



 **smart**
architectural aluminium



Responsible Sourcing Report 2017



Sustainability at Smart

About Smart Architectural Aluminium

Over the past forty years, Smart has grown to become the UK's leading supplier of aluminium systems and bespoke aluminium extrusions, building a reputation for both the quality of its products and its product innovation, design and technical expertise. Our products and systems are proven in a wide range of new-build and refurbishment projects throughout the UK, spanning the complete range of commercial, public sector and residential applications.

Based in Yatton, North Somerset, our purpose-built premises house state-of-the-art extrusion, finishing, warehousing and distribution facilities. Our own fleet of lorries makes daily deliveries to a network of fabricators and installers across the UK. Employing over 400 people, we have an annual turnover in excess of £80 million.

Our Approach

We are fully committed to working towards a greener, more sustainable environment, ensuring every aspect of our activities, from the procurement of raw materials to the delivery of finished goods, is conducted in accordance with sound environmental practices and in line with both UK and EU environmental regulations and legislation.

In the context of our business, we aim to promote an understanding of environmental issues among our staff, customers, suppliers and stakeholders, recognising our responsibilities to the delivery of long term, sustainable benefits. Our common goal is to ensure we continually improve the environmental impact of our global activities.

Throughout our development, environmental considerations have been central to our planning. To help formalise our processes and procedures, in 2011 we achieved ISO 14001:2004 Environmental Management Systems certification.

As an ISO 14001 company, we regularly re-evaluate our working practices, ensuring we continually work to minimise the impact of our activities on the environment. As a result, we continue to invest in efficient machinery, effective environmental management systems and waste capture and recycling systems, as well as the use of sustainable power generation.

Responsible Sourcing and BES 6001

Governments, specifiers and architects are increasingly focusing on sustainable development and the source of construction materials. BRE's standard, BES 6001, enables manufacturers to ensure and then prove their products have been made with constituent materials that have been responsibly sourced, providing an approach based on governance, supply chain and community interaction, with a focus on environmental performance improvements.

In 2016 we made the decision to pursue certification to BES 6001 following clarification regarding traceability of commodity traded materials, such as Bauxite in aluminium production.



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Responsible Sourcing Policy

Smart Systems is committed to carrying out its operations in a sustainable manner and in compliance with ISO 14,001, ISO 9,001, OHSAS 18,001 & ISO 50,001 requirements. To achieve this, Smart Systems shall:

1. Ensure that all materials are sourced in a responsible manner.
2. Materials that are purchased should be environmentally and ethically sound.
3. Look to source materials locally to reduce transportation impacts on the environment.
4. Continually manage its environmental, health and safety, and quality systems, and its operations by setting objectives and targets that are related to its significant environmental aspects. Monitor and review the performance against these objectives and targets.
5. Ensure that complaints are recorded and dealt with accordingly.
6. Liaise with the local community about its operations and the environment.
7. Ensure that water, waste, and energy are used efficiently and comes from a sustainable source or recycled where possible.
8. Be responsible of their sites and recognise the value of their heritage, ecological value and the biodiversity surrounding them.
9. Comply with applicable laws, legislation and other requirements relating to the Company's operations.
10. Ensure that all employees and contractors are familiar with this policy before carrying out any related works.

Eddie Robinson
Eddie Robinson
Managing Director



Responsible Sourcing & Supply Chain Management

How and from whom a company purchases materials can impact in many ways on the broader environment. By purchasing materials from suppliers who adopt responsible practices, we aim to stimulate demand for socially- and environmentally-preferable products.

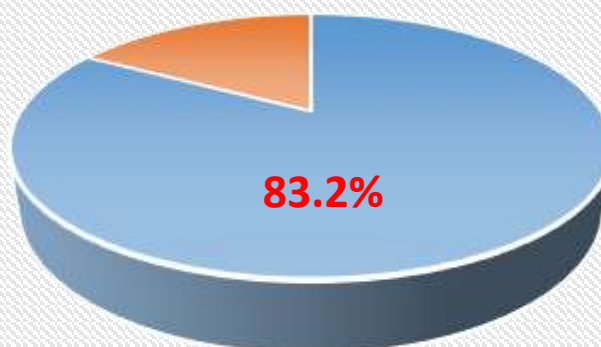
Our finished profiles contain well over 90% of either aluminium or polyamide (which provides the thermal break to give a high performing u-value). We purchase raw materials and components from renowned suppliers with a proven ability to provide high quality goods at competitive prices.

However, we require much more than affordability from our suppliers; requiring them to have management systems in place to identify and reduce their quality, environmental and health and safety risks. As a direct result of this, one supplier generated 10.9TWh of renewable energy in 2015 - enough to power over 2.5 million homes.

Constituent Material suppliers
certified to ISO 14,001



Constituent Material suppliers
certified to OHSAS 18,001



Constituent Material suppliers
certified to ISO 9001





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Greenhouse Gas Emissions

Smart Systems are committed to carrying out our operations in a sustainable manner and in compliance with ISO 14001 and legislative requirements. In order to improve our 'carbon footprint' and achieve continual improvement in regard to Greenhouse Gases we shall:

1. Seek to continually reduce the greenhouse gas emissions in our transport and production processes where possible.
2. Seek to generate power from renewable sources.
3. Seek to reduce our energy consumption and improve our energy performance.
4. Set targets and objectives and monitor and review the performance against these objectives and targets.
5. Report these targets and objectives to the Company's stakeholders.
6. Comply with applicable legislation and other requirements relating to the Company's operations.
7. Ensure that all employees and contractors are familiar with this policy before carrying out any works.

