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# Steel Industry in Europe

**A strong and competitive steel sector is important for Europe’s industrial base**. The EU is the second largest producer of steel in the world, with an output of over 177 million tonnes of steel a year, accounting for 11% of global output. Steel also forms part of a number of industrial value chains and is closely linked to many downstream industrial sectors such as automotive, construction, electronics, mechanical and electrical engineering. It has a significant cross-border dimension: 500 production sites are split between 23 Member States, making it a truly European industry.

Today, the European steel sector finds itself in a very **difficult situation**. The ongoing economic crisis has led to a marked downturn in manufacturing activity and associated steel demand, which remains 27% below pre-crisis levels[[1]](#footnote-2). As a result, several production sites have closed or reduced output with corresponding job losses, with up to 40 000 jobs lost in recent years. Consequently the **pressure to restructure and reduce production capacity will remain one of the main challenges for this industry in the foreseeable future**.

Significantly, overcapacity is not only a European problem. Steelmaking capacity is expected to continue to increase in the next two years[[2]](#footnote-3) with the OECD estimating that **globally** itwill increase by 118 million tonnes to a level of 2 171 million tonnes by 2014.The European steel industry finds itself with the **simultaneous effects of low demand and overcapacity in a globalised steel market** whilst at the same time being confronted with **high energy prices** and needing to invest to adjust to the green economy and produce innovative products..

The Commission considers it essential that **Europe remains an important steel producing region for economic, social and environmental reasons as well as for security of supply**. Following the adoption of the Commission’s 2012 Industrial Policy Communication[[3]](#footnote-4), seeking to reverse the declining role of industry in Europe **from its current level of 15.2% of GDP to as much as 20% by 2020**, the March 2013 European Council concluded that it will follow-up the Commission’s work on specific industrial sectors. This Communication represents the Commission’s response to the crisis in the steel sector and sets out targeted actions to ensure that the operating environment is conducive to a competitive and sustainable steel industry, so that it is able to solve the structural problems it faces, compete globally and develop the next-generation of steel products vital for other key European industries.

# Global Market for Steel and technological Developments

## Major trends on the world market

Since 2000 the world market for steel has been growing, driven by the industrialisation of emerging countries.

The drive to industrialisation in Asiahas made it the region with the world’s highest steel production and demand. **China now dominates global steel output**: it accounted for 39% of Asia’s crude steel production in 2000; this rose to 71% in 2012. This increase in production has resulted in Chinese domestic overcapacity and shifted the country from a net importer– to the largest steel exporter worldwide. The Chinese steel industry now accounts for almost 50%[[4]](#footnote-5) of global steel production.

In the **US**,the surge in **shale gas production** has improved the **competitive position of US industry** with regards to **energy costs** and is one of the main reasons in attracting new investments in the steel sector. This may signal a turnaround for this sector, and the US may soon become a net exporter of steel[[5]](#footnote-6), further increasing the over-supply on global markets.

In addition, some neighbouring countries (Russia, Ukraine and Turkey) have substantially improved their steel production capacity and increased their ability to supply the EU steel market. But an increase in production capacity across many countries is not accompanied by an opening of markets. There is in fact **an increasing trend to protect domestic steelmakers in the past years** such asBrazil and India[[6]](#footnote-7). Such measures hinder the development of a global steel market based on a level playing field.

In this challenging context the EU steel industry succeeded in maintaining its export level. Since 2010 EU exports are increasing and the EU has had a trade surplus for the past four years. The steel trade surplus for 2012 was at 16,2 million tonnes (or 20 billion euros)[[7]](#footnote-8).

**Fair access to both primary and secondary raw materials** as well as to the maritime transport thereof, at competitive market conditions is also crucial for the sustainable development of the steel industry.

## Major technological drivers and challenges

**Steel is likely to remain a key material of choice in construction and manufacturing.** However, a number of trends in steelmaking technology and steel use could affect steel demand. Collaborative design and process innovation can be expected to be the key drivers for such trends. This is an area where Europe can lead.

On the **demand side**, construction of power stations, including on- and off-shore wind farms, energy transmission, housing and the transport sector will continue to provide windows of opportunities for **innovative steel products**.

**Increasing the added value of steel products**, including tubes and pipes, is a way for steelmakers to differentiate themselves from competitors and to increase their competitiveness. However, as a recent OECD[[8]](#footnote-9) study highlights, high value-added steel products still account for a limited share of steel demand with competition being intense in this segment. Moreover, such steel production requires the use of high-cost steel rolling processes and heavy investment in research and development (R&D).

On the production side, whereas innovation remains key to **developing new products** and **markets** and **increasing efficiency**, **access to and prices of raw materials and energy** will,*inter alia*, determine **future trends** and for **import-dependent Europe** the trends in these **prices look set to continue rising**. With regard to the raw materials necessary to produce steel, replacing virgin iron ore by recycled scrap (increasing the share of Electric Arc Furnace (EAF)) and replacing coking coal by gas (deployment of direct reduced iron (DRI)) could be decisive technology trends of the future.

**Climate policies and resource efficiency will be another important driver for technology changes.** In the short term, an increase in the use of recycled scrap material and diffusion of best available techniques (BAT) could make important contributions to meeting climate policy targets and increase the sustainable use of scares resources.

A recent study by the Commission[[9]](#footnote-10) showed that incorporation of BATs between now and 2022 would provide **only a slight reduction in overall total direct energy consumption** and CO2 emissions if it is assumed that strict investment conditions (short payback periods) are applied. However, a further follow up study[[10]](#footnote-11) suggests that, with longer payback periods there could be higher reduction potential by 2030. Beyond this, **research and successful demonstration** would be required to further improve the cost-competitiveness of such BATs.

Incremental improvements in terms of **energy efficiency** are expected in the short and medium term. Currently used technologies have already undergone significant improvements[[11]](#footnote-12) and **plants** using **best technologies** are already operating close to their **thermodynamic limits**. This being said, there are still some areas where improvements could be achieved so as to make the industry more resilient to energy costs. By **reducing input costs**, **better energy-efficiency** can require **higher up-front investments** and therefore policies should be implemented in a way that take into account the **impact on competitiveness**. Consequently, the Commission will monitor the sectors which are deemed to be exposed to a **significant risk of carbon leakage** to ensure that the Energy Efficiency Directive contributes to the sustainable development of these sectors[[12]](#footnote-13).

**A successful demonstration of breakthrough technologies for CO2 emission abatement** including industrial carbon capture and storage (CCS) is crucial. Before proceeding to the implementation phase there are challenges to be overcome such as high costs and public awareness and acceptance, as explained in the Commission’s Communication on the Future of Carbon Capture and Storage in Europe[[13]](#footnote-14).

