

## Case Study

# THE BENEFITS OF CLASSIC GREEN INNOVATION IN BUSINESS

<b>Country:</b>	United Kingdom
<b>Title of the case study:</b>	Preventing construction, demolition and excavation waste
<b>Geographical scope:</b>	United Kingdom
<b>Main partners involved:</b>	WRAP, UK Governments, construction clients, designers, contractors, product manufacturers, waste contractors

### Short description

WRAP developed and launched a voluntary agreement the [Halving Waste to Landfill](#) (HWTL) Commitment in 2008 to support the joint Government and Industry Strategy for Sustainable Construction target of a 50% reduction in construction, demolition and excavation (CD&E) waste to landfill by 2012. WRAP required organisations that signed up to this voluntary agreement to translate their statement of intent into real action on the ground with WRAP providing support with tools, guidance, training and advice.

### 1. Measurement of the original baseline of consumption and production

In 2008, the construction industry was responsible for around 12.5 million tonnes of CD&E waste being disposed to landfill without any form of re-use or recovery. It was estimated that over £1.5 billion of new construction materials were wasted each year. A baseline was established by an industry, WRAP and government representative group representing the UK Strategic Forum for Construction.

### 2. Green innovation implemented, timeframe and cost of the measure

Between 2008 and 2012, WRAP developed and launched the HWTL commitment and enlisted over 800 signatories to it. WRAP supported the embedding of good practice in organisations and influenced projects with a construction value of £38 billion. WRAP's programme of education and support cost approximately £12 million over the 4 years. Sector engagement activity focused mostly on the largest organisations with greatest potential to deliver change and greatest influence over the supply chain

### 3. Quantified figures reflecting the situation after implementation of the initiative

- Reduction in environmental impacts:** to 2011, approximately 5 million tonnes per year of waste diverted from landfill measured by direct assessment of a sample of participants in line with WRAP's [evaluation methods](#). Based on WRAP research, we estimate the CO<sub>2</sub> (e) emissions avoided due to use of materials diverted from landfill and avoided through reduced product wastage are 1 million tonnes per year.
- Increased economic benefits/reduced costs/increased profitability, return on investment:** The initiative has resulted in £400 million per year of cost savings to organisations involved in construction.
- £38 billion of procurement value (including public procurement projects) was influenced through HWTL by influencing procurement projects in progress. A key aspect of the work was the provision of procurement clauses for organisations to include in their contracts, requiring good waste management practice. Key projects included: the London 2012 Olympics, the Shard building (UK's tallest building) and Crossrail (thought to be Europe's biggest infrastructure project).
- Enhanced social benefits:** employees from participating companies were able to improve their skills in planning design, designing out waste and waste management during delivery of the agreement, through the attendance at workshops, training sessions and using online tools.

#### 4. Return on investment and payback time

Based on WRAP's annual investment of around £3 million per year, the total return on investment was around £130 per £ spent by UK Governments. The investment delivered a net return within 2 years.

#### 5. Why is this case study a success? How can it be replicated?

WRAP research with HWTL participants has shown that the factors that made it a success were:

- It provided a forum for business to discuss overall direction and common goals, putting aside competition and commercial sensitivities. It allowed partners to develop collectively a clear strategic framework for change and set relevant targets.
- This allowed the sector to give clear signals to its suppliers on its priorities and level of ambition.
- It provided a consistent way to manage, measure and report on waste and waste management that applied throughout the UK, across all types of construction project and included all elements of the supply chain.
- WRAP ensured that baseline was established and progress rigorously monitored to demonstrate progress to stakeholders and agreement participants.
- It provided a credible and independent evidence base and guidance on how to change, allowing competitors and different parts of the supply chain to work towards a common goal.
- Suppliers perceived involvement in HWTL as a way of winning more work, especially where clients required the supply chain to sign up to HWTL to qualify for frameworks and contracts.

In addition:

- WRAP's interaction with the sector enabled it to increase awareness of waste reduction by focusing on design. As a consequence, WRAP developed the principles of designing out waste for industry with potential to deliver even greater savings in future; and
- As a result WRAP has been asked to develop implement a new Sector Commitment on resource efficiency, building on the successes of HWTL.

We believe this approach could be used successfully in other countries. Many of the signatories in the UK work internationally and therefore may be interested in participating in similar initiatives around the world.

A key aspect of the work was the provision of procurement clauses for organisations to include in their contracts, requiring good waste management practice. Where WRAP worked with public procurement projects this work also influenced this procurement activity (e.g. construction of schools, hospitals, government offices, and London 2012 Olympics).