Eddie Robinson – CEO

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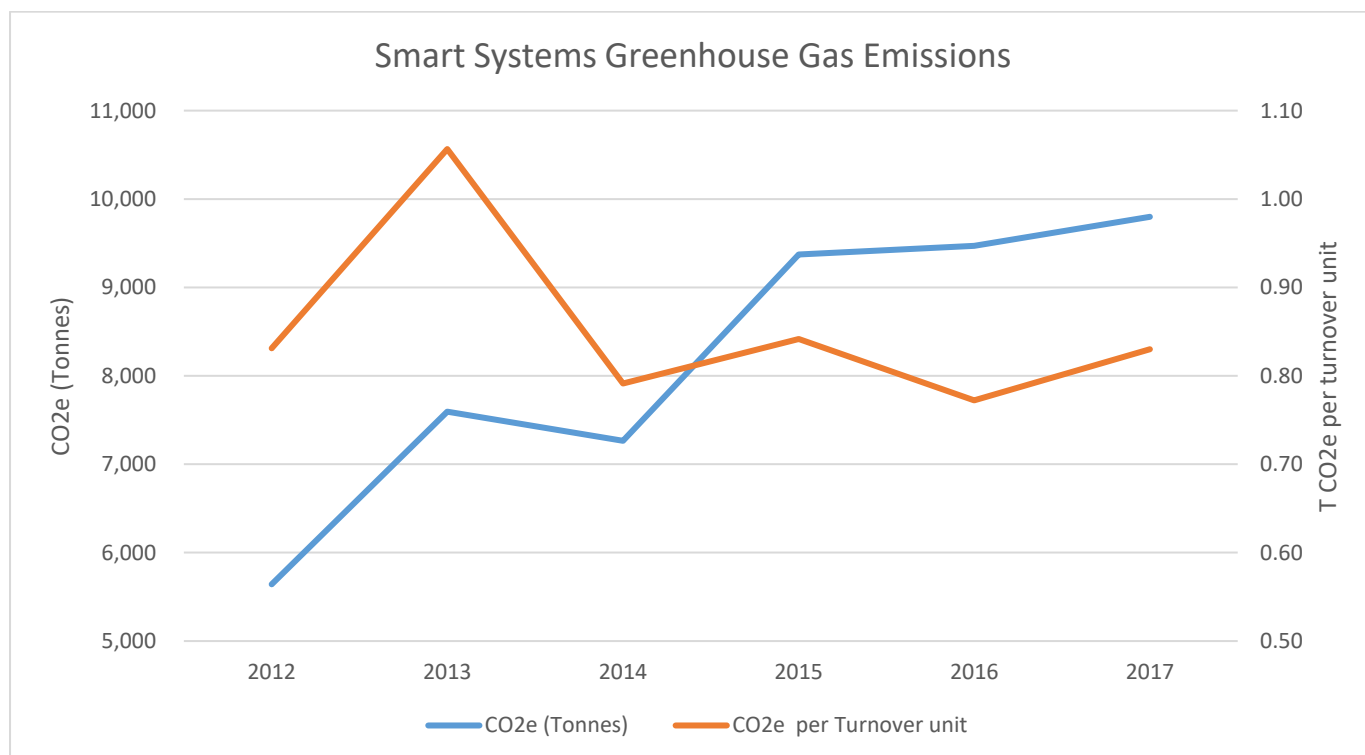


Greenhouse Gas Emissions

We recognise that our operation is energy-intensive, and according to our ethics and legislative requirements, we aim to reduce greenhouse gas emissions in line with national commitments to the 2015 Paris Agreement.

Greenhouse emissions are produced from the combustion of natural gas and diesel on our site, as well as from our transport activities (including our delivery fleet, company vehicles and employee travel) and the electricity we purchase from the national grid.

Since 2010, restrictions of electricity supply to our site have required our extrusion operations to be powered by diesel generators. However, following significant capital investment in 2016, we gained our own independent grid supply, removing the inherent inefficiency of burning fossil fuels. In addition, we have planning permission to install two wind turbines on our site, which will potentially generate more than 15% of our extrusions electricity supply.





Certificate of Registration

ENERGY MANAGEMENT SYSTEM - ISO 50001:2011

This is to certify that:

Smart Systems Ltd
Incorporating s
Arncliffe Wa
rington
BS4P

Holds Certificate No
and operates
following:

ISO 14001 : 2004, ISO 9001 : 2008, BS EN 14001 : 2007, ISO 50001 : 2011, BS 4873, BS 7950/4783

Eddie Robinson - CEO



Smart Systems Ltd, Incorporating Extrusions and Tooling
Integrated Management System Policy

Smart Systems Ltd are engaged in the procurement, production, sale, supply and stockholding of aluminium Architectural Glazing Systems, together with associated design activities; the extrusion of aluminium profiles via designed dies; the powder coating of aluminium systems, accessories & tooling. Smart Systems Ltd is capable of taking aluminium extrusions, accessories & tooling, pre-fabricating and powder coating aluminium profiles to provide a thermally broken system, warehousing, and delivering these finished products across the UK.