# Meeting the challenges - the Steel Action Plan

In order to **identify and assess the challenges** facing the steel industry, a **High‑Level Roundtable** (HLR) was set up in July 2012 by the Vice-President and Commissioner for Industry and Entrepreneurship, in co-operation with the Commissioner for Employment and Social Affairs.[[14]](#footnote-15) The HLR served as a platform for dialogue between the Commission, industry chief executives and trade unions. Representatives from the main steel producing Member States and from the European Parliament also attended these meetings. The Commission now proposes to address the main challenges affecting the competitiveness of the EU steel industry as follows:

## The right regulatory framework

European legislation is essential for the **sustainable development** and **proper functioning of the internal market,** for investor certainty and predictability and for providing a level playing field.

In line with the Commission’s Smart Regulation agenda[[15]](#footnote-16), **EU legislation must be effective and efficient** in achieving its objectives**.** The Commission is determined to **identify excessive burdens, inconsistencies, gaps or ineffective measures**.

Furthermore, the **cumulative effects of various policies** and legislation can have an impact on a business’ capacity to innovate and take investment decisions. This can in the medium term strengthen competitiveness. However, competitors in the global marketplace benefit from more favourable framework conditions, they may also lead to reductions in investment and losses in market share leading to closure or delocalisation.

In this context, the Commission is carrying out a **cumulative cost assessment on specific sectors** such as steel or aluminium. Using all instruments within its toolkit, the Commission is also reinforcing its analysis of the impacts on competitiveness of its new policy proposals **through the use of** **"competitiveness proofing"**[[16]](#footnote-17)in the context of its ex-ante impact assessments. Additionally, the Commissionis carrying out **"Fitness checks" as comprehensive policy evaluations** toassess whether the regulatory framework for a policy sector is fit for purpose. These findings will serve as an input for drawing conclusions on future policy and regulatory frameworks.

The regulatory frameworkshould be designed in a **smart and ambitious way** so as to be a **key driver for innovation**, particularly when dynamic and market-based approaches are used. Stricter **environmental targets**, the use of **harmonised rules**, **standards** and **public procurement** can also provide a major boost for innovation[[17]](#footnote-18).

**European standards** could also promote sustainable production of steel construction products. The steel industry is already developing the **Steel Construction Products Mark** – SustSteel. SustSteel aims to promote sustainability in general, and in the production of steel construction products in particular. If it is applied in a sound and credible manner it will have the potential to boost the market share of such European sustainable steel construction products. This should be considered by Member States and may require specific standardisation activities.

Regulatory concerns are also present in the Member States. In some, **value-added tax evasion** in the domestic steel market negatively influences the operational conditions for steel producers. Due to this, they suffer from unfair competition from the black market. In many cases this forces the companies to limit production or stop mills. In some Member States due to this particular tax evasion, the production and sale of rebar decreased by 15% in 2012 and already by 30% this year[[18]](#footnote-19).

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| The Commission will:* finalise the **cumulative cost assessment** for the steel sector in 2013 to assess the overall regulatory burden,
* continue to assess the impacts of new initiatives which can be expected to have a major influence on the competitiveness of the steel industry in its impact assessments, including the use of **competitiveness proofing**, as appropriate,
* examine the potential of **SustSteel** to boost the market share of European sustainable steel construction products. It may then request specific **standardisation activities**,
* investigate, together with Member States, possible initiatives against the **illegal EU market** for steel products, including VAT evasion.

The Commission invites Member States to:* improve the sustainability of steel construction products by exploiting the possibility of introducing **SustSteel**.
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## Boosting demand for steel

**The world steel industry** currently finds itself with approximately **542 million tonnes of excess capacity**. Out of this, almost 200 million tonnes are located in China[[19]](#footnote-20). Presently, overcapacity is estimated at approximately 80 million tonnes in the EU, compared to EU total production capacity of 217 million tonnes. If the steelmaking capacity remains constant after 2014, it could take five to seven years for demand to match capacity, if demand increases at current rates of growth.

In the EU, **steel demand depends on the economic and financial status of a few key steel using industries** – for example the **construction** and the **automotive** sectors account for a combined share of approximately 40% of steel demand. Engineering as well as electrical and electronic equipment (EEE) industries are also important drivers for the steel industry’s prosperity. The financial crisis has however had a substantial negative impact on all of these industries. In order to ensure recovery of these sectors, it is important to implement the current EU initiatives to support the construction and automotive sectors with the view to increasing their sustainability, resource and energy efficiency. More growth-oriented measures will stimulate the consumption of steel.

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| The Commission will:* continue promoting the **key steel-using sectors**, specifically through the Commission’s initiative ‘CARS 2020’[[20]](#footnote-21) initiative, *inter alia* stimulating the demand of alternative fuel vehicles[[21]](#footnote-22) and through the Commission’s ‘Sustainable Construction’[[22]](#footnote-23) initiative to increase the energy and resource efficiency and encourage renovation of the building stock.
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## A level playing field at international level

**The EU is an open market**. Yet too often non-EU steel producing countries use trade restrictions or distortions to give artificial advantages to their own steel industries. These restrictive measures include tariff barriers, non-tariff measures (related notably to technical regulations and conformity assessment procedures), export incentives and subsidies as well as restrictions on different types of steel making raw materials[[23]](#footnote-24).

The EU addresses **trade barriers** and **unfair practices** by forcefully implementing its **market access strategy** with a view to **enforcing international commitments** and securing a **level playing field** for EU operators in the steel sector.

Through an effective network and adequate **monitoring tools** - the EU has identified key trade barriers on third country markets which have then been targeted through appropriate enforcement instruments. Examples of such practices listed in the EU market access database include the **imposition of export restrictions** and **export duties on raw materials** in **India, China, the Russian Federation and Egypt** - among others - which contribute to unduly raise steel production costs in the EU. Other types of barriers in third country markets target EU products by imposing **excessive licencing procedures** or requirements which ultimately hamper EU steel exports – this practice has been identified in particular on the Indian as well as the Indonesian markets. Investment limitations in, and public procurement preferences for, domestic steel sectors have also been used to protect domestic industry against EU competition notably in China and the US respectively.

To meet such challenges, the EU engages with its partners through carefully calibrated responses in the framework of the **market access strategy**. The **Indian mandatory certification requirements** on certain steel products for example have been waived further to EU demarches with the Indian authorities while dispute settlement cases have had to be launched against **China** on **key raw materials** such as coke to secure an unhampered supply of this input to the EU steel sector. Meanwhile, the EU continues to address the remaining obstacles through a well-developed network of consultation fora known as **Steel Contact Groups with the Russian Federation, China, the United States but also Japan, India and Brazil**. In addition to what can be negotiated in the framework of Free Trade discussions, or what can effectively be addressed through the activities of WTO working groups, these Contact Groups allow for useful exchanges to identify and bring down the barriers that the EU industry still faces on these expanding markets.

