

## Appendix 6: Forecasting Technical Annexe

In widening the scope of the employment land review, we have proposed a method of splitting existing employment forecasts to the land use classes as noted Chapter 6 of the main report. This has been done by using two additional sources of information, the annual business inquiry (ABI) which is a nationally conducted business survey representative at the local level, and the Business Survey conducted for the 2008 employment land review, which is not statistically significant but is a useful source of information to fill gaps where the ABI cannot assist to split broader categories. In all forecasts, where broader categories have been divided, it has been assumed that the proportional composition remains constant across the forecast period.

The method used for re-categorising the employment forecasts into the seven categories for the ELR is summarised in the below table.

**Figure A1: Apportioning employment sectors to land uses**

	B1 (a) Office	B1 (b) R&D	B1 (C) Light industry	B2 Manf.	B8 W&D	Non B	Other	Source
Agriculture							100%	
Extraction							100%	
Food, drinks & tobacco				100%				
Textiles				100%				
Wood products				100%				
Pulp, paper & printing				100%				
Coke, oil refining & nuclear fuel				100%				
Chemicals & man-made fibres				100%				
Rubber & plastic products				100%				
Other non-metallic mineral products				100%				
Metals				100%				
Machinery & equipment				100%				
Electrical optical equipment			100%					
Transport equipment			100%					
Other manufacturing				80%		20%		ABI: SIC 36, 37
Electricity, gas & water supply							100%	
Construction	64%			23%			14%	2008 Business Survey
Distribution & retail					27%	13%	61%	ABI: SIC 50, 51, 52

	B1 (a) Office	B1 (b) R&D	B1 (C) Light industry	B2 Manf.	B8 W&D	Non B	Other	Source
Hotels							100%	
Transport & communications	28%				51%		21%	2008 Business Survey
Financial services	100%							
Business services	79%	21%						R&D: SIC 72, 73, 74.2, 74.3, 74.4
Public admin & defence	100%							
Education							100%	
Health							100%	
Other personal services		9%				7%	85%	SIC 90, 92.1-92.3

Source: Consulting Inplace 2010 based on ABI and 2008 Business Survey, WM Enterprise

The following sectors have been split further and assigned to the various categories as follows for each of the associated sectors:

- § **Other manufacturing** – other manufacturing contains some business activities that are light in nature and others that are more a kin to standard manufacturing land uses. We split out this effect using SIC 36 (Manufacture of furniture; manufacturing not elsewhere classified) for B2 and SIC 37 (Recycling) for B1 (c) for light manufacturing.
- § **Construction** – the construction sector represents land use requirements across three land use categories as we have defined them: B1(a), B2 and other. We split the land use requirements for this sector using information from the business survey where we use the percentage of employment land used for different functions (n=21). This is taken from a sample size of 21. The construction sector something of a special case as the majority of employment within it is based upon externally owned and managed sites – and this however should be reflected in the site density ratios.
- § **Distribution & retail** – splitting this sector between retail and warehousing is a key consideration in the employment land review process, particularly given that the retail sector is prominent within the local economy. To disaggregate this sector we use ABI information regarding the composition within the broad sector of SIC 50 (Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel – Non B), SIC 51 (Wholesale trade and commission trade, except of motor vehicles and motorcycles – B8) and SIC 52 (Retail – other).
- § **Transport & communications** – is another broad sector with a more diverse range of land use types contained within it. The 2008 survey suggests that the employment land used within this sector locally is composed as follows, where n=14:
  - Office (28%)
  - B8 (51%)

- And other (21%)

§ **Business services** – can be further divided into those activities that are traditionally office focused, and other activity that requires employment land suitable for Research and Development purposes. We define the following SIC codes as using R&D employment land:

- Computer and related activities(SIC 72)
- Research and development (SIC 73)
- Architectural and engineering activities and related technical consultancy (SIC 74.2)
- Technical testing and analysis (SIC 74.3)
- Advertising (SIC 74.4)

§ **Other personal services** – finally, other personal services contains sub-sectors that make use of R&D (9% - SIC 92.1 – SIC 92.3: Media activities), Non B class (7% - SIC 90: Sewage and refuse disposal, sanitation and similar activities) and other (85%). We reach apply these proportions using information from the ABI.