It is the policy of Smart Systems to follow management practices with the objective of achieving continual improvement to the benefit of the business and its stakeholders. Smarts are committed to the improvement in quality & energy performance and the prevention of injury, ill health, and pollution; to support this Smart Systems will ensure that information and resource is made available to allow objectives and targets to be realised. We shall abide by all relevant legislation and other requirements to which we subscribe.

In particular we will meet the requirements of the management systems standards, guides and other documents listed at the foot of this statement, these will be regularly reviewed together with this policy.

Furthering this commitment Smart Systems shall take into account energy and sustainability hazards, risks, aspects, impacts and energy consumption associated with our activities shall be identified and objectives shall be set to minimise our negative impacts and to seek positive impacts upon our overall sustainability including inclusivity, integrity, stewardship and transparency.

This statement of policy will be communicated to all employees and sub-contractors and be made available to stakeholders or other interested parties upon request.

Standards to which Smarts subscribe:



Original
Latest



This certificate was issued in accordance with the requirements of the BSI Standard BS 5400: Part 1: 1983. It is valid for the period of 3 years from the date of issue. It is subject to the terms and conditions of the BSI Standard BS 5400: Part 1: 1983.

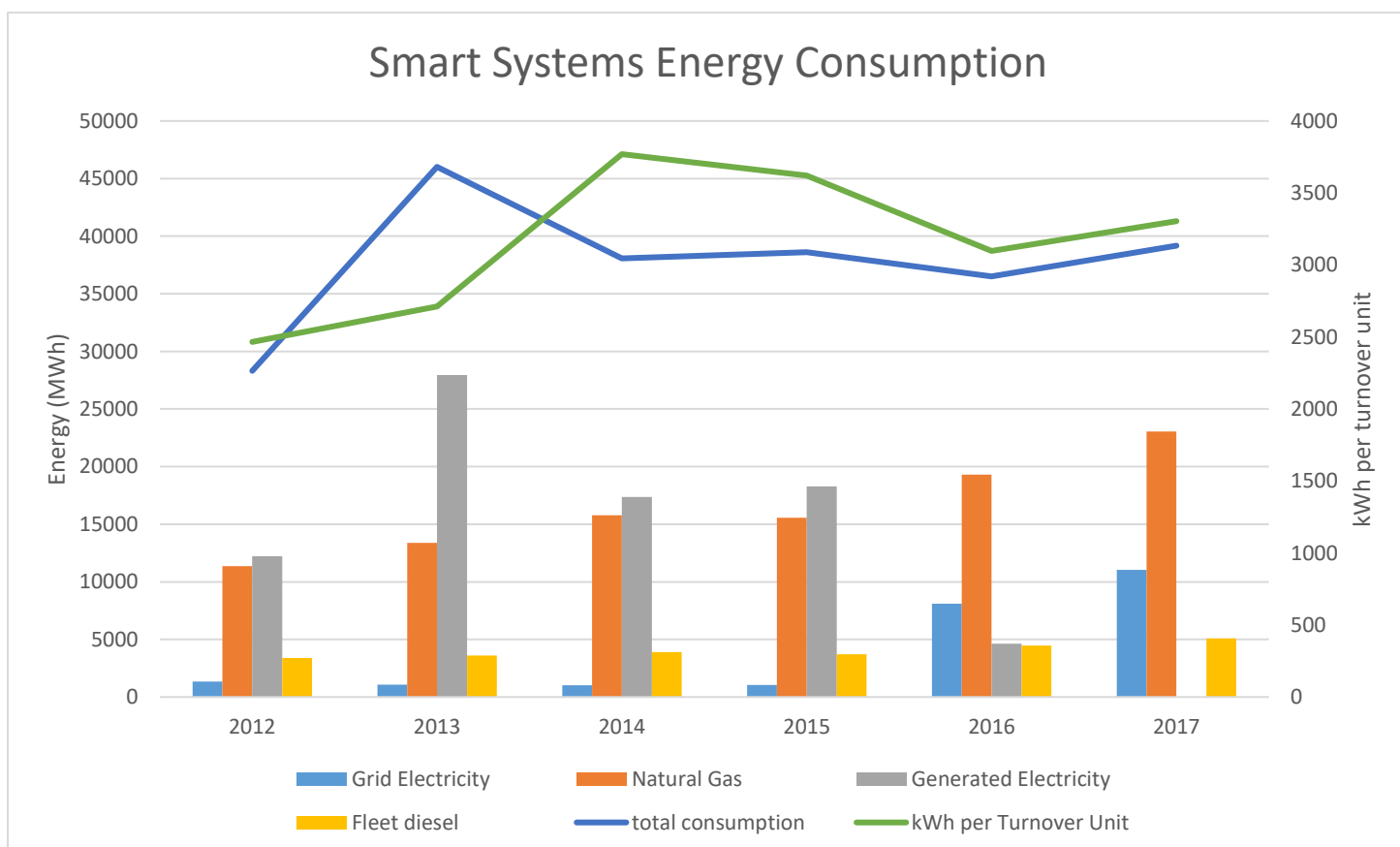
Energy Use and Management

Energy management is a crucial element of our management of capacity, cost, emissions and future development. In 2015 in line with the energy savings opportunities scheme, we achieved ISO 50001:2011 certification.

ISO 50001 is based on the continuous improvement business model, which is also used for standards such as ISO 9001 and ISO 14001. This makes it easier for organisations to integrate energy management into their quality and environmental management systems.