Another major challenge the steel industry has to face, notably in the context of global steel overcapacity, is the **possible use of unfair trade practices in third countries** aimed at **exporting excess production through predatory commercial behaviour**. The Commission addresses this challenge through application of its **Trade Defence Instruments (TDI)**. In 2012 **eleven new investigations** on iron and steel products were initiated by the European Commission following complaints by the industry on such unfair trade practices. This represents a net increase as compared to the previous year and illustrates both the importance of the problem and the determination of the Commission in confronting these practices head on. In this process, the Commission must remain vigilant with respect to other partners’ use of trade defence instruments which can also be a means to unduly limit the amount and the market share of EU exports in order to protect domestic producers. In this respect the Commission engages regularly with third country authorities to ensure that WTO rules on safeguards, countervailing measures and anti-dumping procedures are duly respected.

Overall, the **restrictive measures that affect the competitiveness of EU steel producers** require that the EU **continues to apply with determination its market access strategy** to ensure **fair international competition** and a **level playing field** for the European industry.

### Access to raw materials

Like many other manufacturing industries, steelmaking **depends on resources that are scarce** in Europe. Blast furnaces need good quality iron ore and coking coal. **Iron ore prices** have increased significantly in recent years[[24]](#footnote-25) due to strong demand from emerging economies. Weaker demand for coal in the US, caused by the shale gas boom, has put downward pressure on coal prices in the EU which has contributed to lower prices of coking coal, resulting in an increase in coal use in the EU.

Steel can be **recycled** again and again without the loss of key properties such as strength, ductility or formability. Recycling of uncontaminated steel scrap can offset the use of over 1200 kg of iron ore, 7kg of coal and 51kg of limestone for a tonne of steel scrap used[[25]](#footnote-26). **Producing steel from scrap steel** instead of virgin ore reduces energy inputs by around 75%, and saves about 90% of raw materials inputs[[26]](#footnote-27). In view of Europe’s challenges in accessing low price energy and raw materials it clearly makes sense to maximise the amount of steel produced from scrap on economic grounds. The environmental imperatives are also strong with production from scrap leading to vast reductions in air pollution (around 86%), water use (40%) water pollution (76%) and mining waste (97%)[[27]](#footnote-28). One tonne of steel produced from scrap reduces CO2 outputs by 231 tonnes compared to virgin ore.

Increasing the amount of scrap recycled in Europe will require firstly **better functioning secondary metals markets**. This will depend on the cost of retrieving metals embedded in abandoned structures, discarded products and other waste streams and its relation to primary metal prices[[28]](#footnote-29). In order to facilitate re-use and recycling, environmentally optimised **product design** should incorporate ease of dismantling and separation of all steel components. By maximising recycling, more steel can be kept in circulation[[29]](#footnote-30). The **Eco-Design Directive**[[30]](#footnote-31) allows for the possibility to set out requirements on the on the recyclability, dismantling of products in a cost-effective way, which could contribute to ensuring better access to high grade scrap metals.

Demand for recycled steel has already been boosted by the extra confidence in its quality generated by the establishment of **end-of-waste criteria** for iron and steel[[31]](#footnote-32).

Further efforts are required to tackle **illegal exports of scrap** which are leading to the loss of valuable raw materials for the European economy. The Commission will come forward with proposals to tackle such illegal exports through strengthening of Member States' capacity for inspections under the **Waste Shipment Regulation**[[32]](#footnote-33). Further work is also needed on monitoring of scrap movements.

When considering production methods, attention should also be paid to resource efficiency and the impact on the climate. Roughly 40% of EU steel production comes from Electric Arc Furnaces which allow steel to be made from a 100% recycled scrap metal feedstock. Whilst this type of production is energy intensive, the use of scrap as the primary raw material renders it resource efficient. As it also results in lower carbon emissions if compared with primary steelmaking from ore, this type of production should be encouraged. However, to do so it is necessary to have **good quality scrap, obtained in environmentally acceptable conditions**.The Commission’s **raw materials strategy**[[33]](#footnote-34) sets the appropriate framework under which this objective should be pursued.

To ensure proper monitoring the Commission has identified a **list** of **14 critical raw materials** which are both economically important and subject to a higher risk of supply interruption due to *inter alia*, the geographic origin of the material. Supply risk may also be accentuated by the low substitutability and low recycling rates of the raw material itself. This list which contains several materials needed for the production of steel alloys will be reviewed in 2013 and coking coal will be considered for inclusion.

### Trade

Trade is particularly important for steel. Given the indispensable role of trade as a driver of economic growth in the globalised steel market, the Commission strongly supports the **liberalisation of international trade under the umbrella of the WTO**.

At a **bilateral level, negotiations of trade agreements, in particular Free Trade Agreements (FTAs)** are another key instrument to achieve a level playing field for EU companies both in terms of access to markets and to raw materials under conditions of fair competition**.** To assess the overall impact these agreements have on EU industries and on the EU economy, each trade agreement is subject to an analysis of the consequences of the proposed deal for the EU once negotiations are concluded, in addition to the ex-ante impact assessment undertaken before adoption of the negotiating directives, and the sustainability impact assessment carried out during the trade negotiations.

The **statistical information is important for the sector**, permitting rapid analysis of increasingly volatile steel import trends and to take the necessary initiatives on a strong factual base.

A scenario of rising imports will be more likely if excess production capacities worldwide continue to rise further, encouraging recourse to **subsidies and dumping** in order to use global excess capacities. Up until the end of 2012 an automatic licence-based system (prior surveillance)[[34]](#footnote-35) provided timely information on future steel imports. After the expiry of the automatic licence-based system, the EU will continue to remain vigilant and monitor imports from third countries closely via the dedicated “Surveillance 2”[[35]](#footnote-36) system. Several of the EU’s trading partners also monitor steel imports some of which, such as the US, through a system similar to automatic licensing.

It is also important to ensure that regulated markets for **trading commodity derivatives** are fair and transparent while applying specific terms in order to support liquidity, prevent market abuse, and prevent the build-up of market distorting positions. Different regulations[[36]](#footnote-37) may have an impact on steel makers, both concerning trading of commodity derivatives and financial instruments.

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| The Commission will:In the short term* within its **comprehensive trade strategy** use its various trade policy tools and instruments (e.g. trade negotiations or TDI) to ensure European steel producers' have access to third country markets. In this context,
* take action against **unfair trade practices** in the steel sector,
* continue to provide **timely reports on the evolution of steel imports** from non-EU countries,
* continue to carry out **ex-ante impact assessments of envisaged FTAs** before the adoption of trade negotiating directives, as well as an analysis of the consequences for the EU of concluded FTAs before their signature,
* monitor **scrap markets**. Given the reduced amount of CO2 in the production of scrap in Europe, non-discriminatory measures justified on environmental grounds could be envisaged, if necessary to address carbon leakage to non EU countries, provided that they do not result directly or indirectly in export restrictions,
* present a legislative proposal on **inspections and controls on waste shipments**,
* consider the **inclusion of coking coal** in the list of **Critical Raw Materials** in addition to other key essential elements for steel production,
* engage with the main non-EU producing countries, in order to have an **overview of the sector**, its trends and to develop common approaches to the challenges that it is facing worldwide.

