GREEN CITIES
for a sustainable EUROPE

Green Places, Successful Places

Why local leaders are prioritising investment in making towns and cities greener

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The Green City is an international campaign to promote the many benefits of making urban areas greener.
Together we curate a live website which contains useful material for people who want to learn more about the value of urban greening. The Green Cities campaign includes partners from the United Kingdom, Belgium, Bulgaria, Denmark, France, Germany, and the Netherlands.

https://uk.thegreencity.eu

Green City is particularly useful for councillors, local businesses and community groups who would like to know more about how to green their local places in order to support people's wellbeing, reduce the impact of climate change, and attract investment.

In the UK, the Green City is managed by the Green Infrastructure Partnership on behalf of the Horticultural Trades Association.

The Green Infrastructure Partnership is a UK-wide network of people and organisations that work to promote and enhance 'green infrastructure' – the networks of parks, green spaces, street trees, green roofs and other green elements that provide multiple benefits to people and society.

The Green Infrastructure Partnership is free to join, and members receive a newsletter ten times a year, providing information about funding opportunities, policy initiatives, research, projects, and events. To join the Green Infrastructure Partnership, email ***gip-uk@tcpa.org.uk***

The Green Infrastructure Partnership is managed by the Town and Country Planning Association (TCPA).

Keep in touch with us!

Green City:	***https://uk.thegreencity.eu***
Green Infrastructure Partnership:	***www.gip-uk.org***
TCPA:	***www.tcpa.org.uk***
Horticultural Trades Association:	***https://hta.org.uk***

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The many benefits of greener places

Letchworth Garden City Heritage Foundation

All over the world, local leaders and businesses are realising that planting more trees, improving parks, installing green roofs and restoring local landscapes and waterways can attract inward investment and skilled workers, improve the wellbeing of local communities, and reduce the effects of climate change.

Traditionally, parks and green spaces have been seen as places for leisure, sport and relaxation – and have been paid for from the council's leisure budget. In the UK this source of funding has become more limited as councils' budgets have been cut. However, now that the many wider benefits of greening are better understood, new ways of joining up green spaces and transforming them into 'green infrastructure' are being explored, and new funding opportunities are emerging.

This short guide:

- explains the **many benefits** of greening urban areas;
- suggests a range of **ways of funding** urban greening;
- sets out **UK policies** that support urban greening;
- provides some **inspiring case studies**; and
- provides links to other **sources of useful information**.

Wellbeing


Julia Thrift

In the last few years a wide range of research has been published clearly demonstrating that trees, greenery and access to good-quality green spaces have measurable benefits for people's mental and physical health.[1] Key findings include:

- Spending time in green spaces is good for people's mental health.
- If hospital patients can see greenery from their windows they recover more quickly.
- Access to good-quality green spaces reduces health inequalities.
- Ordinary local green spaces are important for people's wellbeing.[2]

Prosperity


Julia Thrift

Business leaders deciding where to locate their organisations will choose places that attract highly skilled workers – and highly skilled workers want to live in attractive green places, places that are great for bringing up families and spending leisure time. Tourists, too, are attracted by green places and choose to visit them and spend their money in them. The wellbeing benefits of greener places support employee productivity.[3]

1 ***www.gov.uk/government/publications/spatial-planning-for-health-evidence-review***
2 ***http://iwun.uk***
3 ***www.interregeurope.eu/perfect/news/news-article/3858/health-wealth-and-happiness-perfect-expert-paper***

Climate change

The heating of the climate is resulting in more high-intensity rainfall, which can overload drainage systems not designed to cope with sudden deluges. Green infrastructure, such as trees, grass and green roofs, can slow the rate at which water reaches the drains. Sustainable drainage systems (SuDS) use specially designed natural features to manage water, reducing the need for expensive underground water storage tanks.[4] During heatwaves built-up urban areas can easily overheat, which can put people's health at risk or require expensive mechanical air conditioning. However, greener areas remain several degrees cooler, reducing the 'heat island' effect.[5] In addition, planting more trees and shrubs in urban areas is a simple and cost-effective way to capture and store carbon dioxide, an action which will be increasingly important now that the UK has committed to becoming carbon neutral by 2050.[6]