ISO 50001:2011 provides a framework of requirements for organisations to develop policy; set targets and objectives; use data to better understand and make decisions about energy usage; measure the results and then take appropriate improvement actions to continually improve energy management based on reviews of the system.

Since 2015 we have put in place a number of projects and plans to reduce our electricity and diesel consumption, improving our energy performance with respect to our overall output.



Waste Prevention and Management

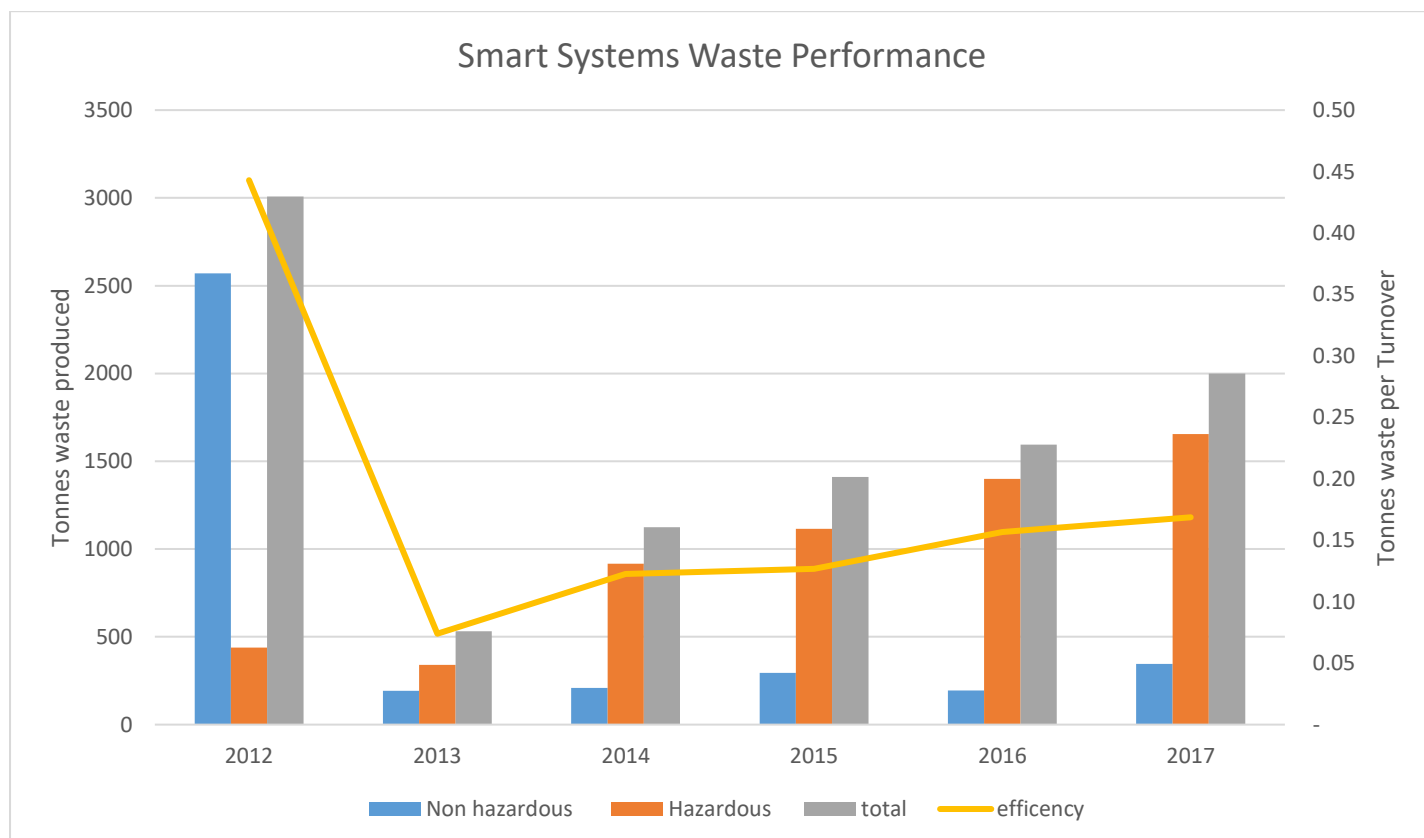
As a large manufacturing company, we generate waste in various forms - from routine inert office wastes to spent chemicals. As part of our commitment to prevent pollution and fully adhere to legal requirements, we ensure our waste is correctly separated and stored, ready for collection by our selected waste contractors, with whom we are pursuing a zero-to-landfill contract.

Across the aluminium extrusion sector, it is estimated that around 20% of extrusions will not be fit for their intended purpose. Rather than this material being declared waste, we instead collect it and transport it for re-melting, receiving re-formed billet in return.

We have also considered waste when developing our manufacturing processes. Our powder coating lines recover and reuse up to 95% of excess powder to reduce our waste burden; powders we use are chromate free to reduce the amount of hazardous waste we produce; incoming packaging is reused onsite for material storage and we deliver our profiles in fully reusable stillages.

Furthermore, by ensuring that nothing we add to our profiles impedes recycling when an installed system reaches the end of its useful life, it can easily be recovered and sent for re-melting. However, the performance of our systems allows simply for the glazing component of an installed unit to be replaced in order to encourage post-consumer reuse; whilst installed accessories can be replaced to update the look of the unit.

Smart Systems waste performance targets less than 0.15 Tonnes per Turnover Unit, and whilst we have not achieved that in 2017 there are several projects in development that should allow us to achieve this target in 2018.





