european aluminium association

AGENDA FOR ACTION: TOWARDS A COMPETITIVE AND SUSTAINABLE ALUMINIUM INDUSTRY IN EUROPE

November 2013

Background

The European aluminium industry has developed an "Agenda for Action" that provides concrete recommendations to EU decision-makers on measures needed to safeguard our industry and revive a strategic sector for Europe. Addressing the situation requires clear direction and decisive responses to align industry's competitiveness with the EU's climate and sustainability goals.

Both at the global and EU levels, there is an **increasing demand for aluminium**. Thanks to its unique properties, aluminium is a key enabling material to bring forward-looking and sustainable solutions for a resource-efficient and low-carbon society. Nevertheless, **Europe's aluminium production capacity is declining sharply, and this is affecting the entire value chain**. Between 2007 and 2011, Europe lost more than a third of its primary production capacity as a result of plant closures and curtailments, while facing a growing leakage of valuable scrap to non-EU countries. This resulted in aluminium imports making up more than half of all aluminium used in the EU 28.

This erosion of a major industrial sector's competitive base is unique to the EU compared to any other producing region in the world. It is also **putting at risk the sustainability of a strategic industry value chain in Europe**, through closures of plants of all sizes across all EU Member States leading to dramatic consequences on employment.

The aluminium industry works as an integrated value chain. The competitiveness of downstream industries that transform or recycle aluminium, benefit from the expertise, quality, and proximity of supply from midstream (primary) producers within strong regional industry clusters. Major rolling mills are often associated with primary production and are themselves linked to leading recycling facilities. Further on, some strategic customer sectors, such as high voltage cable manufacturers or super alloy industries, depend on high quality primary aluminium supplies.

In the past ten years **EU policies and regulations have been implemented without any robust cross-sectorial assessment of their impact on the European aluminium industry's competitiveness**. With globally fixed commodity prices set on the London Metal Exchange, regulatory costs cannot be passed on, leading to primary producers in Europe losing significant ground vis-à-vis international rivals. This is impacting the competitiveness of the entire industry value chain, including the aluminium industry's great potential to **boost growth and provide resource-efficient solutions** in, amongst others, transport, buildings, packaging, and aerospace.

In its October 2012 Communication on the revision of EU industrial policy, **the European Commission acknowledged the aluminium sector as being "critical for the EU's industrial value chain and urgently requiring new investment to be made in the face of strong international competition".** In this context, a cumulative cost assessment of the impact of EU legislation on the aluminium industry's competitiveness was announced.

This detailed assessment was completed by the Centre for European Policy Studies (CEPS) and demonstrates that the aluminium industry is indeed severely affected by regulatory pressure. The study found that the **cumulative costs deriving from EU policies had significantly impacted profits and were consistently higher than industry margins from 2009 onwards when the industry faced losses.**

The European Aluminium Association (EAA) strongly believes that the negative impact of EU policies on the competitiveness of our industry can be corrected, whilst at the same time reinforcing overarching policy objectives – whether reindustrialising Europe, reducing its carbon footprint, or securing an integrated energy market. The EAA is therefore urging policy-makers to consider **this Agenda for Action as a blueprint for a robust and predictable policy framework that will enable the competitiveness and sustainability of the aluminium industry in Europe.**

Outline of EAA Recommendations

1. Secure affordable energy prices through sound industrial, climate and energy policies

- Revise and strengthen the ETS to support industrial competitiveness by:
  - Acknowledge the special case of the most exposed electro-intensive industries that cannot pass-on EU imposed regulatory costs and are therefore uncompetitive on the global market
  - Creating an EU-based scheme to fully compensate the ETS indirect impact on power prices
  - Providing full compensation for ETS direct costs
- Accept exemptions for extra costs in energy prices resulting from energy and climate change policies (state aid rules)
- Acknowledge that a 'fit for purpose' electricity market does not exist for our base load energy-intensive-industry:
  - Enable long term, competitive, and stable electricity prices
  - Facilitate the conclusion of globally competitive long term contracts
  - Ensure regulatory certainty by long term, stable and predictable legislation

2. Safeguard scrap availability, further unlock the recycling potential and foster Europe's circular economy

- Ensure global level playing-field, support measures to increase scrap generation and further unlock the recycling potential of the industry by:
  - Improving the monitoring of scrap flows and better fight illegal scrap and waste exports
  - Defining more ambitious recycling targets for Europe and introduce a progressive ban on landfill of recyclable post-consumer goods
  - Supporting better collection schemes and innovative sorting technologies
  - Investigating the feasibility of a global certification scheme on environmentally-sound management (ESM) grounds to ensure global level-playing field

3. Boost demand for resource-efficient solutions, support innovation and aluminium value chain clusters in Europe

- Stimulate the entire EU industrial value chain by unlocking the demand for aluminium resource efficient solutions
- Foster innovation and support the aluminium chain's clustering effect in Europe

Enabling the revival of a Strategic Sector for Europe:
Policy Recommendations

Priority 1: Secure affordable energy prices through sound industrial, climate and energy policies

Electricity is a crucial factor for the competitiveness of the EU primary aluminium industry. As confirmed by CEPS study, a significant part of the increase in energy prices is attributable to EU climate and energy regulations and national implementation of EU targets, and creates a competitive disadvantage for European smelters. Today's electricity market does neither provide competitive pricing for our base-load industry nor the possibility of long term contracts with the needed duration. These two elements are crucial to ensure investment predictability, increase overall competitiveness, secure employment and strengthen the innovation potential.

