FEDERATION OF ALUMINIUM CONSUMERS IN EUROPE

Comments on the Clean Industrial Deal

4 April 2025

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FACE comments on the Clean Industrial Deal

Introduction

FACE welcomes the document produced by the Commission, which highlights the characteristics, potential, and broad-ranging challenges of the aluminium system in Europe, such as energy , the circular economy, environmental issues and the possible selection of metal applications based on energy commitment balance.

We believe that it is useful to reaffirm that FACE has always been at the forefront of promoting the competitiveness and sustainability of the whole aluminium system in the EU, while striving to attract attention and to foster action on the challenges of independent aluminium transformer SMEs, who form the vast majority of the EU aluminium value-chain. The central issue and fundamental challenge of the manufacturing industry we represent is **fierce global competition**.

For 25 years, we have been fighting for the elimination of the **import tariffs on raw aluminium**, which are an outdated, economically absurd and a damaging reality. This was our first priority, and for decades we have drawn attention to this issue, which is a striking testimony of the competitive disadvantages suffered by the downstream aluminium industry in the EU.

The Commission's Clean Industrial Deal addresses most of the points that we at FACE have repeatedly emphasised over the years, including access to raw materials and competitiveness. These, to us, are perfectly exemplified in the ask to zero import tariffs on raw aluminium, thus making it the **mother of all objectives**. Other than the tangible loss of competitiveness caused by tariffs in general, artificially increasing the cost of raw materials completely distorts the concept of competitiveness in our strategic industry specifically. It highlights a total lack of attention to the needs of SMEs and to where we have a **potential for growth** in our European aluminium industry.

Failing to zero import tariffs on raw aluminium also signals an unwillingness to dismantle the damaging legacies of a past built on the interests of the few. The past 20 years have clearly demonstrated that keeping import tariffs on raw materials was a huge mistake. The major unwrought aluminium producers, who pocketed billions by selling all quantities of raw light metal in the EU at a duty paid level, irrespective of the origin, and therefore lobbied to maintain this hidden subsidy, have shut down 65% of the EU's primary aluminium production capacities. This while the entire downstream sector suffered from artificial extra costs for their material in the range of 24 billion euros during the same period, which killed many companies and prevented our industry to develop.

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As a result, the continued growth of the lucrative European aluminium demand market has been offered on a silver plate to our foreign competitors. The tariff status quo on raw aluminium has destroyed our strategic autonomy in the aluminium industry, contributing to having today an 87%+ import dependency for primary aluminium.

The status quo on raw aluminium tariffs also went against the EU's industrial policy by constantly eroding the competitiveness of the only segment of the value-chain that had a potential for growth, the downstream SMEs; it went against the EU's competition policy by favouring oligopolistic and coordinated price increases and intra-EU distortions ; it went against the Green Deal by weakening low carbon EU manufacturing and facilitating EU market penetration of foreign higher carbon products; it went against the EU's trade policy by allowing for big companies and factories outside the EU to cash billions of extra profits without any reciprocal framework, and it went against the EU's digital and industry 4.0 policy because the 24+ billion euros that the EU aluminium downstream sector had to overpay in the past 25 years for its raw material as the effect of the 3-4-6% import tariff structure on unwrought aluminium were amounts of money that we could have been able to invest in innovation and in digitalisation, instead of unwillingly and unnecessarily giving them away.

Despite these challenges, the EU's downstream aluminium industry has managed to grow modestly, preserving much of the technological knowledge accumulated in the second half of the last century, but the EU has been constantly losing ground in the global market.

Today more than ever, the sector needs incentives for growth rather than unjustified and unjustifiable obstacles.

This is why we oppose the irresponsibility of an incomprehensible tariff on a raw material that we no longer produce and must now **import for over 87% of our needs**.

The raw aluminium tariff is nothing more than a **senseless policy that increases the cost of EU semi-finished and finished products compared to international competitors, among other harmful consequences**.