Resource Use

We are committed to reducing the environmental impact of our products, the constituent materials of which are aluminium (supplied to us as billet) and polyamide insulating profiles. We then offer a 60um powder coat to ensure long life and offer a range of colours. It is pleasing to report that in 2016, ~25% of our incoming billet was recycled rather than first-use and our recently-commissioned vertical paint line captures and reuses 98% of excess powder.

Through the design of our systems and their related profiles, we seek to minimise the amount of material used, whilst retaining the strength and durability of the finished products. To that end, we provide software tools to our customers, enabling them to assess minimum profile criteria based on wind load/specification; reduce wastage by optimising cutting of material during fabrication and offer bespoke, project-specific designs tailored to meet specific performance requirements.

We also recognise that our products have an impact on resource use at the end of their lives, and as such have taken measures to allow repairs, maintenance and upgradability through glazing and hardware to be carried out. Once our products reach the end of their life, they have a typical recycle rate of 95% and, as aluminium is widely recycled and contains no hazardous material, it requires no dedicated retrieval scheme.



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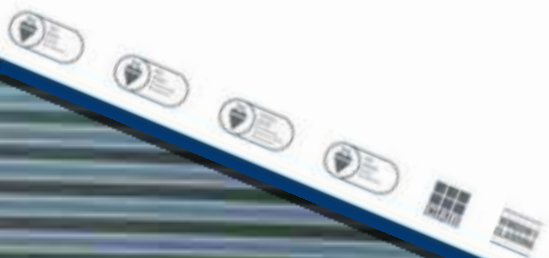
Water Abstraction and management

As part of our commitment to the protection of the environment and continual improvement in our environmental performance, with regard to water abstraction and management it is the policy of Smart Systems to:

1. Seek to continually reduce mains water intensity in production processes.
2. Seek to continually increase the use of harvested water within production processes.
3. Seek to increase the reuse and recycling of water within production processes.
4. Set targets and objectives and monitor and review the performance against these objectives and targets.
5. Report these targets and objectives to the Company's stakeholders.
6. Comply with applicable legislation and other requirements relating to the Company's operations.
7. Ensure that all employees and contractors are familiar with related processes before carrying out any works.

Eddie Robinson - CEO

ER



Water Abstraction

Recognising the impact water abstraction has on the environment, in 2011 we installed a combined attenuation and rainwater harvesting system to reduce the amount of water we need to abstract from mains supply. With an overall capacity in excess of 900,000 litres, the system collects rainwater from our roof and stores it ready for filtration and use.

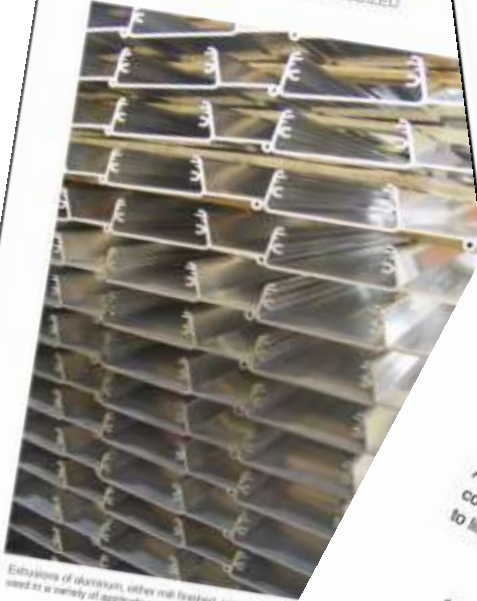
Since 2011 we have been recycling and re-using the ionized water used in our powder coating lines' pre-treatment processes, reducing our demand on local water resources through mains water abstraction.

As part of our expansion programme, in 2014 we installed a state-of-the-art vertical powder coating line, which has a lower water consumption rate than our horizontal, line. Utilising best available technologies, we have significantly improved our water-use efficiency.

In early 2017, we will be commissioning an additional harvesting/attenuation system, with a capacity of 1,920,000 litres. This will substantially reduce both the overall water abstraction demand of the site, and the overall intensity for the factory in the future.

ENVIRONMENTAL PRODUCT DECLARATION ALUMINUM EXTRUSION

MILL FINISHED, PAINTED, AND ANODIZED



Extrusions of aluminum, either mill finished, painted, or anodized, are used in a variety of applications and produced for a variety of markets.

ENVIRONMENTAL PRODUCT DECLARATION THERMALLY IMPROVED ALUMINUM EXTRUSIONS

MILL FINISHED, PAINTED, AND ANODIZED



ALUMINUM
EXTRUDERS
COUNCIL

Aluminum extrusions offer lightweight, efficient and product designs to meet a combination of extrusions that can lead to outstanding product solutions. Strong, light weight, corrosion resistant, capable of complex shapes with tight tolerances and engineered performance... and infinitely recyclable, extrusions are ideally suited to today's world.

As the trade association for the North American aluminum extrusion industry, the Aluminum Extruders Council is committed to advancing extrusion technology, promoting the effective use of extrusions, and ensuring fair trade.

In producing this first AEC industry EPD, the Council and its members demonstrate their commitment to sustainability and transparency. Visit www.aec.org for more information.



