

Brett Landscaping

Environmental & Sustainability Data Collation Report 2019 (Incorporating GHG Reporting to ISO 14064-1)



Introduction

Brett Landscaping is committed to producing the most sustainable products available within each specific sector of its business and operates to BS EN ISO 9001, BS EN ISO 14001, BS OHSAS 18001 and BRE BES 6001 standards covering quality, environmental, health & safety and Environmental & Sustainability respectively.

This report also includes the mandatory reporting requirements stipulated by ISO 14064-1 "Specification with guidance at the organisation level for the quantification and reporting of greenhouse gas emissions and removals'.

The organisation also works closely with its supply chain partners to actively develop and introduce suitable management systems, certified standards and directives to enhance the built environment. Brett Landscaping is committed to continually improve its effectiveness in these areas and will continue to liaise with stakeholders and set itself meaningful and measurable objectives and targets to achieve this in line with BRE BES 6001 and BS 8902.

The natural environment is the foundation of our business, and Brett Landscaping are committed to protecting it for future generations. We see our responsibility as a balance between supplying products to meet society's needs while respecting and conserving the land.

We will continue to demonstrate our commitment to this through an ethos of supply chain management and product stewardship, together with a commitment to engage with stakeholders that may be affected by the impacts of our products.

The following data has been collated against the Sustainable Construction Forum (SCF) Key Performance Indicators (KPI's) and targets, and is compliant with the requirements of the Building Research Establishment (BRE) Environmental and Sustainability Standard BES 6001 '*Framework Standard for the Responsible Sourcing of Construction Products'*.

Managing Director* Brett Landscaping

*And 'Responsible Person' as identified under GHG standard ISO 14064-1

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	British Precast 2020 Targets (with 2012 Baseline)	Brett Landscaping Base-Line Data 2017	Brett Landscaping Actual Data 2019	Target Set	Quantitative	Qualitative	Brett Landscaping Targets to 2020	Target Achieved? Yes / No/ N.A. / Ongoing
Environmental Management Systems	1.1 % of production sites covered by a 'UKAS' certified EMS (such as ISO14001, EMAS and for SMEs, BS8555)	% of production sites (and absolute number compared to total)	Management systems (sections 3.3.2 & 3.4.3 of BES 6001)	Increasing the tonnage, as well as production sites, covered by an EMS (e.g. ISO 14001) to 95%	100 %	100 %	Y	Y	N/A	Maintain % of production sites covered by a UKAS certified EMS at 100%	Yes
Waste minimisation	1.2a kg of waste to landfill as a proportion of production output (supplemented by 3. 1a-d)	kg per tonne	Waste Management (section 3.4.4 of BES 6001)	Reducing overall factory waste by 10% & Reducing factory waste to landfill to < 0.5 kg/ tonne	0.113 kg/tonne	0.080 kg/tonne	Y	Y	N/A	Maintain kg/tonne of waste at 0.100 kg / tonne or less	Yes
Waste minimisation	1.2b Net waste ratio. Ratio of 'total waste product usage' to 'waste to landfill'	Ratio	Waste Management (section 3.4.4 of BES 6001)	-	391:1	487:1	Y	Y	N/A	-	N.A.
Emissions (excluding CO ₂)	1.3 Number of convictions for air and water emissions per annum	Number per annum	Local communities (section 3.4.10 of BES 6001)	Reducing the convictions for air and water emissions to zero	O	0	Y	Y	N/A	Maintain zero convictions for air and water emissions	Yes
Stakeholder Engagement	1.4 Stakeholder engagement. No Indicator – performance to be covered qualitatively	n/a	Social Requirements (section 3.4 of BES 6001)	-	-	-	N/A	N/A	N/A	No Target	N.A.
Quality & Performance	1.5 % of production sites covered by a 'UKAS' certified 9001 quality management system	% of production sites (and absolute number compared to total)	Management systems (section 3.2.3 of BES 6001)	Increasing the tonnage, as well as production sites, covered by a quality system (e.g. ISO 9001) to 95%.	100 %	100 %	Y	Y	N/A	Maintain % of production sites certified to BS EN ISO 9001 at 100%	Yes
Responsible Sourcing	1.6 % of reported production certified to BES 6001	% of reported production tonnes Certified to BES 6001	Management systems (section 3.2.4 of BES 6001)	Increasing the tonnage, as well as production sites, covered by a Responsible Sourcing standard (e.g. BES 6001) to 95%		100 % (Excellent)	Y	Y	N/A	Maintain % of production tonnes certified to BES 6001 at Excellent Status at 100%	Yes