The maintaining of the 3-4-6% import tariff structure directly contradicts the EU's treaty-based special responsibility to avoid disproportionate damage, to support SMEs and to help secure sufficient and stable access to competitive supplies of raw materials, even more so since the Critical Raw Materials Act and the inclusion of aluminium in the list of strategic materials.

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Another key point—one that has been a long-standing priority in FACE's advocacy—is the need for our **energy-intensive** industry to secure raw materials with the **lowest possible CO_2 footprint, first, because this is what clients, end users and consumers want, and we can get out of contracts and out of business if we don't reach low carbon requirements; and secondly because supplies of primary aluminium with the lowest carbon footprint are essential for the key contribution of the aluminium industry to EU's decarbonisation efforts and net zero objective.**

From the very beginning, we have supported and encouraged the recovery and recycling of both new and old aluminium scrap. We have also historically selected as associate members some of the world's most qualified producers of high-quality, low-carbon raw aluminium, steering downstream industry choices in this direction.

Building on these principles, we consider it **essential**, given the current unprecedented insufficient and low level of domestic primary aluminium production, to **carefully select suppliers for the EU, prioritising and safeguarding those with the lowest carbon footprint and the best environmental performance, and they are not many worldwide**.

Moreover, considering the expected global increase in demand for lightweight metal—including in Europe—we believe it is crucial to **identify the most appropriate future energy sources to support a viable plan for rebuilding aluminium smelting capacity for primary production**.

Overall, FACE and its members welcome the European Commission's Clean Industrial Deal as a necessary and ambitious plan to support the competitiveness and resilience of European manufacturing while driving decarbonisation.

However, we believe key concerns must be addressed to ensure that the plan is both effective and equitable across sectors.

FACE's comments presented in this paper reflect consolidated feedback from industry representatives.

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1. Lower Energy Costs

Affordable energy is central to maintaining European industry's competitiveness. Industry players unanimously stress the importance of urgent and effective policies to reduce energy and gas costs, as high prices continue to hinder industrial productivity:

- "Without serious policies on energy and gas costs, little can be achieved". The competitiveness gap with developing countries continues to widen.
- "Harmonization of the tax treatment of energy sources should also be included." Currently, distortions arise from different national policies. Structural incentives should be put in place to promote energy sources with low CO_2 emissions, such as solar and new-generation nuclear power. Additionally, as the electrolytic process is highly energy consuming and is only possible in those countries where electricity is available at low cost and therefore generally in non-EU countries, this question is closely linked with the access to raw materials.
- "Considering the expected global increase in demand for lightweight metal—including in Europe—we believe it is crucial to identify the most appropriate future energy sources to support a viable plan for rebuilding aluminium smelting capacity for primary production"

2. Boosting Demand for Clean Products

The proposed aims to increase demand for EU-made clean products are welcome. Industry stakeholders recognize the importance of demand stimulation but raise concerns about implementation.

- The introduction of sustainability, resilience, and European preference criteria in public procurement could lead to higher costs if EU-made green products are more expensive than alternatives, potentially impacting the competitiveness of European industries. Furthermore, FACE highlights the competitive disadvantage faced by EU producers due to import tariffs on raw aluminium. If the focus on EU-made products exacerbates this cost disadvantage, it could hinder rather than help the competitiveness of downstream SMEs.
- The aluminium sector has long advocated for policies to support its competitiveness. Import tariffs on raw aluminium are a direct obstacle to growth, artificially inflating production costs and distorting competition. Eliminating these tariffs would provide immediate relief and support intra EU demand for clean aluminium products.

- New sustainability and resilience criteria in procurement, along with the potential need for carbon intensity labelling, could create additional administrative complexities and costs that SMEs may struggle to meet, potentially excluding them from these demand-boosting measures.
- The proposed simplification and harmonisation of carbon accounting methodologies is welcome.

3. Financing the Clean Transition

The Clean Industrial Deal proposes mobilizing over €100 billion to support clean manufacturing, including state aid and financing instruments. Industry players highlight challenges in accessing funding and the need for more effective support mechanisms.

