2. The importance of ‘Green Infrastructure’

In this section we define what Green Infrastructure is, why it is important to the future success of the Knowledge Quarter, and the planning impetus for treating it as a critical infrastructure.

2.1 Defining ‘Green Infrastructure’

In this section we define the concept of Green Infrastructure as critical infrastructure, the agreed framework of benefits it can bring and how this has informed the brief for this plan.

As focus has increased on the need to regenerate our towns and cities, there has been recognition that improvements to the natural environment need to go hand in hand with investment in the built environment. Green Infrastructure is a key concept being defined by the Natural Economy North West as:

‘the region’s life support system – the network of natural environmental components and green and blue spaces that lies within and between the northwest’s cities, towns and villages which provides multiple social, economic and environmental benefits.’

In practice this network includes Green Infrastructure at a range of different scales – from neighbourhood, district and metropolitan parks to courtyards and gardens, from green loop lines and waterways to street trees and green roofs.

Green Infrastructure has vital role to play in making cities more liveable. Recent quality of life comparisons between cities have shown that economic success is as much defined by their ‘green’ assets and their contribution to the quality of the environment, as by their ‘grey’ assets such as buildings and roads.

Evidence from European cities goes further than this, highlighting the essential benefits it can deliver. In cities such as Berlin green Infrastructure is no longer seen as something ‘extra’. Instead has become a critical infrastructure that mitigate air quality, flood risk and climate change.

National planning policy recognises this with PPS12 Local Development Plans stating that:

‘*Green Infrastructure should be provided as an integral part of all new development, alongside other infrastructure such as utilities and transport networks*.’

The PPS1 supplement on Planning and Climate Change also seeks to highlight its role, stating that consideration should be given to:

‘*the contribution to be made from existing and new opportunities for open space and green infrastructure to urban cooling, sustainable drainage systems, and conserving and enhancing biodiversity*’

The draft preferred option for Liverpool’s Core Strategy places a clear emphasis on the role of green space and ‘biodiversity features’ as part of a high quality urban environment.

The key urban design principles for Liverpool state the need to ensure a high quality urban environment by:

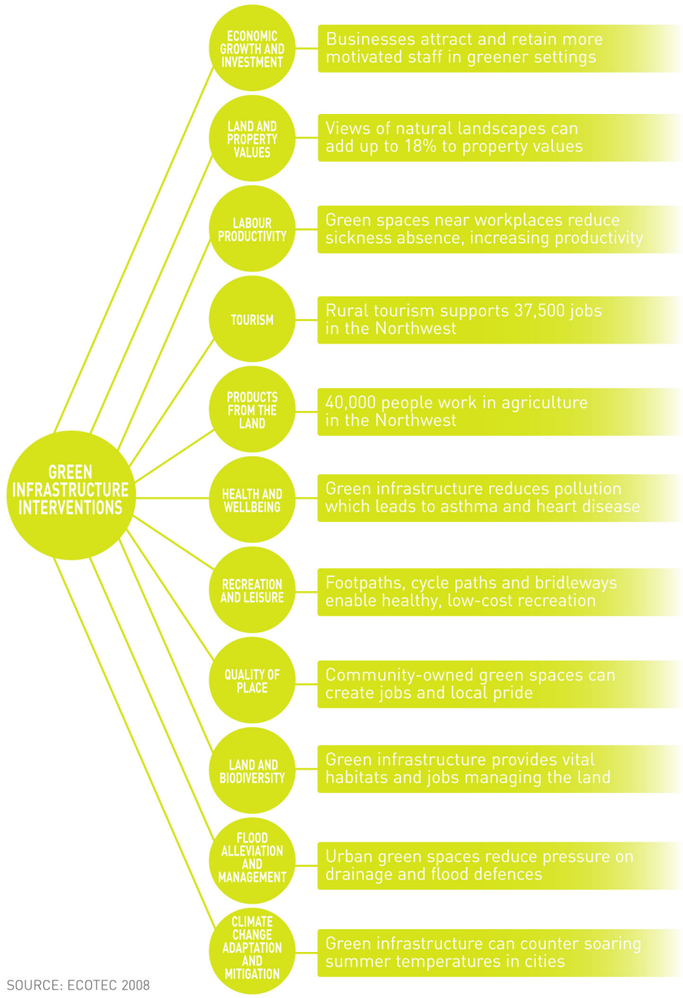
- Ensuring that buildings and spaces can adapt to changing environmental, social and economic circumstances, particularly climate change;
- Supporting improvements to air and water quality through good quality landscaping which can increase biodiversity.