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	British Precast 2020 Targets (with 2012 Baseline)	Brett Landscaping Base-Line Data 2017	Brett Landscaping Annual Data 2019	Target Set	Quantitative	Qualitative	Brett Landscaping Targets to 2020	Target Achieved? Yes / No/ N.A./ Ongoing
	2.1 Energy used in production as a proportion of production output	kWh per tonne	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		25.38 kWh/tonne	23.78 kWh/tonne	Y	Y	N/A	Reduce kWh/tonne emissions from production by 2% per annum from 2017 levels in 2018, 2019 & 2020	Ongoing
Energy	2.1a Energy intensity of production output	tonnes : kWh ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)	Note: Wider UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has target of 246 (br. 2200 based on 2000 levels).	1:25.38	1:23.78	Y	Y	N/A	Reduce energy intensity ratio from production by 2% per annum from 2017 levels in 2018, 2019 & 2020	
&	2.1b Energy intensity of production output	£turnover : kWh ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		Left Intentionally Blank – commercially sensitive data	Left Intentionally Blank – commercially sensitive data	Y	Y	N/A	Reduce energy intensity ratio from production by 2% per annum from 2017 levels in 2018, 2019 & 2020	
(Production)	2.2 CO ₂ emissions as a proportion of production output	kgCO2 per tonne	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		8.11 kgCO ₂ /tonne	6.22 kgCO ₂ /tonne	Y	Y	N/A	Reduce kgCO2/tonne emissions from production by 2% per annum from 2017 levels in 2018, 2019 & 2020	Yes
	2.2a GHG intensity of production output	Tonnes : kgCO2 Ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		1:8.11	1:6.22	Y	Y	N/A	Reduce GHG intensity ratio from production by 2% per annum from 2017 levels in 2018, 2019 & 2020	Yes
	2.2b GHG intensity of production output	£turnover : kgCO2 Ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		Left Intentionally Blank – commercially sensitive data	Left Intentionally Blank – commercially sensitive data	Y	Y	N/A	Reduce GHG intensity ratio from production by 2% per annum from 2017 levels in 2018, 2019 & 2020	Yes

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	British Precast 2020 Targets (with 2012 Baseline)	Brett Landscaping Base-Line Data 2017	Brett Landscaping Annual Data 2019	Target Set	Quantitative	Qualitative	Brett Landscaping Targets to 2020	Target Achieved? Yes / No/ N.A.
	2.3a Average delivery distance travelled per tonne (from factory gate to customer)	km per tonne	Transport Impacts (section 3.4.8 of BES 6001)	No BPCF Target Note: Wider UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has target of 34% by 2020 based on 1990 levels	8.27km / tonne (0.40 km/tonne as part of a 20.41 tonne load)	9.01km / tonne (0.45 km/tonne as part of a 20.03 tonne load)	Linked to 2.3d	N/A	N/A	Linked to 2.3d	N.A.
C O 2 Emissions	2.3b Tonnes moved split by three modes: road, rail, inland barge	Tonnes moved by each mode	Transport Impacts (section 3.4.8 of BES 6001)		547,801 tonnes (100% Road)	600,743 tonnes (100% Road)	Linked to 2.3d	N/A	N/A	Linked to 2.3d	N.A.
(Transport)	2.3c Average load for each mode	Tonnes per load	Transport Impacts (section 3.4.8 of BES 6001)		20.41 tonnes	20.03 tonnes	Linked to 2.3d	N/A	N/A	Linked to 2.3d	N.A
	2.3d CO2 emissions as a proportion of production output	kgCO2per tonne	Transport Impacts (section 3.4.8 of BES 6001)			7.81 kgCO2/tonne (0.39kgCO2/tonne as part of a 20.03 tonne load)		Y	N/A	Maintain at 2017 Baseline in 2018, 2019 and 2020	Note A
Materials	3.1b % of additional cementitious materials (GGBS, fly ash etc.) as a proportion of total cementitious materials used	%	Resource Use & Waste Management (sections 3.4.3 & 3.4.4 of BES 6001)	Increasing the proportion of alternative cement additions (as a % of total cement) to 25%	32.01%	30.97 %	Y	Y	N/A	Maintain proportion of cement additions at or above 25%	Yes
Efficiency	3.1c Recycled/secondary aggregates as a proportion of total aggregates used	%	Resource Use & Waste Management (sections 3.4.3 & 3.4.4 of BES 6001)	& Increasing the proportion of recycled/ secondary aggregates (as a % of total aggregates) to 25%	0.86%	0.54%	Y	N/A	Y	Examine/assess the optimum recycled/secondary aggregate use as a proportion of total aggregate use based upon independent LCA reports	Ongoing

