2015 Sustainability Highlights

Reporting on the European aluminium industry's performance

About the Sustainability Roadmap to 2025

The European aluminium industry's Sustainability Roadmap, launched in 2015, reflects our vision of aluminium as a key enabler of Europe's transition to a sustainable and circular economy. It sets out the steps for realising our vision, taking a holistic approach incorporating production processes, innovative applications and social benefits.

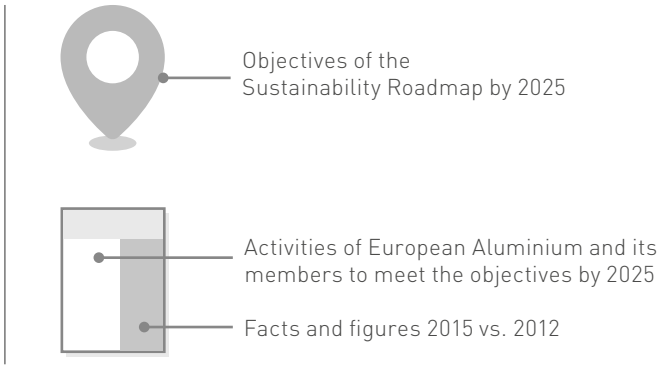
About this report

This provides a snapshot of how the industry is progressing towards the targets of the Roadmap, from economic, environmental and social perspectives. It reports 2015 data collected directly from aluminium companies operating in Europe.

The baseline for the objectives in the Sustainability Roadmap is 2012. In addition, it is also possible to identify longer trends, as European Aluminium began collecting indicators in the 1990s.

The figures provide an industry-wide average, covering EU28 and EFTA countries, unless stated otherwise.

The report is interactive, with further information available via the hyperlinks.



Connecting with global sustainability goals

The Roadmap is aligned with global commitments on sustainability; ie the Paris COP21 agreement and Sustainable Development Goals (SDGs) at UN level. It particularly contributes to:

- Goal 5: Gender equality
- Goal 9: Industry, innovation and infrastructure
- Goal 12: Responsible consumption and production
- Goal 13: Climate Action
- Goal 17: Partnerships for goals

Connecting innovation and sustainability

To tackle the sector's innovation challenges and help build a sustainable Europe, European Aluminium launched its Innovation Hub in 2015, voluntarily supported by member companies.

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2015 SUSTAINABILITY HIGHLIGHTS

Contributing to a sustainable Europe

Aluminium industry overview

Aluminium market applications

There is a growing demand for aluminium products, driven by their unique properties. Aluminium is endlessly recyclable, strong yet light, corrosion free and durable, an energy saver, incredibly versatile and a complete barrier. Aluminium is the material of choice in a range of strategic applications, including mobility, packaging and construction. Recent study forecasts that the aluminium content in cars will increase by up to 30% in the next 10 years.

Market trends and outlook

From 2012 to 2015, European production of aluminium products increased on average by 6%. This growth was reflected in almost all markets; only the extrusion segment showed more modest growth. Our forecasts for 2017 predict steady growth in both production and demand across the aluminium value chain in Europe.

Primary aluminium production in Europe is rebounding slightly following a difficult period, increasing by 5% from 2012 to 2015. Production increased by 1.1% in 2016 to 4.3 million tonnes and a further growth of 1.3% in 2017 is forecast by European Aluminium data. However, the EU still imports around half of its metal supply; around 5.9 Mt in 2016. Moreover, significant production overcapacities around the world are increasing the pressure on European industries.

European demand for semi-finished products remains strong. Production increased by 6% between 2012 and 2015. Flat Rolled Products – used in beverage cans or cars – amounted to 5.1 million tonnes in 2016; a growth of 1.9% is forecast for 2017. Extruded products – used in windows and machinery – saw a 1.6% increase in 2016 to 3.0 million tonnes and the foreseen growth for 2017 is 1.2%. These increases are against a backdrop of ongoing pressure from imports.

The recycling sector is flourishing, processing growing quantities of scrap. Europe's demand for aluminium scrap increased by 2% in 2016 compared with 2015, reaching a record 7.7 million tonnes. This reflects the societal shift from a linear to a circular economy and the aluminium industry's commitment to sustainability. However, access to scrap remains an issue, with around 900kt of aluminium scrap exported from the EU – mainly to Asia – during 2016.

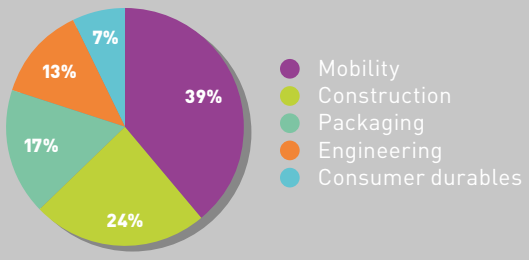
Total revenues and jobs

A strong industrial base is vitally important to Europe's long-term prosperity and growth. Aluminium is central to this story.
In Europe, our industry accounts for an annual turnover of 39.5 billion euros and supports around 1 million direct and indirect jobs.