In the long term* pursue its **trade liberalisation agenda** through the negotiation of FTAs, with a view to eliminate or substantially reduce tariffs and non-tariff barriers on third-country markets, ensure a sustainable access to raw materials for the EU industry, as well as an enhanced promotion of international standards for steel products,
* continue to work with the Council and European Parliament, in the context of the exercise to **modernise the TDI**, to swiftly update the basic Anti-dumping and Anti-Subsidy Regulations. These changes would allow, inter alia, for the imposition of higher duties (a deviation from its ‘lesser duty’ rule) on imports from countries which use unfair subsidies and create structural distortions in their raw material markets; as well as more effective tools for ex-officio investigations where a threat of retaliation exists against the EU industry concerned.
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### **3.4 Energy, climate, resource and energy efficiency policies to boost competitiveness**

### Affordable energy prices and supply

Similarly to other Energy Intensive Industries (EII), energy costs are one of the main competitiveness drivers for the European steel sector. The steel industry estimates that **energy costs represent up to 40% of total operational costs** depending on the segment of the value chain[[37]](#footnote-38). **European industry is faced with higher energy prices** than most of its international competitors,a trend which has been amplified by price development dynamics of recent years.

Electricity and coking coal are the steel industry’s most important energy sources and it is under pressure with regard to both. Despite a recent drop, **the price of coking coal has significantly increased over the last years**.[[38]](#footnote-39) Average **end-user electricity prices** for EU industry are **twice those in the US**[[39]](#footnote-40) and substantially **higher than those in most other OECD countries** (with the exception of Japan) and many major developing economies. Between 2005 and 2012 European industry **faced electricity price increases of on average 38%** in real terms whereas the corresponding figure was minus 4% for the US and plus 16% for Japan.[[40]](#footnote-41) As these differences translate into impacts on the cost structures of steel companies in different regions and have a direct effect on global competition and competitiveness, **internationally competitive energy prices and secure energy supplies are vital for the** future of the steel sector in Europe not least because they are important in **determining location and investment decisions** for the steel industry. The underlying analysis for the Commission's Energy Roadmap 2050[[41]](#footnote-42) suggests that **electricity prices are likely to increase during the period up to 2030** to thereafter slightly decline, in large part due to infrastructure investment costs. It is therefore particularly important to consider potential impacts on prices and costs when defining future policies related to energy and to identify ways in which adverse impacts on the competitiveness of energy intensive industries can be reduced or compensated.

End-user electricity price changes and differences between countries (including within the EU) are due to a complex interaction of various factors, including fuel costs, taxation policy, market structure, changed approaches to price regulation, differences in climate and renewables policies and a changing structure of power generation. The share of **renewables in the energy mix** has an impact on the price of electricity. While high shares of renewable energy with low marginal costs can have a downward pressure on wholesale prices, the impact on end-user prices from expansion of renewable energy can be negative in the short to medium term through the addition of renewables levies by Member States. It is therefore important that **the cost of renewable energy comes down and that national support schemes are cost effective**. The share of taxes, tariffs and levies set by Member States represent a substantial and in many cases increasing share of end-user prices. To date, the steel industry and other EII benefit in some Member States from reductions or exemptions from such taxes and levies.

Another challenge is the **ETS-related increases of electricity prices**. These costs can however be mitigated by the EU State Aid Guidelines[[42]](#footnote-43) which allow for compensation of such costs under certain circumstances to prevent carbon leakage.

The gradual **completion of the internal energy market** has helped to contain wholesale electricity prices and will stimulate competition e.g. by eliminating market entry barriers and regulatory obstacles, but its completion is also dependent on the expansion of the capacity of cross-border and trans-European energy infrastructure[[43]](#footnote-44). For the internal energy market to work, the **third energy package**[[44]](#footnote-45) must be **implemented in full** by Member States. Other important factors to ensure competitive energy prices and costs in Europe include continued research and innovation support to **energy technologies** from the proposed Horizon 2020 programme (particularly where these can enhance energy efficiency, which can play an important role in partially offsetting the energy price gap)[[45]](#footnote-46) and continued efforts to diversify supply sources, routes and countries for gas supply. Development of indigenous energy resources in a cost-efficient manner – be it renewables, coal coupled with CCS, or conventional and unconventional fossil fuels – can also have a positive impact on energy prices in the medium to long term.

The EII are highly capital-intensive with an average investment cycle of 20 to 30 years hence they need **predictability of energy costs so as to limit investment risks**. **Long-term electricity contracts** between suppliers and customers, which provide such planning certainty, are possible under EU competition rules. It is only under certain specific conditions that such contracts can result in a foreclosure of competition in violation of the Treaty[[46]](#footnote-47). Foreclosure will normally only occur in relation to dominant suppliers or, as a cumulative effect resulting from similar behaviour by multiple suppliers. While allowing for different individual contract durations and expiry dates, past Commission decisions[[47]](#footnote-48) require that substantial volumes be returned to the market every year, making them available for contracting by any supplier. Should the Commission case practice provide insufficient clarity on the competition assessment of such contracts, the Commission is prepared to issue a Guidance Letter within the meaning of the Commission Notice[[48]](#footnote-49), provided that the conditions set out in this Notice are respected.

The **European Council of 22 May 2013** recognised that the impact of high energy prices and costs must be addressed. In this context, the Commission will follow-up on the Council Conclusions[[49]](#footnote-50).This **precise monitoring** **of energy costs** and their impact on industry will cover the various cost components of energy prices and their evolution over time as well as a price comparison between the EU and other main steel producing regions, including data on corrective measures such as exemptions and tax breaks.

In the respect of differentiated fiscal consolidation, the European Commission recommends that **fiscal adjustments** should be more **growth friendly** both as regards revenue and spending. With regard to the shift to environmental taxes, these can stimulate the development of new technologies, promote resource efficiency and the creation of "green" jobs but the impact of **high energy prices** on households and on competitiveness, including energy intensive industries, needs to be monitored so that future decisions can be taken on the basis of sound evidence[[50]](#footnote-51).

### Addressing climate policy-related issues

The steel industry is one of the largest sources of CO2 emissions[[51]](#footnote-52). It is also a sector deemed to be at **risk of carbon leakage**. Due to this risk, the steel industry will in principle be allocated emissions allowances at 100% of the benchmark based value for free. Under the ETS state aid guidelines it may receive financial compensation as from 1 January 2013 until 31 December 2020, under the ETS third phase.

As acknowledged by the Commission's Green Paper on the 2030 framework for climate and energy policies[[52]](#footnote-53), energy and climate policies must be implemented in a cost-effective, predictable and coherent manner. Transparency and stability of the regulatory framework is necessary to ensure that long-term investments, indispensable for the renewal of the industrial base take place in Europe, especially for highly capital-intensive industries with long-term investment periods (20 – 30 years). Therefore, the EU’s climate policy for post-2020 will consider how technological limits, barriers and opportunities, the effects of associated costs on competitiveness as well as the commitments and level of ambitions of non-EU countries, can best be taken into account.

