

# COOL TOWNS

**Interreg**



EUROPEAN UNION

**2 Seas Mers Zeeën**

European Regional Development Fund

# Learning from the Case Studies

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# Cool Towns Project

To provide cities and municipalities with knowledge and tools to become heat-resistant

- Determine objectives regarding heat stress and investment decisions
- Effective spatial interventions with additional benefits - testing and measuring pilot projects - decision tool
- Integrating heat resistance into policy: climate and spatial strategies - road map
- Increase skills and sense of urgency regarding heat resilient urban design among spatial specifiers

# Design Professionals



## Cool Towns Heat Stress Measurement Protocol

Gideon Spanjar, Luc van Zandbrink,  
Debbie Bartlett and Jeroen Kluck

Thermal comfort  
assessment at  
street-level scale



# Elected Representatives



“well done – thank you for all the hard work”

“a lot tidier – used to be a grim parking place”

“glad to see house sparrows in the city”

“now its an attractive place and will attract new business”



## Positive comments from local people





**Reducing incident radiation**

- Shade
- Reflecting radiation

**Reducing conductivity**

- Light colour
- Texture

**Perception of coolness**

- Fluttering material
- Movement of water
- Rustling of leaves

**Increasing evaporation**

- Water feature
- Misting/spraying on surfaces
- Vegetation

**Increasing air movement****INTERVENTIONS**

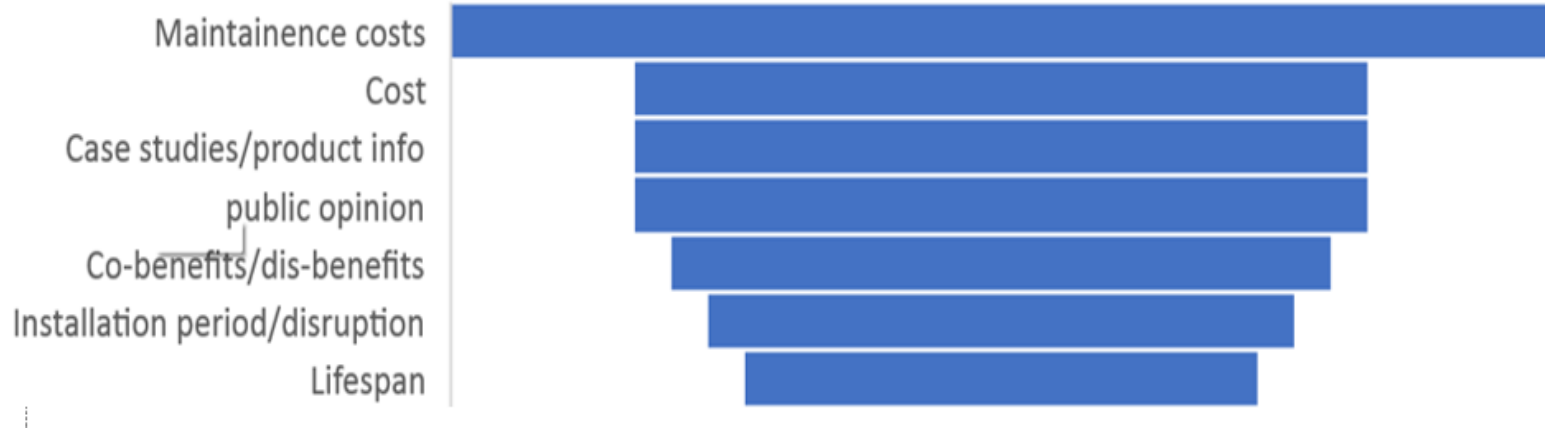
- ✓ Geometric
- ✓ Surface
- ✓ Constructed Shade
- ✓ Green infrastructure
- ✓ Blue infrastructure

**Ways to Cool the Microclimate**

## Stakeholder workshops Belgium, France, the Netherlands & UK

Elected members, landscape architects, technical staff, facilities management etc

### Summary of key issues





# The partner's pilot projects



# Process 1: planning

- ✓ A good participation design process
- ✓ Involving all stakeholders
- ✓ Make sure all are aware of the importance of preventing heat stress
- ✓ Hold a workshop to help key decision makers understand priority areas
- ✓ Make sure you have political as well as local support
- ✓ Remember that the process of selecting the most appropriate intervention will take longer than you think!

