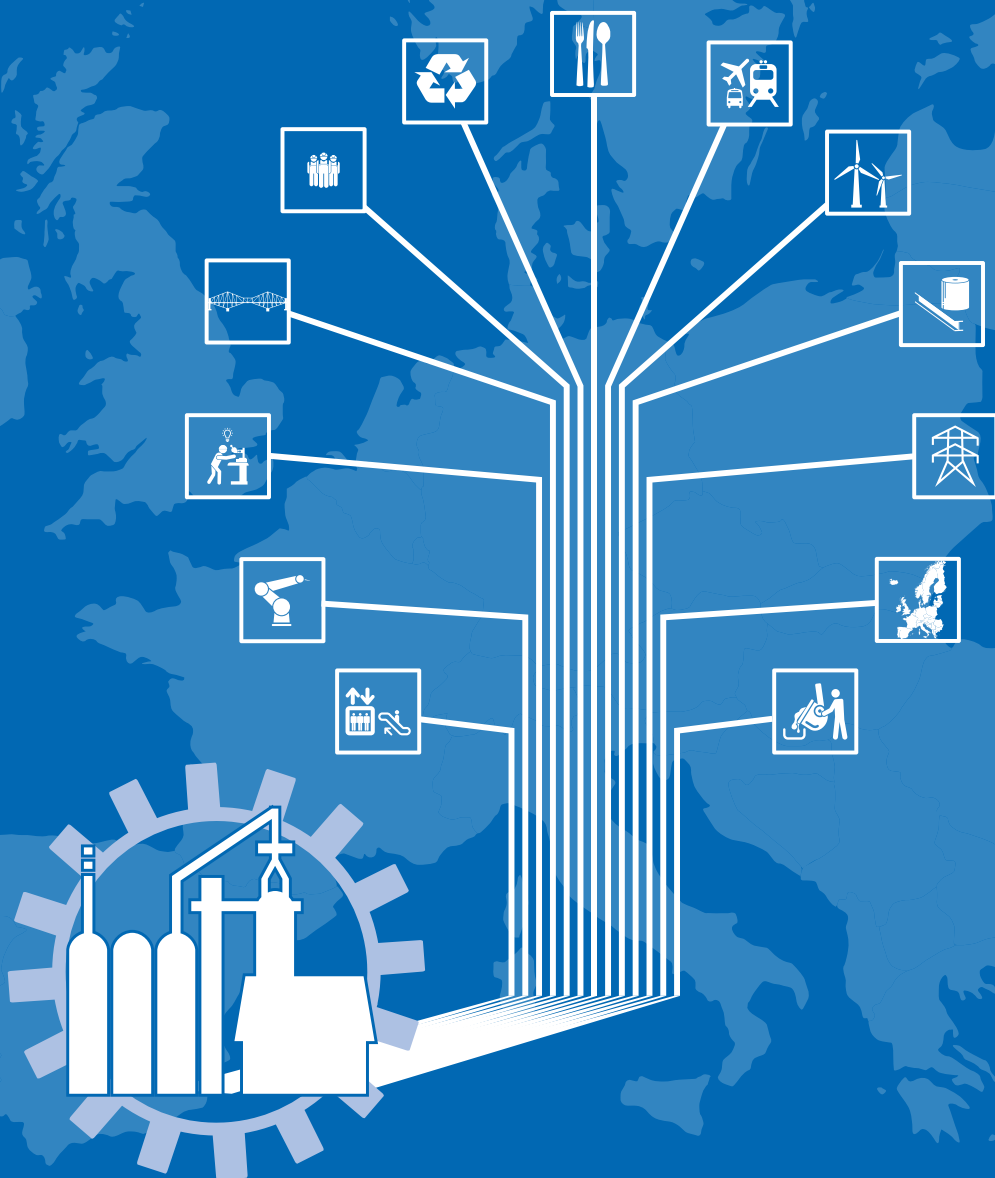


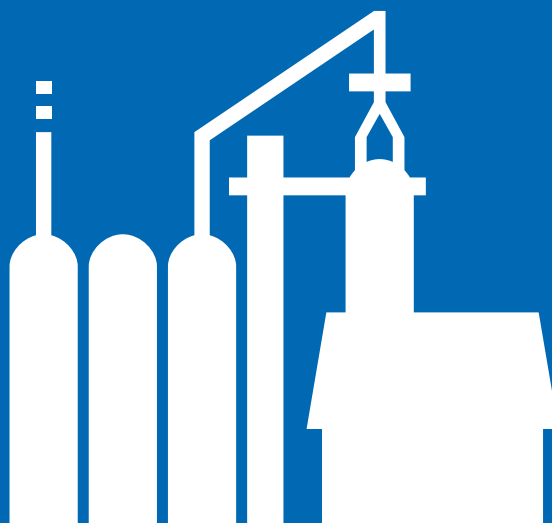
EUROFER
The European Steel Association

Annual Report 2018





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GLOBAL CHALLENGES FOR STEEL SECTOR IN 2017-2018

The EU steel demand grew by 1.3% in 2017 to 159 million tonnes of apparent consumption, in line with a rising EU economy, and continuing the trend of recent years. Imports accounted for a 22% share of the market. Indeed, steel demand growth is expected to continue into 2018, at a rate of 2.3% if not eclipsed by trade considerations. Indeed, trade was a key focus in 2017 and will certainly be so in 2018.

However, there is more to the steel sector besides consumption statistics and trade policy. European steel is highly innovative, with a CO₂ and energy footprint that has been halved since the 1960s. The economic footprint of the steel sector in Europe is not to be underestimated either. The EU produces just shy of 170 million tonnes of steel a year, making it the second largest producer globally, and with a total Gross Value Added of over €125 billion.

Recent research conducted for EUROFER has even counted the employment impact. There are 320,000 highly-skilled direct employees in the sector – a figure that has, thankfully stabilised after years of decline – the wider jobs footprint is estimated to be nearly 2.5 million.

2017 has arguably been one of the most exciting years in the 40-year history of the European Steel Association (EUROFER). Developments occurred in virtually every field in which the organisation works. These included environmental, economic, trade, climate, energy and social factors.

Early in 2017 there was legislative action on waste and recycling; the review of the EU Emissions Trading System

Directive negotiations opened in April, concluding in November.

Legislative developments on Trade Defence Instrument modernisation advanced after years of blockage, concluding in the second half of 2017 with an agreement that should now ensure more reasonable anti-dumping duty levels. The file previously known as Market Economy Status (MES) for China – became the new Non-Standard Anti-Dumping Methodology (NADM) for the calculation of anti-dumping duties from non-EU countries where significant distortions occur – advanced. The NADM carried on throughout the year, concluding in October.

In April 2017 the US opened a 'Section 232' investigation to look into whether national security was being compromised by imports into the country. The investigation took a year, with the release of the findings in early 2018 setting off an intense period of analysis, communication and advocacy for EUROFER.

With Section 232 sparking the potential for serious trade ramifications globally, the recovery the EU steel industry benefitted from in 2017 could be at risk. The chief threat is that of deflected steel from traditional exporters to the US targeting the EU's open market instead. If large volumes of deflected steel arrive in Europe – in addition to the lost market of foregone EU steel exports – the damage could reverse all the gains made in recent years. EUROFER will be working hard to ensure that European steel is not unduly harmed by these trade tensions, but the fruits of this labour will be uncertain until the permanent place of the EU relative to the US measure is known.



2018 will see the carry-over of EUROFER's work from 2017, including on the implementation of the revised EU Emissions Trading System, the modernised Trade Defence Instruments and the new Non-standard Anti-Dumping Methodology.

There are a number of newer issues that will be addressed in 2018. These include the Commission's proposal on Foreign Direct Investment, which would set up a reporting mechanism on foreign acquisitions in the EU that might affect European security and public order. The proposal for the classification of cobalt metal as carcinogenic could have a major impact as cobalt is unavoidably present in all types of steel – the proposal as it exists today could, without epidemiological basis, severely disrupt the production and use of steel. Finally, EUROFER will continue its development of the European steel industry's technology and low-

carbon roadmaps, particularly its 'Masterplan', advocating pathways to the low-carbon steel transition under the ninth Framework Programme, to be agreed in 2018.

Thus, it is clear that EUROFER's 2018 is going to be as engaged as its' 2017 was. The association, and its members, will progress on advocating the importance of these, and other, issues for the European steel industry.

In last year's annual report, EUROFER highlighted the need for a "stable and consistent policy environment with economic conditions to match". That referred to the EU sphere. The challenges today are more global than ever before, and EUROFER will be supporting its members in shaping the proactive responses necessary to overcome them.



Geert Van Poelvoorde
President



Axel Eggert
Director General



ECONOMIC PERFORMANCE IN 2017

2017 saw strong performance in the EU economy. Economic performance was boosted by the continued strengthening of sentiment across all economic sectors, with tailwinds from faster global growth, improving labour market conditions, sustained low interest rates and easy access to finance.

As a consequence, GDP growth was driven by robust investment, solid private consumption and strong exports. The GDP breakdown by country shows that the growth pattern across EU member states has become more synchronised over the year.

EU investment is estimated to have increased by almost 4% in 2017, in spite of widely-held fears that political uncertainty in the EU might impact the propensity to invest in the business sector.

EU28 GDP growth was 2.5% in 2017.

ECONOMIC PERFORMANCE IN 2018

The EU's above-trend growth rate is expected to be sustained in 2018. Conditions are expected to remain sufficient for the EU economy to maintain an above-trend growth rate in 2018.

Investment is expected to remain a key driver of growth, reflecting robust domestic and external demand. The supply-demand balance is forecast to shift into the favour of producers and will have a positive impact on sales prices and margins. Full order books and increasing capacity utilisation rates across most corporate sectors, and a positive outlook for business conditions set the stage for a continuation of

the investment wave. Private consumption will also continue to perform well.

Exports however, may be impacted by the continuing strength of the euro and the increasing threat of protectionism.

STEEL-USING SECTORS

Activity growth in steel-using sectors is expected to settle back into a more restrained pace of expansion. 2017 has otherwise been a strongly expansionary year for steel-using sectors in the EU. The performance across countries and steel-using sectors became increasingly synchronised over the course of 2017. In particular, growth dynamics in Central Europe improved significantly compared with the overall rather weak momentum of 2016.

Individual sectoral performances are varied. The steel tube sector posted the strongest year-on-year jump in production activity, followed by the mechanical engineering sector, electrical domestic appliances and construction. As had been anticipated, growth in automotive output moderated somewhat.

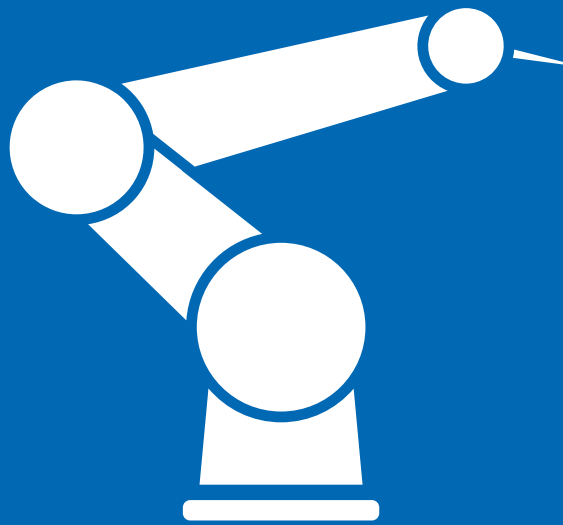
The outlook for 2018 is positive, although activity in steel-using sectors will settle back into a more restrained pace of expansion owing to waning momentum in the tube sector and automotive industry. Underlying economic conditions remain conducive to a steady pace of expansion in other sectors



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CRUDE STEEL PRODUCTION

Crude steel production in the EU rose to 169 million tonnes in 2017, an increase of 4.1 % over 2016. This improvement reflects strengthening demand conditions in the domestic EU market, as well as in the EU's main export markets.