The EU represents only 11% of global GHG emissions with this share decreasing, so that **effective international action** is required to tackle climate change. A contribution from all major economies and all sectors in a comparable, equitable, transparent and accountable manner is vital to achieve the objective. Improved commitments as well as efficient systems of monitoring, reporting and verification must be in place to ensure transparency of the future international climate change agreement and internationally recognised standards are essential to improve the EU’s industrial competitiveness. It is important to identify how to **finance climate objectives**. The EU low-carbon roadmap recognised that achieving new targets would require additional investments.[[53]](#footnote-54) Application of more advanced industrial processes and equipment would be necessary on a broad scale after 2035, because the level of CO2 emissions of the most efficient steel plants in the EU is close to physical limits with the technologies currently in place.

One option for **innovative financing** would be the use of some of the revenues from the auctioning of emissions allowances under the ETS to help finance climate-related objectives, possibly including the development of new low-carbon technologies across the industries concerned. From 2013 more than 40% of the total number of allowances within the EU will be auctioned and then the level of auctioning will increase in a linear manner with a view to reaching 100% by 2027.

The EU is committed to addressing the **issues of competitiveness linked to its climate change policies**. Without a level playing field in climate change policy, non-EU steelmaking competitors enjoy an unfair competitive advantage that distorts the **global market** for steel and restricts future investment in the EU, which may lead to carbon leakage.

### Ensure global comparability

Materials research and control over raw material resources is becoming increasingly important in the current global competition for industrial leadership in low carbon technologies. Steel is a material that has a significant potential to enable the transition to a knowledge-based, low carbon and resource-efficient economy.[[54]](#footnote-55) It has an important role to play in the development and market roll-out of more efficient, safe and reliable low-carbon and resource efficient technologies. To support the implementation of the EU’s climate policy and to facilitate achieving the objectives of the UN Framework Convention on Climate Change, a mandate was given to CEN to develop a **European Standard** to assess the greenhouse gas (GHG) emissions in EII. Identifying quantifiable contributions to emissions reductions, at plant and industry sector levels, requires transparent methodologies and a solid consensus on monitoring, reporting and verification procedures as well as key performance indicators. The standards will eventually allow the validation of the methods of measuring and quantification of process-related GHG emissions, ensure comparability of performance of plants globally and enable assessment of their potential for improvement.

### Steel sector as a contributor to climate and resource efficiency goals

Steel contributes to CO2 reductions and energy savings in a variety of applications such as automotive, shipbuilding, construction, machinery, household goods, medical devices and windmills. A recent study[[55]](#footnote-56) compares the CO2 savings from innovative steel applications – such as more efficient power stations, wind turbines or lighter vehicles – with the CO2 emissions from steel production. The study shows that, in the case of Germany, the savings potentials achieved through the use of steel are higher than the emissions from steel production. **Steel is fully recyclable** without loss of quality. By-products of steelmaking (e.g. slag) are almost fully utilised. Therefore with regards to the Europe2020 flagship initiative on Resource Efficiency[[56]](#footnote-57), the steel industry is well positioned to benefit from an increased focus on **Life-Cycle Approach (LCA)**, increase in recycling rates and better use of by-products.

Another way of meeting the challenges of reducing GHG emissions is to further strengthen the **implementation of additional energy efficiency measures in steel making**. Many plants generate large amounts of waste heat and gas which may be utilised for power generation or steam, to be used either at the facility itself as captive power production or exported to neighbouring industries or the public electricity grid. Such projects generate emissions reduction by replacing other sources of energy production, typically from fossil fuels.

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| The Commission will:In the short term, To create a **regulatory environment conducive to sustainable growth**:* issue guidance in 2013 on **renewable energy support schemes** used by Member States to meet their 2020 targets for renewables,
* consider, upon request, issuing a **Guidance letter** on the competition assessment of **long-term electricity contracts** in case of novel or unresolved questions,
* conduct an **analysis of the composition and drivers of energy prices** and costs in Member States with a particular focus on the impact on households; SMEs and energy intensive industries, and looking more widely at the EU’s competitiveness vis-à-vis its global economic counterparts ahead of the discussion at the **February 2014 European Council.** Report on end-user electricity prices for industry, including its components (e.g. energy component, levies and tariffs, taxes) in the EU Member States and other major economies,
* analyse the **impact of the ETS on electricity prices** in the EU and, in the context of the 2030 climate policy discussions, examine the need for measures to address the risk of **carbon leakage** for specific sectors,
* develop proposals for the **EU's 2030 climate policy framework** in a way that fully considers cost-efficiency and potential impacts on the costs for industry. The development of the 2030 climate policy will, without prejudice to the outcome of the public consultation launched by the Green Paper “A 2030 framework for climate and energy policies” endeavour to take into account, *inter alia,* the international competitiveness of the European industry as well as the specific features of certain industries and progress in the global climate change negotiations as well as an assessment of all relevant CO2 emissions in the EU,
* ensure that the assessment of the **risk of carbon leakage** to be done in the context of the new carbon leakage list is performed in an open and transparent manner in accordance with the requirements of the ETS Directive taking into account the specific features of certain industries and the impacts of electricity costs on their competitiveness,
* shortly propose to add the manufacturing of certain forged ferrous products to the list of sectors deemed exposed to carbon leakage for direct costs.
* promote **best practice in energy efficiency**, based on the results of energy audits to be carried out by companies in compliance with the Energy Efficiency Directive[[57]](#footnote-58), as well as on European and international studies,
* promote **energy efficiency investments** (new boilers for power generation, gas recovery in steelmaking, Top-Pressure Recovery Turbine Plant (TRT), waste heat recovery),
* consider **eco-design requirements** for recyclability and dismantling in order to ensure easier separation of steel suitable for recycling from relevant products.

To enhance **innovation**:* integrate the steel industry in **RDI, demonstration, deployment and market uptake measures** for energy efficient products, technologies and solutions in order to implement the Energy Efficiency Directive and other energy efficiency legislations and policies,
* assess how the **revenues related to the ETS can be earmarked** and used to finance climate-related objectives, including the deployment of new and innovative technologies in the EII.

In the medium to long termTo create a **regulatory environment conducive to sustainable growth**:* pursue negotiations towards concluding a **binding international agreement on climate change by 2015** to ensure adequate commitments by all, and notably from major economies, taking into account their respective responsibilities and capabilities while ensuring transparency and accountability as well as incorporating a robust system of compliance and enforcement,
* call on the European Committee for Standardisation to finalise as speedily as possible **standards for assessing the GHG emissions** in energy-intensive sectors,
* continue its efforts to **develop the Life Cycle Approach (LCA) methodology** to allow better consideration of recyclability of materials,
* assess the LCA evaluation along value chains and the recyclability of materials and **integrate the recyclability of materials** into relevant policy proposals and strategies.

To **diversify supply**:* set the conditions to enable the future exploitation of indigenous **gas fossil fuel resources**, both conventional and unconventional in an environmentally safe manner, as they could contribute to reducing EU's energy import dependence and prices.