Life Cycle Assessment

As part of our commitment to the protection of the environment and continual improvement in our environmental performance, with regard to life cycle assessment it is the policy of Smart Systems to:

1. Seek to continually improve the performance from upstream and downstream significant environmental aspects and impacts of the product.
2. Seek to continually increase the recyclability of the end of life of the product.
3. Seek to increase the recycled content of purchased constituent materials.
4. Set targets and objectives and monitor and review the performance against these objectives and targets.
5. Report these targets and objectives to the Company's stakeholders.
6. Comply with applicable legislation and other requirements relating to the Company's operations.
7. Ensure that all employees and contractors are familiar with related processes before carrying out any works.

Eddie Robinson - CEO

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Action Plan

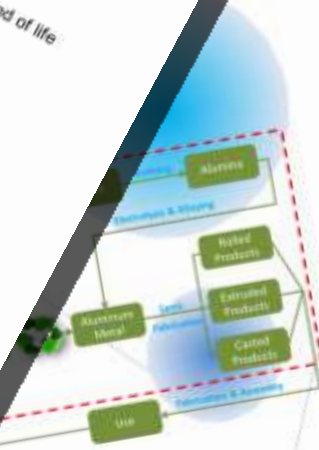
ENVIRONMENTAL
EXTRU
INDUSTRY IN
MANUFACT



The Environmental Footprint of Semi-Finished Aluminum Products in North America

A Life Cycle Assessment Report

The Aluminum Association
December 2013



Lifecycle Assessment

The lifecycle of aluminium, and aluminium profiles is widely known and understood. With aluminium products recycled worldwide, it is believed that 75% of aluminium produced in the 1880s is still in use today.

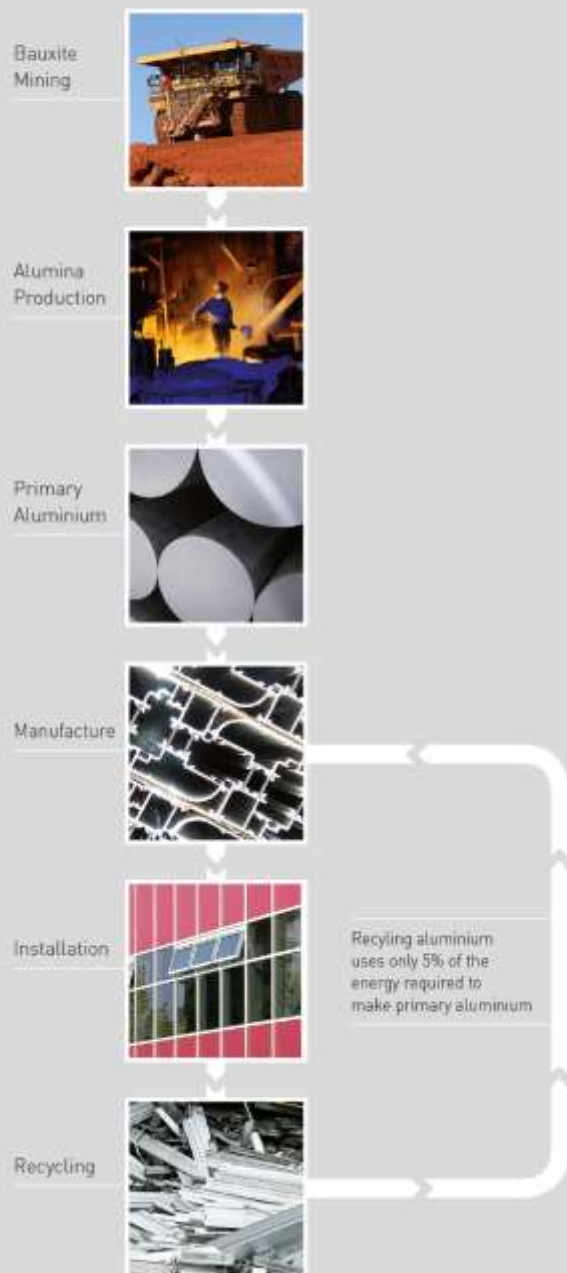
We consider the lifecycle of our products from the design room drawing board, through to production and beyond, identifying, for example, the risks that chromates hold in powder coating; the impact of energy demand in extrusion and the transportation of our products across the UK. Our objective is to improve the impact of our product across its lifecycle.