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	British Precast 2020 Targets (with 2012 Baseline)	Brett Landscaping Base-Line Data 2017	Brett Landscaping Annual Data 2019	Target Set	Quantitative	Qualitative	Brett Landscaping Targets to 2020	Target Achieved? Yes / No/ N.A.	
	3.2a Mains water use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)	Reduce mains water consumption by 20%	54.89 Litres/tonne	53.55 Litres/tonne	Y	Y	N/A	Maintain optimum level of overall water usage whilst maintaining Mains water usage at or below 60 litres /tonne and optimising use of recycled / recovered water subject to product technical specifications	Yes	
Water	3.2b Controlled groundwater use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)		0.33 Litres/tonne	0.24 Litres/tonne	Y	Y	N/A	Maintain optimum level of overall water usage whilst maintaining Mains water usage at or below 60 litres /tonne and optimising use of recycled / recovered water subject to product technical specifications	Yes	
	3.2c Mains water intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)			1:0.055	1:0.054	Y	Y	N/A	Maintain 2075 ratio in-line with KPI 3.2a in 2018,2 2019 & 2020	Yes
	3.2d Controlled groundwater Intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)		1:0.00033	1:0.00024	Y	Y	N/A	Maintain 2017 ratio in-line with KPI 3.2a in 2018, 2019 & 2020	Yes	
Site Stewardship	3.3 % of relevant production sites that have site specific action plans	% of relevant production sites (and absolute number compared to total)	Resource Use (Section 3.4.3 of BES 6001)	-	100%	100%	N	N/A	N/A	Maintain at 100%	Yes	

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	British Precast 2020 Targets (with 2012 Baseline)	Brett Landscaping Base-Line Data 2017	Brett Landscaping Annual Data 2019	Target Set	Quantitative	Qualitative	Brett Landscaping Targets to 2020	Target Achieved? Yes / No/ N.A. / Ongoing
Health & Safety	 4.1a Reportable Injuries per 100,000 direct employees 4.1 Lost time injuries for 'direct employees' per 1 million hours worked 	Number of reportable injuries per 100,000 direct employees And absolute number per annum Number of LTI's per 1 million hours worked for direct employees and absolute number per annum	Management systems (section 3.3.3	Reduction in accident frequency of 65% between 2014 and 2018	2 (743 / 100,000 employees) 1 (actual) – 1.53 LTI/ 1 million hours	1 (352 / 100,000 employees) 2 (actual) – 2.91 LTI/ 1 million hours	Y	Y	N/A	Overarching Zero harm expectation, and maintain LTIFR 'direct employees' figures at one more than 1 LTI per annum (1.53 based on 273 employees)	Ongoing
	4.2a % of employees covered by UKAS certified ISO9001/ISO 14001/OHSAS 18001 systems (Training & competence sections)	% of employees covered by UKAS ISO 9001/14001 or OHSAS 18001 systems	Employment & Skills (section 3.4.9 of BES 6001)	Increasing the % of employees covered by a certified management system (e.g. ISO 9001/ISO 14001/OHSAS 18001) to 100% Increasing the % of employees covered by MPA Safer by competence training and qualifications to 100%	100%	100%	Y	Y	N/A	Maintain % of relevant employees covered by UKAS certified ISO9001/ ISO14001 & OHSAS 18001 at 100%	Yes
Employment & Skills	4.2b % of employees covered by environmental and H&S management systems following the principles of BS EN 14001 or OHSAS 18001	% of employees covered by BS EN ISO 14001 or OHSAS 18001 systems	Employment & Skills (section 3.4.9 of BES 6001)	Increasing the % of employees covered by MPA Safer by competence training and qualifications to 100%	100%	100%	Y	Y	N/A	Maintain % of Relevant employees covered by BS EN ISO 14001 & OHSAS 18001 management systems at 100%	Yes
	4.2C Safety, health, Environmental and Responsible Sourcing related training undertaken by Brett Landscaping Employees	Hours of training attended	Employment & Skills (section 3.4.9 of BES 6001)	No target set at Baseline – measure introduced in 2017	5,553 hours 20.64 hours per employee (2.95 days based on a 7-hour training day))	6,790 hours 23.91 hours per employee (3.42 days based on a 7-hour training day)	-	-	-	-	N/A