EU STEEL CONSUMPTION AND TRADE BALANCE

For the full year 2017, apparent steel demand in the EU rose by 1.3%. Imports accounted for a 22% share of the market, despite a 2% fall over the year.

The year was characterised by a sea-change starting as of the third quarter. In the first half of 2017, EU apparent steel consumption grew by 1.9% year-on-year, with imports from third countries rising by 7.9% year-on-year. Domestic deliveries remained similar to the same period in 2016.

However, total steel imports fell by almost 14% year-on-year in the third quarter. This decline occurred in the context of improving in global steel prices – largely driven by the Chinese market – which narrowed the gap between EU domestic prices and imports. The imposition of anti-dumping and anti-subsidy measures by the European Commission on imports from China and other countries also had an effect on import volumes.

Fairly similar market conditions shaped the supply-demand situation in the fourth quarter of 2017. Imports remained on a negative trend, although they were up on the third quarter volumes. This resulted in total imports over the second half of 2017 falling by 9% year-on-year. As apparent steel consumption grew by 0.6% year-on-year over this period, EU mills were able to ship more material to EU customers and

regain market share lost in the first half of 2017.

Prospects for the continued recovery of EU steel demand are positive. The expected strength of most steel-using sectors bodes well for the demand side of the EU steel market. The supply side situation could, however, continue to be negatively affected by import distortions.

TRADE VOLUMES

Imports into the EU

Total imports in 2017 fell by 1.8%, remaining close to the peak level registered in 2016.

Total finished product imports remained close to the levels seen in 2016, because imports of flat products grew very slightly and long product imports fell by 2.3%.

The largest import volumes of flat products to the EU in 2017 came from India, South Korea, China, Turkey and the Ukraine, together accounting for 67% of total flat product imports into the EU. At the individual product group level, strongly diverging trend was observed: While imports of cold-rolled and hot-dipped galvanised sheets rose strongly over the year, imports of hot-rolled coils, quarto plate and tin mill products were significantly lower than a year ago.

The main countries of origin for long product imports into the EU were Turkey, the Russian Federation, Switzerland, Belarus and Ukraine. These countries accounted for a share of 69% of total long products imports into the EU. Other than imports of wire rod – which registered a modest increase – imports of other long products were lower than in 2016.



In 2018, there is a considerable risk of import distortions threatening the stability of the EU steel market and the viability of European steel producers. Preliminary import data for January 2018 signal a 20% year-on-year increase in finished product imports. Moreover, the European steel industry is deeply concerned that measures adopted by the US government within the framework of the Section 232 investigation could trigger a massive deflection of previously US-bound steel products to the EU's open market. This could seriously and unfairly injure EU producers, breaking the fragile improvement in market conditions the sector has seen since mid-2017.

Exports from the EU

Total EU steel product exports to third countries rose by 1% in 2017.

While 'semis' exports continued their rising trend begun in 2016, total finished product exports fell by 3%. This reflects a 5% rise in flat product exports and a 14% contraction in long product exports. Turkey and North America were the main export destinations for EU flat and long product exports.

Despite the 1.8% drop in third country imports and the 2% rise in exports, the EU remained a net importer of steel products in 2017.

The total trade deficit amounted to 9.9 million tonnes in 2017; this deficit reflects net imports of semis and flat products and a trade surplus in long products.

The trade deficit in semis came to 6.7 million tonnes in 2017, whereas the deficit in flat products was 5.9 million tonnes. The trade surplus in long products decreased to 2.8 million tonnes in 2017.

Competitive pressures in the international steel markets look set to remain high. While the global economy is expected to perform rather well in 2018 and exert a positive impact on global steel demand, overcapacity remains a clear risk for supply-side stability.

DELIVERIES OF STEEL (ALL QUALITIES EXCEPT STAINLESS STEEL)

Total deliveries of finished products increased only very slightly in 2017 to 142.6 million tonnes. While domestic deliveries into the EU market grew by 1.8%, export deliveries to third countries fell by 4.1%.

	2016 In million tonnes	2017 In million tonnes	% change 16/17
Total steel deliveries	142.2	142.6	+1.0%
Of which to the EU28 market	121.6	123.8	+1.8%
Of which to export markets	19.6	18.8	-4.1%

In 2017, total flat product deliveries rose marginally compared with shipments in 2016. While EU domestic deliveries stabilised at same level as the previous year, deliveries to export markets outside the EU grew by 6.8%.

	2016 In million tonnes	2017 In million tonnes	% change 16/17
Total flat product deliveries	84.9	85.7	+0.9%
Of which to the EU28 market	74.6	74.7	+0.1%
Of which to export markets	10.3	11.0	+6.8%

Total long product deliveries increased slightly. The 16.1% drop in export deliveries weighed down on the 4.5% growth of EU domestic deliveries.

	2016 In million tonnes	2017 In million tonnes	% change 16/17
Total long product deliveries	56.3	56.9	+1.1%
Of which to the EU28 market	47.0	49.1	+4.5%
Of which to export markets	9.3	7.8	-16.1%



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STAINLESS STEELS

About stainless steel

Stainless steel is the term used to describe a remarkable and extremely versatile family of steel grades, which are known for their corrosion and heat resistant properties. All stainless steels contain iron as the main element, and a minimum of 10.5% chromium. At this level, chromium reacts with oxygen



and moisture in the environment to form a protective, adherent, and coherent oxide film which envelops its entire surface.

The passive layer on stainless steels exhibits a truly remarkable property: when damaged, it self-repairs as the chromium in the steel reacts rapidly with oxygen and moisture in the environment to reform the protective layer. Increasing the chromium content beyond the minimum of 10.5% confers even greater corrosion resistance.

Besides chromium, nickel is another of the main alloying constituents in many stainless steels. The addition of 8% or more nickel modifies the mechanical properties and improves corrosion resistance further, as does the addition of molybdenum and other substances. The use of chromium and nickel as alloying constituents ensures corrosion resistance, longevity, durability and clean-ability.

Due to their characteristics, stainless steel is widely applied in a wide range of products in the food industry, medical devices, kitchen utensils, cutlery, automotive- and aerospace industries, construction materials, toys and furniture.

Stainless steel market

Global stainless crude steel production grew by 5.8% in 2017, reaching 48.1 million tonnes. Stainless steel melting output mainly increased in Asia, namely in China, India, Taiwan and Indonesia. The United States also experienced double-digit growth in 2017. With regards to the EU, producers continued their gradual recovery with another increase of 1.4% in 2017, falling slightly short of 7.4 million tonnes.

In the stainless steel flat product segment, EU apparent consumption increased by 2.1% in 2017 compared to 2016. Whilst domestic deliveries by EU producers fell by 2.7%, both hot rolled and cold rolled products imports rose dramatically, by 23% and 16% respectively.

	2016 In million tonnes	2017 In million tonnes	% change 16/17
Stainless steel flat products market supply	5,280	5,391	+2.1%
Of which EU Mills	4,052	3,944	-2.7%
Of which imports	1,227	1,447	+17.9%

With regards to the stainless steel long products category, EU domestic supply increased by a mere 1% with exporting

third countries benefitting from a 3% increase in EU apparent consumption, increasing deliveries to the EU by more than 9% year-on-year.

	2016 In million tonnes	2017 In million tonnes	% change 16/17
Stainless steel long products market supply	1,368	1,406	+2.8%
Of which EU Mills	1,076	1,087	+1.0%
Of which imports	292	319	+9.2%

Overall, the European market supply of stainless steel finished products increased by around 2% in 2017. Total deliveries of finished products by Community producers on the EU market decreased by 1.9% year-on-year whereas imports from third countries continued to increase significantly, rising by more than 16%, demonstrating once again that EU market remains very attractive as a destination for excess global production.

	2016 In million tonnes	2017 In million tonnes	% change 16/17
Total stainless steel market supply	6,648	6,797	+2.2%
Of which EU Mills	5,128	5,031	-1.9%
Of which imports	1,519	1,766	+16.3%

Overall, the outlook for stainless steel demand remains positive, although the structural stainless steel excess capacity remains the key issue. Production capacities in developing countries, especially in Asia, are still substantially increasing without being justified by domestic demand growth estimations. All this will create additional overcapacity and increase pressure on international markets.

ALLOY SPECIAL STEELS (OTHER THAN STAINLESS)

Total deliveries by EU alloy special steels producers increased by 6.4% in 2017. In particular, domestic deliveries to the EU increased by 5.7% whilst imports from third countries surged by 10%, resulting in an increase of EU apparent consumption of 6.1%.

	2016 In million tonnes	2017 In million tonnes	% change 16/17
Alloy engineering steels market supply	8,448	8,972	+6.2%
Of which EU Mills	7,698	8,155	+5.9%
Of which imports	750	817	+8.9%

The main drivers of demand in 2017 were the strong performance of the automotive and mechanical engineering sectors. Demand from automotive continued the positive results from 2016, while the mechanical engineering sector's demand finally gained real momentum because it was supported by a strong export demand. In contrast, the oil and gas sector's recovery remained muted.

EU market supply of alloy engineering steels increased by 6.2% in 2017, with both EU mills and imports benefitting from improved EU business conditions, increasing by 5.9% and 8.9% respectively. Exports by European producers to non-EU markets also grew by 15%.

EU producers' deliveries of tool and high-speed steels to the internal market remained flat in 2017, registering only a slight decrease in comparison to 2016. In contrast, estimated EU apparent consumption grew by 3.2% as imports from third country registered an astonishing 20% increase year-on-year. Nevertheless, total deliveries of tool and high-speed steels have increased of around 4% as EU mills took advantage of improved global demand and exports to non-EU markets rose by 11.7%.

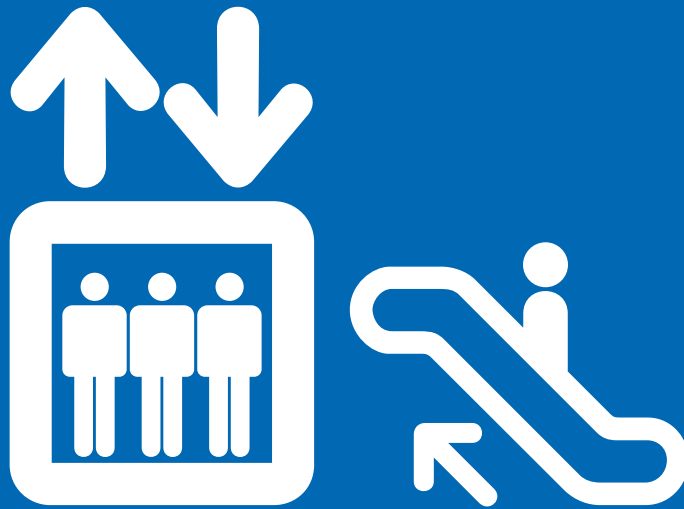
	2016 In million tonnes	2017 In million tonnes	% change 16/17
Tool and high-speed steels market supply	414	428	+3.2%
Of which EU Mills	345	344	-0.3%
Of which imports	70	84	+20.3%



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10 TRADE POLICY



EU TRADE CASES

In 2017, the EU finished steel trade balance remained negative. Imports remained at a historically high level of 24.5 million tonnes, while European exports continued to trend downwards, falling to 21.3 million tonnes. Imports held a market share of 16% of steel finished products, in a modestly expanding European market.