The Commission invites Member States to:* in preparation for the discussions at the February 2014 European Council, based on the Commission's report, assess the **impact of all national measures on the price of energy for EII such as taxation, capacity and network levies, tariffs** and support mechanisms for renewables or other energy forms,
* on this basis, consider **appropriate measures to reduce the price of energy for EII** in the respect of fiscal consolidation, competition rules and the integrity of the internal market,
* consider establishing **earmarking ETS revenues** for RDI projects for EII,
* step up efforts to **decrease the gap of average energy prices and costs** between the EU industry and its main competitors by strengthening market functioning and security of supply in the energy sector,
* assess initiatives related to **pooled electricity generation, long term contracts and partnerships**,
* exchange **best practice** and share information.

The Commission will **assess the impact of the measures taken** and if necessary give additional recommendations to minimize energy costs for EII.  |

## 3.5 Innovation

The most modern installations in the EU steel industry are **close to the limits of what current technologies can do,** and the steel industry will struggle to achieve furthersignificant CO2 emission reduction **without the introduction of breakthrough technologies**[[58]](#footnote-59). New technological innovations are several years away. Potential breakthrough technologies were investigated in the past as part of an "umbrella" of projects, under the name "ULCOS"[[59]](#footnote-60). The Commission supported ULCOS: funding 40 Million € in total from the 6th Framework Programme for R&D as well as from the Research Fund for Coal and Steel.

Under Horizon 2020, specific support for the process industry may be given to a proposed public private partnership (PPP), called SPIRE[[60]](#footnote-61). In addition, **Carbon Capture and Storage** (CCS) has been identified as a key technology for decarbonisation of the industrial sector in the 2050 Low Carbon Economy Roadmap[[61]](#footnote-62) as well as in the 2050 Energy Roadmap[[62]](#footnote-63), including CCS applications in industrial processes as well as in energy production applications. It is one of the priorities of the Strategic Energy Technology (SET) Plan with a dedicated European Industrial Initiative and Joint Research Programme of the European Energy Research Alliance (EERA). The importance of steel for energy applications and the needs for research and innovation has been defined in the Materials Roadmap Enabling Low Carbon Energy Technologies[[63]](#footnote-64). Further proposals for R&D&I activity of the kind investigated under the previous R&D phase of ULCOS are therefore possible. For 2014-2020, research projects will also be funded for roughly 280 million by the Research Fund for Coal and Steel

Looking at the future, it is clear however, that an industrial scale demonstration project of producing steel with CCS will be required, and the likely financial envelope will fall beyond the typical size of a R&D&I project. Indeed, it is estimated that the full ULCOS-related spectrum of demonstration experiments would cost in excess of 500 Million €. The **leverage of other instruments** is therefore clearly needed for the next phase of commercial demonstration of CCS technologies for steel production, for instance a new NER 300 call, a further European Energy programme for Recovery, or the use of structural funds.

Moreover, even if such technologies are available, **their broad-scale deployment** will depend on whether their application in the EU is possible at **competitive production costs,** as well as on **public acceptance.** In particular, CCS will need the setting up of appropriate mechanisms to engage local communities as partners in such endeavours and ensure an adequate carbon price.

The European steel industry is constantly developing **new types of steel** to address the needs of specific applications. However, there is today a need to stimulate R&D&I in environmentally friendly process technologies to a much greater extent than has been the case in the past. The potential of new sorting technologies and innovative systems, markets and business models in further developing scrap recycling is particularly promising in terms of improving competitiveness and reducing environmental impact and emissions.

The **European Innovation Partnership on Raw Materials** (EIP)[[64]](#footnote-65) fosters innovation through the value chain of steel, from exploration and extraction, to efficient processing, recycling and substitution.

Industrial deployment of emerging steel technologies can be increased using the **European Investment Bank’s (EIB) financial mechanisms**[[65]](#footnote-66). Steel sector projects with a lower risk profile are often eligible for EIB long-term financing. In addition highly innovative steel products may be financed under the **Risk Sharing Finance Facility** (RSFF), which is an innovative credit risk sharing scheme jointly set up by the European Commission and the EIB to improve access to debt financing promoting activities with a higher financial risk profile in the fields of research, technological development, demonstration and innovation investments.

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| The Commission will:* consider to support, in the framework of **Horizon 2020**, in accordance with applicable state aid rules, **R&D, demonstration and pilot projects** for new technologies for cleaner, more resource and energy-efficient technologies, including PPPs fulfilling the relevant requirements. One potential PPP - SPIRE (Sustainable Process Industry through Resource and Energy Efficiency) and the Strategic Energy Technology Plan (SET Plan) are under preparation,
* cooperate internationally in **upstream research projects**, where appropriate and useful in increasing European competitiveness and market access,
* focus **financial support** more on the **up-scaling and piloting phase** instead of only focusing on the research phase,
* explore, in the context of the **EIP on Raw Materials**, and in particular its forthcoming strategic implementation plan, all the options to foster **innovation** in the steel industry along the raw materials value chain, including recycling.

The Commission invites Member States to:* explore the necessity and viability of **earmarking funding sources** to establish specific programmes to fund R&D&I projects in the steel sector and favour the creation of clusters.

The Commission invites the European Investment Bank to:* consider **long-term financing applications for steel projects** that have the objective of ensuring compliance with permitting requirements under the Industrial Emissions Directive based on BATs.
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## 3.6 The social dimension: restructuring and skill needs

**The outlook for employment in the steel sector is of serious concern and merits full political attention,** not least because 40 000 jobs have been lost in recent years, due to restructuring**.**

This means that, Member States are continuing to face substantial **social challenges** with regards to past and future capacity closures which have already been announced, with several regions being affected. Furthermore, if it becomes increasingly difficult to produce steel in Europe, industries depending on the same value chain will also close or invest elsewhere.

For the sector to remain strategic for the European manufacturing industry and for employment, urgent (temporary) measures – in addition to long term measures – need to be taken. It will also require the development of **temporary working arrangements** with public support to workers in order to **retain labour capacity** and **retrain workers** during periods of low economic conjuncture in line, where appropriate, with applicable State aid rules.

**Various EU funds and policy instruments** can be mobilised to alleviate the social cost of **adjustment** and to ensure that the **necessary skills** required are retained and developed for the future competitiveness of the industry**.** This should be done in ways which support moves over time to new advanced production techniques and innovative products and should not preclude any necessary restructuring. Such measures are particularly relevant for the steel sector as it will have to tackle overcapacities.

The anticipation of restructuring needs of the EU steel industry is key in **mitigating adverse social effects**. In order to minimise its social impact, good practice in the field of training and requalification at company level should be disseminated and promoted.

This makes it even more important for all stakeholders to address **cyclical constraints** with temporary measures aimed at preserving production and employment in the long term and to limit capacity reduction to recognised structural overcapacity. The sector has already taken adjustment measures by closing more than 30 mt in production capacities in the European steel industry, 20 mt of which may be considered permanent adjustment.