Investments

Building a strong and sustainable industrial base is only possible with investment. That is why our industry currently invests nearly 2 billion euros on average each year. The R&D intensity of the European aluminium industry is greater than the average of the industrial metals and mining sector.

MARKETS FOR ALUMINIUM



ANNUAL PRODUCTION

Metal production (primary and recycled)

Around 50% comes from recycled sources

9.0 Mt
+9%
since 2012

7.7 Mt
+6%
since 2012

Semi-production (rolling* and extrusion)

*including Turkey

TOTAL REVENUES

€39.5 BILLION

+3% since 2012

JOBS

81,500 direct jobs

and around **1 million indirect** jobs

INVESTMENTS

€1.9 BILLION

investments in capital and R&D

+24% since 2012

1% R&D intensity*

Higher than both the European metal industry average and the mining sector, according to Joint Research Center

* (R&D expenditure divided by total revenues)

1%

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2015 SUSTAINABILITY HIGHLIGHTS

Improving our environmental performance

Responsible production for environmental protection

Using limited resources efficiently

Source raw material responsibly from an environmental, economic and social perspective, promoting traceability best practices.

European Aluminium and its members are committed to enhancing the development and uptake of sourcing and traceability standards. Members can choose these standards provided they ensure the same level of ambition.

Improving the energy performance

Reduce industrial energy consumption by 10% per tonne of aluminium produced or transformed in Europe by 2025 compared to 2012 levels.

Primary production, with electricity costs up to 40% of the production costs, is the most-energy intensive segment. Following decades of continuous improvement, current technology is approaching its technical limits. Hence energy efficiency is one of the priorities of the Innovation Hub.

Reducing Greenhouse gas emissions

Define a sustainable pathway to realise the industry's greenhouse gas reduction potential towards 2050[1].

The industry's commitment to lowering its direct GHG emissions and continuous investments to improve production processes have enabled a reduction of 53% since 1997.

Innovation breakthroughs and the EU legislative framework are two important levers for further improvement. European Aluminium calls for a more predictable and workable EU Emissions Trading System for 2021-2030.

Dealing with industrial waste

Reduce and recycle as much industrial waste as possible and ban the landfill of recyclable hazardous industrial waste.

European Aluminium has mapped the amounts and nature of the main waste streams across the value chain and is assessing them to identify alternatives to landfill. We will compile a catalogue of best practices, including industrial symbioses and joint R&D projects, to support companies' efforts.

The industry has also developed voluntary Guidelines on bauxite residue management.

Improving water management

Identify water-scarce areas and put in place specific management programmes in these locations.

Water is a key resource requiring specific attention. Available tools to identify water scarce areas are undergoing assessment. Furthermore, best practices on how to develop effective water management plans will be shared across the sector.

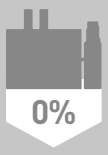
1 An aluminium 2050 roadmap to a low-carbon Europe (2012)

ALUMINIUM STEWARDSHIP

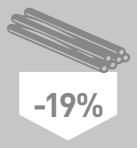
European Aluminium joined the Aluminium Stewardship Initiative in 2016, a multi-stakeholder initiative meant to develop a third party certification scheme for the whole supply chain.

ENERGY CONSUMPTION

per tonne of aluminium produced



in **primary production** since 2012



in **rolling** since 2012

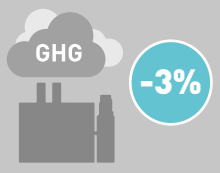
in **recycling** since 2012

-3%

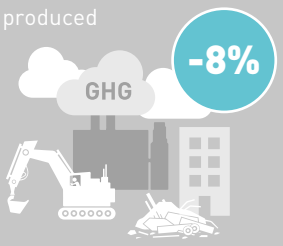
in the **entire aluminium industry** since 2012

GREENHOUSE GAS EMISSIONS

per tonne of aluminium produced



direct GHG emissions in the **primary production** since 2012



direct GHG emissions for the **entire industry** since 2012

INDUSTRIAL HAZARDOUS WASTE

80% of all hazardous waste is **recycled**, of which:

- **48%** of spent pot lining (primary production)
- **96%** of waste generated in semi-production

Salt slags are **100%** recycled by applying the best available techniques.

WATER SCARCE AREAS

Defining water management plans and **exchange of best practices** across the aluminium value chain.

Yearly monitoring of the situation

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2015 SUSTAINABILITY HIGHLIGHTS

Caring for people

Socio-Economic contribution for a sustainable society

Safety first!

Reach and sustain zero fatalities and reduce Total Recordable Incident (TRIs) by 50% by 2025.

Our priority is to send our employees and contractors home safe and sound. Thanks to investments in training programmes and prevention, the record has improved, although it has plateaued since 2008.

We proactively encourage a culture of safety throughout the sector, with a workshop and a competition recognising and rewarding the best safety innovations. We are developing common leading indicators that will further help to avoid accidents.

Promoting employee welfare

Employee welfare is a new area of cooperation within our industry; one where we will continuously develop our expertise. Our priority is to promote gender equality, skills management and career development.