- A policy of incentives for the technological renewal of production plants should be integrated into the Clean Industrial Deal. Many European manufacturers still operate with outdated machinery, increasing costs and reducing competitiveness. These targeted incentives for plant and machinery upgrades would improve energy efficiency and reduce emissions.
- The incentives under 'Industry 4.0' were beneficial but insufficient, while 'Industry 5.0' measures are difficult to interpret and apply. The lack of financing options for start-ups is a major issue—there are no subsidized rates for new industrial initiatives investing in low-carbon production. Facilitating the access to affordable financing for industrial start-ups that focus on energy-efficient and low-carbon technologies would be an important step forward.

4. Circularity and Access to Materials

Ensuring access to critical raw materials is vital for industrial resilience and sustainability. Industry players stress the need for policies that support recycling and reduce dependence on unreliable suppliers. We delve further into this in contribution 5 of the annex.

- The European aluminium industry must secure raw materials with the lowest possible CO_2 footprint. Recycling and secondary aluminium production should be prioritized. At the same time, suppliers should be carefully selected to prioritize those with strong environmental performance.
- Foundries face high energy costs and intense competition from countries with cheap electricity. Bureaucratic and spatial constraints in Europe make it difficult to modernize facilities and build new, efficient plants. Incentives should be long-term and focused on fostering a true circular economy.

- It is our view that Europe should prioritise partnerships and trade agreements with suppliers offering the most environmentally friendly raw materials. We propose a realistic assessment of trade measures, to ensure access and diversification.

5. Acting on a Global Scale

The Clean Industrial Deal emphasizes strengthening trade and investment partnerships while protecting European industries from unfair competition. Stakeholders express concerns about global competitiveness and market distortions.

- The EU's aluminium industry has survived despite outdated policies like import tariffs on unwrought metal. However, the sector now requires strong incentives rather than artificial obstacles. Trade policies must be aligned with industrial growth strategies.
- The regulations on electric vehicles, as currently designed, risk handing a massive advantage to China. We must rethink these policies to avoid jeopardizing the European automotive industry.
- "The CBAM system, as currently designed, is absolutely counterproductive". Instead of protecting European industries, it places additional burdens that further increase costs. Several stakeholders mentioned how The Carbon Border Adjustment Mechanism (CBAM) requires urgent revision, as its current design risks undermining European industry rather than protecting it.

6. Ensuring Access to a Skilled Workforce

The transformation of industry requires skilled talent. Industry actors recognize the importance of workforce investment but highlight labour cost concerns.

- High labour costs due to tax burdens (the so-called 'tax wedge') significantly impact industrial competitiveness. The cost to employers is nearly double the net salary for employees. Reducing these costs should be part of any long-term industrial strategy.
- Several stakeholders think the Clean Industrial Deal should ensure that training and upskilling efforts are aligned with industry needs, focusing on the skills required to operate advanced manufacturing technologies and low-carbon production methods.

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Conclusion

The industry players surveyed support the Clean Industrial Deal's objectives. They see it as a necessary step towards a more sustainable and competitive European industry.

However, they stress that to succeed, it must address energy costs, support industrial modernisation, remove regulatory and trade barriers, and ensure that European manufacturers remain competitive in global markets. Without these adjustments, there is a risk that the burden of decarbonisation will be passed on to businesses and consumers in an unsustainable way, ultimately weakening Europe's industrial base.

We hope policymakers will consider these perspectives to make the Clean Industrial Deal a truly effective instrument for European industry and prosperity.

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Annex: FACE members contributions to this document

In this annex can be found the raw contributions of different FACE members that were then used to write this document of FACE Comments on the Clean Industrial Deal.

The members have elected to remain anonymous but their contributions have been rendered in full, as received.

Le last contribution is a longer article, co-authored by Aluminium Rheinfelden Alloys and FACE, on scrap.

Contribution 1

It is difficult to imagine a better document than the one produced by the Commission, which highlights the characteristics, potential, and broad-ranging challenges of the aluminium system in Europe. It seems to me that it considers everything—from energy to the circular economy, from environmental issues to the possible selection of metal applications based on energy commitment balance. Perhaps, by studying the document patiently and intensively for a few days, one could find something new to suggest, but at the moment, nothing new comes to mind.