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	British Precast 2020 Targets (with 2012 Baseline)	Brett Landscaping Base-Line Data 2017	Brett Landscaping Annual Data 2019	Target Set	Quantitative	Qualitative	Brett Landscaping Targets to 2020	Target Achieved? Yes / No / N.A / Ongoing.
	 4.3 % of relevant production sites with community liaison activities (supplemented by 1.3 & 3.3) 	% of relevant production sites (and absolute number compared to total)	Local Communities (section 3.4.10 of BES 6001)		100%	100%	Y	Y	N/A	Maintain % of relevant production sites that have community liaison activities at 100%	Yes
Local Community	4.3a Number of community complaints (supplemented by 1.3)	Complaints per production tonne	Local Communities (section 3.4.10 of BES 6001)	Maintaining the % of relevant production sites that have community liaison activities at 100%	4 (Actual) Effective 0 / tonne	5 (Actual) Effective 0 / tonne	Y	Y	N/A	Overarching zero expectation with year on year reduction of 5% from 2017	Ongoing
	4.3b Number of community events held or sponsored	Number of events held per year	Local Communities (section 3.4.10 of BES 6001)		61	98	Y	Y	N/A	X 'Brett Group' events each year	N.A.
	 4.3c % use of constituent materials sources within 50km of production facilities (i.e. support for local business) 	%	Local Communities (section 3.4.10 of BES 6001)		66.97%	65.80%	Y	Y	N/A	Maintain minimum 55% use of constituent materials sources with 50km of production facilities subject to product technical specifications and supply availability	Yes

Notes:

The Brett Group figures for 'events' are shown above. This is because certain operations such as 'Precast Concrete Production' is less appealing in terms of community visits, than quarry visits and it would be unfair to suggest that a lack of visits to these facilities represents a lesser level of community liaison. It should also be noted that community liaison activities are relevant and appropriate to our immediate neighbours and the areas in which we operate.

4.3c data represents the % usage of any given source within the final product. This is to ensure that the % shown is representative of £turnover & tonnage used rather than just geographic position. i.e. A single very local constituent with a low value, purchased one per year should not adversely affect (falsely improve) the published figures, as in reality such a purchase could represent 0.001% of the constituents purchased, with large value/volume items being purchased from further afield.