At the same time**, the steel industry workforce is undergoing an unprecedented change**. The age structure in most European steel-producing companies is such that more than 20 % of the actual workforce will have left the industry in the period 2005-2015, **and close to 30 % will leave up to 2025**. The industry thus needs to be able to attract young and creative talent.

Special activities are needed to ensure that **highly-skilled scientists and managers** will take the European steel industry forward and provide new sources of competitive advantage.

**Structural funds** can help to accompany restructuring in the sector and foster innovation and smart growth specialization. In this context of deep change and restructuring, the **European Social Fund** (ESF) and the **European Globalisation Adjustment Fund** (EGF) should be fully used to support the skills upgrading and updating of workers of the sector and to help positive and quick professional transitions for those who risk being made redundant. With adequate national and/or regional programming, the ESF can play this role in an anticipative way, on a permanent basis and well in advance of specific restructuring operations – thus mitigating in advance their future impact. The EGF may complete this by supporting with active labour market measures workers being made redundant.

Under EU State aid rules, the steel sector can benefit from several categories of **State support measures** that contribute to the EU 2020 objectives: R&D and innovation, training and employment aid and aid to increase environmental protection. For example, the steel sector has already benefited from exemptions from national environmental and energy taxes, from State aid for energy efficiency measures and from aid to investments going beyond mandatory EU standards.In addition, steel is recognised as one of the sectors at risk of carbon leakage and Member States can mitigate the effect of higher electricity prices induced by the ETS on the competitiveness of the sector from 2013 until 2020 as explained above.

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| The Commission will:In the short term* promote the employment of young people in the sector through the reinforcement of apprenticeship schemes and **youth-oriented** recruitment processes,
* encourage the creation of a **European Skills Council** for the steel industry, to bring together existing national organizations working on skills development and employment in the steel sector. The Skills Council can include, depending on the willingness and capacity of organisations in the sector, employers’ and workers’ representatives at European and national levels and education and training providers' organisations,
* support **Sector Skills Alliances**, through the Erasmus for All programme[[66]](#footnote-67), drawing on evidence of skills needs and trends, Sector Skills Alliances will work **to design and deliver joint curricula and methods**, in particular work-based learning, which provide learners with the skills required by the labour market in a specific sector, such as the steel industry,
* support **active training** and **life-long-learning policies** including in relation to energy saving skills through the training of energy auditors and energy managers,
* launch (on a clear request from trade unions and/or national authorities) **an inter-service task force**[[67]](#footnote-68) to study and follow up the main cases of steel plant closures or significant downsizing, so as **to streamline the use of the relevant EU Funds** in case of significant downsizing or closures,
* present a **Quality Framework** **for anticipation of change and restructuring**, setting out the best practices in this field to be implemented by all stakeholders,
* ensure that the **granting of EU funds**, in the context of Horizon 2020 and of the structural funds, follows the principle of regional smart specialisation and takes into account the **durability of the investment in creating and maintaining jobs** in the particular region,
* continue applying co-financing rules and **decreased own contribution in structural funds** for programme countries.

The Commission invites Member States to:* explore the possibility of using together with regional authorities, the European Social Fund (ESF) for workers' **retraining and re-skilling**, including by setting up a specific funding measure related to the steel sector,
* explore the possibility of using **structural funds**, together with regional authorities, in the next programming period, with a view to alleviate the social impacts of restructuring in the steel sector,
* conclude the on-going negotiations on the proposal for a Regulation on the European **Globalisation Adjustment Fund** (EGF) for the programming period 2014-2020[[68]](#footnote-69) and requesting its use,
* facilitate **dialogue between social partners** in view of reaching an agreement on temporary initiatives to maintain jobs, such as the possibility of introducing **labour flexibility schemes**, with regard notably to cyclical adjustment.

The Commission invites industry to:* play an active role to **remedy the skills gaps** and shortages,
* continue the necessary **adaptation of the industry** in accordance with best practices on anticipation of change and restructuring, including through social dialogue and proper involvement of regional stakeholders,
* examine **restructuring needs** and possible **capacity adjustments** in view of the future demand of key sectors, taking into account the need to deal differently with structural and cyclical trends,
* **co-operate with other stakeholders**, especially national and regional authorities in ensuring that cyclical **overcapacity** is dealt with through **publicly supported temporary measures** preserving employment in the long run.
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# Conclusions

As outlined above, the EU vision for 2030/2050 sets strategies and pathways to shift the European economy towards a sustainable and efficient global energy system, the renewal of transport means coupled with the establishment of a smart transport management system, as well as the refurbishment of all buildings and their integration in smart supply grids.

This vision is intensive in advanced materials such as steel, the availability of which at the proper quality, volume and price is a prerequisite to the successful implementation of that vision. Only the right policy and regulatory framework combined with targeted action by the Commission, Member States and industry will help the steel sector overcome its difficulties, increase its competitiveness and produce the innovative steel products necessary to maintain and gain market share.

The constructive discussions on steel have highlighted the usefulness and the need to continue the dialogue among major stakeholders in this strategic industrial sector. Therefore the Commission proposes to formally create a **High-Level Group** on steel. This process would entail an annual high-level meeting. Its main aim will be to provide a European platform of mutual information, dialogue and exchange of best practice. Overall, it should facilitate and support the efforts of the European steel sector to maintain and improve its capacity to compete in the global market.

Within twelve months of the adoption of the Action, the Commission will assess how the implementation of this Action Plan has had an impact on the competitiveness of the steel industry and, if necessary, give additional recommendations and guidance.

