

THE GREEN ALUMINIUM VISION

Aluminium as the material of choice for our evolution into a carbon-neutral world

The global transformation imperative

Recently all countries have battled the threat of COVID-19. There is, however, an even bigger threat we all face - climate change.

The fundamental difference between the emergency of the COVID-19 pandemic and the climate emergency has been the pace of onset: the coronavirus did not give humanity the luxury of time for denial and procrastination.

The two are to some extent interconnected; climate change, resulting from human activities, aggravates our vulnerability to infectious diseases: the pressure on biodiversity and on the wild ecosystems, trigger the migration of pathogens between species and their transmission to humans, while global warming, among several harmful health impacts, extends the geographical spread of many deadly microbes. Both hit different populations disproportionately, underlining how public health is still affected by inequalities, including within rich countries.

The need to rebuild the economy post-virus presents us with an opportunity to change while implementing large-scale economic support, stimulus and recovery packages all over the world to Build Back Better. This year marks the 75th anniversary of the United Nations, the 5th anniversary of the Sustainable Development Goals (SDGs), and a milestone year for the Parties to the Paris Climate Agreement as countries strengthen their national commitments and set more ambitious decarbonisation targets.

It is also a historical and transformational factor that European leaders have committed to building up the block's response to the pandemic and its economic recovery with the European Green Deal at its core. Green innovation and green jobs will not only help Europe recover, they will achieve the vision of the European Union as a sustainable power.

We must use the COVID-19 recovery plans to set things right and to build a better and more sustainable global economy.

Aluminium and the green economy

With 90,000 employees around the world, En+, as a global leader in hydro power generation, and its metal business RUSAL, as the world's largest producer of aluminium outside China, are strongly committed to leading the 'hard to abate' aluminium industry into the green economy.

Aluminium has a tremendous potential for becoming the material of a carbon-neutral and circular world. Its lightness and high recyclability contribute to reducing the carbon footprint of entire value chains and to scaling up the circular economy model.

Just as the physical properties of aluminium transformed aerospace, now it is a game changer for the automotive industry. Its lightness decreases the weight of batteries and sensors, supporting the rise of electric and of autonomous vehicles, resulting in enhanced fuel savings and safety.

Its strength-to-weight ratio, versatility and resistance to corrosion give aluminium a special role in the fast-evolving sustainable construction sector and green buildings. At the same time, its hygienic properties and the need to drastically reduce the use of plastics increase the already important role of aluminium in the packaging and beverage industries.

Aluminium is also a key material for the healthcare sector, from medical equipment and oxygen bottles to drug packaging.

However, aluminium production rests on the mining of bauxites and nepheline ore, on the refining of alumina, and on the smelting of primary aluminium, which is an energy-intensive process. The aluminium industry generates two per cent of our planet's CO_2 emissions as a result.

Social demand for climate action and more environmentally friendly products is changing the values of governments and NGOs and the behaviours of businesses. The aluminium industry must now strive to decarbonise the production of aluminium, from sustainable mining to 'low-carbon' and carbon-free smelting, and to the lowest total carbon footprint for product manufacturing.

As an energy-intensive industry we must increase our commitments, innovation, drive and investments to make sure that aluminium is recognised as a major contributor to the transition towards the green economy.

The Green Aluminium Vision

Our Green Aluminium Vision sets out our commitment to leading our industry into the green economy via nine key initiatives. These aim to continuously improve the status of aluminium as an environmentally friendly and climate-resilient material of the 21st century and represent our vision of aluminium as the right metal for a carbon-neutral and circular world.

We aim to develop a new asset class of Green Aluminium, a strategic material for a future-proof sustainable economy which includes low carbon primary aluminium and recycled aluminium. Transparency and labelling efforts will enable climate-resilient trading and eco-responsible consumer choice globally. The ultimate goal is to contribute to the objectives of the Paris Climate Agreement, to remain below 2°C of global warming.

The initiatives which will enable the Green Aluminium Vision are:

1. Emissions reduction

The En+ Group is determined to further drive down our carbon emissions, which are already among the world's lowest in the industry – the carbon footprint of our aluminium is more than three times lower than the industry average. En+ Group's ambition is to lead the net-zero transition of the global aluminium industry. By 2025, we aim to achieve -15% direct specific greenhouse gas emissions from electrolysis compared to 2014, -7% energy consumption, ~95% hydropower for our smelting operations. We have already started testing the breakthrough technology of inert anode that will sharply reduce energy consumption and eliminate carbon emissions in the smelting process.

2. 'Low-carbon' aluminium branding

Our brand ALLOW is 'low-carbon' aluminium with an independently verified carbon footprint. It is produced using hydropower with a guaranteed carbon footprint of less than 4 tonnes of CO₂ equivalent per tonne of aluminium produced (at smelter, Scope 1 and 2). ALLOW helps customers achieve their emissions reduction targets and contributes to more transparent climate disclosure, crucial for the sustainability reporting of responsible companies.