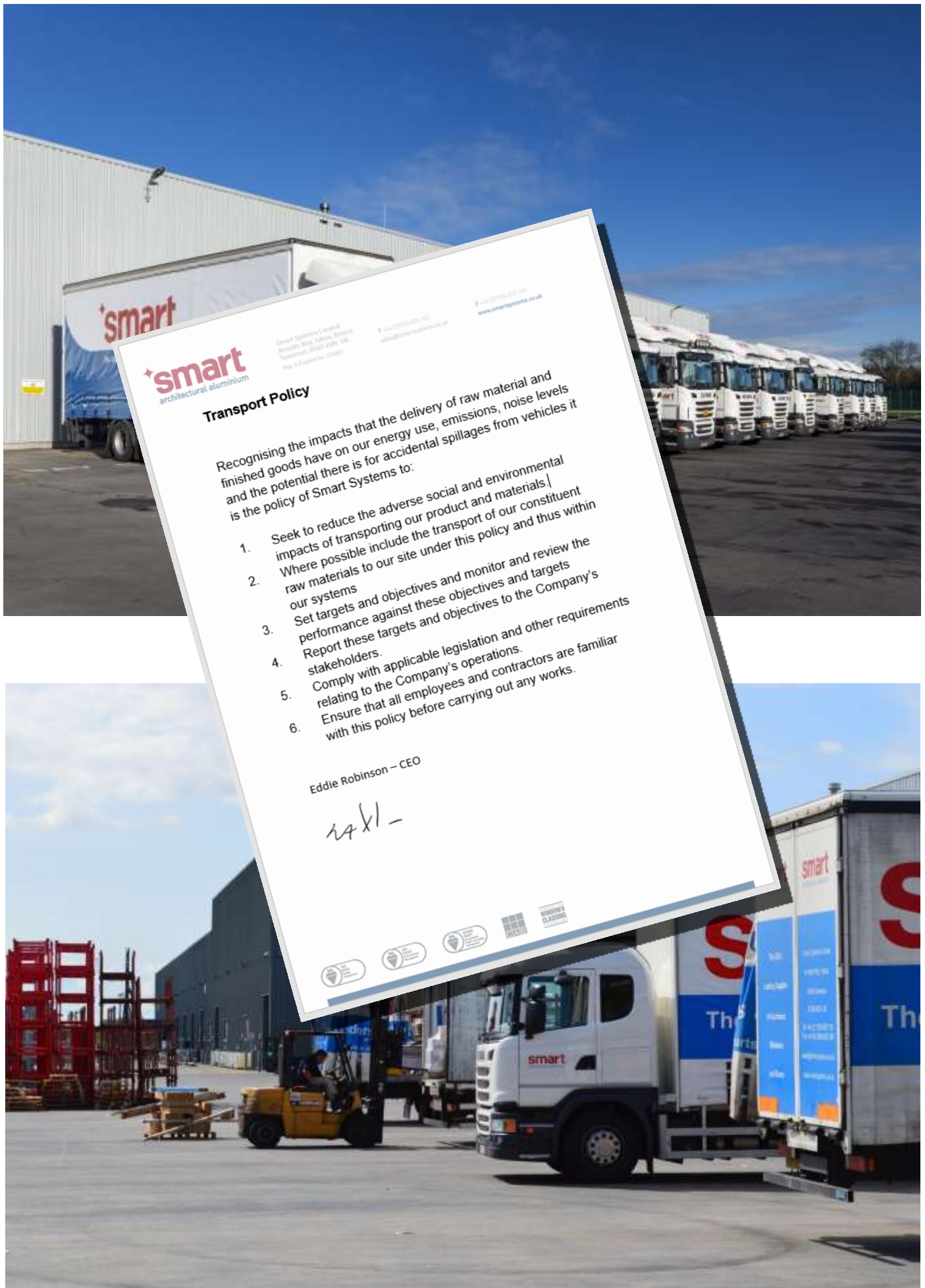
Detailed and thorough environmental product declarations, footprint calculations and lifecycle studies have been carried out by various aluminium sector trade bodies, action groups, and industry councils - as well as our own specific examples.

Aluminium:

The 'Cradle to Cradle' Lifecycle

Aluminium is commonly referred to as the ultimate building material. It is durable, light-weight, resistant to both corrosion and pollutants giving aluminium products a life cycle measured in decades rather than years. It is 100% recyclable, losing none of its material qualities in the recycling process. Large reserves of bauxite ore and the high quality of recycled aluminium offer a building material that is sustainable and effectively inexhaustible.





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Transport Policy

Recognising the impacts that the delivery of raw material and finished goods have on our energy use, emissions, noise levels and the potential there is for accidental spillages from vehicles it is the policy of Smart Systems to:

1. Seek to reduce the adverse social and environmental impacts of transporting our product and materials.
2. Where possible include the transport of our constituent raw materials to our site under this policy and thus within our systems
3. Set targets and objectives and monitor and review the performance against these objectives and targets
4. Report these targets and objectives to the Company's stakeholders.
5. Comply with applicable legislation and other requirements relating to the Company's operations.
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Eddie Robinson – CEO