Furthermore, as most competing regions of the world are not exposed to indirect costs such as those resulting from the ETS, massive production losses are occurring in Europe. Aluminium is unfortunately to be considered as the "best" case of 'carbon leakage' with no global environmental gain, as imported aluminium on average is estimated to have a significantly higher carbon footprint than the average footprint of aluminium produced in Europe[1].

In addition to CO_2 related costs, the EU Internal Market for energy has not yet been completed and liberalisation has not delivered the desired results, in particular for categories of users and unique customers such as Energy-Intensive-Industries. While deregulation of energy prices aims to ensure the functioning of liberalised energy markets, its effect on the aluminium sector in terms of energy prices has been extremely damaging.

Finally, the fast-tracked deployment of renewable energy to meet EU objectives, in several Member States, led to an extra burden for European industries. One of the key goals of the Climate and Energy Package is to increase the share of energy generated by Renewable Energy Sources (RES) to 20% by 2020[2]. The costs of support schemes depend on national implementation by Member States of the RES Directive and so differ across the EU. In some Member States these costs are fully carried by large industrial consumers whilst in others they are not, which leads to some smelters bearing a large cost burden whilst others have exemptions. There is a risk of increasingly higher costs for aluminium producers in the future if exemptions are not extended to all EU countries and existing ones are challenged on state aid grounds by the European Commission.

EAA Recommendation

Revise and strengthen the ETS to consider industrial competitiveness by:

- Acknowledge the special case, of the **most exposed electro-intensive industries** that cannot pass-on EU imposed regulatory costs and are therefore uncompetitive on the global market
- Creating an **EU-based scheme to fully compensate the ETS indirect** impact on power prices
- Providing **full compensation for ETS direct costs**

Justification

The ETS Directive (Directive 2003/87/EC as subsequently amended) allows for special and temporary aid measures. State aid measures have been laid out in the Commission's Guidelines on state aid in the context of the GHG emission allowance trading scheme (2012/C 158/04) that is designed to compensate energy-intensive industries . However, the revised Guidelines contain many provisions that result in under-compensation of the real costs. Moreover, to date only a few Member States have announced their willingness and capacity to provide (partial) compensation to the extent allowed by the EU State Aid regime. This development leads to unintended consequences as undertakings in the same sector are treated differently in various Member States due to budgetary constraints. The

[1] 'An aluminium 2050 roadmap to a low-carbon Europe: Lightening the Load', EAA (2012)

[2] 'Assessment of Cumulative Cost Impact for the Steel and Aluminium Industry: Final Report Aluminium', Centre for European Policy Studies (2013)

Guidelines do not offer a solution to the competitive disadvantage experienced by EU smelters and create unpredictability potentially involving several hundred million euro at risk for repayment.

The Aluminium industry fully supports the EU ETS and it is our belief that a functioning cap and trade system is the most cost-effective tool to reduce Europe's industrial GHG emissions. The EU ETS must remain a key instrument of the EU climate policy. However, while working hard towards a global climate agreement and ensure a homogeneous global carbon cost and level playing field, a strong in-built protection of domestic industries is needed. Relying on the expectation that an international agreement would ensure a homogeneous global carbon cost and level playing field, the ETS was designed without any adequate carbon leakage prevention measures. Yet, as most competing regions in the world are not exposed to carbon costs similar to those resulting from the ETS, massive production losses are occuring in Europe. Aluminium is unfortunately to be considered as the "best" case of **carbon leakage** with no global environmental gain, as imported aluminium, based on the global energy mix, is estimated to have a significantly higher carbon footprint than the average footprint of aluminium produced in Europe .

Consequently the European aluminium industry is fighting for its survival, carrying significant extra cost burdens, particularly in energy costs and lack of long term predictability.

EU climate policy must be aligned with the Commission's goal of increasing industry's share in the EU GDP to 20 % by 2020. In the absence of global emission pricing, continued industrial presence and further investment in Europe would require **predictable long-term and full compensation**. Furthermore, all compensation and allocation of free allowances must be linked to actual production output and not historical.

As new entrants into the ETS since January 2013, the aluminium and other Non-Ferrous-Metal sectors have not received any free allowances and have no reserves to be used from previous trading periods. The recently adopted **cross-sectorial reduction factor (CSRF) will lead to under-compensation also for direct ETS costs.** Moreover this CSRF is only distorting industry's competitiveness while not needed since EU will reach its 20% emission target by 2020 anyhow.

Operating in globally priced markets – such as Aluminium on the LME, a handful of power intensive industries cannot pass through any additional costs. Based on the existing list of sectors exposed to carbon leakage, a **short-list of most exposed sectors shall be established** for additional measures. Criteria such as the level of electro-intensity, the link to a global price setting mechanism and the inability to pass-on costs, should be used to define such a status. This list of highly-exposed industries should benefit ex-ante of exemption schemes for extra costs embedded in energy prices (i.e. renewables targets, grid expansions costs, other support schemes).