Supporting policies on ‘enhancing open space and biodiversity provision’ emphasise this further, stating that this should be achieved by:

‘*Incorporating biodiversity features into the design and construction of new development and public realm and enhancing the biodiversity value of existing open spaces, particularly in the City Centre and Inner Areas.*’

The Preferred Option highlights the importance of needs-based and area-specific Green Infrastructure planning by requesting that any new provision of open and green space is:

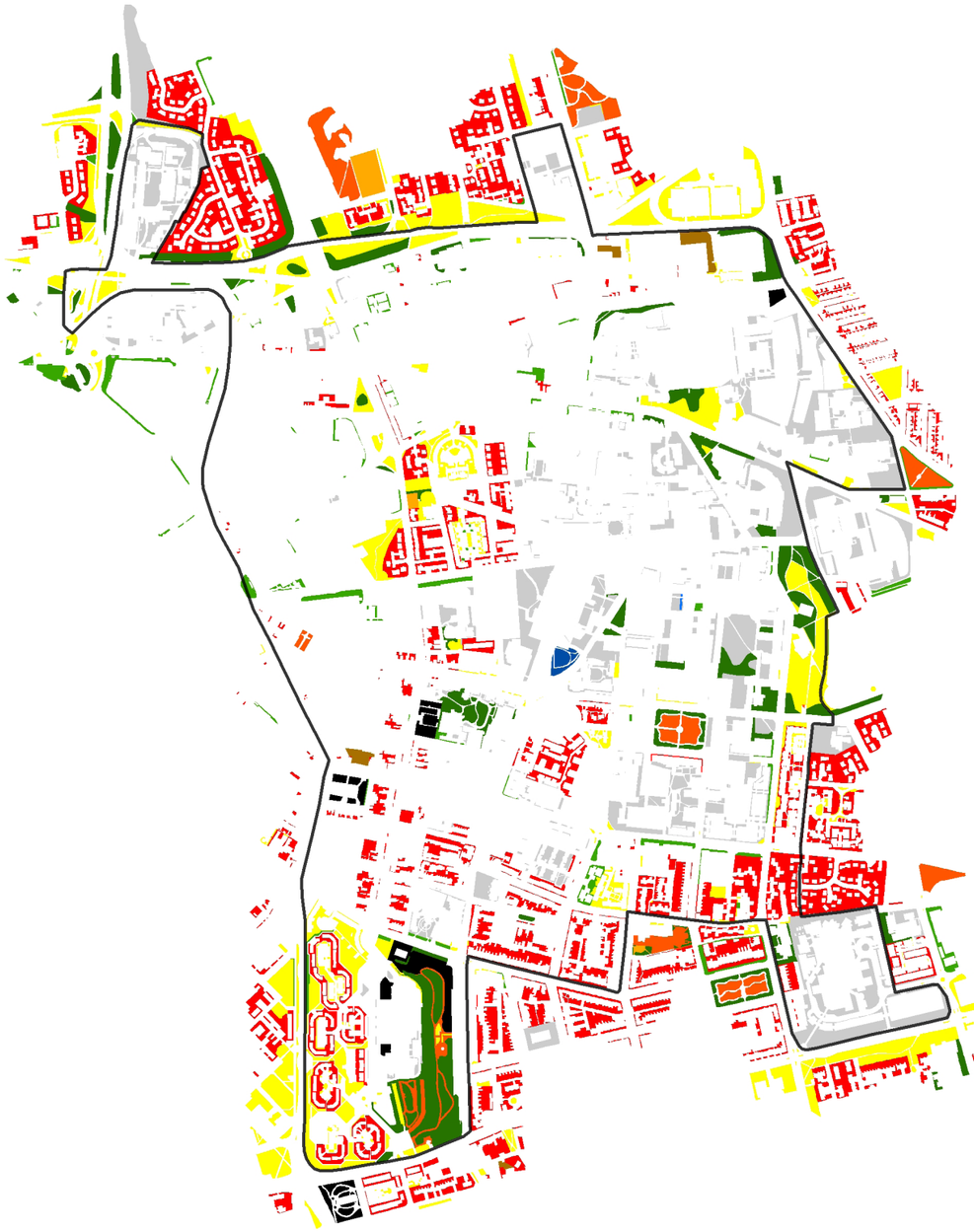
‘*targeted to identified needs rather than unnecessarily increasing provision which may be unsustainable and inappropriately located.*’