Chinese steel imports decreased by 44% in 2017 and represented about 13% of total EU finished steel imports, down from 22% in 2016. This decline has been caused by the remedying effects of EU trade defence measures. However, these imports have been systematically replaced by imports from other countries, notably Turkey, India, South Korea, Russia, Taiwan and Iran. EUROFER has acted proactively, requesting the Commission use additional Trade Defence Instrument (TDI) tools available to it.

In 2017, final anti-dumping measures were imposed on imports of Chinese Hot Rolled Flat on the basis of threat of injury – both dumping and subsidy. Heavy Plate and Corrosion Resistant Steel from China, and rebar from Belarus were also hit with provisional duties. Specific duties (a fixed euro per tonne value) were imposed on Hot Rolled Flat steel from Russia, Ukraine, Brazil and Iran.

THIRD COUNTRY STEEL TRADE AND MARKET DISTORTIONS

In the context of substantial global excess steel capacity and soft global steel demand, third countries are increasingly tackling import competition through a combination of increased tariff and non-tariff barriers (Mexico, India, Algeria, South Africa etc.)

Significant progress was achieved in the Global Forum on Steel Excess Capacity ministerial-level meeting held in November 2017. The G20 Ministers have agreed on principles and recommendations whereby countries and regions should dismantle market-distorting subsidies and other government support measures and share data and information on the process of capacity reduction. Although not binding in law, the agreement is a significant step forward as all market distorting policies and practices beyond WTO rules are targeted. This framework provides a hook to structure and channel the real implementation work ahead, with the ultimate goal of enforceable rules that provide a real global level playing field for European and global steelmakers.

NON-STANDARD ANTI-DUMPING METHODOLOGY

One of the main files concluded in 2017 was the new Non-standard Anti-Dumping Methodology (NADM) for the calculation of anti-dumping duties from countries where significant distortions exist. This legislation was born in a Commission proposal in late 2016 in response to requests from China to be granted Market Economy Status (MES).

The new legislation abolishes the specific list of countries considered by the EU to be non-market economies that was previously to be found in the anti-dumping regulation. It introduces a new 'country neutral' system which will apply to countries whose economies are affected by 'significant distortions'.

The definition of significant distortion includes references to the five EU market economy criteria. Domestic costs may be used only to the extent that they are positively established as undistorted, on the basis of accurate and appropriate evidence.



This new system will be based on reports detailing significant distortions in certain countries or sectors, that will be produced and regularly updated by the Commission as needed. Interested parties will be able to comment on the reports and supply information as required.

The first tests of the application of this system are now ongoing as new anti-dumping cases in both steel and non-steel products arise.

MODERNISATION OF TRADE DEFENCE INSTRUMENTS

A political agreement was reached on the modernisation of Europe's Trade Defence Instruments in December 2017, after years of work. Long blocked in Council, a new impetus to find a solution was created by the steel dumping crisis in 2016-2017.

EUROFER had long called for action to improve the EU's trade defences. About half of all anti-dumping measures in force in the EU involve steel imported onto the EU market. Of the around 90,000 steel jobs lost since the economic crisis, a very large proportion owed their disappearance to the dumping of unfairly priced foreign steel.

The final TDI deal did contain a number of improvements, such as a minimum target profit of 6%. This target profit represents a safety net for the sector when injury margins are being calculated and should serve to prevent the reoccurrence of ineffectively low anti-dumping measures being imposed in future. The new regime will also integrate realistic future cost factors in the injury margin assessment.

With the final approval of the NADM at the end of 2017 the EU has finally moved some way towards having, at long last, an overall trade defence regime better suited to current global challenges.

FOREIGN DIRECT INVESTMENT SCREENING

The proper functioning of the EU's internal market relies on there being effective and non-distorted competition, guaranteed by competition rules and trade and investment policies. The Commission's Foreign Direct Investment (FDI) screening proposal, released in September 2017, must preserve the EU market's openness to foreign investment whilst ensuring that it is consistent with the rules of the internal market.

A European framework is essential in light of growing concerns related to acquisitions in Europe facilitated, organised and/or financed by foreign states.

The European steel market – second only to China's in size – is open to trade and to FDI. For decades FDI has formed a natural part of the European steel landscape, receiving American, Indian, Russian, Ukrainian and Brazilian investment.

However, the European steel sector is facing foreign governments' expansionist policies. These policies pursue scale and market share, often through state-owned and state-controlled undertakings, and target industries and infrastructure acquisitions in third countries, such as member states of the EU.

EUROFER proposes that the new FDI screening regime include the following principles and mechanism:

- To assess the security, inter alia, of the supply of critical inputs in light of the need to shelter those European value chains based on upstream strategic industries
- In addition to the reference to 'foreign investors controlled by governments' – including significant funding – include a broader reference to the existence of state-led industrial policy strategies pursuing national interests via FDI activity
- To have the Commission systematically assess the market compatibility of FDI operations notified by the member states, including,
 - Screening of the degree of state influence and State Aid
 - Measuring FDI openness in the origin country of the foreign investor.

SECTION 232

In April 2017, using rising volumes of imports of steel into the US as a pretext, the President asked the Department of Commerce to investigate whether steel imports into the US should be blocked on national security grounds.

The Secretary of Commerce, Wilbur Ross, argued at the time that standard anti-dumping trade defence measures are "porous" because of their relatively narrow focus. The justification for the wider measures is, in part, because the administration believes that the US steel should be able to service domestic demand, particularly military demand, should conditions require it.

EUROFER made it clear that blanket measures are unacceptable, as EU countries would likely be affected more than countries such as China, from which steel exports to the US have mostly been blocked by existing anti-dumping actions. The EU is a traditional and reliable steel supplier of the US, and many EU member states are NATO partners of



the US. There is therefore no justification for targeting any steel supplies from the EU.

In March 2018, a year after the investigation opened, President Trump imposed a tariff of 25% on steel imports on all but a handful of countries. At the time of writing, it is unclear if the EU will receive a continuing exemption or whether an arrangement will be found between the EU and the US.

European steel producers will suffer significantly as a result of reduced exports if measures are ultimately imposed. EU

steel exports to the US were around 5 million tonnes in 2017. Imports deflected from countries hit by the US measure will seek to ship much of their previously US-bound produce to the open EU market. The US imported 34 million tonnes of steel in 2017.

EUROFER has called on the Commission to guard the EU market from the risks of trade deflection by deploying a safeguard – and supports the Commission’s efforts to ensure the US understands the need to stand by international trade rules and principles.



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IRON ORE

Iron ore spot prices fluctuated significantly in 2017. Improving steel market conditions in China had a positive impact on iron ore market fundamentals early on that year. Demand for seaborne iron ore was supported by rising domestic crude steel production. Due to the closure of induction furnace capacity and a crackdown on environmentally polluting and illegal plants, integrated steels mill production in China actually increased from February onwards. Steel demand in China was boosted by better than expected economic performance, supported by solid private consumption, improving exports and increased infrastructure investment, with a positive spin-off effect on steel prices. Iron spot prices peaked in February at a 29-month high.

In March iron ore spot prices weakened on narrowing steel industry margins and sliding steel prices. The price correction lasted until mid-2017 with buyers remaining cautious.

From July to early September, iron ore spot prices strengthened again, reflecting bullish sentiment in China because of improving steel industry margins and announcements by the Chinese authorities of further reductions of overcapacity. Later in September, spot prices started to weaken as market participants awaited greater clarity over the market's direction. Government limitations to steelmaking, sintering and pelletising output hit demand for iron ore. With replenishment done well before China's 'Golden Week', buying interest weakened further in late September.

Over the course of the fourth quarter of 2017 spot pricing of higher grade iron ores strengthened as mills restocked, whereas the lower grade's prices remained stable. The 62%

'Fe' benchmark spot price for Chinese imports ended the year at close to \$75 per tonne.

HARD COKING COAL

Hard coking coal supply issues have caused price volatility. Coking coal buying activity was weak at the start of 2017 due to high coal stocks, albeit on a falling trend. Spot price levels, which were considered by coal buyers to be still too high, also had an impact. To counter ongoing sluggish demand conditions, coal mines and traders became more aggressive in their offerings, thereby pushing spot prices down further. From mid-February Chinese buying activity improved somewhat, while spot pricing remained flat.

Prices surged in March as cyclone Debbie hit the Australian mining and transport sector. While mining operations were relatively quickly restored, railway transport remained a bottleneck. These conditions led to BHP Billiton, a mining company, into declaring force majeure on deliveries, which sparked fears of supply tightness in the international metallurgical coals markets. From late April the earlier than expected normalisation of rail transport in Australia eased supply fears and spot prices started to move downwards again. The downward trend in spot pricing mitigated gradually in May and June.

Coking coal spot prices strengthened during the July-August period on tighter supply conditions due to force majeure at South32's Illawarra coal mine and ongoing strikes at Glencore's Oaky North coal mine. Meanwhile, demand was robust owing to strong steel margins in China fuelling industry sentiment. Concerns over reduced Chinese supply on environmental restrictions, safety issues and cutbacks in



Mongolian coal supply added to supply concerns.

From mid-September to October, demand and prices weakened due to regulatory uncertainty and possible production cuts in China.

In November and December metallurgical coal pricing was supported by the usual restocking ahead of potential seasonal supply tightness of supply from Queensland in the first quarter of 2018.

At the end of 2017, the spot price for premium hard coking coal Free On Board (FOB) Port east coast Australia amounted to around \$250 per tonne.

SCRAP

EU scrap prices fluctuated within the €220-260 per tonne range between January and early May. This largely reflects price movements in the Turkish import market as a result of swings in steel market sentiment. Prices in Southern Europe were more strongly affected than those in Northern Europe.

In February, Turkish import prices came under pressure due to rather poor downstream steel market conditions and oversupply of scrap. Pricing conditions improved at the end of the month.

In the international scrap market, the sudden appearance of low-priced scrap from China raised questions as to whether this could be a structural change in scrap supply or a temporary blip.





EU scrap prices were on a rising trend over the July-August period, in sync with the strengthening price trend of Turkish imports since late June. Scrap demand in Turkey was supported by robust buying activity in the domestic rebar market and the surge in semis prices

Supply of scrap was assessed as being relatively tight, reflecting that also international demand for scrap is strong. This led to Turkish buyers looking for alternative supply sources and securing cargoes from Australia, New Zealand and several Asian countries of origin.

In September the market quietened due to ample availability of US East Coast material, gradually putting international prices under pressure. Turkish mills remained reluctant to buy in October.

Buying interest from Turkish mills strengthened again in November. Reports on output cuts in China fuelled fears of rising scrap prices, whereas domestically the lira depreciation made imports more expensive and steel market conditions were improving. The scrap import price continued to rise in December as buying was supported by rising Turkish steel prices for long products even as China export supply was being curtailed.

The scrap price in Europe (shredded, delivered) ended 2017 at €300 per tonne.

REVIEW OF THE CRITICAL RAW MATERIALS LIST

EUROFER had closely monitored the last revision of the list of critical raw materials for the EU economy. This 2017 revision

entailed a detailed revision of the methodology for assessing exactly how critical a raw material is for the EU economy. EUROFER acted to ensure the proper development of the 'criticality' methodology and to seek proper classification of the raw materials necessary for the steel sector. As a result, coking coal has been confirmed as a raw material critical for the European economy.