EAA Recommendation

Accept exemptions for extra costs in energy prices resulting from energy and climate change policies (state aid rules)

- **Clarify and simplify the environmental and energy state aid rules** to bring clarity to Member States and predictability to the industry
- **Industry's global competitiveness** should be used as an overall rationale ("objective of common interest") for exemption of additional costs embedded in energy prices.

Justification

When revising its **guidelines on state aid rules (2014-2020)**, the European Commission should tackle the complexity of the rules and consider the global competitiveness as justification for industry's exemption of such costs. While the main aim of state aid control is to reduce market distortions within the single market, competition policy must be connected to other EU policies (e.g.: Industry, Energy) and fully recognise that the competitiveness of the EU industry vs. rest of the World and the need to

secure growth and jobs are valid objectives. Complex and ambiguous state aid rules on exemption of environmental costs create uncertainty on cost level and deter industrial investments to achieve above target. Member States and industry need clarifications to foster investment.

As aluminium is globally priced on the London Metal Exchange, **support for extra costs** such as renewable electricity and related transmission surcharges **cannot be passed on through electricity prices**. An exemption regime for extra costs embedded in energy prices exists but only in some countries and is currently being challenged from a legal point of view.

Depending on the extent to which aluminium producers actually share RES support scheme costs, the net costs of RES support schemes for aluminium producers can be significant in some countries, further distorting the level playing field in Europe. The current high-level of uncertainty makes it very challenging to predict long-term electricity prices which are determined by wholesale market prices, levies (e.g. RES) grid fees and taxes.

Additional costs for renewable production or energy efficiency should be accompanied by measures securing the competitiveness of the most exposed industries. **State aid rules must be adjusted to allow for a general exemption of such costs for these industries.**

Moreover, in a market with an increasing share of intermittent energy sources, power grids need to be stabilised. Thanks to their flat and rather flexible consumption profile, aluminium producers can play such a balancing role. This function should be fully valued through equitable and cost-reflective grid fee structure for industry, taking into account baseload predictability, modularity and ability to temporarily suspend demand. Member States should also encourage the development of voluntary demand response, as an economically efficient alternative to capacity mechanisms, by removing regulatory obstacles and putting in place relevant compensation offers or markets.

EAA Recommendation

Acknowledge that 'fit for purpose' electricity market does not exist for our base load energy-intensive-industry: the ETS to consider industrial competitiveness by:

- Enable **long term, competitive, and stable electricity prices**
- Facilitate the conclusions of **long-term contracts for globally competitive supply** for our industry
- Ensure **regulatory certainty** by long term, stable and predictable legislation

Justification

Today's electricity market provides neither competitive pricing for our base-load industry nor the possibility of long-term contracts of the necessary duration. These two elements are crucial to ensure investment predictability, increase overall competitiveness, and strengthen innovation potential.

The volatility of the markets, the weakening of the base load potential and stability of the grid, the nature of the EU energy market being peak driven, the lack of acknowledgement and of incentives for the advantages provided by the aluminium sector, the high level of direct and indirect financial contributions for RES production and feed-in tariffs - without receiving any benefits - are among the causes explaining the **inadequacy of the current electricity market for our industry**. New market design should seek greater integration while considering the needs of Electro-Intensive-Industries. In addition, the focus should be on the mid-and long-term perspectives rather than short-term adjustments.

For the electro-intensive industries, **a competitive electricity price level secured by long-term predictability is the main location factor for investments** both for the metals industry and power

generation. Investments in all these industries have very long life spans, and access to electricity contracts with fixed or indexed prices without limitations on duration is crucial in order to control costs, reduce risks and enable investments.

To conclude **long-term contracts** (15 to 25 years) does not in itself guarantee lower electricity prices. However, the CEPS study clearly warns about the risks associated to the expiry of existing contracts. In parallel to the urgent need to secure competitive energy prices through sound EU Industrial and Energy polices, it is of major importance to reduce investment risks and thereby support the ability to conclude long-term contracts.

On top of reflecting on the adequate response to support competitive pricing, the European Commission should provide clear guidance on long-term electricity contracts, indicating that their legality depends on their concrete market effects, and that there is no presumption of illegality based on contract size or duration.

Priority 2: Safeguard scrap availability, further unlock the recycling potential of aluminium and foster Europe's circular economy

Recycling is critical to sustainable development. It allows resources to be saved and waste to be reduced. Used aluminium is valuable both from an environmental and economic perspective. It is easily and endlessly recyclable without loss of quality and the energy needed to melt aluminium scrap is only a fraction (5%) of that required for primary aluminium production.

Europe's recycling industry - largely composed of SMEs and family owned businesses - is the world leader. Aluminium refiners are an EU-based industry, historically and deeply rooted in the EU territory, securing employment and supplying strategic industrial actors such as the automotive, mass transportation, mechanical and the construction sectors. However, this leadership is at risk due to the dramatic increase for scrap exports to other countries (such as China) experienced in the last decade. The loss of competitiveness on this segment would hamper EU's economic backbone led by SMEs.

