
SUSTAINABILITY STRATEGY AND THE ROUTE TO NET ZERO

IN THE UK

ALFED
ALUMINIUM FEDERATION

ABOUT



Our Philosophy

The Aluminium Federation represents businesses who process, trade and work with aluminium – we foster innovation, promote best practice, develop skills and champion member interests.

Our Vision

To expand the market for aluminium products

Our Mission

Promote best practice and champion the industry's interests

Our Goals

Promote aluminium as a sustainable material for the future

UK ALUMINIUM INDUSTRY

- Aluminium industry directly employs 37,000 people across the UK, with largest share of those employed being located in the West Midlands.
- Aluminium industry contributes around £2.97 billion in Gross Value Added to the UK economy.
- Wider aluminium industry supports employment of 97,000 full-time equivalent jobs across the UK and the contribution of £6.8 billion in Gross Value Added





A VITAL ECONOMIC CONTRIBUTOR



£6.8 BILLION

in GVA generated annually for UK economy from the wider aluminium sector



97,000+ people employed by the aluminium sector nationwide



HIGHLY RECYCLABLE



75% of all aluminium ever produced is still used in some form



95% less energy required to produce recycled aluminium (compared with primary aluminium)



ENABLING SUSTAINABILITY ACROSS INDUSTRIES

8G OF CARBON EMISSIONS



saved per kilometre for each 100kg reduction in a car's mass, thanks to aluminium-driven lightweighting



UP TO 50% REDUCTION



in a building's energy consumption with intelligent façades incorporating aluminium systems



UP TO 40% REDUCTION



in the foil thickness of packaging without jeopardising content quality



BENEFITS OF ALUMINIUM

- Infinitely recyclable
- 75% of all aluminium produced is still in use
- Recycling aluminium uses 95% less energy than producing aluminium from raw materials. It also saves 97% of green house gas emissions produced in the primary production process.
- Recycling 1 tonne of aluminium saves 9 tonnes of CO2 emissions and 4 tonnes of bauxite – the raw material from which aluminium is made.

NET ZERO AT A CROSSROADS

- The UK's aluminium industry stands poised at a crossroad. It could stay on its present path where almost all its cast, rolled, extruded or forged semi-fabricated product forms are imported with little or no control of their embodied carbon level or of their multiple environmental impacts beyond this simple measure
- The UK needs to relinquish its position as the leading exporter of aluminium scrap in Europe and to change to using all this low carbon aluminium in the UK as far as possible and to consider importing this product as an alternative to primary aluminium. This can only happen if the UK market for aluminium scrap is developed to provide the necessary strong demand pull.



COLLABORATION IS KEY

- While sustainability is an important source of competitive advantage for aluminium producers and manufacturers, it is now becoming an imperative.
- The recent release of ALFED's Net Zero Report highlights that collaboration across sectors is key in delivering radical innovation, growth and change.



NET ZERO REPORT

- The recent report supports the need for decarbonisation, sustainable sourcing, and transition to a circular economy.
- The sector objectives are detailed throughout, with an emerging action plan to support a Net Zero transformation by 2050 and drive innovation.

www.alfed.org.uk/alfed-towards-net-zero-report/



WORKING TOWARDS NET ZERO

REQUIRES A PLAN

- Mapping tools
- Infrastructure
- Sector and cross-sector initiatives and projects
- Develop a Sustain Aluminium centre in the UK, affiliated with many UK and Global Academic institutions.



UP-CYCLING

Aluminium growth sector areas will be packaging, wrought sheet and electrical

- Packaging, “Body in White” and electrical requires high purity, low tramp element alloys
- Advanced sorting developments required to enable recycling within an alloy grade, remelting
- Multiple recycling within an alloy will dominate and will fundamentally depend on the ability to sort and segregate end of life to an alloy
- Purification of higher alloys, deironing, dezincification and demagnesium
- Research alternative alloying elements substituting for escalating price silicon, copper and restricted supply magnesium



THE VISION

- All aluminium production recovery and recycling will be net zero by 2050
- 100% of all aluminium in the UK will remain in use at its highest value
- UK aluminium supply chain will be globally competitive, sustainable, and robust enough to meet growth and capacity
- All current and all legacy; bi products, wastes and process residues will be utilised, converted, or recycled to maximise value retention and environmental benefit
- By 2025 Sustain Aluminium will have an internationally respected UK centre affiliated to many UK and Global Academic institutions



**“TO ACHIEVE THIS VISION,
ALFED WILL WORK
COLLABORATIVELY TO
MAXIMISE THE
CONTRIBUTION OF THE UK
ALUMINIUM SECTOR IN
ACHIEVING THE
TRANSFORMATION, SUCH
THAT ALL ALUMINIUM
PRODUCTION AND
RECYCLING WILL BE NET
ZERO BY 2050,”**

Nadine Bloxsome,
Membership & Sustainability
Manager, ALFED