# Process: implementation

- ✓ Make sure the project fits within existing plans/policies
- ✓ Keep everyone informed
- ✓ Listen to feedback and respond to concerns raised (e.g. loss of parking spaces)
- ✓ Are any permits required?
- ✓ Has on going maintenance been considered and costed in?
- ✓ Make sure specifications are carried out
- ✓ Think about timing – particularly for planting

# Process: follow up

- ✓ Make sure the company that carried out the work has explained it to the users/those involved in maintenance
- ✓ Effectiveness in reducing heat stress should be demonstrated to local people by taking PET measurements at a public event to explain the significance for health and wellbeing.
- ✓ Collect feedback and generate publicity
- ✓ Use the pilot as a demonstration to roll out heat stress mitigation project where they are needed

# What do the case studies provide?

- ✓ Effectiveness at mitigating heat stress
- ✓ Cost/maintenance implications
- ✓ Product information
- ✓ Co benefits & Public opinion



# What do the case studies provide?

Evidence of effectiveness at mitigating heat stress



-6.33°C

## Cost/maintenance implications

<b>Capital Costs: Phase 1</b>	<b>€</b>	<b>£ = 1.6 €</b>
Single Tree in grass Grass 78m <sup>2</sup> Tree x 1	507 680	428 575
Planting 50m <sup>2</sup> of shrub areas	1,840	1,555
Grass 125m <sup>2</sup>	812	687
Single tree in shrub planting Tree Shrubs 120 m <sup>2</sup>	370 2,200	312 1,860
<b>Total</b>	<b>6,409</b>	<b>5,420</b>

<b>Annual Maintenance Costs:</b>	<b>€</b>	<b>£ = 1.6 €</b>
Single tree in grass	38	32
Pruning tree (1x/3 years)	35	30
Watering (9 times/year)	86	72
Mowing (22x/year)		



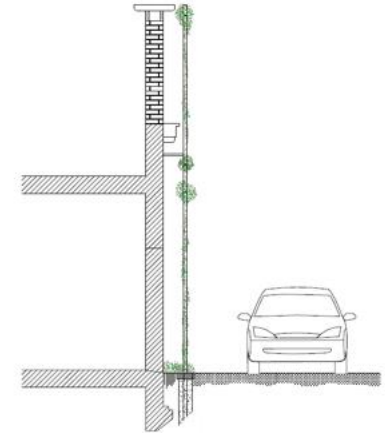
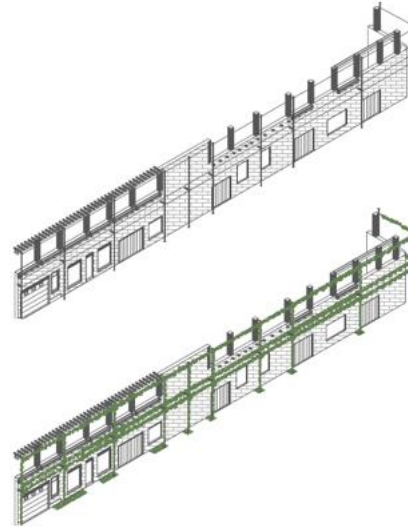
## Technical specifications

Green Blue Urban ArborFlow SuDS  
tree pit systems:

<https://greenblue.com/gb/solutions/stormwater-management/>

Planters with Seating:

<https://www.streetlife.nl/en/products/roughready-hug-tub>



Design for the climbing plant support

## Co benefits & Public opinion

Silvia Wildish, 70, of Leigh, said: *“I think what the council has done here is lovely and well worth the investment... and the greenery give more interest to the area.”*

[Southend: High Street gateway improvements praised | Echo \(echo-news.co.uk\)](https://www.echo-news.co.uk/news/southend-high-street-gateway-improvements-praised-1.1000000)

*“A lot tidier, it used to be a grim parking lot in the city centre. Now it can grow to be a resting place near the city shopping street and attract new businesses.”*

*“Very glad with the lightning. In the past I avoided this place when it was dark.”*

An additional reason  
include more  
**green blue** elements  
in public open space