European Innovation Partnership on Raw Materials

EUROFER renewed its action in the European Innovation Partnership on Raw Materials (EIPRM). EIPRM is a stakeholder platform that brings together representatives from industry, public services, academia and NGOs. The mission is to provide high-level guidance to the Commission, members states and private actors on innovative approaches to the challenges related to raw materials.

- The mandate of the EIPRM platform was renewed in 2017 and EUROFER contributed to the public consultation. This stresses the following key topics:
- Inclusion of the trade dimension in the EU Raw Materials Strategy, a new criticality methodology able to consider market concentration,
- The linking of market dynamics,
- Raw material availability and deployment of new technologies,
- Greater support for the use of industrial by-products,
- The refining and enriching of the raw materials knowledge base with more information about secondary raw materials and recycling.



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16 ENVIRONMENT



CIRCULAR ECONOMY

In 2017 the circular economy dossier was supplemented by projects dealing with monitoring and the chemicals-products interface, in the context of the future EU Non-Toxic Environment strategy. These dossiers were initiated in parallel with the last legislative steps of the revision of the EU's Waste Package, the inter-institutional process for which concluded at the end of 2017.

EU Waste Package

EUROFER continued to work on the EU Waste Package until the end of the process, securing a better calculation method for the recycling targets. The new approach is a more realistic way of measuring recycling because it moves the calculation point away from collection towards material recovery.

The steel industry is affected by the Extended Producer Responsibility (EPR) Directive. The EPR establishes requirements for the recyclability, reusability and repairability of final products, and the Waste Framework Directive revision has introduced changes to it.

The changes, which EUROFER supported, mean that EPR now takes into account the concept of 'multiple recycling'. This benefits steel, which is a permanent material that can be endlessly recycled.

During the process, EUROFER also tried to address the problems caused by overlapping legislation. In the case of the Waste Framework Directive, there was – and is – the danger of significant interference between waste management and other legislation, such as the Industrial Emissions Directive.

Finally, EUROFER worked on by-products, 'waste ceasing to be waste' and on the potential introduction of harmonised EU criteria to assign 'by-product' status to industrial 'co-generated' materials. In 2018, EUROFER action about EU Waste law will focus on the implementation phase.

Fertilisers regulation

The Commission proposed a new fertilisers regulation to promote the use of secondary raw materials in the production and commercialisation of fertilisers in 2017. EUROFER and the European Ferrous Slag Products Association (EUROSLAG) were successful in exchanging a hard limit on total chromium content of fertiliser in favour of a labelling mechanism when the content exceeds a certain threshold.

EUROFER has also contributed to the public consultations on a proposed 'circular economy monitoring framework', and about the interface between chemicals, products and waste. Within circular economy file, the interface dossier will be one of the EUROFER priorities in 2018.



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STAINLESS STEEL HEALTH & ENVIRONMENT

A large amount of stainless steel is produced in Electric Arc Furnaces (EAF), which necessarily needs a lot of power to melt the alloy. The result is that stainless steel producers face large expenses costs from CO₂ cost pass-through from the EU's Emissions Trading System (EU ETS).



The continuing struggle for harmonised compensation for CO₂ pass-through costs and the difficulty establishing a level playing field in the European energy market remained the most important issues for the European stainless steel in 2017.

Steel is an infinitely recyclable, circular material, and stainless steel is probably one of the best examples of the type. A recent report by Yale University commissioned by Team Stainless* confirms a recycling rate of over 80% globally. Almost all stainless scrap is collected and re-melted because of its high intrinsic value, so relatively little is lost. This positively influences the carbon footprint of stainless steel because it reduces the direct emissions from steel production and limits the need for virgin raw materials, such as ferro-nickel and ferro-chrome.

Team Stainless

Team Stainless is a cooperation platform between EUROFER, the International Stainless Steel Forum (ISSF), International Nickel Study Group (INSG), Nickel Institute, International Chromium Development Association (ICDA) and the International Molybdenum Association (IMOA), promoting the use of stainless steel globally.

Nickel

A Global Harmonised System (GHS) for classification, established at the Organisation for Economic Co-operation and Development (OECD)/United Nations (UN), has been in use in Europe since 2009. The implementation has been achieved through the Regulation on the Classification, Labelling and Packaging (CLP) of substances and mixtures.

Nickel is one of the few metals which has been classified. The case of nickel is very illustrative for the difficulty of the classification of metals compared to organic substances. It is classified as Carcinogenic (Category 2, suspected to have Carcinogenic potential for humans) by inhalation. This is an unrealistic exposure route for the 'massive' form unless the metal is in its powder form. Nickel is also classified as a skin sensitiser and as specific target organ system toxicant.

In most commercially produced austenitic stainless steels nickel is intentionally added, so the classification of this metal has a significant impact on the sector. Despite a convoluted bureaucratic and administrative process, derogation requests for the use of nickel in stainless have been successful, with the necessary exemptions granted.



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Cobalt

In 2017 EUROFER continued its advocacy and communication efforts related to the harmonised hazard classification of cobalt metal under the Classification, Labelling and Packaging (CLP) Regulation. The proposal for the revised classification was issued in 2016 by the Netherlands. Whereas previously, cobalt was only characterised as presenting a risk if inhaled in pure, powdered form, the proposal would establish cobalt (all forms) as:

- Carcinogenic (C) category 1B H350 (all routes of exposure) with a Specific Concentration Limit (SCL) of 0.01%
- Mutagenic (M) category 2 (H341)
- Reprotoxic (R) category 1B (H360F)

This very stringent classification would significantly harm the steel industry and cause severe damage to the whole steel value chain whilst offering few measurable benefits for human health or the environment.

In most cases, cobalt is not intentionally added to steel. Rather, it is present in the raw materials used to make steel. The proposed cobalt classification would negatively impact virtually all commercial stainless steel grades and 50% of all carbon steel – in particular all those grades completely produced out of scrap and that as such have a cobalt content above the proposed SCL of 0.01%.

As cobalt remains in the steel there is no economically viable way to reduce the cobalt concentration. The only way to reduce the cobalt input in steel is by limiting the re-melting of high cobalt-containing scrap. Unfortunately, preventing the recycling of this kind of scrap would undermine the steel sector's wider circular economy goals.

Having passed through the European Chemicals Agency (ECHA) with little change in September 2017, the proposal will be voted on in the REACH Committee meeting in 2018. If the cobalt classification proposal remains 'as is' it will have marked negative consequences for the carbon and stainless steel sectors.

EUROFER strongly suggests that this proposal should be limited to inhalation as the only classified route of exposure given existing human epidemiological evidence. The association has been advocating a Generic Concentration



Limit (GCL) of 0.1 % in order to safeguard the recycling of steel scrap – rather than the overly stringent SCL of 0.01% as proposed. To this end, EUROFER has been working with Eurometaux, Team Stainless* and the other metals industry and downstream users to highlight that steel containing cobalt is intrinsically safe. EUROFER also supports the recognition of 'bio-elution' as the protocol to demonstrate limited bio-availability of cobalt once embedded in stainless steel.

CHEMICALS POLICY

2017 European chemicals policies evolved in a number of areas. However, there was little progress on the REACH authorisation processes under Regulation 1907/2006. One development was the inclusion of coal tar pitch and anthracene oil in Annex XIV of the REACH Regulation. These substances will be banned in Europe from 4 April 2019 unless applications for authorisation are prepared and filed for consideration.

The Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive (2011/65/EU) saw further development in 2017. EUROFER, alongside the European General Galvanisers Association (EGGA), submitted feedback to the European Commission's consultation supporting the scope and the validity period for the application for the renewal of the Exemption 6(a) for lead in machining and galvanised steels.

EUROFER continues its work within the so-called Cross-Industry Initiative (CII), through which joint industry efforts have resulted in better recognition by REACH authorities of Occupational Safety and Health (OSH) legislation as an appropriate alternative risk control measure for managing chemical risks at the workplace.

Water

EUROFER remains committed to the establishment of a workable Environmental Quality Standard (EQS) for iron. Further testing and scientific work is needed as it became clear in 2017 that an update of the iron toxicity datasets – and the alignment on the decisions regarding testing – was needed. The method development work for measuring bioavailable metal is expected to be completed in 2018. In addition, EUROFER, together with three other study partners, the European Chemical Industry Council (CEFIC), the European Refinery Industry (CONCAWE) and the European Association of Mining Industries (Euromines), continued to pursue a Work Programme consisting of four packages to measure the content of free cyanides in natural water bodies.

The project was launched because the existing testing method for free cyanides cannot detect environmental levels of free cyanides in the required concentration range. In October 2017, free cyanide was brought up as a potential candidate for the new watch list to be adopted in spring 2019 by the European Commission within the context of the Water Framework Directive (WFD). According to the Commission – and given the expected new methodology – free cyanide could be assessed by 2019, when a new list will be proposed.

EUROFER, among other industry associations, agreed with the Commission that the method – once fully accredited and reliably available in all member states – should be used for free cyanide data gathering and information assessment. Using the new method the two risk criteria posed to the environment and by lack of data can be properly assessed ahead of any decision as to whether free cyanide should be included on the watch list.



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EU Non-Toxic Environment

The Commission initiated the preparatory work on one of the most crucial points of the 7th Environmental Action Programme: 'a Union strategy for a non-toxic environment that is conducive to innovation and the development of sustainable substitutes including non-chemical solutions'. The Commission commissioned a report paving the way for the strategy, which was published in 2017. The report contains various topics that require close monitoring and in-depth dialogue with EU institutions: chemical substitutions, authorisations and restrictions which may eventually result in the creation of new, overarching legislation on top of existing chemicals legislation, such as REACH and CLP. The EUROFER chemicals policy and material cycle working groups have jointly taken the lead on the dossier and will continue their work in 2018 under the supervision of the EUROFER environment committee.



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Air policy review

Member states are presently drawing up their national air pollution programmes. European industry's contribution should be based on Best Available Techniques (BAT) principle (ie using methods that are technically feasible and economically viable).

EUROFER will be participating in the Commission REFIT process for the EU Ambient Air Quality Directives. The association will stress the importance of recognising that there are numerous sources of air pollution (for instance, surface traffic, buildings etc). The principle of fair burden sharing/contribution, as well as the recognition of considerable industry efforts to improve the air quality situation via BAT to date will need to be recognised.

BEST AVAILABLE TECHNIQUES REFERENCE DOCUMENTS (BREFS)

Under the Industrial Emissions Directive (IED), decisions on Best Available Techniques (BAT) conclusions establish the legal reference for the Emission Limit Values in the permits for industrial emissions. As a result, the creation of BREFs has gained increased importance.

The Commission's Implementing Decision on BAT conclusions for Large Combustion Plants (LCP) and the updated BREFs were published in 2017. Many – though not all – of EUROFER's technical arguments have been included in the final text. EUROFER has provided its members with implementation guidance which should help them in the process on the permit updates.

In late 2017, because of the review of the Ferrous Metal Processing (FMP) BREF, the European Integration Pollution Prevention Control Bureau (EIPPCB) launched the formal collection of data from best-performing plants. BAT conclusions will be derived by the EIPPCB in a data-driven process based on plant-specific information. EUROFER's

FMP working group is dealing with this key file. The so-called 'Draft 1' (D1) is expected to be ready by late 2018.