ER



Transport Impacts

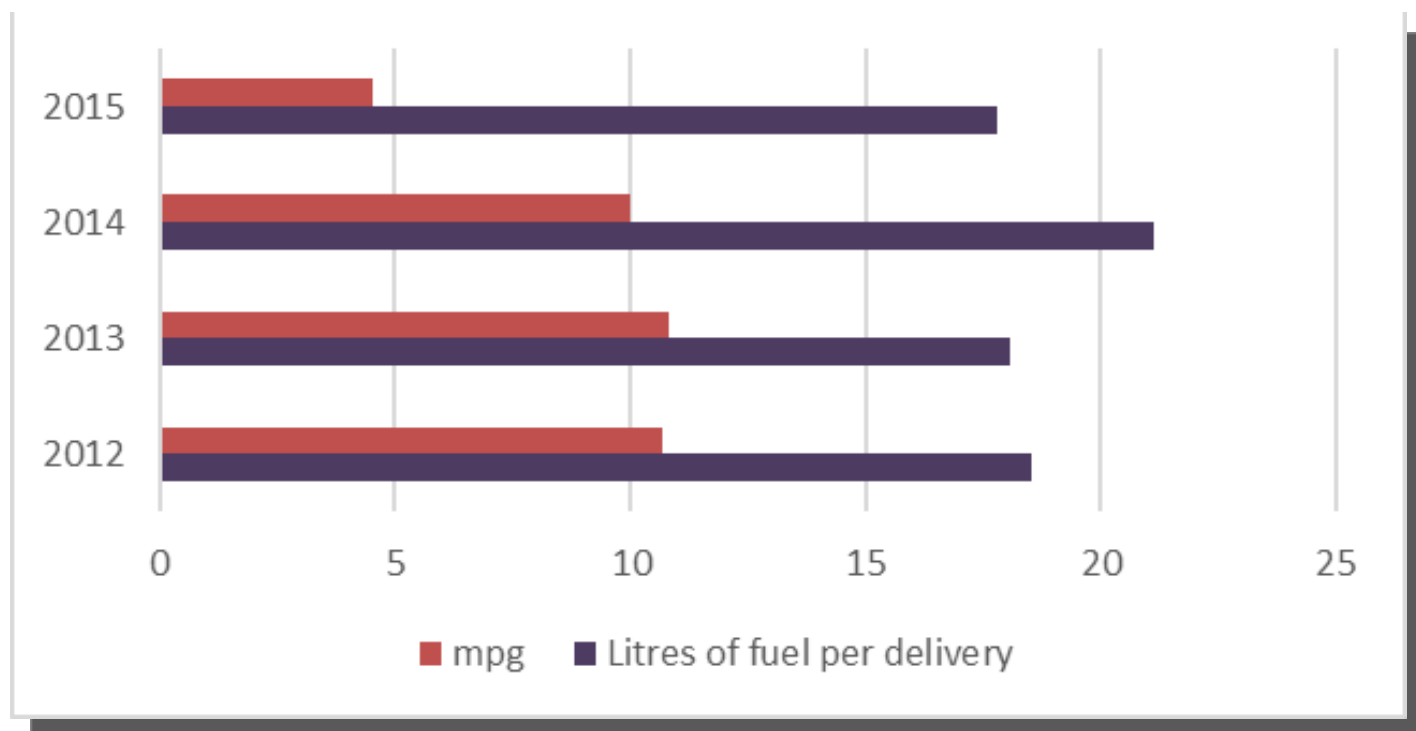
We operate our own delivery fleet of rigid vehicles, with one wagon and drag, supplemented by efficient national haulage companies to reduce vehicle movements to and from our site.

In 2015, using expanded capacity provided by national haulers, we implemented a network of hubs around the UK, enabling our vehicles to pick up material without having to return to Yatton, reducing empty runs. Whilst this led to a lower overall MPG rate, as our drivers are doing more shorter, less efficient journeys, we have increased overall output by 20%, with only a 5% increase in fleet mileage.

In order to mitigate all the potential impacts of our transport activities (spillage and pollution, emissions, addition to congestion, noise etc.), we continue to invest in our fleet; by leasing and upgrading our vehicles regularly, we can meet current Euro V emission requirements. We also ensure each vehicle is maintained by the manufacturer in line with their recommendations, to reduce the risk of spills and leaks. Furthermore, we have installed 360-degree external camera systems on all our vehicles, giving drivers greater vision when operating in tight spaces, as well as the ability to assess their driving style.

From 2015, we set an annual target of a further 5% reduction in litres per delivery and by the end of the first half of 2016, we had already achieved a 3% reduction. With additional distribution hubs coming on line later in 2016, we are confident of achieving the full 5% reduction for the year.

Smart Fleet Fuel



Employment and Skills

We employ around 400 people at our Yatton site. Whilst most of our employees live within a 15-mile radius, we have a diverse and inclusive workforce, with colleagues hailing from across the UK, Europe and beyond.

Where possible, we seek to develop and promote employees within the business, with advancements to supervisory and management roles, the development of technical skills and apprenticeships.

Our team leaders are responsible for identifying training needs and developing potential, enabling people to grow and develop organically without the pressure of 'management involvement'. When a training need is identified, if it is appropriate and practical, it is addressed by third party training, delivering certification for the trainee and aiding their continuing professional development.



Ecotoxicity

Chemicals within the European Union must be classified under the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) legislation. REACH addresses the production and use of chemical substances, and their potential impacts on both human health and the environment. At the time of writing no products manufactured by Smart Systems Ltd are above the REACH threshold.

However, although a number of chemicals used within our processes utilise REACH registered substances, none are classified as Substances of Very High Concern (SVHC) under article 57 of the legislation.

Chemicals used regularly in our processes are Sodium Hydroxide: Registration Number 01-211945-7892, Powder Paints: No known SVHC or SVHC candidates, Hydrochloric Acid: 231-595-7, and Ferric Chloride: 231-729-4.



Business Ethics

We operate in a business environment where the potential for business ethics to be violated or breached exists. Whilst we are able to operate with a large degree of freedom, we are bound not only by our own ethics, but also by those of our parent company, Corialis.

On completion of their induction, each employee signs a group-wide code of conduct, in which they are expected to follow the established Whistleblowing Policy, should the need arise.

The risk associated with bribery and corruption is assessed by the business regularly, to ensure legal and ethical compliance.



Local Communities

As one of the largest local employers and the most active manufacturing facility in the area, we realise that our activities can have both positive and negative impacts on the local community. The nature of our operation makes it difficult for us to host groups of local stakeholders, however through meetings and consultations, we have involved the community at each stage of our site development.

We are proud to support local companies where possible and practical, including catering, consultancy, technical services, hotels and transport businesses.

As with any relationship, there are times when parties disagree, and we treat any community complaint with the same degree of seriousness and level of importance as we would if it were from a customer or regulator.





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