Communities

Yelizaveta Tomashevska/iStock

Good-quality parks and green spaces can help to bring communities together, providing opportunities for people to meet each other, have fun, relax or play sport. Public parks are some of the few places where people of all backgrounds can spend time for free, where everyone is welcome, and where people of all ages usually feel at home.[7]

4 ***www.susdrain.org/files/resources/ciria_guidance/save_time_and_money_with_suds_infographic.pdf***
5 ***www.forestresearch.gov.uk/research/role-urban-trees-and-greenspaces-reducing-urban-air-temperatures***
6 ***www.interregeurope.eu/perfect/news/news-article/5249/perfect-makes-the-case-for-climate-action***
7 ***https://thelandtrust.org.uk/the-land-trust-charitable-aims/thebenefits/?doing_wp_cron=1562340423.7572610378265380859375***

Paying for urban greening

If the quantity or quality of green spaces or features such as street trees, green roofs or sustainable drainage systems (SuDS) is to be increased, two types of funding must be considered:

- the cost of installing or creating the new green space or feature; and
- the cost of maintaining it.

It is often far easier to find funding to create green infrastructure than to maintain it. However, if it is not properly maintained green infrastructure can become a liability rather than an asset. For instance, parks that are full of litter or overgrown can encourage anti-social behaviour; and trees that are not watered enough in their first few years will die. It is vital to consider how the maintenance will be funded before the green space or feature is planned, designed and created. The design of the feature will affect how much it costs to maintain and whether it will be able to generate any income to support its maintenance.[8]

Sources of funding to consider include:

- Section 106 agreements;
- the Community Infrastructure Levy;
- land value capture;
- endowments;
- charitable trusts;
- maintenance charges;
- social prescribing; and
- business improvement districts.[9]

Natural capital accounting

London Borough of Hillingdon

'Natural capital' is the name given to all of the things from which we benefit that nature gives us for free. This includes land, trees, minerals, air, sea, animals, etc. 'Natural capital accounting' is a methodology for measuring the value of these natural assets and the value of the benefits that they provide (for instance, trees are assets in their own rights, but provide benefits such as shade), and for ensuring that these values are included on balance sheets. The aim of natural capital accounting is to ensure that, as a society, we value the natural assets on which we depend, and invest in protecting and enhancing them. Natural capital accounting is resulting in the many benefits of urban greening being measured and valued. In time, it is likely to result in innovative new ways of funding urban greening.

8 *www.tcpa.org.uk/Handlers/Download.ashx?IDMF=db632de1-38cc-468a-9401-0599b0bea52b*
9 *www.tcpa.org.uk/tcpa-pgs-guide-9-stewardship*

Policies that support urban greening

As the value of greening urban areas is increasingly recognised, and supported by research, policy-makers across the UK are responding by strengthening relevant policies. Consequently, the UK policy environment for urban greening is changing rapidly. The following are some of the policies, strategies and guidance that support more and better urban greening.

In England

- 25 Year Environment Plan
  www.gov.uk/government/publications/25-year-environment-plan
- National Planning Policy Framework
  www.gov.uk/government/publications/national-planning-policy-framework--2
- Planning Practice Guidance
  www.gov.uk/government/collections/planning-practice-guidance
- National Design Guide
  www.gov.uk/government/publications/national-design-guide

In Scotland

Planning in Scotland is undergoing change, as set out in the Planning (Scotland) Act 2019, which will result in a fourth National Planning Framework in due course.