The EIPPCB released the D1 Surface Treatment Using Solvents (STS) BREF in 2017. The European Coil Coating Association (ECCA)/EUROFER working group will continue its activities on this file during 2018. For the Waste Treatment (WT) BREF, the adoption of 'BAT conclusions' by the IED Article 75 Committee will happen in 2018. The EUROFER secretariat joined the kick-off meeting of the Seville TWG on the Waste Gas Treatment in the Chemical Sector (WGC) BREF. EUROFER succeeded in having the production of sulfuric acid as by-product of coke oven plants outside the scope of the WGC BREF. Sulfuric acid, as by-product of coke oven plants, will be dealt with under the future revision of the Large Volume Inorganic Chemicals (LVIC) BREF.



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PRODUCT-RELATED ENVIRONMENTAL ISSUES

EUROFER has been active in delivering several elements of the circular economy action plan, including environmental indicators for resource efficient buildings, or 'Level(s)', resource efficiency aspects for energy related products, and finalising the product environmental footprint category rules for metal sheet. By working on these initiatives, the contribution that steel makes to a more circular economy is coming into focus and can be further highlighted when the right metrics are used. The Level(s) framework method for improving the resource efficiency of buildings has now been published by the Commission, incorporating a broader perspective on resource efficiency.

A greater focus is being placed on material use, building adaptability and recyclability, rather than on traditional environmental impact indicators, such as Abiotic Resource Depletion Potential (ADP). In order to ensure that the new indicators are useful in promoting lifecycle thinking in building design, it will be important that the steel industry contributes to the testing phase of Level(s) during 2018.

The standardisation work on Resource Efficiency aspects for Energy Related Products has established the first drafts for calculating the durability, reparability, reusability, recyclability and recoverability of recycled content. Of particular interest is the standard for calculating recyclability, where EUROFER has been active in demonstrating that recyclability is not just



about the theoretical mass of a product that can be recycled, but also about the environments benefits that comes from high quality recycling.

Were recyclability to be used as an implementing measure in certain energy related products under the Eco-design directive, steel would be well placed to be recognised as a material that not only has high recycling rates, but also supports the circular economy by being recycled into new steel products without the loss of its inherent properties.

Standardisation work also continues in the construction sector. The work in this field is to better align EN 15804 on Environmental Product Declarations (EPD) with the Product Environmental Footprint (PEF) methodology. Voting on the draft will take place during the second quarter of 2018. The Product Environmental Footprint pilot projects are coming to an end in 2018 and EUROFER will continue play and active role in the interim phase of the PEF project, which runs from 2018 to 2020. EUROFER is also supporting the development of complimentary Product Category Rules (cPCR) for steel structures under the standard for the execution of steel structures and aluminium structures (CEN/TC 135), and focus on a new work item will start in the third quarter of 2018.

For reinforcing steel, EUROFER is facilitating the development of a standardisation request that incorporates sustainability criteria as essential characteristics of rebar production,

including a broader scope of metrics, such as those used in the voluntary Sustainability for Steel Construction Products Mark (SustSteel) scheme, compared to the existing environmental indicators used in EPDs. The Commission is due to publish the draft standardisation request, replacing the existing request (M115) in the second quarter of 2018.

EUROFER closely monitored the process for evaluating a possible revision of the Construction Products Regulation (CPR), known as Regulation 1303/2013, and sent its input for the 2017 public consultation on options for the revision for the CPR. In 2018, EUROFER will monitor developments in the CPR dossier together with the Metals for Buildings association (of which EUROFER is a founding member).

November 2017 saw the publication of the new proposals to limit CO₂ emissions from vehicles from 2021 onwards. The draft proposal sets ambitious limits for tailpipe CO₂ emissions. However, the proposal overlooks the potential for material production emissions to undermine savings being made in the use phase. EUROFER continues to work with stakeholders, including WorldAutoSteel, to demonstrate how a lifecycle approach can be used in the regulation to avoid the potential for burden shifting.

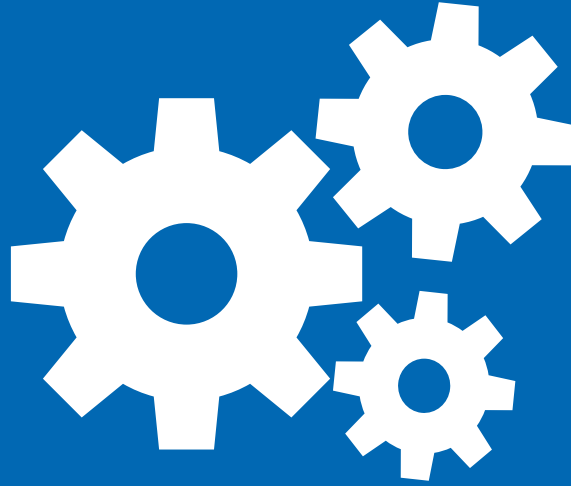


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RFCS LEGAL BASIS REVIEW

The purpose of the review of the legal basis of the Research Fund for Coal and Steel (RFCS) is to bring it into line with Horizon 2020. The RFCS was set up using the European Community for Coal and Steel's remaining resources, which were around €1.6 billion.

Annual RFCS projects are funded using the interest on the RFCS capital. EUROFER prepared six amendments to the Commission proposal, of which five were taken on board by the Dutch Presidency in their Council proposal. This Dutch Presidency proposal was accepted with qualified majority by the Council Research Working Party.

The revised legal basis was published in the EU Official Journal in mid-2017. As a result, experts may also be appointed by member states; technical group members will be eligible as experts in the evaluation of proposals; the advisory groups will be getting feedback on the evaluation results and will continue advising the Commission on the number, capacities and organisation of the technical groups.

REVISION OF COUNCIL DECISION ON THE USE OF IDLE RFCS REVENUE

EUROFER advocated revising Council Decision 2003/76/EC to make it possible to deploy unused proceeds derived from interest on the RFCS capital. The procedure for amending the Decision will be finalised in May-June 2018.

The potential boost from this financial 'recycling' is estimated at €40.3 million. It will enable the Commission to increase the RFCS budget for 2018 to €40 million and to use the remainder

of the appropriations for the 2019 budget (estimated to also be around €40 million).

Without the additional budget, the amount available for the RFCS programme would have been €27 million for 2018 and €16 million respectively.

The EUROFER Refocus working group will be further discussing long-term measures – meaning for the post-2020 period – since this redeployment of the unused revenues can only be done once. The European Parliament is willing to consider strategically ensuring continued RFCS funding and, where appropriate, make the management of European Community for Coal and Steel funds more active. An amendment on Council Decision 2003/77/EC on the use of European Community for Coal and Steel assets (e.g. loan guarantee) is also in the pipeline as a medium term-measure (2019/2020).

NINTH FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION (FP9)

The Commission proposal for the next EU funding programme for research and innovation for the period 2021-2027 will have been released by the end of May 2018 [at the time of writing]. In order to scale-up breakthrough competitive solutions for low-carbon steelmaking, adequate public co-funding is needed to address the wide range of risks and costs for industry; given the relatively modest yearly funding available via the Research Fund for Coal and Steel (RFCS), alongside the challenges that the European steel sector is facing – it is clear that larger sources of finance are needed in order to address the challenges effectively.



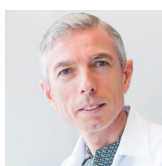
The European steel industry therefore calls for adequate funding of the overall FP9 budget and for a joint initiative on low-carbon steel (ie a 'mission' for industry, specifically including steel). Joint Technology Initiatives (JTIs), contractual Public-Private Partnerships (cPPP) and Knowledge and Innovation Communities (KICs) are of particular importance for applied research projects.

Together, these approaches facilitate cooperation between public and private actors by pooling their various abilities and resources, shaping the critical mass for innovative breakthroughs to be developed. Crucially, companies of all size must be kept in scope and funded. Any exclusion of large companies – or lowering the funding rate – would be a tremendous set-back for Europe, negatively affecting the R&I ecosystem and value chain (including SMEs), diminishing the possibility for international collaboration and harming the innovation environment in general.

EUROFER wrote to President Juncker and the College of Commissioners in September 2017 expressing these concerns. This letter emphasised the European steel industry's ambition to make the transition towards a low-carbon society a reality. Moreover, EUROFER highlighted how a robust, competitive and innovative European steel industry is a strategic component of Europe's economy. Steel underpins key industrial value chains, such as the automotive, machinery, electrical engineering, construction, white goods, defence and aerospace sectors. With the right legislative and innovation frameworks the European steel industry will be able to deliver on its part of the EU's objectives for a prosperous, sustainable, low-carbon Europe.

The European Parliament fully supports the aim of promoting clean and competitive European steel and it has expressed its willingness to see substantial funding earmarked for a 'steel mission' under the FP9¹, fulfilling as it does, the five selection criteria in the Mission-Oriented Research & Innovation report for the European institutions.

¹ Recommendation of the European Parliament on the proposal for a Council decision amending Council Decision 2003/76/EC (rapporteur: Jean Arthuis).



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QUALITY TRACKING PROJECT

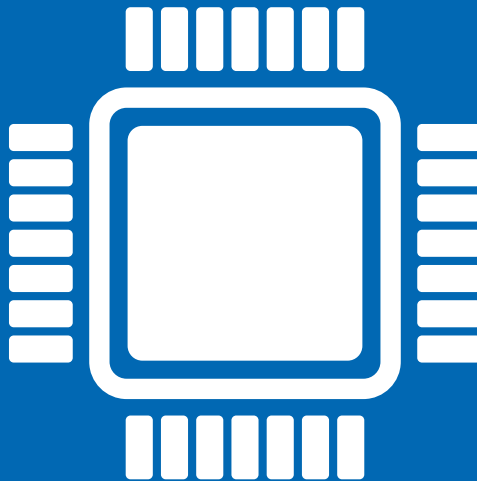
EUROFER is the governance body for the Quality Tracking Project. This is an innovative solution to provide more quality information to coil processors by using a 1D barcode as unique address for each 'steel unit'. The Quality Tracking Project is designed to support the 'zero defect' vision for final products, and to optimise the resource efficiency of the steel supply chain. The system was the result of a successful five-year technical collaboration between ArcelorMittal, Tata Steel Europe and thyssenkrupp. The deployment of the system is supported by these companies, as well as voestalpine and Salzgitter.

The draft European standard (CEN standard) on quality tracking was written by a drafting committee in 2017 and validated by CEN/ECISS/TC109/WG4 in the first quarter of 2018. It has now been submitted to TC109 to be voted upon, with the decision expected in the second quarter of 2018.

The publication of the European standard is expected in early 2019. In addition, in 2018, a technical working group will be created to work on a common Electronic Data Interchange standard for quality tracking. The definition of the future coordination work to be performed within EUROFER beyond January 2019 is also on the agenda.



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UPDATE OF THE EUROFER LOW-CARBON STEEL ROADMAP

EUROFER has been updating its existing Low-Carbon Steel Roadmap. Initially created in 2013, the steel sector was one of the first to create an outline of how the industry expected to build a low-carbon future by 2050.

The objectives now, as then, are to

- Get a realistic view of the sector's mitigation capabilities. This includes assessing any related costs and economic viability in the medium (by 2025-2030) and long terms (by 2050). It also considers potential novel solutions, helping the EUROFER membership to make informed decisions;
- Identify barriers, risks and remedies, in particular in terms of the impact on competitiveness, given that climate change is a global challenge and steel is a globally traded material.