EAA Recommendations

Ensure global level playing-field, support measures to increase scrap generation and further unlock the recycling potential of the industry by:

- **Improving the monitoring of scrap flows and better fight illegal scrap and waste exports** outside the EU through stronger rules and better implementation of existing legislation;
- Defining **more ambitious recycling targets** for Europe and introduce a **progressive ban on landfill of recyclable post-consumer goods**
- Supporting **better collection schemes and innovative sorting technologies** to further increase recycling rates
- Investigating the feasibility of a **global certification scheme on environmentally-sound management (ESM) grounds** to ensure a global level-playing field

Justification

Improving access to secondary raw materials is of paramount importance for the competitiveness of SMEs and to help the EU achieving its 2020 targets in terms of sustainability. The availability of scrap for Europe's industry should be among the highest priorities of the EU legislator. To increase the amount of available scrap, Europe should limit its leakage and support measures to generate more scrap from end-of-life goods.

It is essential to reverse the dramatic increase in the export of aluminium scrap from Europe. Importers in other regions are 'capturing' a key European resource that is so valuable thanks to the embedded energy. Because of its high-energy content, exported scrap should be considered as exported European electricity, without compensation for the embodied CO_2.

The upcoming EU Waste legislation review should focus on the promotion of Europe's circular economy, making sure that our material stays in a closed recycling loop and thus remains available to our societies, contributing to a more resource-efficient Europe. An important condition for this is to promote a gradual phasing out of landfill of end-use recyclable goods and further restrictions for dumping this type of waste. Waste should always be pre-treated before it is sent for landfill.

Better collection and sorting for recycling is also needed to guarantee the generation of high quality scrap ready for remelting into new valuable end-use products. This requires in particular greater investment in improved collection and innovative sorting by promoting the uptake of existing separation technologies but also by further developing more efficient separation technologies for all waste streams containing aluminium.

Last but not least, Europe needs to better fight illegal exports by strengthening the Member States efforts and cooperation in improving enforcement and control of the waste exports regime.

Priority 3: Boost demand for resource efficient solutions, support innovation and aluminium value chain clusters in Europe

As reminded by the European Commission, the aluminium sector is “critical for the EU's industrial value chain”. Europe has a strong and strategic industry in the automotive, electrical, aerospace and defence sectors, through its major groups and SMEs. The competitiveness of these industrial activities also relies on the quality, security and proximity of an integrated supply chain as well as on the ability to partner with suppliers on innovation programmes, and in particular on intermediate products.

Aluminium products are also key to help the EU legislators achieving targets in terms of innovative and sustainable products and greenhouse gas emissions, such as cleaner vehicles, energy-efficient buildings, better and safer packaging, cost-efficient interconnection and renewable energy production.

The CEPS study highlights that demand for aluminium end products is elastic in the short-term and typically pro-cyclical, i.e. high during market expansion and low during recessionary periods. Both the rolling and extrusion sectors were hardly hit by the economic and financial crisis. While production from rolling mills is gradually recovering thanks to the production of sheets for packaging and the automotive industries, extrusion companies (mainly SMEs) are still experiencing the effects of the crisis in the construction sector, and in particular in Southern European countries.

To sustain industrial growth in Europe and help semi-fabrication recovering to pre-crisis levels, action must be taken to support demand for aluminium resource efficient solutions across markets

According to another recent study commissioned by the European Commission, the aluminium industry is still well established in Europe, exemplified in strong and long term relations along the value chain[3]. It needs a close cooperation of all industry participants in all phases of product development to facilitate on time delivery and ensure the ability to meet specific requirements of clients (e.g. metal alloying, shaping, and sizing). Links within a region between primary aluminium producers and downstream semi-manufacturers, and even more important links between the downstream and the final customers, are essential to achieve R&D results and to nurture regional innovation and high-quality workplaces.

EAA Recommendation

Stimulate the entire EU industrial value chain by unlocking the demand for resource efficient solutions

- **Ensure technological neutrality** of the EU legislation aiming to limit the emissions from passenger cars. In the current Regulation[4] defining the specific CO_2 emission targets for car manufacturers, the use of lightweight materials is discouraged by the choice of the utility parameter implemented at EU level. EU policy-makers should support the shift from mass-based CO2 emission rules to a technologically neutral methodology based on footprint (size).
- Aluminium can help to halve the **energy consumption of buildings**. Europe needs to deliver on its objective that “all new buildings must fulfil a near zero-energy standard by end of 2020 and public buildings by end of 2018”[5]. The Energy Efficiency Directive (Directive 2012/27/EU) latest proposals i.e.: ‘Sustainable Buildings initiative’ and "Strategy for the sustainable competitiveness of the construction sector and its enterprises" have a key role to play in order to stimulate the renovation of existing buildings.
- When developing future policies, targets, and resource efficiency indicators, the Commission should apply a **Life Cycle Assessment** approach taking into account the materials impact on the design, production, use and recycling of products.

[3] Ecorys, Competitiveness of the EU Non-ferrous Metals Industries report, FWC Sector Competitiveness Studies, April 2011 commissioned by the European Commission DG ENTR.