I believe it would be very useful to reaffirm that we have always been at the forefront of promoting the competitiveness of the aluminium system in the EU as a whole. For 25 years, we have been advocating for the need to support the downstream sector, which we identified from the outset as the heart of this industry. We have been fighting for the elimination of the tariff on raw aluminium, which is a clear, outdated, archaic, incomprehensible, and conceptually unacceptable obstacle to development and growth. Below is a brief summary—nothing new, but it may be useful.

The document clearly and accurately addresses most, if not all, of the points that we at FACE have repeatedly emphasised over the years. The central issue and fundamental objective of the manufacturing industry we represent is **fierce global competition**. This was our first priority, and for decades we have drawn attention to the issue of the import tariff on raw aluminium. For us, this has always been the **mother of all objectives**—both because of the tangible loss of competitiveness caused by the tariff and because artificially increasing the cost of raw materials completely distorts the concept of competitiveness in a growing industry. It highlights a total lack of attention to sound development and growth criteria and signals an unwillingness to dismantle the damaging legacies of a past built on the interests of a few.

Despite these challenges, the EU's downstream aluminium industry has managed to grow, preserving much of the technological knowledge accumulated in the second half of the last century. However, today more than ever, the sector needs incentives for growth rather than unjustified and unjustifiable obstacles. This is why we oppose the irresponsibility of an incomprehensible tariff on a raw material that we no longer produce and must now **import for over 87% of our needs**. The raw aluminium tariff is nothing more than a **senseless policy that increases the cost of semi-finished and finished products compared to international competitors**.

Another key point—one that has been a long-standing priority in FACE's advocacy—is the need for our **energy-intensive** industry to secure raw materials with the **lowest possible CO_2 footprint**. From the very beginning, we have supported and encouraged the recovery and recycling of both new and old aluminium scrap. We have also selected as associate members some of the world's most qualified producers of high-quality, low-carbon raw aluminium, steering downstream industry choices in this direction.

Building on these principles, we consider it **essential**, given the current near-total absence of domestic primary aluminium production, to **carefully select suppliers within the EU, prioritising and safeguarding those with the best environmental performance**. Moreover, considering the expected global increase in demand for lightweight metal—including in Europe—we believe it is crucial to **identify the most appropriate future energy sources to support a viable plan for rebuilding aluminium smelting capacity for primary production**.

Contribution 2

I fully agree with what has been stated [the Clean Industrial Deal communication], and it is clear that without serious policies on **energy** and gas costs, little can be achieved.

However, I would like to contribute from the perspective of machinery manufacturers.

As manufacturers of casting machines and maintainers of existing **equipment**, we can point out that the technological and plant engineering level of developing countries is creating increasingly significant gaps. The machinery used by European producers relies on technologies that are decades old; few companies have planned for continuous upgrades, thereby maintaining a competitive advantage and product differentiation. Those who have not followed this path now face significantly higher production costs and intense competition.

I therefore believe that, alongside policies to **reduce energy costs** and all the other points listed in your [the Commission's] proposal, a policy of **incentives for the technological renewal** of production plants could also be integrated.

Contribution 3

The objective of the "Clean Industrial Deal" is the **reduction of CO2 emissions**: it is therefore a medium and long-term objective and of a global or at least European nature.

In my opinion, the **harmonization of the tax treatment of energy sources** should also be included among its objectives, directing EU states to adopt measures aimed at reducing the distortions caused by the different tax treatment.

In addition to the actual tariffs, these measures should also concern the adequate and structural system of **incentive** measures aimed at the use of **energy sources with low CO2** emissions, such as solar and new generation nuclear power.

A separate discussion concerns the industrial sector of the production of **critical raw materials**, which includes **"secondary" aluminium**.

This particular sector, which we can include in the so-called circular economy, must deal not only with the high costs of energy factors (gas and electricity) but also with the competition from **the countries producing the primary metal**, i.e. aluminium obtained directly from bauxite through an electrolytic process; the electrolytic process is highly energy consuming and is only possible in those countries where electricity is available at low cost and therefore generally in non-EU countries.

