



# Climate change adaptation

- Green infrastructure, jobs and public health

Vista Analyse

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# Adapting to a wetter climate

Heavy rainfall is a challenge for cities







Rain garden

Photo: Arkitektur.no



Green roof

Photo: Bergknapp.no



Open stream

Photo: Panek/ CC



Green wall

Photo: Bergknapp.no



# Green infrastructure (GI)

Multiple benefits:

- Reduces risk of flooding
- Improves water quality
- Improves air quality
- Reduces heat island effect
- Reduces noise
- Captures CO<sub>2</sub>
- Protects biodiversity



Photo: Greenroofs.com

Green roof at Warsaw University Library

# Exploring the GI workforce

## Jobs For the Future 2017 report

- Still in its early stages
- Workforce part of broader, traditional occupation groups (e.g. construction and landscaping)
- Some are building niche businesses



Green roof designed by Bergknapp – A Norwegian company producing green roofs and green walls

# What are the GI professions?

## Planning and design

- Urban planners
- Landscape architects
- Engineers
- Horticulturalists
- Hydrologists

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## Installation, maintenance and inspection

- Construction labourers
- Landscaping workers
- Tree trimmers and pruners
- Truck and tractor operators

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# Philadelphia: Green City, Clean Waters

25-year program launched in 2011



Illustration: Philadelphia Water Department

# Philadelphia: Green City, Clean Waters

Investments in green infrastructure cheaper than upgrading existing grey infrastructure



\$1.2 billion



\$8-10 billion



# Philadelphia: Green City, Clean Waters

Results to date:



Over 1,100 features to mitigate stormwater  
Over 1,000 greened acres



Local industry cluster of at least 60 GI firms  
supporting 430 local jobs

**Thank you**  
**Dziękuję**