[4] Regulation (EC) 443/2009 of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO 2 emissions from light-duty vehicles

[5] Directive 2010/31/EU of the European Parliament and of the Council on the Energy performance of buildings.

- It is also essential to recognise and **fully credit the recyclability of aluminium** and other metals in the environmental assessment of products.

Justification

International competitors such as the BRIC countries and China in particular are enjoying renewed demand as a result of burgeoning economic activity. EU initiatives that encourage key industries such as automotive and construction to increase their sustainability and use of innovative products will not only help it to achieve its 2020 targets, but will also boost demand for aluminium in Europe, which is driven by growth in these industries.

A **level-playing field among materials** is needed **to ensure technological neutrality**. Correct LCA-based methodologies must be implemented as soon as possible to ensure environmental assessments are based on sound approaches and avoid metals are discriminated.

EAA Recommendation

Foster innovation and support the aluminium chain clusters across Europe

- Ensure special attention is given to **maintaining R&D functions and high-level of skills** of industries within Europe, through specific education programmes, funding opportunities and tax advantages;
- Support the revival of and nurture **regional innovation clusters** that integrate all sections of the value chain from the conception to manufacturing of products and their components;
- Support the **establishment of projects and R&D cooperation activities** that would address long-term industry challenges by stimulating, integrating and accelerating collaborative RTD activities in Europe including on recycling technologies.

Justification

The prerequisite to maintaining and further expanding Europe's knowledge-based competitive and green economy is to preserve the industrial basis that provides the physical foundations of such an economy and actually enables Europe's ambitions in research, development and innovation.

The European aluminium industry has a major innovation potential through:

- **Close proximity and long established cooperation with customer industries**;
- **Deployment of high level of technology in product and process** i.e.: the sector uses the highest level of technology available and achieves highest international standards in terms of quality in relation to products and processes;
- **Productive and innovative downstream part of the sector**, from which the complete value chain can benefit through extended (further) collaboration.

On top of creating the conditions for growth and innovation, these measures will foster employment that has been decreasing in the aluminium industry with dramatic effects especially in highly depressed regions, where a healthy aluminium industry can generate both direct and indirect jobs.

The presence of the whole value chain in Europe has always been and should continue to be a cornerstone for R&D developments and to maintain Europe's leadership in innovation. Europe cannot afford losing this vital link.

Overview of the industry and its regulatory landscape

A Strategic Material for Sustainable Growth

The aluminium industry is a key sector for Europe:

- **Yields €36.8 billion in annual turnover**
- **Employs over 255,000 people directly and over 1 million in Europe indirectly**
- **Accounts for 16% of total global aluminium production, half of which from recycling**
- **It is part of most technologies and industries Europe relies upon for its sustainability agenda**

About Aluminium

Aluminium is the most widely used non-ferrous metal. With a share of 8%, aluminium is the third most abundant element in the earth's crust.

Its primary properties include light weighting, flexibility, excellent electrical conductivity, strength, recyclability, and extreme resistance to corrosion. Aluminium products are mostly used in transport (38%), construction (25%), packaging (16%), and engineering activities (14%)[6]. Aluminium is also used in a variety of applications in design, homeware & leisure, electrical and heat transfer engineering, precision mechanics, furniture, or cooking utensils.

The aluminium industry comprises three main streams of production:

- Primary production is the creation through electrolysis of aluminium from the raw material *alumina*;
- Semi-fabrication of flat rolled products (plate sheets, foil), extruded products (profiles) and castings.
- Secondary raw material production is the remelting or refining from process or used aluminium scrap.

Aluminium's sustainability credentials

Aluminium as a material makes a major contribution to resource efficiency. Due to its unique properties, aluminium saves more resources than are needed to produce it. Its recyclability means that 75% of all aluminium ever produced is still in use. With impressive End-of-Life recycling rates, i.e. over 90% in automotive and construction and approximately 60% in packaging, aluminium is the material of choice for a wide range of innovative and sustainable product applications. The aluminium industry is working towards even more efficient recycling through enhanced product design and greater efficiency in aluminium recovery processes.

Recycling again and again and again…
Aluminium is 100% recyclable. Large-scale secondary production enables the industry to make a significant contribution to the EU's sustainability targets. As confirmed by the CEPS study, the European industry is the world leader in recycling with a recycling chain that is well established in Europe and the majority of aluminium in Europe actually produced from scrap[7]. Recycling should however not be seen as an alternative to primary production, but as being complementary, as demand is growing and the interlinks and proximity between the whole value chain are key.

[6] 'Engaging for Sustainable Growth: EAA Activity Report 2012', the European Aluminium Association (2012), p. 2

[7] 'Assessment of Cumulative Cost Impact for the Steel and Aluminium Industry: Final Report Aluminium' Centre for European Policy Studies (2013), p. 20

Resource efficiency: from transport decarbonisation to energy-efficient buildings and resource efficient packaging

The amount of aluminium used per car produced in Europe almost tripled between 1990 and 2012. Weight savings presently achieved lead to an average annual fuel saving of 65 litres per car. A key target on the EU sustainability agenda is to decrease the average CO_2 emissions from cars and light-commercial vehicles. A study of the European Environment Agency (EEA) found that the mass of European vehicles is increasing, hence it is more necessary than ever to introduce lightweighting materials and techniques. The properties of aluminium allow for significantly reduced vehicle mass, thereby saving up to 50% over competing materials in many applications. Aluminium represents a weight reduction potential that can be exploited immediately to reduce average emissions from future cars by 3-4 g CO_2/km, thereby improving the sustainability and safety of cars for future generations[8].