- National Planning Framework (3)
  www.gov.scot/publications/national-planning-framework-3
- *Our Vision for Central Scotland* (Central Scotland Green Network)
  www.centralscotlandgreennetwork.org
- Scottish Biodiversity Strategy
  www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy

In Wales

- Well-being of Future Generations (Wales) Act 2015
  https://futuregenerations.wales/about-us/future-generations-act
- Environment (Wales) Act 2016
  www.legislation.gov.uk/anaw/2016/3/contents/enacted
- Planning Policy Wales
  https://gov.wales/sites/default/files/publications/2019-02/planning-policy-wales-edition-10.pdf

In Northern Ireland

The government of Northern Ireland was dissolved in 2017. In spite of this vacuum, councils are developing their own green infrastructure policies and strategies, including the following:

- Derry City and Strabane District Council Green Infrastructure Plan 2019-2032
  www.derrystrabane.com/GI
- Belfast Green and Blue Infrastructure Plan (in progress)
  https://yoursay.belfastcity.gov.uk/parks-and-leisure/gbipandboss

Case studies of urban greening

For more detailed versions of the case studies set out on the following pages, see the Green Cities website, at ***https://uk.thegreencity.eu/best-practices***

Connswater Community Greenway, East Belfast, Northern Ireland


Paul Lindsay; Chris Hill Photographic

Connswater Community Greenway (CCG) is a large-scale, multi-partner, complex project with multiple objectives, featuring a green infrastructure approach to meeting integrated health, biodiversity, economic regeneration and flooding objectives. A phased approach made sections of the Greenway accessible to the community as quickly as possible. Bridges, trails and parks opened throughout the project lifetime.

Community engagement was a key part of the project and began two years before the phase 1 works started. The project team organised three high-profile park events (with 452 events in total) and communicated to a wide audience, reaching 7.2 million people across various media activities, with 13,000 followers on social media. Enabling volunteering was another key aspect: volunteers provided 6,780 hours of valuable work worth over £45,000.

The project established an evaluation framework with environmental, social and economic targets. This enabled the project team to take appropriate actions to achieve desired outcomes and helped provide an indication of value for money.

Who has benefited?
The Greenway benefits 40,000 people. The project is all about people, their opportunities, their health, and their quality of life. It has engaged 30,000 people, 300 groups and 3,000 pupils from 32 schools; and 300 people gained employment or training through the project. The flood alleviation scheme now protects 1,700 properties from flooding.

Funding
Total project funding was £40 million – £23.6 million from the Big Lottery Fund helped to release £4 million from Belfast City Council, £3.7 million from Northern Ireland's Department for Communities, and £8.7 million from Northern Ireland's Department for Infrastructure. The National Prevention Research Initiative provided £1.1 million for the PARC (Physical Activity and the Rejuvenation of Connswater) before-and-after evaluation study.

Further information:
www.connswatergreenway.co.uk

Forth Valley Royal Hospital grounds, Larbert, Scotland


Ian White Associates Landscape Architects

The Forth Valley Royal Hospital grounds and Larbert Woods project demonstrates the benefits of green infrastructure investments around hospitals. The building design promotes good health rather than just the treatment of illness, garden courtyards run through the building, and visitor gardens welcome people at the entrance.

Research has found that patients recover better if they have good views of the outside world, so the hospital is located within woodland and parkland. The project considered the scale, character and quality of the existing landscape a key asset, and a landscape masterplan and design guidance informed implementation work on the ground. Neglected and overgrown woodlands and a loch were brought back into sustainable management.

A hospital ranger runs engagement activities outdoors, including health walks, bush craft, conservation activities, and outdoor Tai Chi classes. This enables clinicians to undertake healing treatments outdoors and also combats sedentary indoor lifestyles among patients and staff, providing an opportunity to connect with the natural environment.

Map boards, signs and leaflets encourage the use of the path networks, and waymarked trails also promote physical activity. A striking pier into the loch is one of the most attractive destination points to motivate people to leave the hospital building – staff, patients and visitors can relax and enjoy the views and patients can recuperate in peaceful surroundings.

Who has benefited?
Staff, patients and their families and the local Larbert community benefit from a holistic healing environment with natural green spaces. The 'Branching Out' project supports mental health patients through a 12-week woodland activity programme. The hospital now has the UK's first outdoor, woodland-based recovery programme for cardiac patients.

Funding
Original project investment was just £300,000, or 0.1% of the overall hospital cost. Forestry and Land Scotland and NHS Forth Valley made contributions. This levered in £200,000 funding from a 'Woods In and Around Towns' grant.