The conclusions of the assessment will feed the political debate. The update of the steel roadmap is expected to start in June 2018 with delivery expected in September 2018. This update requires the update of the 2013 low-carbon steel technology roadmap study by the German Steel Institute (VDEh) and the Boston Consulting Group (BCG).

UPDATE OF THE EU STEEL INDUSTRY TECHNOLOGY ROADMAP

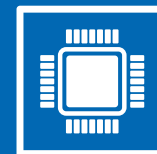
Two consultants are working on EUROFER's behalf to update the EU steel industry technology roadmap. These are the VDEh steel institute, who will be conducting the technical assessment and Ecofys, who will be doing the economic assessment. These two consultants will work together to analyse and structure the available technical and economic

information, putting it in perspective with the global context in order to give a full picture of steel's potential contribution to a low carbon society.

The two consultants are supported by a team of independent experts. Work began in March 2018 and the final report is expected in May 2018, followed by a peer review period lasting one month. The results of the technology roadmap will be given to the International Energy Agency (IEA) for the development of their Global Energy Roadmap. The roadmap will also be given as input for the European Commission as part of EUROFER's promotion of the need for a 'mission' dedicated to steel in the upcoming Framework Program (FP9).

TOWARDS AN EU MASTERPLAN FOR A COMPETITIVE, LOW-CARBON EUROPEAN STEEL VALUE CHAIN

EUROFER has developed a policy discussion paper called 'Towards an EU Masterplan for a Competitive, Low-Carbon European Steel Value Chain'. Its purpose is to find alignment between, and commitment from, the European steel industry, the EU institutions, member states and relevant stakeholders on an EU masterplan for a competitive, low-carbon EU steel value chain. This discussion paper is a 'living document' which provides a brief overview of the EU steel industry's Research, Development and Innovation (R&D&I) projects. These activities focus on achieving considerable CO₂ emissions reduction and a substantial improvement in the sector's resource efficiency and circularity. The paper also highlights the prerequisites for the successful development and implementation of those activities – including some first estimations of funding needs and some policy recommendations.



The document shows that the projects and initiatives for CO₂ reduction in steel are at various Technical Readiness Levels (TRL) and will require potential funding of about €10 billion if implemented up to industrial scale in the period between now and 2030/35, of which about €8.8 billion is required for demonstration of the technologies' feasibility. This paper is also being used to advocate for the inclusion of a 'mission' on steel in the FP9.

While the Toward an EU Masterplan discussion paper is EUROFER's initiative, its purpose is to inform and motivate policy makers into creating their own 'EU Masterplan'. An EU-led Masterplan should:

- Identify the fundamental facts and underlying trends in the EU and global steel industry, in particular on steel production, CO₂ emissions and energy consumption.
- Produce an overview of the EU steel industry's (R&D&I) activities, particularly those investigating CO₂ emissions reduction, improvement in the sector's resource efficiency and its circularity. A projected timeline and milestones for relevant projects and initiatives, highlighting the prerequisites for their successful development and implementation, – for example in the framework of a Big Scale Initiative – would be needed.
- Set out the broad lines of a European Big Scale Initiative reflecting the interaction with other industrial sectors. These diverse industries must cooperate closely on technological low-carbon initiatives to bridge the 'valley of death' in low-carbon implementation. Many low-carbon initiatives are cross-sectoral involving, for instance, the steel and chemical industries, as well as energy providers and distributors.
- Outline conditions and recommendations for an appropriate legislative and economic framework. This framework should enable technological implementation, and ensure that neither new technologies, nor existing installations, face competitive disadvantages within the internal market or vis-à-vis global competitors. Competition policy rules for EU and national programmes that could potentially affect steelmakers' cooperation for the implementation of any initiative under the Masterplan – for example in the framework of a Big Scale Initiative – should be clarified by the European Commission.

This EU Masterplan will consider the outcomes from the update of the technology study and available information from various industrial sectors. Ecofys has been tasked with supporting the EUROFER secretariat in the development of this document, which will feed the political debate on competitive low-carbon EU industry. The report is expected for August 2018.

STRATEGIC ENERGY TECHNOLOGY PLAN ACTIVITIES

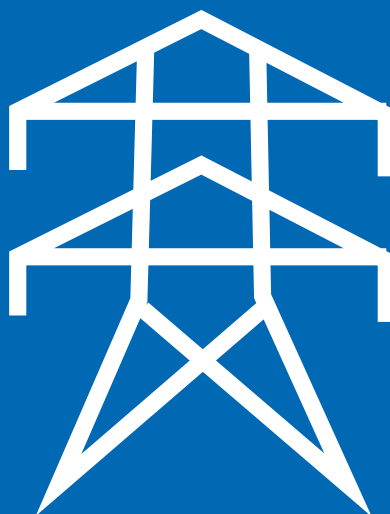
The mission set for the temporary working groups of the Strategic Energy Technology Plan (SET-Plan) was limited to producing their respective implementation plans and having them endorsed by the SET-Plan steering group. With the endorsement of the plans by the steering group in September 2017, the mission of the working groups was completed. Now these temporary bodies, especially the two on Energy Efficient Industry and on Carbon Capture Usage and Storage (CCUS) respectively, have been transformed into 'implementation' working groups.

This change will make the respective plans into actionable projects, and ought to subsequently support the monitoring, country cooperation, dissemination and communication of the results thereof. In particular, the Energy Efficient Industry working group is organising a workshop on 'Continuing efforts to make EU industry less energy intensive and more competitive' in June 2018. This will enhance cooperation between national programmes and further develop the activities identified in the implementation plan on energy efficient industry. In particular for the steel sector, the workshop programme foresees sessions for the projects in the field of Carbon Direct Avoidance as well as Smart Carbon Usage through Process Integration and Carbon Capture and Usage.



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REVIEW OF THE EU EMISSIONS TRADING SYSTEM (EU ETS) POST-2020

Following the adoption of the Council general approach and the European Parliament plenary text in February 2017, trilogue negotiations took place over the course of the year and were concluded in November 2017. EUROFER contributed to a transparent and fact-based debate on this topic, representing the sector's position to policy makers and other relevant stakeholders.

EUROFER position on the EU ETS revision is that the system should not lead to direct or indirect carbon costs at the level of 10% most efficient installations in sectors at risk of carbon leakage.

The main elements of the final text which sets the legal framework for the period 2021-2030 are summarised below:

- The linear reduction factor of the overall EU ETS cap is fixed at 2.2% per year;
- The auctioning share is 57%, but can be reduced by up to 3% in case of application of the Cross Sectoral Correction Factor (CSCF);
- If a CSCF is needed, it will apply uniformly to all sectors;
- Benchmarks will be updated with flat rates between 0.2% and 1.6%, and the 0.2% flat rate will apply to the hot metal benchmark at least until 2025;
- The carbon leakage binary approach as proposed by the Commission was confirmed;
- Member states keep competence and discretion on indirect costs compensation in line with state aid rules, while reporting provisions are enhanced in order to increase the transparency of national compensation schemes;

- The intake and outtake rates of the Market Stability Reserve (MSR) are to be doubled until the end 2023, and every year as from 2024, allowances in the MSR above the number of allowances auctioned during the previous year shall no longer be valid.

In EUROFER's view, the EU ETS deal provides only partial responses to industry needs. While the agreement improves on the initial proposal in some places, it falls short of securing a global level playing field for the EU steel industry, exposed as it is to fierce global competition.

Unfortunately, many of the European Parliament's more supportive proposals did not find their way into the agreement. In particular, the recognition of the full carbon content of unavoidable waste gases used in power plants – which is vital if realistic steel benchmarks are to be set – was not reflected in the final text.

The measures included to avoid the application of the Cross Sectoral Correction Factor (CSCF) are likely to be insufficient. No agreement was found to fully offset indirect costs in all member states for sectors at risk of carbon leakage, such as steel. The doubling of the Market Stability Reserve (MSR) uptake rate, and the invalidation of up to three billion allowances in the MSR by 2030, will also significantly increase the carbon price and undermine the very cost-efficiency aims expressed in the legislation itself.

ENERGY UNION STRATEGY

Following the publication of European Commission proposals on the Clean Energy Package at the end of 2016, the Council and the Parliament negotiated their respective positions on



the individual dossiers in 2017. EUROFER followed the most relevant proposals for the sector, notably the Renewable Energy Directive (RED), the Energy Efficiency Directive (EED), the Energy Market Design (EMD), and the Energy Union Governance Regulation (EUGR).

Within these dossiers the main elements which have a direct impact on the steel sector are summarised below:

Renewable Energy Directive (RED)

The promotion of recycled carbon fuels produced from steel waste gases and the renewable schemes are important features of the RED. EUROFER supported the promotion of alternative fuels and feedstocks derived from industrial process gases. These are vital to achieving the EU's energy and climate targets while maintaining the competitiveness of energy intensive industries and ensuring the energy security of the EU economy.

Energy Efficiency Directive (EED)

The relationship between the EED obligation schemes and the scope of the EU ETS Directive was key. EUROFER advocated for an efficiency target that does not cap economic growth by setting absolute energy consumption levels. Furthermore, EUROFER advocated for the need of avoiding double regulation taking into account also the scope of the EU ETS.

Energy Market Design (EMD)

The capacity mechanisms and the emissions performance standard in the EMD is a consideration for the steel sector. EUROFER supported the deployment of a market-based approach in order to ensure a functioning and competitive energy market that delivers sustainable, secure and affordable energy. Moreover, EUROFER backed the principle proposed in the package of using capacity mechanisms only as a last resort, for a limited time and after a strict adequacy assessment based on a common reliability standard.

Energy Union Governance Regulation (EUGR)

The national energy and climate plans, and their relationship with EU-wide climate and energy targets under the EUGR, were also discussed in 2017.

The Council adopted the general approach on EED in June 2017 under the Maltese Presidency and the general approach on RED, EMD and EUGR in December under the Estonian Presidency. The Parliament voted on the plenary text of the EED, RED and EUGR in January 2018.

In its advocacy actions on the Clean Energy Package EUROFER stressed that high EU energy and regulatory costs hamper investment in the sector. The availability of affordable and competitively priced energy is of foremost importance for the EU's energy-intensive industries, including steel. There must be a clear commitment by the EU to effectively reduce the gap in industrial energy prices and costs between the EU and its main competitors.

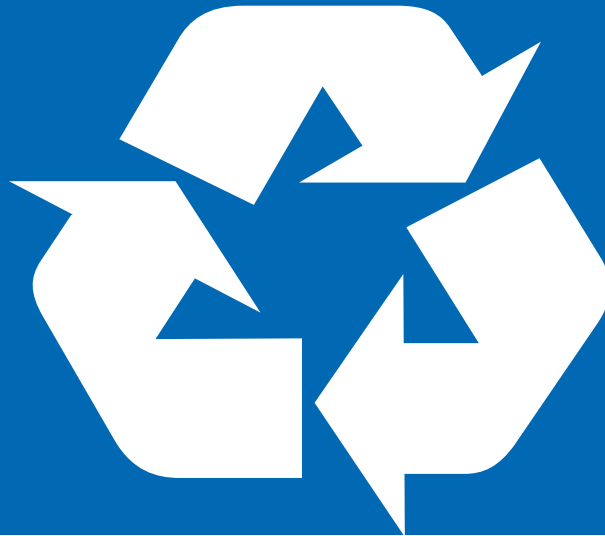


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EUROFER SUSTAINABILITY STRATEGY

EUROFER developed its first overall sustainability strategy in 2015, with the objective of developing an overarching narrative on, as well as specific initiatives for, sustainability.