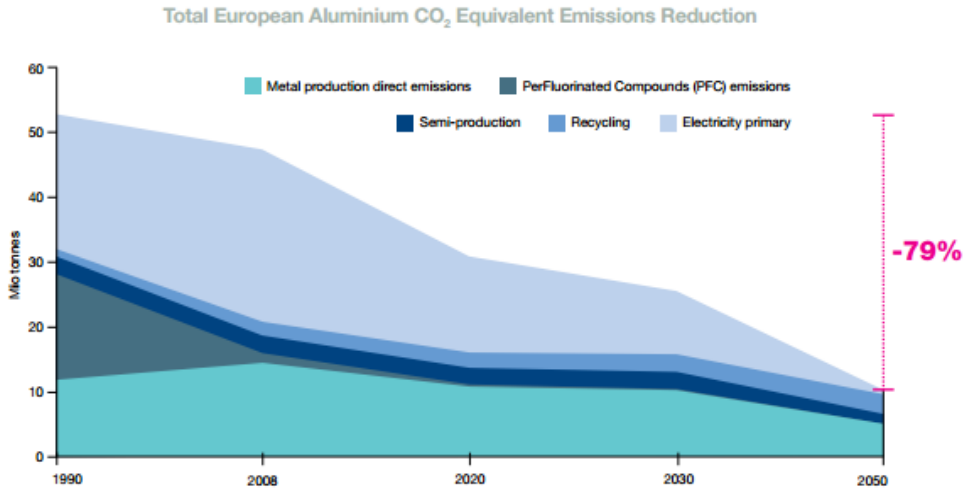
Aluminium is also essential for resource efficiency in buildings and is extensively used in windows, shading products, cladding roofing, solar heating & photovoltaic, and many other applications. It allows for lightweight and innovative construction. Intelligent façades incorporating aluminium systems can decrease energy consumption by up to 50% by optimizing the interactions with the exterior throughout the seasons. Collection rates from buildings are as high as between 92%–98% across Europe[9].

Additionally, due to its unique properties as an efficient barrier for air and light, a minimal amount of aluminium is sufficient to package valuable foodstuffs and drinks and helps to avoid food spoilage. The aluminium beverage can is the world's most recycled container because it is easily collected, crushed, and recycled. In Europe, two-thirds of aluminium beverage cans were recycled in 2010, representing at least 24 billion cans, three times as many than 20 years ago[10].

Reduction of CO_2 emissions

The savings achieved during the use phase of aluminium products (in transport and buildings for example) more than compensate the emissions produced during primary production. The primary industry has also voluntarily more than halved its own CO_2 emissions and reduced its perfluorocarbon emissions by over 90% since 1990 levels through a policy of initiatives and technological innovations. The European industry is part of the solution to climate change, making significant improvements in emission abatement, in each phase i.e. primary production process, semi-fabrication, use-phase, end product recycling.

In 2012, the EAA outlined its Roadmap to sustainable growth until 2050[11]. It found that based on the Commission's long-term targets (-92% reduction of emissions from the power sector) and the sector's commitment in terms of direct emissions (-70%) a massive -79% reduction in emissions could be achieved by 2050. The retention of the industry in Europe offers the biggest potential in emissions' reductions while safeguarding skills and employment.



[8] 'Aluminium in Cars: Unlocking the Lightweighting Potential', EAA (2013)

[9] Study by Delft University of Technology

[10] 'Two out of three aluminium beverage cans can be recycled in Europe!', EAA (2012)

[11] 'An aluminium 2050 roadmap to a low-carbon Europe: Lightening the Load', EAA (2012)

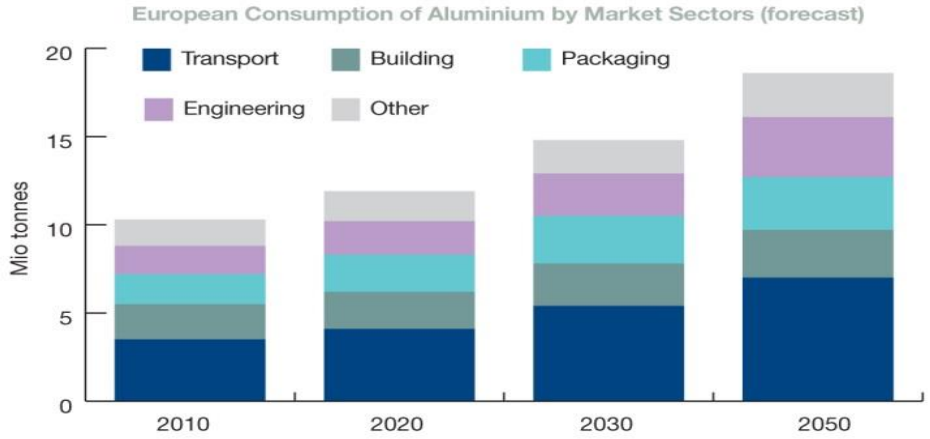
Growing demand, loss in production, time for a urgent industrial policy response

A growing demand for aluminium solutions

The global aluminium sector has witnessed year-on-year growth in demand for many years. Demand in Europe specifically is also on constant increase, which differentiates it from other industrial sectors.

