

# DISCUSSION

What are the gains  
from the iWater project?  
What were the challenges?

iWater Final Conference, Riga, May 8 2018  
Moderated by Prof. Juanjo Galan, Aalto University



Integrated Stormwater Management  
[www.integratedstormwater.eu](http://www.integratedstormwater.eu)



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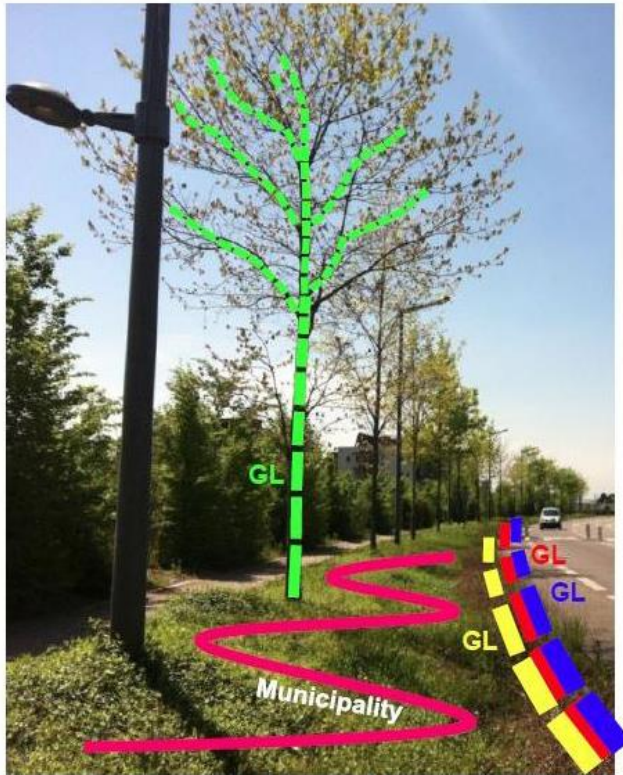
# Future steps: “The day After”

- How to take advantage of the iWater successes and how to overcome the failures?
- How to continue working in SWM and collaborating with other cities?
- How sustainability of the project achievements can be achieved in view of the iWater partners and the society (general public)?

# **1. New Knowledge and new Ways of Working**

# New approach

Sustainable stormwater management



↑Roadside in Bron (Lyon, France), April 2015

Key: maintenance and/or control

- Green spaces department (municipality)
- Roads direction – Trees and Landscape department
- Cleaning department
- Roads department
- Sanitation department

- Low Impact Development (LID)
- Sustainable Urban Drainage System (SUDS)
- Water Sensible Urban Design (WSUD)
- Natural Drainage Systems (NDS)
- Best Management Practices (BMP)
- Integrated Urban Water Management (IUWM)

...

# Education and engagement

Goal: water course protection

Working for clean rivers

## Stormwater Swales and Planters

Portland's average rainfall of 37 inches a year generates about 10 billion gallons of stormwater runoff. Directing runoff to a more natural, vegetated system keeps stormwater out of the sewer system, allows water to soak into the ground and filters pollutants before stormwater reaches rivers and streams.

These stormwater facilities manage stormwater on site and can remove up to one million gallons of stormwater runoff from the sewer system annually. This project was completed in 2004.

For more information call 503-823-7149  
[www.portlandoregon.gov/bes](http://www.portlandoregon.gov/bes)

NEW SEASONS MARKET

ENVIRONMENTAL SERVICES  
CITY OF PORTLAND  
WORKING FOR CLEAN RIVERS

PARTNERS:

Strategy: education and engagement



# **1. New Knowledge and new Ways of Working**

## 2. New Tools

# Helsinki Green Factor

adopted in 6 iWater cities

- Developed in the Climate-proof City (ILKKA) – Tools for Planning project in 2013 (EPECC and FCG)
- Updated in the iWater project 2017
  - stormwater elements are given a greater weight
  - Usability is improved
- Other Green Factor methods utilized in the development of the tool: Berlin, Malmö, Stockholm, Seattle and Toronto
- Adopted in 6 iWater cities: Riga, Jelgava, Tartu, Turku, Gävle and Söderhamn



