

Technical Guidance: Metrics and Indicators

1. Introduction

1.1 Purpose

This document's purpose is to provide guidance on the School's recommended set of sustainability metrics and indicators, which you can find [here](#).

The remit of this Special Interest Group was to establish an agreed set of sustainability metrics and indicators for partners to measure the same things in the same way. We recommend are adopted by partners and members, and more widely across the Built Environment.

1.2 How to use the performance indicators

Not all indicators and metrics are intended to be used in every project or contract, and organisations are encouraged to identify the sustainability risks and opportunities around the type, location and scale of the work. This is the process of 'heat mapping'. For example, if a product is not water intensive to produce, or a service does not use a significant amount of potable water, you would consider whether it was necessary for that provider to report water use data

If you haven't considered your risks and opportunities before, a good place to start is to undertake a self-assessment on the Supply Chain School website. For more information regarding this please see the School's [Self-Assessment Page](#). This will be specific to your trade, and provide you with a bespoke action plan which will address these identified risks and opportunities.

If you're more advanced and you would like to identify where the greatest risks and opportunities are within your supply chain, such as for water, please see the free [Heat Mapping e-learning module](#) for more information. You can then produce your own heat map of high risks and opportunities, which should inform your business and procurement strategies.

1.2.1 Normalising factors

The normalising factor across all school sectors should be 'per £1million spend'.

The sub-contractor or supplier should collect and report both:

- Spend on that project/contract; and
- Spend with particular contractor/sub-contractor

2. Guidance on definitions and scope of reporting

2.1 Waste

2.1.1 Waste definitions and exclusions

'Waste means any substance or object which the holder discards or intends or is required to discard.'

However the following exclusions apply:

- Uncontaminated soil and other naturally occurring material excavated in the course of construction activities where it is certain that the material will be used for the purposes of construction in its natural state on the site from which it was excavated.
- Waste waters (such as trade effluent disposed of via tankers, foul sewers, surface water drains, water courses, etc.)

In addition, where waste material produced in the course of construction activities is going to be reused on the site of production, either following onsite processing or in its original state, this guidance does not require this material to be reported as waste.

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2.1.2 Waste destination

These sub-metrics (e.g. re-use, recycled etc.) should be reported by members where the data is available. Where the data is not available, they should report the 'diverted from landfill' metrics directly.

Terms used in the performance measurement matrix:

- Re-use – the beneficial re-use of materials in their current form (either on-site or off-site) which are subject to exemptions from the permit requirements. For more information, please refer to the [Waste e-learning module](#).
- Recycling – the reprocessing of wastes, either into the same material (closed-loop) or a different material (open-loop).
- Waste recovered – the process of recovering the embodied energy of a material through incineration.
- Landfill – The disposal of waste to permitted landfill sites
- Composting - organic material that will be sent for processing by biodegradation

Other terms that you may come across around waste:

- Remediation – the removal of pollution or contaminants so that the material can be put to beneficial re-use.
- Incineration without energy recovery – the incineration of waste without recovering the embodied energy.

2.1.3 FM: your waste or your clients waste?

FM contractors and sub-contractors should consider reporting both the quantity of waste they produce and that produced by their clients.

2.2 Materials

For more information about BES6001, please refer to the latest league table available [here](#).

2.3 Double counting

Organisations should take care to avoid double counting, which is including data twice in a calculation.

For example, a timber supplier could be both FSC certified and Grown in Britain certified, however when you are calculating the indicator % materials that were responsibly sourced, you should only count it once. Otherwise the proportion of materials responsibly sourced will appear higher than it actually is.

3. Conversion Factors

The metrics and indicators defined in the Sustainability Performance Measures document have specified units that the supply chain should report in. However, when data is available in different units, conversion factors are needed.

3.1 Waste

In order to convert m³ bulk volume to kg, please refer to EA/SEPA guidance [here](#).

Please note that you will then need to convert into tonnes to report. This document was produced by the Environment Agency in 1999 and updated in January 2014.

3.2 Materials

Before the indicator is calculated, all metrics should be converted to tonnes.

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The following conversion factors to tonnes have been supplied by the BRE (March 2016) as used in the Green Guide to Specification and gathered through trade associations:

- Dense block: 1994 kg/m³, thickness 100mm: 0.1994 t/m² ⁽¹⁾
- Aircrete block: 562 kg/m³, thickness 100mm: 0.0562 t/m² ⁽²⁾
- Glass (per sheet, so multiply by 2 for double glazing, by 3 for triple): 2541 kg/m³, thickness 6mm: 0.015246 kg/m² ⁽³⁾
- Pavers (concrete) - 2300 kg/m², thickness 60mm, 0.138 t/m² ⁽⁴⁾
- Concrete: 2400kg/m³ ⁽⁵⁾
- Bricks: 0.0022 t/unit ⁽⁶⁾
- Wood: this varies considerably depending the type of wood used, please refer to manufacturer for further information

3.3 Carbon

The Special Interest Group recommends that the supply chain should not be responsible for reporting tCO₂e (tonnes of carbon dioxide equivalent) emissions. Instead, in order to ensure consistency in reporting, they should report the raw data to their clients, such as kWh of electricity used, litres of gas oil used on site or 50 miles by an average van for deliveries.

If companies wish to calculate their tCO₂e emissions figure, they should use the most up to date conversion factors available from Defra⁷. For more information, please see the [Carbon Reporting e-learning module](#).

4. Social value

The concept of measuring and reporting social value is not as developed as reporting of environmental sustainability. It is often driven by the specific requirements of a client or planning authorities.

A School Social Value Special Interest Group (SV SIG) has compiled a briefing paper on social value, which includes a basket of indicators that a 'best in class' company might reasonably strive to report on.

There is an appendix to the briefing paper (appendix 2) which collects together all metrics and indicators that the Social Value SIG has seen in use to date. This appendix might be helpful in enabling companies to identify relevant indicators and metrics for specific contracts or projects. For more information, please refer to the School's [Social Value Page](#).

¹ conversion factors supplied by the BRE (March 2016) as used in the Green Guide to Specification and gathered through trade associations

² conversion factors supplied by the BRE (March 2016) as used in the Green Guide to Specification and gathered through trade associations

³ conversion factors supplied by the BRE (March 2016) as used in the Green Guide to Specification and gathered through trade associations

⁴ conversion factors supplied by the BRE (March 2016) as used in the Green Guide to Specification and gathered through trade associations

⁵ conversion factors supplied by the BRE (March 2016) as used in the Green Guide to Specification and gathered through trade associations

⁶ http://www.greenbooklive.com/filelibrary/EN_15804/EPD/BDA-EN-EPD-0002.3.pdf

⁷ <http://www.ukconversionfactorscarbonsmart.co.uk/>