This strategy is based on 4 agreed principles:

1. Support for steel as a sustainable and permanent material;
2. Support for steel made in Europe and the EU steel industry as a sustainable producer;
3. Recognition that each steel sector segment faces specific market environments wherein the very concept of 'sustainability' may require different approaches;
4. Specific sustainability initiatives undertaken by a given segment must fit into the overall steel strategy and must not negatively affect the work done in other segments.

In 2017, the EUROFER Board agreed to conduct a thorough stakeholder consultation in order to identify the key issues and most appropriate indicators for the European steel industry. EUROFER's stakeholders – other than its own members – include the European institutions, up and downstream businesses in the steel industry's value chains, banks, research centres and academia. This should help establish the right targets and priorities for a future roadmap on sustainability, with a regular reporting on the European steel industry's sustainability achievements.

For more information about the EUROFER Sustainability Strategy, please see Annual Report 2017 and EUROFER's Sustainability Vision Paper 2016.



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28 TRANSPORT



EUROFER completed its first position paper on transport policy issues in March 2017. Entitled, 'Priority Transport Issues for the European Steel Industry', the document identifies the key areas of transport which have a direct impact on the steel industry's operations within the different modes of transport it uses: road, rail, barge and maritime transport. This position paper now acts as the foundation of EUROFER's transport committee work, with the emphasis shifting depending on the different legislative processes at hand.

ROAD TRANSPORT

Of these key areas, the main focus of the EUROFER transport committee during 2017 was on road transport. This was due to the European Commission presenting two major legislative packages with road transport initiatives: The Mobility Package 'Europe on the Move' in May and the Clean Mobility Package in November.

The main reasons and objectives behind the Mobility Package were the need for clearer and better enforceable common rules in the EU, combatting the use of letterbox companies and the exploitation of workers, and the contribution to a cleaner environment with more efficient operations. In tackling these areas, the Commission proposed initiatives on cabotage, the posting of drivers, driving and resting times, road charging and vehicle taxation, and interoperable on-board units (electronic road toll system).

These directives and regulations were discussed at length among the European steel industry's transport and logistics experts. Experts from other organisations and EU bodies were also invited to the EUROFER meetings. Exchanges

of views were carried out with representatives from the Commission, the European Parliament and the Council as well as from the European Shippers' Council, International Union for Road-Rail Combined Transport and Finnish Transport and logistics, among others.

The Clean Mobility Package, launched in November 2017, consists of numerous initiatives to tackle the environmental challenges related to transport. The main legislative proposals are the new CO₂ standards for vehicles post-2020, the Clean Vehicles Directive, an action plan for the trans-European deployment of alternative fuels infrastructure and the combined transport directive. As with the Mobility Package, EUROFER actively monitors and contributes to the development and the on-going work related to these, with the main focus on the CO₂ standards and combined transport.

RAIL, INLAND AND MARITIME TRANSPORT

EUROFER continued to participate actively in the European Shippers' Council's Maritime, Railway and Inland Transport Council meetings, as well as BusinessEurope's Transport Working Group. These are useful platforms to stay updated on and to share views on those areas of transport in which the legislative proposals were not as numerous as with road in 2017. Rail, barge and maritime transport operations play a major role in the European steel industry's logistics operations and hence developments in these areas are also closely monitored.

The steel industry, as a shipper of heavy goods, has historically had extensive cooperation with rail where the structural capacity problem of freight trains – particularly in



busy corridors – has been an issue. Single wagon services also continue to form an essential part of rail transport for steel, with some steel producing countries transporting almost half of their dispatched goods via the single wagon system. In addition, reduction of railway noise is one of the issues to be tackled as in the EU. With both densely and sparsely populated areas, and diverse nature conditions within the EU, a 'one size fits all' solution will not be feasible. This particularly concerns the replacement of cast iron brakes with composite brake blocks.

Inland navigation is an important mode of transport in many central European member states. Neglected infrastructure, natural events, aged locks and ship lifts, and air pollution are all areas in which EU wide practical solutions need to be found.

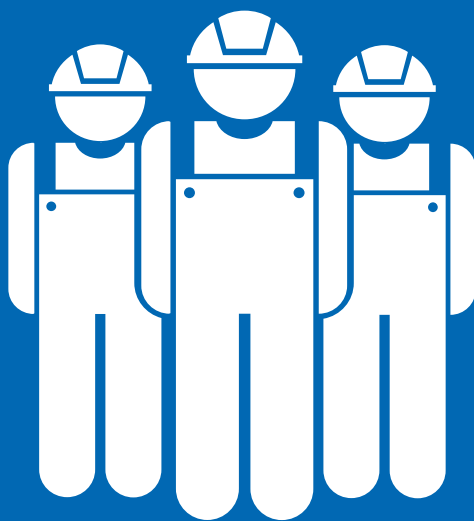
Maritime transport remains one of the key areas for EUROFER; Europe's ports are vital gateways, linking its transport corridors to the rest of the world. For the steel industry they are key to its sustainability as raw material supply and shipments to overseas are basic elements of its business operations. New investment, enhanced efficiency of port operations, high-quality services and improved governance in European ports are vital. Dockside services (cargo operations in ports) are another important dimension that plays a major part in the overall cost structure of sea freight for shippers.



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SOCIAL AFFAIRS COMMITTEE

In 2017, a decision was taken to re-activate the EUROFER Social Affairs Committee in order to prepare internally for the Sectoral Social Dialogue Committee (SSDC) on steel. EUROFER's committee also acts as a platform for discussions on social policy matters and human resource activities. The committee is also expected to take a more active role in monitoring EU legislation in the area of social and employment policies, preparing for potential advocacy actions if necessary.

One of the main tasks of the committee is to focus on the eventual involvement of steel companies and associations (together with partners such as research centres, universities) in the Blueprint skills agenda. The agenda was launched in early 2017 by the European Commission and the steel industry was named as one of the six sectors (along with additive manufacturing, construction, maritime shipping, green technologies and renewable energy, and paper-based industry) selected to take part.

ACTIVITIES OF THE SECTORAL SOCIAL DIALOGUE COMMITTEE ON STEEL WITH INDUSTRIALL

SSDC on steel, supported by the Commission, seeks to contribute to the sustainability and competitiveness of the steel sector in Europe. EUROFER and the industriAll European Trade Union, the social partners in the SSDC, have been building up shared understanding and mutual trust since 2006.

The objectives of the SSDC are to monitor the social, economic and employment consequences of EU policies on the steel sector. It also helps to develop concepts and

proposals to direct European and national debates and aim recommendations that contribute to policy developments. In addition, the SSDC conducts exchanges on topics of mutual interest and prepares for joint actions, such as statements, position papers and projects.

In 2017-2018 the social partners have continued working together on topics of mutual interest with the aim of improving the competitiveness of the European steel sector. This on-going work includes topics such as:

- Energy and climate change policies, with a special focus on the revision of the EU Emission Trading Scheme (EU ETS) and the Clean Energy Package;
- Trade policies and their implementation, including trade defence instruments, anti-dumping methodology, foreign direct investment, state aid, and overall trade practices, including protectionism, in non- EU countries;
- The evolution of the EU steel market and latest developments, including new technology and skills needs, which play an ever more important role in the changing technical advancements within the European steel sector.

Indeed, ensuring the overall competitiveness of the European steel industry is the overarching priority of the social partners. As such, EUROFER's recent Towards an EU Masterplan for a Low-Carbon, Competitive European Steel Value Chain discussion paper is being debated in detail at the SSDC meetings, with the social partners defining potential joint actions when appropriate.

In 2018, Mr Carlo Lombardi (Federacciai) was nominated chairman of the SSDC on steel, succeeding Mr Michael Bach (IG Metall), who chaired the Committee during 2017.



TRAINING AND EDUCATION

The Commission's Blueprint Skills Agenda pilot project, launched in 2017, is a new framework for strategic cooperation between key stakeholders. Its purpose is to develop concrete actions to satisfy short and medium-term skills requirements. The idea is to support a selection of sectors which have been identified as needing to go through considerable structural changes because of technological development and the induced evolution of the necessarily required skillsets. Accordingly, the EUROFER Social Affairs Committee took the decision to apply for this project, which is financed by Erasmus+ fund.

With the coordination support of Antonius Schroeder of the Technical University of Dortmund and Dean Stroud of the University of Cardiff a very detailed project outline and application was made, called Industry-driven sustainable European Steel Skills Agenda and Strategy (ESSA).

The objective of the ESSA project is to develop a sustainable, industry driven and coordinated European skills agenda and strategy for the immediate and on-going implementation of responses to new skills demands. This will lead to the development of modules for new skills needed in a globally competitive industry, as well as tools for anticipating future skills demands. These activities should help facilitate the coordination of pro-active and practical solutions to meet the future requirements of the industry. After evaluating the project plans and applications over the first half of 2018, the

European Commission will take a decision on the eventual funding for the six chosen industrial sectors.

EMPLOYMENT

Supported by the economic recovery in the EU, the downward trend in employment in the steel sector has thankfully slowed in 2017. According to recent forecasts the steel market outlook for 2018 and 2019 is rather positive, although challenges for the sector still remain, especially within the context of increasing protectionism and its potentially negative impact on global trade. It is expected that employment in the steel sector - estimated at just over 320,000 workers in 2017 - will remain the same or slightly increase over this period.

Recent research has highlighted the size of the employment footprint of steel in the EU. The 320,000 direct jobs in the sector underpin an additional 1,471,000 indirect jobs across the continent. Additionally, the 'induced' effects of steel's economic activity underpin an additional 677,000 posts. This gives a total employment footprint of 2,469,000 jobs created and supported by the EU steel sector.