3. Carbon footprint transparency

In September 2019, the En+ Group called on the London Metal Exchange (LME) to introduce emissions disclosure rules in an effort to promote more transparent and sustainability-based trading.

The Group welcomes the news of LME's plans to launch a platform to trade "low carbon aluminium" mostly produced with renewable energy. Information about carbon footprint, ASI certification, and the share of renewable energy will empower customers to take better informed decisions about their choice of material.

4. Circularity

By 2050, the International Aluminium Institute expects the world demand for aluminium to exceed 150 million tonnes from the current 60.

Primary aluminium satisfies almost 75% of total global demand and accounts for 90% of the emissions of the aluminium industry. Recycling can boost resource efficiency and emissions reductions. However, there is a number of limitations, such as the lack of sufficient supply to satisfy the growing demand and the lack of cost-effective and efficient technological solutions to separate and sort scrap.

Therefore, in the foreseeable future, recycling will continue to go hand in hand with 'low-carbon' primary material. Additionally, the focus of industry-wide efforts related to circularity should be on reducing the amount of waste generated by the aluminium industry, thus ensuring growth decoupled from expanded resource use.

5. Sustainability labelling

En+ Group is part of several environmental certification processes and engages in new efforts to develop sustainability labels, which enable ethical purchasing and incentivise industry transformation. We invite the industry to reflect on a "Green Aluminium Label" that would enable customers to buy aluminium products manufactured with the lowest independently verified carbon footprint and with the most ambitious environmental standards along the entire value chain.

Such a labelling effort should be inclusive of further greening aluminium recycling itself, for example through increasing the rate and efficiency of scrap collection and remelting in Europe.

6. Liberalisation of trade in 'low-carbon' primary aluminium

Access to affordable 'low-carbon' raw materials is a key factor for manufacturers. The En+ Group calls for liberalisation in 'low-carbon' primary aluminium trading.

This should include the elimination of import tariffs on this commodity, key to fostering greater competitiveness and sustainability of the whole aluminium-to-customer value chain. This would imply the creation of separate customs codes for low carbon primary aluminium and would bring several advantages to the industry, including efficient tools to prevent carbon leakage and promote decarbonisation of the aluminium industry worldwide.

7. Elimination of excess capacity to ensure fair and green trade

Excess capacity harms sustainability as it leads to excessive resource and energy use generating avoidable emissions. Excess capacity also distorts trade as it often results from unfair trade practices and State support. In this regard it should be noted that, in its recently issued White Paper on levelling the playing field as regards foreign subsidies, the European Commission has identified the need to confront and correct competitive distortions in the EU internal market created by State subsidies.

Eliminating excess capacity worldwide is an important step towards making metal industries sustainable. En+ Group has historically welcomed a global intergovernmental dialogue on excess capacity under the auspices of the G20 and has proposed to industry peers and associations to call for the creation of an aluminium committee at the OECD as a platform for multilateral cooperation.

In the context of this year's 5th anniversary of the SDGs and amidst the COVID-19 recovery when sustainable and fair growth are relevant as never before. En+ Group calls for the creation of a Global Forum on Sustainable Industrial Development. This inter-governmental Forum, open to industry and non-State actors, would improve global governance, strengthen free and fair trade, shield green products and services from distortive practices, and promote inclusiveness of the world's sustainable agenda.

8. Facilitation of research and development

Industry-wide incentives for collaboration in research and development could boost 'low-carbon' and circularity transitions.

A wide array of technologies would benefit from collaborative approaches to speed up the desired future: inert anode and other breakthrough technologies with high emissions and cost reduction potential, or for example diverse recycling technologies, such as X-ray, sensor-based, laser detection, to improve recovery of useful scrap across various sectors where aluminium is used.

9. Support to a renewed multilateralism

Fair economic growth decoupled from resource use, health resilience and combatting climate change are intrinsic elements to an interdependent sustainable development agenda. The Group delivers on eight of the SDGs, with a strong focus on goal 17 on global partnerships. En+ also participates in the UNFCCC Conferences of Parties (UN Climate Conferences or COPs). A robust international system based on shared responsibility and solidarity are prerequisites to deliver upon this agenda.

That is why the En+ Group supports a rules-based world, the reform of the WTO, and a new multilateralism characterised by deeper cooperation between and among states, businesses and NGOs. As a global industrial sustainability champion, En+ Group signed the CEO statement on "Uniting Business and Governments to recover better", a joint call from major multi-nationals representing over 5 million employees, to governments to align their COVID-19 economic aid and recovery plans with the latest climate science, and with the double goal of achieving a zero carbon economy and of putting the world on a 1.5 °C anthropic warming trajectory.

The Green Aluminium Vision is also the vision of a green multilateralism, inclusive of fair trade, respect of human rights, fight against corruption, ambitious corporate and social responsibility, and inclusive stakeholder engagement. These elements are crucial for a more sustainable, humancentred and climate-resilient world.

Rt Hon Lord Barker of Battle

Executive Chairman En+ Group