



BRE Waste Benchmarking Data

Issued 28 February 2009

Background to benchmark data

The benchmarks shown in this document are derived from data entered on the benchmarking website¹ and data from BRE's SMARTStart tool. As projects on the SMARTWaste Plan tool are completed these will also be included.

The benchmarks are based on completed **new build** construction projects. The benchmarks are based on the construction phase only and do not include demolition, excavation or groundworks waste. Benchmarks for refurbishment and demolition projects will be developed in the future as more of these projects are completed.

Before inclusion in the data analysis, data for all completed projects was subjected to a number of logical and statistical tests as follows:

For $\text{m}^3/100\text{m}^2$, the data was excluded if:

- the gross internal floor area was less than 10m^2
- the waste produced was less than 10m^3
- there was less than 5m^3 waste per 100m^2 of gross internal floor area
- there was more than 75m^3 waste per 100m^2 of gross internal floor area.

For $\text{m}^3/£100\text{K}$, the data was excluded if:

- the project value was less than £100
- the waste produced was less than 10m^3
- there was less than 5m^3 waste per £100K of gross internal floor area
- there was more than 75m^3 waste per £100K of gross internal floor area.

For projects that passed these logical tests, a count of the number of plausible results, the average, standard deviation and median of the results was obtained. This data analysis is carried out every two months and the results are published in this document which is available from the benchmarking page of the SMARTWaste website: (www.smartwaste.co.uk/page.jsp?id=37).

The benchmarks in the table below show the average m^3 of waste per 100m^2 of floor area and the average m^3 of waste per £100K of project value for different project types. The number of projects used to calculate the benchmarks is also shown.

¹ The benchmarking website was developed as part of a DEFRA funded project 'Understanding and predicting construction waste' and is available at www.smartwaste.co.uk/wastebenchmarking



**Table 1: Waste Benchmarking Data by Project Type
(New Build Only)**

Updated on 28 February 2009

Project Type	Number of projects data relates to	Average m ³ /100m ²	Number of projects data relates to	Average m ³ /£100K
Residential	121	14.2	114	18.5
Public Buildings	8	26.3	8	22.9
Leisure	3	12.3	5	20.6
Industrial Buildings	5	20.1	5	11.3
Healthcare	14	14.8	12	13.1
Education	19	15.5	20	21.3
Commercial Offices	26	19.1	25	14.4
Commercial Retail	28	15.1	25	10.5
Civil Engineering	7	26.1	8	20.1
Total number of projects	231		222	