Currently in Italy, but also in other European countries, **foundry** plants have only been **modernized** in a small part; in Italy the **incentives provided by "Industry 4.0"** are temporary in nature and the measure initially envisaged has been reduced by 50 percent.

This aid gave a great boost to the renewal of the most productive plants, but unfortunately it was not enough. In Italy, a market I know directly, there are currently 54 companies, about ten of which have started a renewal process, which however is strongly hindered above all by the availability of **space**, which is essential for the construction of new plants of adequate dimensions; the centralization of production, which allows for the reduction of interchange movements, evidently **requires large spaces**.

Environmental constraints and often **bureaucracy** also greatly hinder the creation of industrial areas in times compatible with the needs of entrepreneurs in the sector.

Even if not directly connected with the decarbonisation process, but which in some way influence the construction of new production plants with low CO2 emissions, are **the high labour costs** due to the so-called tax wedge, as a result of which the cost for companies is almost double the net salary for the employee.

The facilitation measures provided for by the new "**Industry 5.0**" plan, unlike the aforementioned "Industry 4.0", are **difficult to apply** and often interpret and certainly do not contribute to the creation of photovoltaic systems.

Still remaining within our country (Italy), a financing plan for start-ups would be necessary which involves the construction of efficient systems with low energy consumption and low carbon dioxide emissions. The conditions currently provided by the Italian banking system do not provide subsidized rates for these new industrial initiatives.

In conclusion, the "Clean Industrial Deal" should not only aim at the primary objective of containing CO2 emissions within the limits tolerable by the environment over a more or less long time, but also the certainly more difficult objective of **not passing the cost of the entire process onto the final consumer**; There will certainly be a lot of work to be done on this last aspect.

In conclusion, after having carefully read the great path of the "Clean industrial Deal", I am very **worried about the future**, getting in line with these **new regulations** will not be easy.

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Contribution 4

We are in a period in which, even if in a peculiar way, we are talking about peace, and in this perspective, it seems to me that a new package of sanctions against Russia is irrational.

I'll list five reasons for you:

1. The first reason is environmental: Russia produces the most **"eco-friendly" aluminium**, entirely produced with hydroelectric energy, and once again we contradict our green ideals by rejecting Russian aluminium in favour of that one produced with coal, oil and gas in India, China and the USA.
2. The second reason is industrial: in this way once again, we are doing exactly the opposite of what we should do by **increasing costs** in Europe to the full advantage of our competitors China and India.
3. European businesses have been improving for years while already **paying very high taxes**. In this context, we wonder why **ETS system taxes** should be further increased and where this money will go, given the current **energy shortage**.
4. The **CBAM** system, as it is currently designed, is absolutely **counterproductive**.
5. The **regulations on electric vehicles**, as they are currently designed, do not work. It would be like giving our biggest competitor, China, all the weapons to **destroy the automotive industry in the EU.**

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Contribution 5: note on scrap

The European Secondary Aluminium Market and Its Challenges

Aluminium scrap is a valuable secondary raw material because metal recovered and recycled requires only 5% of the energy needed for primary production.

With rising energy costs, many operators in the European Union's aluminium transformation sector—including foundries, extruders, and rolling mills—have adjusted their sourcing strategies to incorporate greater quantities of recycled material into their products. As a result, demand for aluminium scrap has significantly increased in recent years, driven not only by cost considerations but also by efforts to reduce greenhouse gas (CO2) emissions for a more sustainable future.

As this trend has developed, and considering that global demand for both primary and secondary aluminium is growing—within the EU and even more rapidly in countries such as China, India, and across Asia—the European light metal industry has reached a critical point. For primary aluminium, the challenge lies in the fact that the EU produces less than 15% of its domestic needs. For secondary aluminium, local exporters of recyclable material are increasingly finding it more profitable to ship their volumes to these rapidly developing light metal markets. This applies to both older scrap and high-quality new scrap from manufacturing processes and post-consumer recycling (PCR).