1. Eurofer Economic and Steel Market Outlook, 2012 [↑](#footnote-ref-2)
2. According to announcements made by companies [↑](#footnote-ref-3)
3. COM(2012) 582 final [↑](#footnote-ref-4)
4. WorldSteel Association 2012 statistics, http://www.worldsteel.org/statistics/statistics-archive/2012-steel-production.html [↑](#footnote-ref-5)
5. OECD DSTI/SU/SC(2012) 21 The future of steel: how will the industry evolve? (December 2012) [↑](#footnote-ref-6)
6. DECISÃO CMC Nº 39/11, Brazil increased import tariffs on 100 products, including several steel products, but not value-added sheet. The duties were increased from 12% to 25% and are valid for 12 months, with the possibility of a one-year extension [↑](#footnote-ref-7)
7. These figures are based on the products covered by the prior surveillance system until December 2012 [↑](#footnote-ref-8)
8. OECD DSTI/SU/SC(2012) 12 The future of the steel industry: selected trends and policy issues (December 2012) [↑](#footnote-ref-9)
9. Prospective scenarios on energy efficiency and CO2 emissions in the Iron & Steel industry (2012) – JRC [↑](#footnote-ref-10)
10. The potential for improvements in energy efficiency and CO2 emissions in the EU27 iron and steel industry under different payback periods, Journal of Cleaner Production (2013), <http://dx.doi.org/10.1016/j.jclepro.2013.02.028> [↑](#footnote-ref-11)
11. Compared to the year 1980 the use of raw materials for crude steel production in 2008 fell from 2336 to 2015 kg/tonne (-13,7%) [↑](#footnote-ref-12)
12. Directive 2012/27/EU [↑](#footnote-ref-13)
13. COM (2013) 180 final [↑](#footnote-ref-14)
14. More information can be found at: <http://ec.europa.eu/enterprise/sectors/metals-minerals/steel/high-level-roundtable/index_en.htm> [↑](#footnote-ref-15)
15. COM (2010) 543 and COM (2012) 746 [↑](#footnote-ref-16)
16. Competitiveness proofing is a twelve-step tool addressing the impacts of a policy proposal on enterprise competitiveness through its effects on the cost of doing business; on the affected sectors' capacity to innovate; and on their international competitiveness. It provides a simple and effective tool to deliver more thorough analyses of the impact of proposals on competitiveness - SEC(2012) 91 final [↑](#footnote-ref-17)
17. Innovation Union - COM(2010) 546 final [↑](#footnote-ref-18)
18. Polish Steel Association statistics, 2012 [↑](#footnote-ref-19)
19. OECD DSTI/SU/SC(2012) 15 Excess Capacity in the steel industry: an examination of the global and regional extent of the challenge [↑](#footnote-ref-20)
20. COM (2012) 636 final [↑](#footnote-ref-21)
21. COM (2013) 17 final and COM (2013) 18 final [↑](#footnote-ref-22)
22. COM (2012) 433 final [↑](#footnote-ref-23)
23. [↑](#footnote-ref-24)
24. Iron ore prices increased from $25 per dry metric t in 2001 to $250 in 2011 [↑](#footnote-ref-25)
25. World Steel Association (2010) [↑](#footnote-ref-26)
26. US. Environmental Protection Agency [↑](#footnote-ref-27)
27. US. Environmental Protection Agency [↑](#footnote-ref-28)
28. http://scripts.cac.psu.edu/users/n/w/nwh5089/Steel%20Recycling%20Process.pdf [↑](#footnote-ref-29)
29. www.eurofer.org/index.php/eng/content/.../517/.../SteelRecycling.pdf [↑](#footnote-ref-30)
30. Directive 2009/125/EC [↑](#footnote-ref-31)
31. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:094:0002:0011:EN:PDF [↑](#footnote-ref-32)
32. Regulation (EC) 1013/2006 [↑](#footnote-ref-33)
33. COM(2008) 699 and COM(2011) 25 [↑](#footnote-ref-34)
34. Commission Regulation (EU) No 1241/2009 [↑](#footnote-ref-35)
35. The Surveillance 2 system is collecting data directly extracted from import customs declarations. These data relate to the reference of the customs declaration, the nature of the goods, their origin, their volume, their value and their date of acceptance by the customs administration (actual import date). Records are sent daily by the central systems of the customs administrations of the EU Member States. It is based on article 308d of the implementing provisions of the Custom Code (Regulation 2454/93) [↑](#footnote-ref-36)
36. Proposal for a Markets in Financial Instruments Regulation COM(2011) 652, European Market Infrastructure Regulation (EU) No 648/2012, Market Abuse Directive 2003/6/EC amended by Directive 2008/26/EC and Directive 2010/78/EU. MAD is currently under review, COM (2011)654 and Proposal for a Market Abuse Regulation COM (2011) 651 [↑](#footnote-ref-37)
37. Ecorys Study on European Energy-Intensive Industries – The Usefulness of Estimating Sectoral Price Elasticities [↑](#footnote-ref-38)
38. Coking coal prices increased from $170 per t in 2009 to $290 in 2011 [↑](#footnote-ref-39)
39. International Energy Agency, Quarterly Statistics, 2nd quarter 2012 [↑](#footnote-ref-40)
40. IEA: index 2005 = 100, *Energy prices and taxes*, Quarterly Statistics, 4th quarter 2012. European data relates to OECD members only [↑](#footnote-ref-41)
41. COM(2011) 885/2 [↑](#footnote-ref-42)
42. 2009/C 235/04 [↑](#footnote-ref-43)
43. COM(2011) 676 [↑](#footnote-ref-44)
44. Directives 2009/72/EC and 2009/73/EC, Regulations (EC) No 713/2009, 714/2009 and 715/2009 [↑](#footnote-ref-45)
45. COM(2011) 808 final [↑](#footnote-ref-46)
46. Articles 101 and/or 102 TFEU [↑](#footnote-ref-47)
47. Case AT. 39.386 — Long Term Electricity Contracts France (OJ C 133, 22.5.2010, p. 5–6) and case AT.37966 — Distrigaz (OJ C 9, 15.1.2008, p. 8–8) [↑](#footnote-ref-48)
48. Commission's notice on informal guidance relating to novel questions concerning Articles 81 and 82 of the EC Treaty that arise in individual cases (informal guidance), OJ C 101/78, 27.4.2004 [↑](#footnote-ref-49)
49. EUCO 75/1/12 of 23 May 2013 [↑](#footnote-ref-50)
50. Commission Communication, 2013 European Semester: Country specific recommendations – Moving Europe beyond the crisis, COM (2013) 350 [↑](#footnote-ref-51)
51. It is estimated that between 4 and 7% of the anthropogenic CO2 emissions originate from this industry in EU-27, which generated 252.5 million tonnes of CO2 emissions on average during the period 2005 to 2008 [↑](#footnote-ref-52)
52. COM(2013) 169 final [↑](#footnote-ref-53)
53. COM(2011)112 final [↑](#footnote-ref-54)
54. Staff Working Document SEC(2011)1609: Materials Roadmap Enabling Low Carbon Energy Technologies [↑](#footnote-ref-55)
55. Boston Consulting Group [↑](#footnote-ref-56)
56. COM(2011) 21 [↑](#footnote-ref-57)
57. Directive 2012/27/EU [↑](#footnote-ref-58)
58. Prospective scenarios on energy efficiency and CO2 emissions in the Iron & Steel industry (2012), JRC [↑](#footnote-ref-59)
59. ULCOS stands for Ultra–Low Carbon dioxide (CO2) Steelmaking [↑](#footnote-ref-60)
60. Sustainable Process Industry through Resource and Energy Efficiency [↑](#footnote-ref-61)
61. COM (2011) 112 final [↑](#footnote-ref-62)
62. COM (2011) 885 final [↑](#footnote-ref-63)
63. SEC(2011) 1609 [↑](#footnote-ref-64)
64. COM(2012) 82 final [↑](#footnote-ref-65)
65. The not-for-profit EIB still has a “triple-A” rating with all three credit ratings agencies and is therefore able to borrow money on the global financial markets at extremely favourable interest rates and pass them on to selected projects [↑](#footnote-ref-66)
66. COM(2011) 787 final [↑](#footnote-ref-67)
67. COM(2005) 120 final [↑](#footnote-ref-68)
68. COM(2011) 608 [↑](#footnote-ref-69)