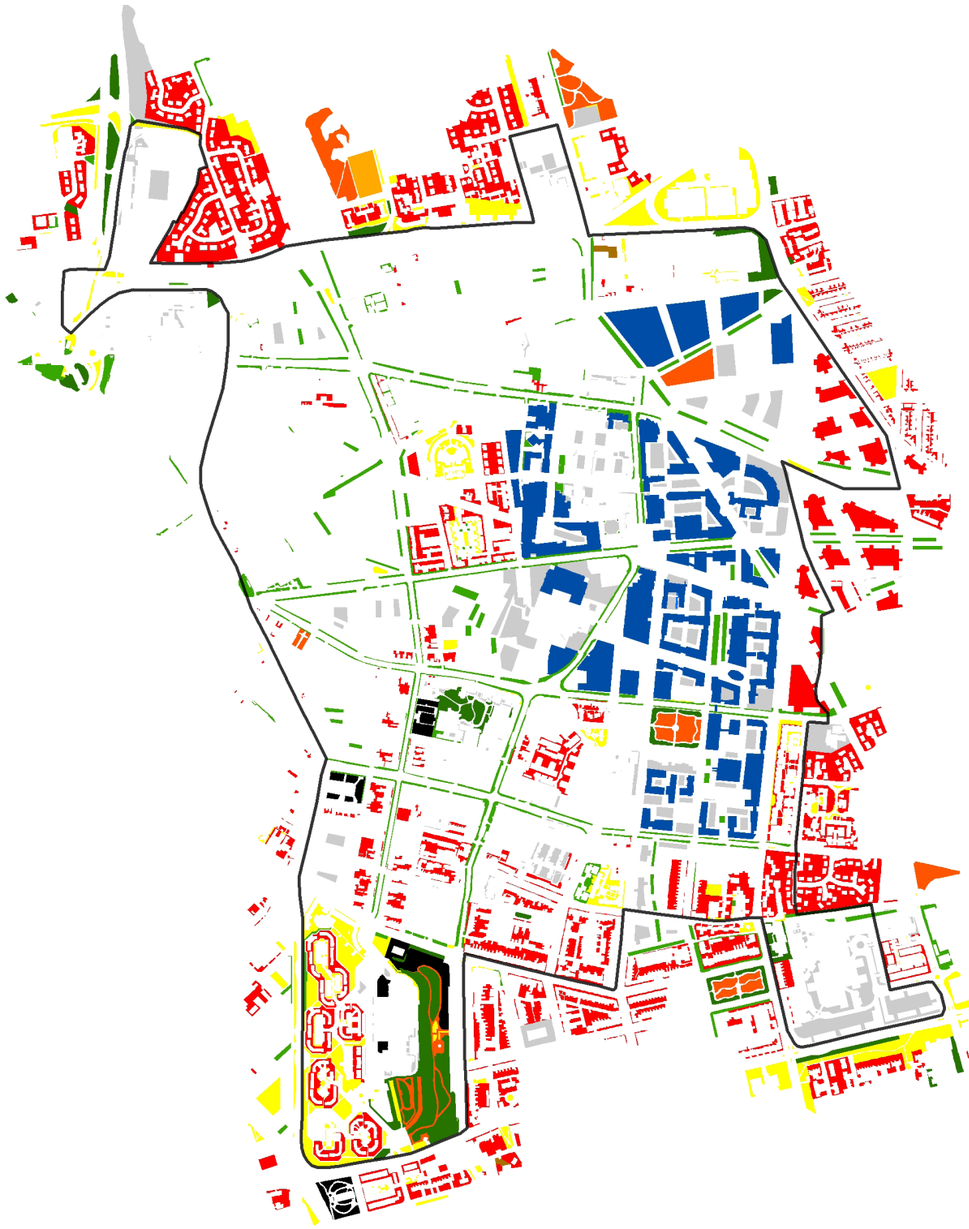


SOURCE: ECOTEC 2008

The eleven benefits of Green Infrastructure

Knowledge Quarter GI before and after revised Climax Plan





Agricultural land
Allotment, community garden or urban farm
Cemetery, churchyard or burial ground
Derelict land
General amenity space
Grassland, heathland, moorland or scrubland
Green roof
Institutional grounds
Orchard
Outdoor sports facility
Park or public garden
Private domestic garden
Street trees
Water body
Water course
Wetland
Woodland

Agricultural land
Allotment, community garden or urban farm
Cemetery, churchyard or burial ground
Derelict land
General amenity space
Grassland, heathland, moorland or scrubland
Green roof
Institutional grounds
Orchard
Outdoor sports facility
Park or public garden
Private domestic garden
Street trees
Water body
Water course
Wetland
Woodland

2.2 Brief for the Green Infrastructure Plan

In this section we summarise the brief for developing a plan for enhancing the Green Infrastructure of the Knowledge Quarter, including the key benefits it is intended to deliver.

The Liverpool Knowledge Quarter Urban Design and Public Realm Framework was completed for Liverpool Vision by URBED in 2007. The framework sets out a long term vision to reconnect the area with a strong network of places and routes. An accompanying implementation strategy prioritised early and long-term interventions designed to maintain the regeneration momentum that has been built up.

As a follow-up to the framework a Green Infrastructure plan was commissioned for the Knowledge Quarter as a demonstration project for the North West. The plan should seek to:

- Map Green Infrastructure already in the area;
- Identify Green Infrastructure objectives;
- Make recommendations which can be applied to individual schemes.

In addition it should contribute to the overall aim of the plan to create an 'outstanding knowledge destination' elaborated on by Regeneris consultants (2007) who described the need to:

'Ensure that we offer an inspiring and convivial place for the exchange and development of ideas set within a high quality and distinctive public realm, underpinned by strong cultural, leisure and other quality of life assets.'

It is intended that the plan for enhanced Green Infrastructure forms an appendix to the Urban Design Framework, with a focus on how it can deliver the following key benefits:

- Improving the image of the area by creating social spaces for leisure and learning;
- Providing a setting for staff, students, patients and visitors, day and night, and outside of term times;
- Providing additional health benefits to a range of different users of the area, including contributing to the latest thinking on recuperation and biophilia;
- Developing a 'learning landscape' that can increase the knowledge of the quarter by providing a test bed for action research.

It is intended that such a 'learning landscape' would create a unique opportunity for academics and clinicians to carry out real-life action research into the benefits of Green Infrastructure.