Presentation by

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# Green Infrastructure for Urban Living

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"Show me a healthy community with a healthy economy and I will show you a community that has its **green infrastructure** in order and understands the relationship between the built and the unbuilt environment."

Will Rogers, Trust for Public Land



#### What is Urban Green Infrastructure?

- GI favours a more sustainable and resource efficient development process by encouraging the use of limited space in a coherent, smart and integrated way.
- **GI comprises a wide range of environmental features that** operate at different scales and form part of an interconnected ecological network.
- GI is designed to maintain and enhance the delivery of benefits to human society in the form of food, materials, clean water, clean air, climate regulation, flood prevention, pollination, and recreation among others.





#### Green Infrastructure Scales...

#### Neighbourhood Scale

A network of local green spaces addresses many user needs especially in light of urban densification, demographic changes, social inclusion; and helps to move towards a low carbon economy





Local Rights of Way

Dedicated Gardens /

Cemeteries

Institutional Open Spaces

Ponds & Small Woodlands

Play Areas

Local Nature Reserves

Street Trees / Home Zones

Roof Gardens & Green Roofs

Pocket Parks

Gardens

Urban Plazas

Village Greens

Town / City Scale

District scale green infrastructure contributes to an area's distinctiveness and biodiversity, allowing a wide range of user groups to share the same space.



City Parks

Urban Canals & Waterways

Green Networks

Multi-user routes

Urban Commons

Forest Parks



Country Parks / Estates

Continuous waterfront

Municipal / Cathedral Plazas

Lakes

Major recreational spaces

Landmarks & Vistas & Gateways

City Regional Scale

Strategic Scale

Including major sites and landscape tracts, as well as smaller interconnected neighbourhood and district assets, this scale of areen infrastructure provision can deliver multiple ecosystem services and public benefits, such as biodiversity, landscape enhancement, recreation, health and climate change adaptation





Regional Parks Rivers & floodplains Shoreline & Waterfront Strategic & Long-distance Trails Major (>100ha?) woodlands Community Forests Open Access Sites Landmarks & Vistas Reservoirs

**Environmental Management** 

Initiatives

Strategic Corridors & Gateways

Frameworks for Biodiversity, Landscape, Heritage

Strategic River Catchment Plans

Regional Environmental

National Trails & Destinations

Strategic Infr

Behavioural & Societal Change

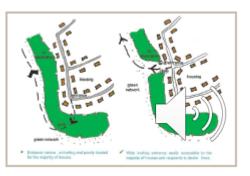
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# Green infrastructure in the city

- At the city level, the EEA proposes two indicators to characterise GI:
  - share of green urban areas
    - such as parks, public and private gardens, and even trees lining streets can facilitate climate change adaptation and mitigation, improve health and quality of life, and may favour biodiversity conservation.
  - distribution of green urban areas.









- Climate Change
  - Help reduce ambient heat and flooding
  - Reduce air temperature
  - Vegetation removes carbon dioxide form air, improve air quality
  - Better quality of environment, help walking/cycling
  - Help diversities of species







- Health and Well-being
  - Health inequalities
  - Increased life expectancy and reduced health inequality.
  - Improvements in levels of physical activity and health.
  - Psychological health and mental well-being







- Economic growth and investments
  - Inward investment and job creation
  - Land and property values
  - Local economic regeneration







- Land Regeneration and reclamation
  - Regeneration of previously developed land
  - Increased environmental and aesthetic quality
  - Improvements in quality of place.





- Stronger Communities
  - Green space and social interaction
  - Social inclusion and community cohesion

Case examples: Bow Creek Ecology Park were created by London Docklands Development Corporation (LDDC) on brownfield sites in London.







# Summary

- Green infrastructure: maximising the delivery of multiple benefits
- With care given to planning, management and community involvement at the landscape, community and individual site levels, the benefits of green space can become additive and even synergistic
- Creating and managing green infrastructure in this way comes at long-term financial and managerial costs.