This highlights the EU's strong interest in the global aluminium recycling and recovery market. In this regard, it is worth noting that in 2019, secondary aluminium accounted for 36% of the aluminium and alloy supply in Europe. By 2021, the EU had recycled approximately 4.9 million tonnes of end-of-life aluminium, representing a recovery rate of around 69% of all aluminium generated. A key example is Turkey, one of the main importers of EU aluminium scrap: in 2018, EU scrap exports to Turkey totalled around 470,000 tonnes, valued at approximately $53.2 million. By 2021, these exports had increased to 705,000 tonnes—around 50% more than the previous year. Recent trade data indicates that by 2023, EU aluminium scrap exports reached 1.7 million tonnes, with Turkey remaining the primary destination.

This surge in exports has raised concerns among European industry associations such as EUROFER, FACE, and others regarding the risk of losing a strategic resource and the potential impact on the EU's circular economy objectives.

As an alternative, these associations have proposed measures to better regulate scrap exports to non-OECD countries, including Turkey, ensuring that valuable materials remain within the EU to serve as secondary raw materials for local industries.

From February 2025, the EU has introduced a new Waste Shipment Regulation (WSR) that imposes restrictions on the export of metallic scrap to non-OECD countries. However, no direct restrictions currently apply to exports to OECD countries such as Turkey.

In summary, EU aluminium scrap exports to Turkey have been substantial and are expected to continue growing. However, recent regulatory changes and industry concerns may influence this trade relationship. The EU is therefore assessing measures to balance the benefits of recycling within Europe with the economic interests associated with exports to countries such as Turkey.

This export activity has certainly supported aluminium scrap and ingot prices in the EU and the UK, with prices rising steadily in recent months. However, we are approaching a breaking point with potential inflationary consequences in certain market segments.

The EU now faces the urgent need to strike a reasonable balance between exporting aluminium scrap and safeguarding the internal recycling chain. The European aluminium industry as a whole supports measures to improve the availability and quality of secondary raw materials in Europe, with the dual aim of reducing dependence on primary metal imports and promoting circularity to strengthen the internal market and its stakeholders.

It is clear that the sharp increase in aluminium scrap exports to non-EU countries—such as China, India, and Turkey—alongside aggressive purchasing strategies, puts European operators at a disadvantage. As a result, scrap usage and aluminium recycling operations are becoming unprofitable. Beyond the loss of high-value materials and industrial jobs, there are significant concerns about the EU's ability to meet its CO2 reduction targets set by the European Commission.

In summary, the EU is strengthening its domestic recycling capabilities to support sustainability and reduce dependence on foreign raw material markets. However, large volumes of secondary aluminium raw materials continue to be exported. No effective measures are currently in place to retain aluminium scrap within Europe, while importers from China, the US, Turkey, and Asia are willing to pay premium prices—often higher than those EU-based operators can afford.

It is evident that the global secondary aluminium market, particularly in Europe, has experienced significant growth from 2020 to 2025, driven by increased recycling efforts and rising demand across various sectors.

Secondary aluminium production has more than doubled since the early 1990s, and as the market leader in terms of volume, Europe has the opportunity to pursue long-term growth strategies with greater flexibility. By 2024 and early 2025, Asian scrap traders are expected to offer prices 20–40% higher than European traders, depending on the scrap type. Ensuring European operators remain competitive in this highly complex and competitive market will be crucial.

Key Regional and Market Dynamics

- **Europe:** By 2025, the European secondary aluminium alloy market is facing tough challenges due to weak demand and overcapacity. This situation has been worsened by a weakened general economic climate and intensifying global competition for aluminium scrap, which has put downward pressure on prices and redirected an increasingly significant share of scrap to China, India, Turkey, and Asia—reducing its availability for local European operators.

- **Asia-Pacific:** The Asia-Pacific region, particularly China, India, and Japan, has been a dominant player in the secondary aluminium market. The rapid expansion of the automotive sector in these countries has significantly increased demand for secondary aluminium. As local production remains insufficient, these countries must import scrap—especially from Europe—despite higher transport costs and longer delivery times. However, lower labour and production costs in these markets allow them to spend more on raw materials while maintaining competitiveness over EU producers.