Additional constituent material transportation analysis:

Sustainability Principles	Constituent material transportation analysis	Unit of expression	Required link to Responsible Sourcing BES 6001	Related Gov't Targets (No BPCF Targets)	Brett Landscaping Base-Line Data 2017	Brett Landscaping Annual Data 2019	Brett Landscaping Targets to 2020	Target Achieved? Yes / No/ N.A. / Ongoing
	Delivery distance travelled per tonne of traceable constituent material relative to proportionate usage (from source to Brett)	km travelled per constituent tonne supplied	Transport Impacts (section 3.4.7 of BES 6001)		2.25 km per constituent tonne (return journey)	2.25 km per constituent tonne (return journey)	Maintain at or below 2.50 km / per constituent tonne performance or less (where possible) by 2020	Yes
C O 2 Emissions (Transport)	Method of transportation split by modes	% moved by each mode	Transport Impacts (section 3.4.7 of BES 6001)	UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has target of 34% by 2020 based on 1990 levels	48.25 % (Conveyor) 45.90 % (Road) 3.73 % (Sea) 2.12 % (Rail)	39.48 % (Conveyor) 46.50 % (Road) 8.58 % (Sea) 5.44 % (Rail)	Maintain 2017 performance or enhance (where possible) by 2020	
	Average load for each mode	Tonnes per load by mode	Transport Impacts (section 3.4.7 of BES 6001)		N/A (Conveyor) 30 tonnes (Road) 4000 tonnes (Sea) 1040 Tonnes (Rail) 1000 tonnes (barge)	N/A (Conveyor) 30 tonnes (Road) 4000 tonnes (Sea) 1040 Tonnes (Rail) 1000 Tonnes (Barge)	Maintain 2017 performance or enhance (where possible) by 2020	

Transport related aspects and impacts of our business and terminology used:

Transport related environmental aspects and impacts have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, with the main contributory factors being CO₂ emissions, use of natural resources (i.e. fuel sources), transport distances and neighbourhood noise/disruption/congestion. The above is true of both 'customer transport' (KPI's 2.3a to 2.3d) and those given above. For 'Brett Transport' from gate to client, for road transportation, the DEFRA conversion factor 0.93428kgCO2/km has been used (DEFRA 2018 Freighting Goods Table – All HGV – Average Laden - as an overall average figure combining various truck modes & sizes).

As part of our policy to reduce our environment aspects and impacts associated with transport, these have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, examining and detailing issues pertaining to our impacts upon air, water, land, natural resources, flora, fauna and human interaction in terms of past, present and planned events under our direct control, those influenced by supplier and those influenced by customer demand.

In accordance with our transport policy, in addition to customer transport, we also monitor the constituent transport mileage on an annual basis and actively seek to source constituents from local suppliers to reduce the environmental impact of our operations. However, as we do not directly control the operations of our suppliers, we are unable to monitor their direct CO₂ emissions, but can monitor our own impact on this in terms of transport distances and by efficient ordering of products in 'full loads' wherever possible.

The Methodology for calculation of all transport related KPI's is taken directly from ISO 14064-1, with supporting information from the Concrete Industry SCF guidance documents in combination with DEFRA conversion factors.

GHG ISO 14064-1 mandatory reporting requirements:

Detail of 'Boundaries'

Production of 'Precast Concrete Products'.

Direct and indirect emissions by GHG source Electricity (Excluding Solar) Solar Electricity (since Jan 2016) Gas/diesel oil – e.g. for heating (i.e. known as Red Diesel or Gas Oil) Recovered fuel oil/other heating oil (specify) Gas Oil for mobile plant Mains natural gas Bottled gas	2015 7.675 kgC02/tonne 1.275 kgC02/tonne 0.000 kgC02/tonne 0.000 kgC02/tonne 0.000 kgC02/tonne 0.005 kgC02/tonne 0.000 kgC02/tonne	2016 6.498 kgCO2/tonne 0.085 kgCO2/tonne 1.091 kgCO2/tonne 0.000 kgCO2/tonne 0.000 kgCO2/tonne 0.047 kgCO2/tonne 0.047 kgCO2/tonne	2017 5.318 kgCO ₂ /tonne 0.065 kgCO ₂ /tonne 0.000 kgCO ₂ /tonne 0.986 kgCO ₂ /tonne 0.000 kgCO ₂ /tonne 0.061 kgCO ₂ /tonne	2018 4.383 kgCO ₂ /tonne 0.055 kgCO ₂ /tonne 1.331 kgCO ₂ /tonne 0.000 kgCO ₂ /tonne 0.000 kgCO ₂ /tonne 0.031 kgCO ₂ /tonne 0.000 kgCO ₂ /tonne	2019 3.726 kgCO;/tonne 0.954 kgCO;/tonne 0.954 kgCO;/tonne 0.900 kgCO;/tonne 0.908 kgCO;/tonne 0.000 kgCO;/tonne 0.021 kgCO;/tonne
Bottled gas	0.035 kgCO ₂ /tonne	0.047 kgCO2/tonne	0.061 kgCO ₂ /tonne	0.031 kgCO ₂ /tonne	0.021 kgCO ₂ /tonne
Other site energy source (Bulk Gas)	0.792 kgCO ₂ /tonne	0.783 kgCO ₂ /tonne	0.653 kgCO ₂ /tonne	0.721 kgCO ₂ /tonne	0.565 kgCO ₂ /tonne

