

Green Infrastructure

Green infrastructure is often defined as a network of natural and semi-natural features that intersperse and connect the built environment and structures. This network may include elements, such as forests, parks, green roofs, and street trees, as well as blue elements including rivers and wetlands. This infrastructure delivers ecosystem services.

Why: Green infrastructure (GI) frames a holistic approach for green network planning, combining social and ecological benefits. This approach emphasises in particular ecosystem services (the benefits humans obtain from nature) and different techniques to deliver them in an urban context. The concept of green infrastructure involves all the components of urban green and blue; in addition, the approach is not restricted to administratively or otherwise defined areas of public green space.

Through multifunctional green infrastructure solutions, it is possible to decrease stormwater run-off, prevent hazardous leakage from the sewage systems into water bodies as well as avoid or decrease any future costs of urban flooding. In addition, green infrastructure has the potential to provide benefits that are often not easily measurable, such as health benefits or improvement of the connectivity of habitat patches to sustain urban biodiversity. GI solutions are seen as the key contributor to the EU's climate change adaptation and disaster risk management policies.

How: The green infrastructure approach can be applied as part of land-use planning processes and should be considered on different planning levels from strategies to detailed solutions. The process might be compared to more conventional infrastructure planning processes. The infrastructure is planned to deliver certain services. First, the objectives are identified and defined; secondly, a vision is formulated; and finally, an implementation plan is completed (for example, a master plan or a detailed plan where green infrastructures are an integral part of the solution).

Good to know: As an integral part of urban green infrastructure, different stormwater solutions should be integrated into the urban environment and provide several kinds of benefits (not merely water management). In order to consider all the functions and ecosystem services provided by urban GI, new tools are still needed to support the planning process.

POINT 1
URBAN
RESILIENCE

POINT 2
TECHNICAL
OPTIMI-
ZATION

POINT 3
DAY-TO-DAY
VALUES



Cities are structured around different infrastructure systems that are planned to provide different services. Green spaces can also be planned as such. (picture copyright M. Ariluoma)

More information

The European Union green infrastructure strategy:
http://ec.europa.eu/environment/nature/ecosystems/index_en.htm

Green infrastructure guidance and policy statements by Landscape Institute (UK):
<https://www.landscapeinstitute.org/policy/green-infrastructure/>