Market dynamics

The secondary aluminium market is influenced by various factors, including the type of aluminium scrap used as raw material (post-consumer scrap or new scrap from industrial processing), the alloy type (foundry or wrought alloys), the purity level of the metal and alloys, and the sector from which the scrap originates (automotive, aerospace, construction and architectural industries, packaging, electrical and electronic applications, etc.). Additionally, advancements in refining technologies, such as the integration of robotics and automation in recycling plants, have played a significant role in improving production efficiency and reliability.

Between 2020 and 2025, the secondary aluminium market experienced significant growth, with regional variations and evolving market dynamics shaping the sector's trajectory. However, as previously mentioned, aluminium scrap has become increasingly scarce in Europe for the local market due to rising demand from the Asia-Pacific region, India, and China. Not only does the lower cost of raw materials play a crucial role, but global carbon emission reduction targets for decarbonisation also have a significant impact on the production of aluminium products with high scrap content.

There is a growing consumer preference for sustainably produced materials, compelling aluminium manufacturers to adapt by investing in green technologies. Meeting the demand for "green aluminium," which is produced with lower carbon emissions, requires substantial investment and may pose a challenge for producers still relying on conventional methods. Aluminium with a higher scrap content offers a better alignment with low-carbon emission targets, further driving demand for scrap in the future.

The European aluminium scrap market faces several challenges that affect its efficiency, pricing, and sustainability. Some of the key challenges include:

- **Regulatory and Environmental Compliance:**
  The European Union has stringent environmental and recycling regulations, which can make it challenging for companies to remain compliant. For example, the EU's circular economy policies and recycling targets require high-quality scrap processing and material recovery, putting pressure on recyclers to meet these standards. There are growing concerns about carbon emissions, and aluminium production remains highly energy-intensive. It is essential to move towards increasingly sustainable practices within production cycles.

- **Fluctuating Prices:**
  Aluminium scrap prices can naturally be volatile, influenced by both global supply and demand for aluminium as well as the quality of the scrap. Economic fluctuations, such as rapid changes in the automotive, construction, and packaging sectors—key consumers of aluminium—can lead to unpredictable price variations.

- **Quality Variables:**
  The quality of aluminium scrap can vary significantly, with some sources containing contaminants or requiring extensive processing to make them suitable for reuse. This affects the efficiency of recycling operations and increases costs for recyclers. This is one of the reasons why scrap importers from third countries tend to purchase "cleaner scrap" from Europe at a higher price, ensuring greater productivity and efficiency compared to lower-quality local scrap.

- **Technological Challenges:**
  Despite advancements in recycling technologies, technical challenges remain in the efficient separation and sorting of aluminium scrap. More advanced sorting technologies and improved recycling infrastructure are needed to enhance the quality and yield of recycled aluminium.

- **Export Restrictions and Trade Barriers:**
  European countries are subject to trade policies regulating the import and export of scrap materials. Some countries impose restrictions on scrap exports, reducing the availability of scrap for processing within Europe. Additionally, tariffs and trade disputes can further complicate the international movement of aluminium scrap.

  EU regulations should particularly protect the interests of the internal EU market and safeguard small and medium-sized secondary producers with processing capacities of up to 100,000 tonnes per year, as well as recycling facilities, which form the backbone of aluminium production in the EU. These businesses are significantly exposed to the negative impact of exports and intense competition—often at the limit—both from large primary aluminium producers and major international trading operators.

- **Transition to a Circular Economy:**
  The EU is driving the shift towards a more circular economy, increasing the emphasis on recovery and recycling. However, large-scale aluminium recycling infrastructure in Europe still needs to catch up. Greater investment in recycling infrastructure and process innovation is essential to meet future sustainability goals.

  These challenges highlight the complexity of the aluminium scrap market in Europe and the need for advanced solutions based on cooperation among stakeholders and continuous innovation in both recycling processes and regulations.