A description of how the CO₂ from biomass fuel is treated

Not Applicable.

A description of how the CO2 relating to Solar Generated Electricity is treated

2 x 49.9. kW Solar farms at Cliffe are registered for Feed-In Tariff Payments and as such their generation is counted within UK Government Electricity Generation calculations. Therefore, Solar Electricity generation is subject to same CO₂ conversion factor as National Grid Supplied Electricity

GHG removals

Not Applicable.

Exclusion of GHG sources and justification statement

No exclusions made within the boundaries established.

Historical base year data

The base line year is given as 2015 unless otherwise stated.

Explanation of changes from the base year, or recalculation of data

Steady progress towards established targets has been made.

Reference to quantification methodology and factors and any changes made (this statement includes the methodology for production, client transport and constituent transport)

Methodology taken directly from ISO 14064-1, with supporting information from the Concrete Industry SCF guidance documents in combination with Defra conversion factors. Please also see overall summary notes (below).

Uncertainty statement

The organisation has undertaken an uncertainty exercise in accordance with EPA regulations. However, the data collation is verified before use, and the factors used to determine GHG are supplied by Defra, with the uncertainty values being extremely low. The level of uncertainty of the resulting estimates depends significantly on the source category and the pollutant. However, as our sources of CO₂ emissions arise from the combustion of fuel, this uncertainty is vastly reduced, as emissions can be estimated with a high degree of certainty regardless of how the fuel is used as these emissions depend almost exclusively on the carbon content of the fuel, which is generally known with a high degree of precision. The fuel used in our case is almost exclusively gas/electric, with other fuel sources as defined within the relevant SCF PI Guidance Document appendices. Hence, no organisation has determined that no further safet/variance values or factors are required in terms of onward reporting.

Verification statement, and type of verification and level of assurance achieved

CRC verification and ESOS compliant

Overall summary notes:

Brett Landscaping has adopted the objectives and targets detailed above. Where organisation data indicates that the industry (trade association) target has been met, whilst it is desirable to surpass the aforementioned target, the requirements in terms of BES 6001 have been achieved. Revised 'organisational' targets will be discussed within the management review meetings to determine the scope for further improvement. KPI 2.3d relates to the transportation of the product 'Precast concrete' from the production facility to site, and the associated return journey, linked to KPI's 2.3a-c. Transport related environmental aspects and impacts have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, with the main contributory factors being CO₂ emissions and transport distances. Revisions to published 2012/2017 data have been made as a result of changes in reporting requirements, in order to maintain continuity and enable 'like-for-like' comparison and measurement of improvement. The term 'UKAS' refers to a certificate issued by a UKAS accredited ertification body.

NOTE A: CO₂ Emissions (Transport)

2017 baseline number have been restated due to erroneous use of the DEFRA 2017 Freighting Goods Table – All HGV (Refrigerated) – Average Laden – conversion factor of 1.00907kgCO2/km when in fact DEFRA 2017 Freighting Goods Table – All HGV – Average Laden – conversion factor of 0.87029 kgCO2/km should have been used. This corrected CO₂ emissions as a proportion of production output form originally statement in 2017 report of 8.34kgCO₂/tonne (0.41kgCO₂/tonne as part of a 20.41 tonne load) to correct figure for 2017 of 7.19 kgCO₂/tonne (0.35kgCO₂/tonne as part of 20.41 tonne load).