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GLOSSARY OF ACRONYMS

In alphabetic order

ADP – Abiotic Resource Depletion Potential

BAT – Best Available Techniques

BAT-AELs – Best Available Techniques – Associated Emission Levels

BREF – Best Available Techniques Reference Document

BREF-FMP – Ferrous Metal Processing – BREF

BREF-LCP – Large Combustion Plants BREF

BREF-LVIC – Large Volume Inorganic Chemicals BREF

BREF-STs – Surface Treatment Using Solvents – BREF

BREF-WGC – Waste Gas Treatment in the Chemical Sector BREF

BREF-WT – Waste Treatment BREF

BusinessEurope – Confederation of European Business

CCUS – Carbon Capture Usage and Storage

CEFIC – European Chemical Industry Council

CEN – European Committee for Standardisation

CEN/TC 135 – Standard on the execution of steel structures and aluminium structures

CENELEC – European Committee for Electrotechnical Standardisation

CII – Cross-Industry Initiative

CLP – Regulation on the Classification, Labelling and Packaging of products

CO₂ – Carbon Dioxide

CONCAWE – European Refinery Industry

cPCR complementary Product Category Rules

cPPP – contractual Public-Private Partnerships

CPR – Construction Products Regulation

CSCF – Cross Sectoral Correction Factor

EAF – Electric Arc Furnace

ECHA – European Chemicals Agency

ECCA – European Coil Coating Association

ECCA – European Coil Coating Association

EED – Energy Efficiency Directive

EGGA – European General Galvanizers Association

EIPPCB – European Integrated Pollution Prevention and Control Bureau

EIPRM – European Innovation Partnership on Raw Materials

EMD – Energy Market Design

EPDs – Environmental Product Declarations

EPR – Extended Producer Responsibility

EQS – Environmental Quality Standard

ESSA – European Steel Skills Agenda and Strategy

ESTEP – European Steel Technology Platform

EU – European Union

EU ETS – European Union Emissions Trading System

EUGR – Energy Union Governance Regulation

EUROFER – European Steel Association

Eurometaux – European non-ferrous metals association

Euromines – European Association of Mining Industries

EUROSLAG – European Ferrous Slag Products Association

FDI – Foreign Direct Investment

FOB – Free on Board

FP9 – Ninth Framework Programme for Research and Innovation

GCL – Generic Concentration Limit

GDP – Gross Domestic Product

GHS – Global Harmonised System for classification

ICDA – International Chromium Development Association

IEA – International Energy Agency

IED – Industrial Emissions Directive

IG Metall – Industriegewerkschaft Metall

IMOA – International Molybdenum Association

industriAll – European Trade Union

INSG – International Nickel Study Group

IPPC – Integrated Pollution Prevention and Control

ISSF – International Stainless Steel Forum

JTI – Joint Technology Initiatives

KIC – Knowledge and Innovation Community

LCP – Large Combustion Plants

LEVEL – Environmental Indicators for Resource Efficient Buildings

LRTAP – Long-Range Transboundary Air Pollution

MES – Market Economy Status

MSR – Market Stability Reserve

NADM – Non-standard Anti-Dumping Methodology

OECD – Organisation for Economic Cooperation and Development

OSH – Occupational Safety and Health

PEF – Product Environmental Footprint

R&D&I – Research, Development and Innovation

REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals

RED – Renewable Energy Directive

REFIT – Regulatory Fitness and Performance programme

RFCS – Research Fund for Coal and Steel

RoHS – Restriction of Hazardous Substances Directive

SCL – Specific Concentration Limit

SET-Plan – Strategic Energy Technology Plan

SSDC – Sectoral Social Dialogue Committee

SustSteel – Sustainability for Steel Construction Products Mark

TDI – Trade Defence Instruments

TEN-T – Trans-European Transport Network

TRL – Technical Readiness Level

UN – United Nations

US – United States of America

WFD – Water Framework Directive

WTO – World Trade Organisation



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MEMBERS

Companies

Acciaieria Arvedi	http://www.arvedi.it
Acerinox	http://www.acerinox.es
AG Siderurgica Balboa	http://www.grupoag.es/siderurgicabalboa_en/empresa/empresa.php
Aperam	http://www.aperam.com
ArcelorMittal	http://www.arcelormittal.com
Badische Stahlwerke	http://www.bsw-kehl.de
British Steel	http://britishsteel.co.uk
Celsa Group	http://www.gcelsa.com
CMC Poland	http://www.cmcpoland.com
Deutsche Edelstahlwerke	http://www.dew-stahl.com
Dillinger Hütte	http://www.dillinger.de
Duferdofin Nucor	http://www.duferdofin.it
FNsteel Group	http://www.fnsteel.eu
Georgsmarienhütte	http://www.gmh.de
Halyvourgiki	http://www.halyvourgiki.com
Helliniki Halyvourgia	http://www.hlv.gr
ISD Dunafer	http://www.dunaferr.hu
ISD Huta Czysta	http://www.isd-hcz.com.pl
Lech-Stahlwerke	http://www.lech-stahlwerke.de
Marienhütte	http://www.marienhuetten.at
Megasa Group	http://www.megasa.com
Metinvest Tramecc	http://www.tramecc.it
NLMK Europe	http://www.eu.nlmk.com
Officine Tecnosider	http://www.officinetecnosider.it
Outokumpu	http://www.outokumpu.com
Promet Steel JSC	https://www.promet.metinvestholding.com/en
Riva Forni Elettrici	http://www.rivafe.com
Saarstahl AG	http://www.saarstahl.de
Salzgitter AG	http://www.salzgitter-ag.de
Sidenor	http://www.sidenor.gr
SIJ - Slovenian Steel Group	http://www.sij.si
Stahlwerk Thüringen	http://www.CSN-sections.com
Štore Steel	http://www.store-steel.si
Tata Steel Europe	http://www.tatasteeleurope.com
ThyssenKrupp AG	http://www.thyssenkrupp.com
Třinecké Železářny	http://www.trz.cz
U.S. Steel Košice	http://www.usske.sk
Vitkovice Steel	http://www.vitkovicesteel.com
voestalpine	http://www.voestalpine.com



National Associations

AUSTRIA	Fachverband der Bergwerke und Eisenerzeugenden Industrie https://www.wko.at/branchen/industrie/bergwerke-stahl/start.html
BELGIUM	Groupement de la Sidérurgie - GSV http://www.steelbel.be
BULGARIA	Bulgarian Association of the Metallurgical Industries - BAMl http://www.bcm-bg.com/index.php
CZECH REPUBLIC	Ocelářská Unie http://www.ocelarskaunie.cz
FINLAND	Metallinjalostajat http://www.teknologiateollisuus.fi/
FRANCE	A3M - Alliance des Minerais, Minéraux et Métaux http://www.a3m-asso.fr/ Chambre Syndicale des Producteurs d'Aciers Fins et Spéciaux http://www.spas.fr
GERMANY	Wirtschaftsvereinigung Stahl http://www.wvstahl.de
GREECE	Hellenic Steelmakers' Union - ENXE
HUNGARY	Magyar Vas-és Acélpári Egyesülés http://www.mvae.hu
ITALY	Federacciai http://www.federacciai.it
POLAND	Hutnicza Izba Przemysłowo-Handlowa http://www.hiph.com.pl
ROMANIA	Uniunea Producătorilor de Oțel din România – UniRomSider
SPAIN	Unión de Empresas Siderúrgicas - UNESID http://www.unesid.org
SWEDEN	Jernkontoret http://www.jernkontoret.se
UNITED KINGDOM	UK Steel http://www.uksteel.org.uk

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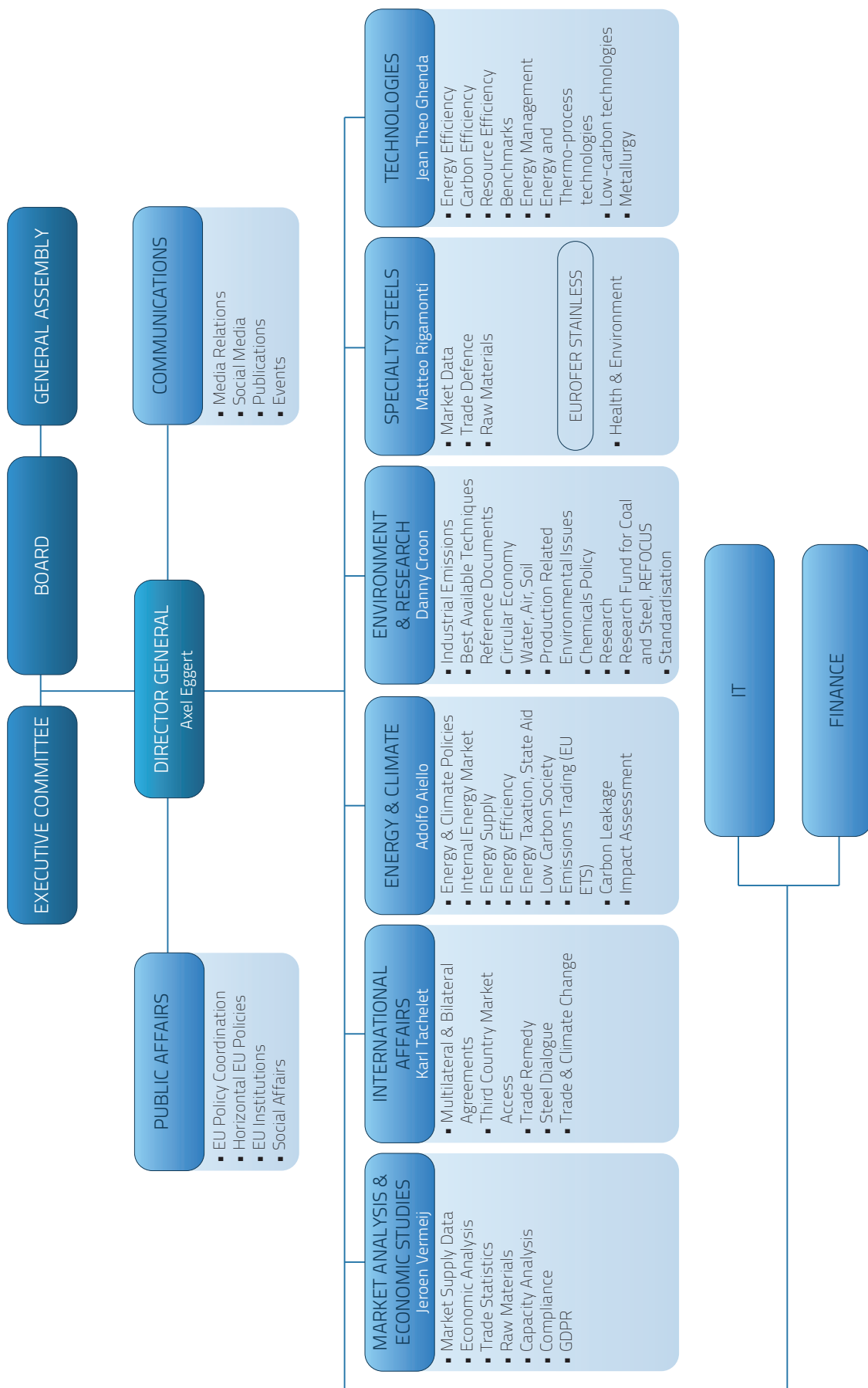
Çolakoglu Metalurji	http://www.colakoglu.com.tr
Türkiye Çelik Üreticileri Derneği - TÇÜD	http://www.dcu.org.tr
Diler Demir Çelik Endüstrisi ve Ticaret	http://www.dilerhld.com/diler_demircelik/index.html
Erdemir - Ereğli Demir ve Çelik Fabrikaları	http://www.erdemir.com.tr
Isdemir - Iskenderun Demir ve Çelik Fabrikaları	http://www.isdemir.com.tr
Swiss Steel	http://www.swiss-steel.com

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ABOUT THE EUROPEAN STEEL INDUSTRY

The European steel industry is a world leader in innovation and environmental sustainability. It directly employs 320 thousand highly-skilled people and through indirect and induced effects supports the jobs of up to 2.2 million more. The sector produces on average 170 million tonnes of steel per year at more than 500 steel production sites across 24 EU member states. Closely integrated with Europe's manufacturing and construction industries, steel is the backbone for development, growth and employment in Europe.

Steel is the most versatile industrial material in the world. The thousands of different grades and types of steel developed by the industry make the modern world possible. Steel is 100% recyclable and therefore is a fundamental part of the circular economy. As a basic engineering material, steel is also an essential factor in the development and deployment of innovative, CO₂-mitigating technologies, improving resource efficiency and fostering sustainable development in Europe.

ABOUT THE EUROPEAN STEEL ASSOCIATION (EUROFER)

The European Steel Association (EUROFER) represents almost 100% of EU steel production. Founded in 1976, EUROFER's headquarters is located in Brussels. It is the voice of the European steel industry to policy makers, civil society and relevant stakeholders.

EUROFER's members are steel companies and national steel federations based throughout the EU. The national steel federations and major steel companies of Switzerland and Turkey are also associate members.

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