Further information:
www.nature.scot/sites/default/files/2018-02/Green%20Ways%20to%20Health%20-%20Forth%20Valley%20Royal%20Hospital%20Case%20Study.pdf

Greener Grangetown, Cardiff, Wales

The Greener Grangetown project involved retrofitting a sustainable urban drainage system, transforming the public realm with trees, and planting and creating Wales' first cycling street along National Cycle Network Route 8 in Cardiff. The site comprises 13 streets on the bank of the River Taff, close to the centre of Cardiff. Prior to the project, the sewer and drainage network was unsustainable and needed to respond to a growing population and extreme weather events caused by climate change. Rainwater falling on the roads and roofs entered the combined sewer system and was pumped eight miles to a treatment facility.

An integrated green infrastructure approach brought together civil engineers and landscape architects. The project team addressed the sustainable drainage challenge and used it as a driver to improve environmental quality in the streetscape. Community engagement was carried out from the feasibility stage right through to construction. This ensured that the measures met the residents' needs and aspirations. Drop-in sessions, leafleting and social media were part of the engagement. The project team also involved the community in the design of their streets. Planting events involved local schools and residents.

Rain gardens mimic natural processes and represent a more natural way of catching and cleaning rainwater. This form of sustainable drainage provides extra wildlife habitats. The design team sought a long-term sustainable approach to tree planting for the rain gardens and tree pits. This included selecting trees for tolerance to water and air pollution and providing the best conditions for tree health. Allowing water-borne pollutants to filter through a healthy uncompacted growing medium reduces the transmission of these pollutants by up to 95%, allowing the treated water to be discharged directly into the river.

Who has benefited?
Improvements to the street design benefits about 500 residents. Cyclists in this very busy part of Cardiff have benefited from increased safety and a pleasant, healthy environment. The project has delivered a more sustainable and resilient sewer network by removing 42,000 cubic metres of surface water annually from the combined wastewater network.

Funding
A detailed feasibility study carried out in 2013 calculated an annual financial benefit of £381,760, including savings in water management, through ecosystem services, and from increased health and wellbeing. This was instrumental in securing scheme funding of £2.5 million from project partners Cardiff Council, Dwr Cymru/Welsh Water, and Natural Resources Wales. Funding was also secured from the Landfill Communities Fund, a scheme allowing landfill operators to contribute towards eligible local projects.

Further information:
https://greenergrangetown.wordpress.com

Store-top green roof, Greenwich, England

A 3,500 square metre accessible rooftop garden for people and nature was created on top of a Swedish furniture store in Greenwich. Creating habitat for wildlife and achieving BREAM status were two key drivers for the green roof design. The green roof and roof garden have a wildflower meadow, and log mounds on the roof and bird and bat boxes in the 'woodland' garden area enhance the value for wildlife. Seven green roof bike shelters in front of the store provide insect habitats and add floral colour to the shoppers' welcome. The roof garden has raised garden beds for school, community and co-worker use; planters; and paving and artificial turf for community activities. The garden is accessible all year round during opening hours, providing a space for relaxation and nature exploration.

The solar roof areas collect rainwater for flushing toilets, saving up to 50% of the drinking water supply. Water evaporating from vegetation on the roof creates a natural cooling effect, reducing energy demand and contributing to both mitigation of and adaptation to climate change. The building incorporates a range of sustainable technologies, such as solar power, LED lighting and renewable construction materials, and the store is also accessible via public transport, with 46 bus services per hour serving the site. Facilities to encourage cycling are also included on site.

Who has benefited?
The green roof is likely to provide 4.5 kWh/m^2 of cooling during the summer months, saving on running costs. Visitors to the store benefit from access to a green space and associated relaxation and wellbeing. There is also a 'Learning Lab' – a dedicated space or customers, partners and the local community to explore recycling, reducing waste and growing one's own food.

Funding
The store owner financed the green roof. The cost to build the store is stated as £100 million in various public sources, but the exact cost is confidential. The cost for the creation of a green roof of this size and style is typically between £110 and £150 per square metre.

Further information about green roofs in London:
https://livingroofs.org/wp-content/uploads/2019/04/LONDON-LIVING-ROOFS-WALLS-REPORT-2019.pdf

Dusty Gedge

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https://uk.thegreencity.eu

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