Economic benefits

Green infrastructure can provide a competitive advantage to urban centres at a local scale through:

- Inward investment – attractive areas encourage the movement of employers to an area, and increase the value of local property.
- Visitor spending – attractive areas with green infrastructure attract more visitors, increasing spending with local businesses.
- Environmental cost-saving – green infrastructure can be a cost-effective alternative to grey infrastructure.
- Health improvement – where the provision of green infrastructure has a positive effect on the physical and mental health of local communities, it may reduce government spending on healthcare and improve workforce productivity (see unit 1.2.1.1 Health and wellbeing benefits).
- Job creation – green infrastructure can create jobs directly through activities involved with construction, maintenance or management, and indirectly through increased visitor spending. Green walls draw upon several disciplines for their design, installation and maintenance - such as landscape architects, architects, irrigation consultants, and so on. Demand for a local supply of plants and growing media creates further business activity.

Living walls also provide economic benefits in terms of the building and its inhabitants. Contrary to received wisdom, climbers on buildings can actually help to protect the surface of the building from damage, particularly from very heavy driving rainfall and hail, and can possibly play some role in intercepting and temporarily holding water during rainstorms, in the way that green roofs do. Temperature fluctuations over a building's lifetime can be damaging to organic construction materials in building facades. Living walls provide an additional layer of exterior insulation and thereby limit thermal fluctuations. They also help to shield the surface from ultra-violet light, which might be an important consideration for certain modern cladding materials, and can increase the seal or air tightness of doors, windows, and cladding by decreasing the effect of wind pressure.

By reducing wall wetting, living walls can reduce the amount of cooling through evaporation at the wall's surface, and therefore reduce energy loss through the building fabric. Living walls can also provide a certain amount of insulation, although the effectiveness of this will depend on the type and structure of the living wall and the overall energy performance of the building itself. Research has demonstrated that by creating a zone of still air adjacent to the wall, evergreen plants can reduce convection at the wall surface by up to 75 per cent and heating demand by up to 25 per cent. In general, the effectiveness

of insulation is related to the thickness and coverage of plant growth. Living walls can help lower the air temperature around intake valves, which means HVAC units will require less energy to cool air before being circulated around a building.

Living walls are also a valuable marketing tool. Green buildings, products, and services now possess a competitive edge in the marketplace. Living walls are an easily identifiable symbol of the green building movement since they are visible and directly impact the amount of green space in urban centres. They are a strong visual support of corporate green strategies, and studies have shown that a company's building may be viewed as a symbol of its environmental and social performance and may be an attraction for job candidates.

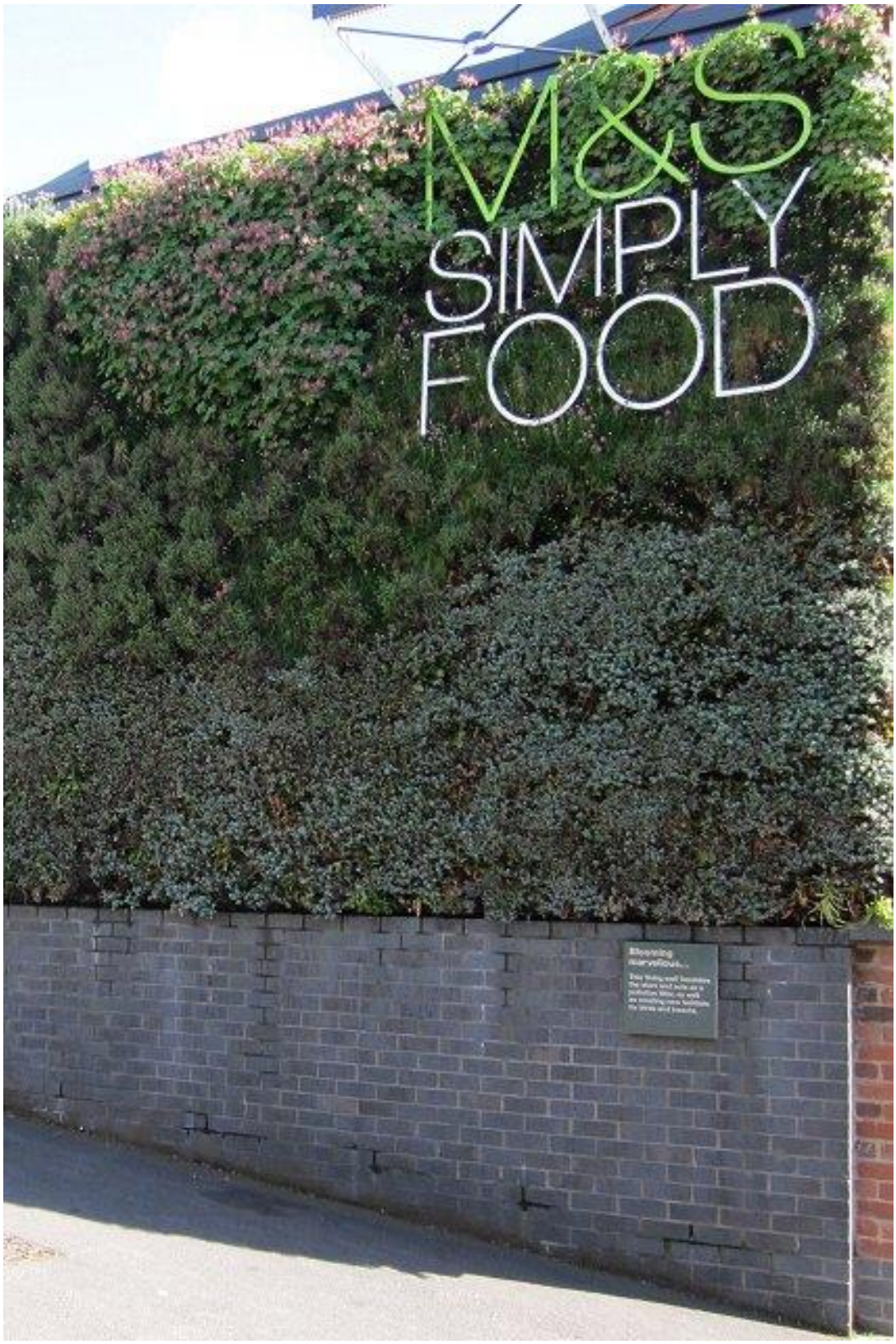

Figure 8: Marks and Spencer's Simply Food store on Ecclesall Road, Sheffield
Source: http://www.geograph.org.uk/photo/2957469

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