  It is crucial that EU regulations support the development of aluminium recycling within the internal EU market, particularly for small and medium-sized enterprises, which form the backbone of the aluminium supply chain. Additionally, political support in the form of grants, credits, and similar incentives for local aluminium recycling development would help reduce CO_2 emissions associated with transport. Establishing a European aluminium recycling network could ensure more uniform recycling conditions across Europe, with a particular focus on equal access to aluminium scrap for all European producers.

Conclusions

In 2023, the EU exported 39.3 million tonnes of recyclable raw materials to non-EU countries, with over half of this volume consisting of metals. Notably, Turkey emerged as the primary destination for these exports, surpassing China.

The landscape of aluminium scrap exports from the EU to China, Turkey, India, and Asia has evolved due to regulatory changes and shifting trade patterns. While opportunities remain, particularly for high-quality materials, companies in the EU must navigate complex regulations and consider alternative markets in other regions.

In 2024, Aluminium Rheinfelden Alloys purchased 20,300 tonnes of aluminium scrap (valued at €36 million) for its foundry alloy production. This 20kt represents 54.45% of the scrap content in its products, which are aluminium alloy ingots primarily supplied to the EU automotive industry.

There is a growing demand for higher recycled aluminium content in this sector, mainly for environmental sustainability reasons.

However, sourcing this type of scrap has become increasingly difficult in the domestic market, not only due to rising exports to the East but also due to a declining supply of automotive scrap. Additionally, the lack of demand for electric vehicles and reduced interest in purchasing new cars—driven by the EU's weak economic outlook—are contributing to this shortage.

Lower demand leads to lower production, which results in less available scrap—a straightforward mechanism driving the industry. Due to this reduced availability, we are witnessing an increase in scrap prices, directly influenced by supply and demand dynamics.

In conclusion, to ensure a sufficient supply of aluminium scrap within the European Union, it is essential to revitalise the economy and implement appropriate measures to regulate exports. A strong domestic aluminium recovery and recycling system will not only reduce the overall CO_2 footprint but also improve profit margins by lowering raw material costs across the aluminium supply chain. This is particularly crucial for refiners within the EU, such as Aluminium Rheinfelden Alloys, which risk losing competitiveness and valuable technological expertise that has significantly contributed to the advancement of aluminium casting foundries over the decades.

Authors of this note on scrap:

Aluminium Rheinfelden Alloys GmbH

As a company operating for over 125 years on the aluminium market and as one of the first producers of primary aluminium in Europe, we are primarily involved in the development of new technologies, technical solutions and modern casting alloys. Our research and development activities in the 1990s were focused on the development of modern and high-quality casting alloys for the needs of foundry based on primary aluminium. Since 2021, the Aluminium Rheinfelden group has changed its research and development policy and is currently focusing on the development of modern casting alloys produced based on partial recycling (recycling level 30-60%) or high-quality casting alloys based on 100% recycling of aluminium scrap obtained on the European market.

Currently, the Aluminium Rheinfelden Group is undertaking numerous investment projects and production infrastructure modernisation from an operational perspective, in order to ensure the further development of modern aluminium alloys and to supply the European aluminium market with alloys that have low CO2 footprint levels.

There is a huge market for secondary aluminium alloys ahead, whose market price is not formally linked to the LME, as they can only be produced with scrap and within the same casting foundries. To protect this secondary alloys industry within the EU, we must ensure a sufficient availability and supply of aluminium scrap.

For 2025, we are already seeing an increase in demand for high-quality foundry alloys, but we are facing a shortage of supply or extremely high scrap prices. We believe it is essential for the European institutions to explore the most appropriate measures to ensure the internal availability of this valuable secondary raw material, which is indispensable for foundries in the EU, for effective energy saving and environmental sustainability.

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Federation of Aluminium Consumers in Europe (FACE)

FACE was founded in 1999 to specifically defend the interests of the EU independent downstream aluminium transformers, users and consumers.

Based in Brussels, FACE advocates for the liberalisation of raw materials, protecting the EU's manufacturing base, supporting a rules-based and fair international system with the WTO at its core, and for the global transformation towards a low-carbon economy with aluminium as the ideal material for attaining sustainability goals.