

## **CASE STUDY**

### **Freight Consolidation in Bristol**

#### **Issues**

- Poor air quality
- Noise pollution
- Congestion and poor physical environment
- Wear and tear on road surfaces and damage to historic buildings
- Safety of vulnerable road users such as pedestrians and cyclists
- Localised problems

#### **Solution**

- The establishment of an urban freight consolidation centre serving Bristol and Bath retailers and offices
- Use of electric vehicles

#### **Benefits**

- Reduction in emissions
- Reduced noise pollution
- Improved environment for vulnerable road users, residents, shoppers and visitors
- Reduces the number of delivery vehicles travelling into central Bristol
- Benefits for users include reduced number of deliveries and time spent receiving deliveries, reduced storage area required and increased convenience as deliveries are at a time that suits, packaging collected and recycled

#### **Background**

Bristol Freight Consolidation Centre was initially set up as a pilot scheme in 2004 with European funding to help alleviate issues associated with freight in Broadmead, Bristol. It was then known as Broadmead Freight Consolidation Scheme and was the first project of its kind in the UK. Bristol was one of a handful of European cities to have a consolidation centre and was seen as an example of best practice throughout Europe.

Following on from the successful pilot, the operation grew and the service extended to retailers in other parts of the central Bristol area.

The freight consolidation centre was operated by DHL under various contracts procured by Bristol City Council until 2018. It initially operated from Emersons Green, and from 2007 the Freight Consolidation Centre moved to Avonmouth on the outskirts of Bristol. Avonmouth is located on the western fringe of Bristol on an established industrial estate; close to the strategic road network (M5, M4 and M49).

Diesel vehicles were used until 2007, when the first electric vehicle was introduced. In 2011, a second electric vehicle was in operation, both being electric Smiths 9T Newton Trucks. By 2017, both electric vehicles were off the road and replaced with Euro 6 diesel vehicles.

In 2011, the consolidation centre grew to serve both Bristol and Bath, with Bath and North East Somerset Council joining the scheme and contributing financially towards its operation until 2016, when Bath and North East Somerset Council withdrew its subsidy and ended its contract with DHL.

Bristol City Council continued to subsidise the operation through various funding streams until 2017, when a variation to the contract was agreed by both parties. Once the contract with Bristol City Council came to its natural end in 2018, DHL continued to offer a freight consolidation service serving both Bristol and Bath from the Avonmouth/Sevenside area on a commercial basis.

Using the freight consolidation scheme was voluntary with approximately 150 businesses (Bristol and Bath) using the scheme at its peak and dealt with non-perishable items only.

In terms of reducing the number of HGVs on Bristol’s roads, freight consolidation is a way of removing freight related vehicles, including HGVs, from our roads; this helps to reduce the negative impacts associated with road freight, which are often experienced most by people living in areas of deprivation and supports the Council’s policies. At its peak, a 70% to 80% reduction in the number of onward trips was seen by the freight consolidation scheme. This meant that for every 10 vehicles that made a delivery to the consolidation centre, just 2 or 3 onward journeys to the central Bristol area were made.

Annual Figures 2016 (Calendar Year)\*

<b>DELIVERIES</b>	
Deliveries to site	1257
Deliveries from site	267
Reduction	990
% reduction	78.76
<b>EMISSION REDUCTIONS (KGS)</b>	
CO2	11034.57
Nox	358.62
PM10s	10.71
CO	69.05

\*This was the last full calendar year when both electric vehicles were operating, noting that Bath and North East Somerset withdrew from the contract in 2016.

Further details about freight consolidation, including benefits of freight consolidation, can be found <https://travelwest.info/freight>