There are a number of reasons for this:

- The consumption of aluminium products is directly linked to wealth and increased economic activity.
- The material's unique combination of properties is making aluminium the material of choice in a variety of applications and in key markets. It is increasingly used as a substitute to competing materials, particularly in the automotive and packaging sectors.



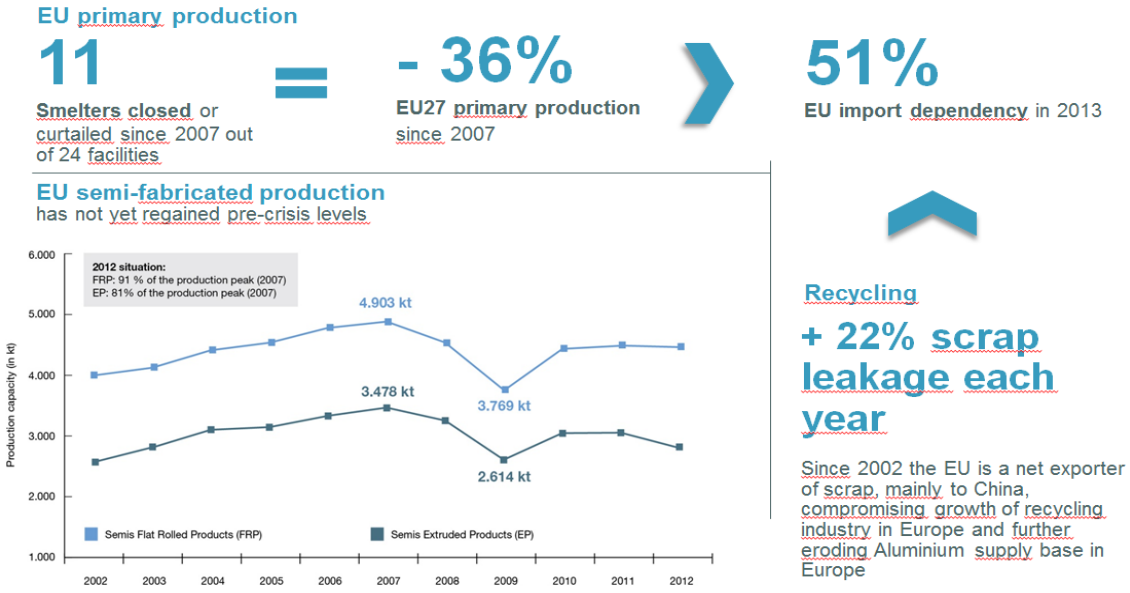
European consumption of aluminium is predicted to almost double between 2010 and 2050 levels according to research undertaken for the EAA 2050 Low-Carbon Roadmap.

A collapsing production and employment base and an increasing dependency from imports

Despite being a key material for Europe's future with growing markets, production in Europe is in peril. The EU-27 primary production has declined by more than 1/3 since 2007 leading to a reduction of more than 1 Mt in capacity. Several smelters have closed or curtailed production all over Europe and others are under serious threat. The EU-27 share of primary production has globally decreased from 11% worldwide in 2004 to 6% in 2011 and may further decrease in the coming years if disinvestment trends are not reversed. Also, the semi-fabrication segments have not recovered pre-crisis levels. Last but not least Europe faces a growing scrap leakage. Since 2002, the EU has become a net exporter of approximately 1 Mt of scrap annually. Recyclable material is a key input of production, and this high level of exportation can considerably hamper the industry's world leadership.

These trends have triggered a major risk of dependency from imports, also affecting entire industry clusters at the regional level and threatening many downstream facilities and SMEs that benefit from the proximity and expertise of local suppliers. When demand is growing and the industry can cope with it and further grow, when the level of skills and innovation is high such as in Europe's plants, then de-industrialisation is simply unacceptable.

Since the 2008 crisis, the total number of employees has decreased by 16%, 29% for the metal supply (primary and recycling segments) and 11% for the semi-fabrication respectively.



Increasing regional costs vs. global market and competition

Primary production of unwrought aluminium is electro-intensive, with 30% to up to 40% of production costs relating to the price of energy (incl. raw materials). Energy costs are particularly high in Europe when compared with global prices. Between 2005 and 2012 the European industry experienced a 38% rise in electricity prices compared with minus 4% in the US and 16% in Japan[12].

A significant part of the increase in energy prices is attributable to EU regulation or to national implementation of EU adopted targets.

Aluminium is traded at the London Metals Exchange, where a global price is set depending on global supply and demand. As on top, the cost to ship metal around the world is low (less than 2%) compared to the value of the metals, it is therefore not possible for the European industry to pass through additional, local costs into their product prices.