Develop the knowledge base and safeguard working conditions.

Training is vital in attracting and safeguarding competences within the aluminium industry and for operating safely and sustainably.

Ensuring diversity at all levels

Ensure diversity at all levels and offer equal opportunities.

We collected our first statistics on gender representation in our industry. We are further evaluating the state of play in our sector in order to improve the situation.

Ethical principles and sharing value creation

Develop a set of core ethical principles for both employees and contractors, covering the workplace, business conduct, personal conduct and accountability.

We will develop guidelines on establishing a code of conduct or revising existing codes.

Ensure that each production facility has a community value-sharing programme in place and encourages best practices.

Value-sharing programmes help reconnect company success with social progress. We are developing a database that includes information on local circumstances, a description of the specific initiative and the lessons learned/outcomes.

TOTAL RECORDABLE INCIDENTS

-5% since 2012

7.3 TRI per million of hours worked

more plants have reported zero incidents

two fatalities registered

TRAINING HOURS

+27% since 2012

30+ training hours annually

WOMEN IN OUR INDUSTRY

Total workforce **14%**

Management roles **16%**

ETHICAL PRINCIPLES

Responsible governance is top priority of the industry in Europe

Value sharing is creating economic value in a way that also creates value for society by addressing its needs and challenges

Value sharing key examples

2015 SUSTAINABILITY HIGHLIGHTS

Bringing real world benefits

Innovative applications for sustainable lifestyles

Improving energy efficiency in the use phase

Facilitate the development of new and innovative solutions for enhancing aluminium's energy saving potential.

Thanks to its unique properties, aluminium can offset its initial energy use by providing significant savings during its use phase.

Aluminium improves the energy performance of buildings, notably via windows, curtain walls and ventilated facades.

In mobility, the lightweight properties of aluminium directly contribute to making vehicles more energy efficient, reducing fuel consumption and CO_2 emissions.

Aluminium packaging contributes to resource efficiency; the average weight of a beverage can has been reduced by more than a third the last 20 years.

Contributing to the Circular Economy

Contribute to the Circular Economy with market-specific recycling action plans and support the phase out of landfilling of aluminium recyclable waste.

Aluminium is endlessly recyclable, and 75% of all aluminium ever produced is still in use today.

On automotive, European Aluminium has conducted interviews of leading end-of-life vehicle processing plants to collect the most accurate data.

On packaging, European Aluminium has set a voluntary target of 80% by 2020 for recycling used beverage cans, focusing on 'out of home' consumption.

To facilitate a closed cycle for recycling aluminium in buildings and ensure that the recyclable materials collected remain in Europe, several aluminium companies are working together in the A/U/F organisation.

Addressing customers and citizens' needs

European Aluminium seeks to ensure the full use of aluminium's enabling properties.

European Aluminium is developing promotional and educational material for customers and citizens in its main applications.

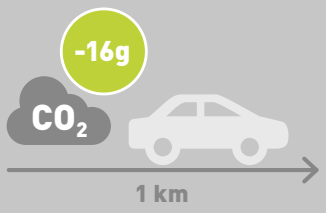
European Aluminium is also involved in the Every Can Counts programme. Operating in 10 European countries, the initiative encourages people to recycle the cans they consume 'on the go' and at out of home events (such as concerts, festivals, sports events).

ENERGY SAVINGS IN THE USE PHASE

Video Choosing your window can help you optimise the energy performance of your house

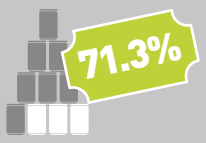
Press release Aluminium content of cars produced in Europe

200 kg could reduce a car's CO_2 emissions by up to 16 g per km



END-OF-LIFE RECYCLING RATES

recycled from automotive



7 out of 10 beverage cans in Europe are recycled.

recovered from commercial and residential buildings

EDUCATION AND PROMOTION

>9000 collection points across Europe

every can counts

Transparent communication about environmental performance of products through life-cycle assessments.

Video on 'Aluminium: the permanent material'

Manuals on aluminium in automotive and in commercial vehicles

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ABOUT EUROPEAN ALUMINIUM

European Aluminium, founded in 1981 and based in Brussels, is the voice of the aluminium industry in Europe. We actively engage with decision makers and the wider stakeholder community to promote the outstanding properties of aluminium, secure growth and optimise the contribution our metal can make to meeting Europe's sustainability challenges. Through environmental and technical expertise, economic and statistical analysis, scientific research, education and sharing of best practices, public affairs and communication activities, European Aluminium promotes the use of aluminium as a material with permanent properties that is part of the solution to achieving sustainable goals, while maintaining and improving the image of the industry, of the material and of its applications among their stakeholders. Our 80+ members include primary aluminium producers; downstream manufacturers of extruded, rolled and cast aluminium; producers of recycled aluminium and national aluminium associations are representing more than 600 plants in 30 European countries. Aluminium products are used in a wide range of markets, including automotive, transport, high-tech engineering, building, construction and packaging.

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