Aluminium as the perfect "case study" to support immediate actions for an industrial revival

Early 2013 the European Commission launched a Fitness Check on the legislative environment within which the aluminium industry operates. The European Commission subsequently asked the research institute Centre for European Policy Studies (CEPS) to assess the cumulative cost impact borne by the industry and attributable to EU policies in the following areas: energy, climate change, environment, competition, trade, and products policies. The work started in May 2013 and the final report was published in early November 2013 focussing on 8 policy areas and 52 legislative and non-legislative policies. The study surveyed 46 plants accounting for more than 60% of EU production capacity.

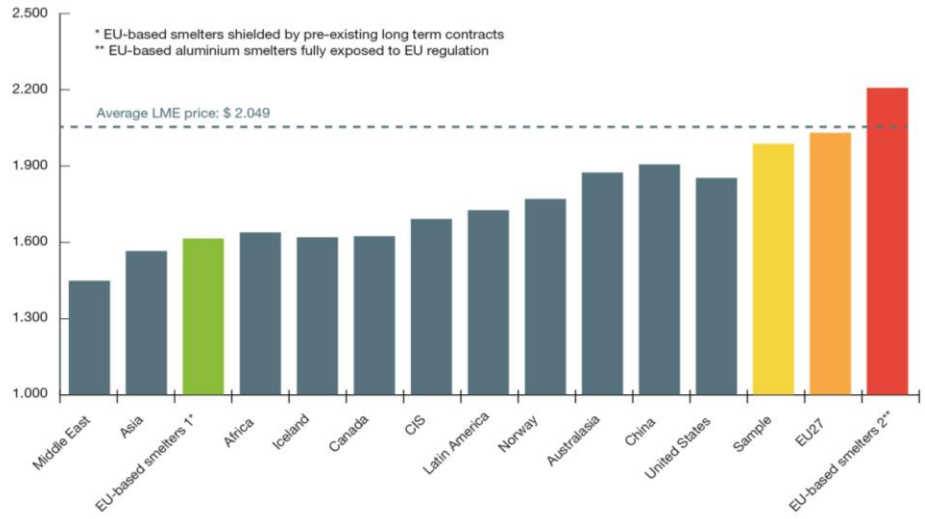
The study provides a conclusive assessment of the impact on the industry's competiveness of the main EU initiatives:

- Plants fully exposed to EU climate and energy policies have seen their production costs rocketing up to 228 € per tonne – 11% of total production costs (incl. raw materials) and are globally the least competitive;
- The CEPS study highlights that, "regulatory costs reduced the profitability of the EU aluminium industry not only in time of crisis (when the impact of any cost item is amplified) but also in the boom years when they still represented a relatively high share of industry margins."
- Cumulative costs represented about 23% of profits in 2006 (the most profitable year) and 245% in 2011, largely contributing to the facilities' negative results.

[12] International Energy Agency, energy prices and taxes (derived from DECC, 2013)

- For the most exposed plants, 91% of the extra costs incurred by EU producers originate from the pass-through of energy costs and surcharges to support renewable and related grid costs (49%), ETS indirect costs embedded in electricity bills (42%) and environmental costs (9%);
- Plants less exposed to EU energy and climate policies – i.e. those which are still shielded by pre-existing but soon-to-expire long-term energy contracts face EU regulatory costs of €27 per tonne, making them among the most competitive globally.

The study concluded that the cumulative costs of EU regulation constituted more than one third of the competitive gap between Europe and the Middle East (the lowest cost producers) in 2012.



Regulatory pressure has not only triggered unacceptably high costs of compliance in Europe, but has also increased investment risk as the business environment in Europe suffers U-turns and unexpected developments. The unpredictability of some short-term adjustments, in particular on climate change policies e.g. the proposals to revise 2020 adopted targets, the so-called 'back loading' of ETS allowances, and the Commission's decision on the allocation on the cross-sectorial factor for direct emissions allowances are all important examples.

The European Aluminium industry is expecting robust policy recommendations from the European Commission to address the critical issues raised by the Fitness Check and to move forward with concrete and tangible proposals which can stop our decline and promote growth in the short, medium, and long-term.

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About the European Aluminium Association

The European Aluminium Association (EAA) is a pan-European body based in Brussels that actively engages with EU decision-makers and the wider policy spectrum to promote the outstanding properties of aluminium and enhance the contribution the lightweight metal can make to achieving Europe's sustainability objectives.

Founded in 1981, the Association represents from large and integrated multinationals to small and medium-sized enterprises across the entire aluminium value chain. It offers a single voice for primary and secondary producers of aluminium, downstream manufacturers, and national aluminium associations in 18 EU Member States.

The EAA pursues its ambition to promote aluminium's contribution to sustainable development whilst maintaining and improving the image of the industry, the material, and its applications through a wide variety of activities, including advocacy, monitoring and issuing guidance on topics of common interest, engaging in generic promotion and communication on aluminium, collecting and disseminating European statistics, and undertaking studies or research projects and technical co-operation in all relevant areas.

Above all, the Association's *raison d'être* is to help its members navigate an increasingly complex regulatory environment and to represent their interests at a European level. It closely follows all political dossiers affecting the entire aluminium value chain and collaborates with policy-makers to ensure the European industry stays competitive in the global arena.

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