Ilmastonkestävän kaupungin  
**suunnitteluopas**



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# Green Factor

A practical tool for urban planning  
→ ensures sufficient green  
infrastructure when building new  
blocks in a dense urban environment

$$\text{Green factor} = \frac{\text{Scored green area}}{\text{Lot area}}$$



## 2. New Tools

# **3. Learning from Best practices and existing projects**

# Raingardens in Portland

**Goal: water retention and stormwater benefits**

**Strategy: raingarden**

29.9.2017  
15



# Streetscape solutions: planters

**Goal: water  
course  
protection**

**Strategy:  
green streets**

29.9.2017  
40



# Vuores central park, Tampere

**Goal:  
protecting a  
lake**

**Strategy:  
stormwater  
park**



# **3. Learning from Best practices and existing projects**

## 4. iWater Pilot Sites





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## 4. iWater Pilot Sites

## **5. Local Stormwater Group**

# Stormwater workshop

Riga



## **5. Local Stormwater Group**

**6. Cooperating  
and sharing knowledge  
with other (non-iWater) cities  
(in the region, nation or abroad)**

# Sustainable stormwater management

## Best practices



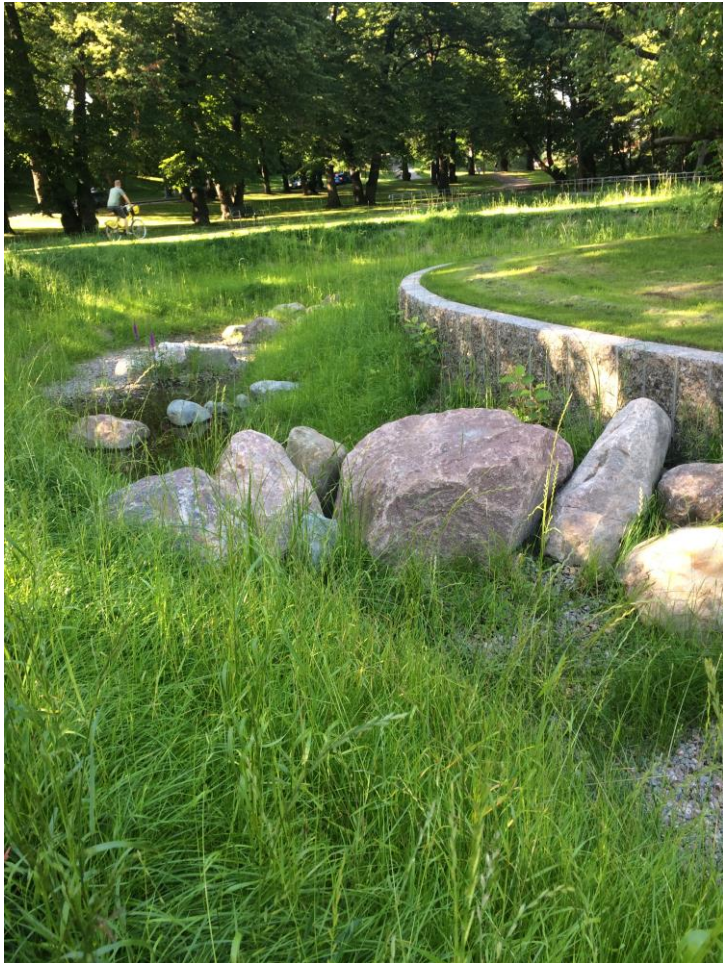
**6. Cooperating  
and sharing knowledge  
with other (non-iWater) cities  
(in the region, nation or abroad)**



## 7. Other benefits?

# Benefits

new uses of green infrastructure




A vital role in the adaptation to climate change

- Reduces the risk of flooding
- Reduces air pollution
- Cools urban heat islands of built environments
- Reserves carbon dioxide
- Increases wellbeing in urban environments

Picture: Elisa Lähde

## 7. Other benefits?



**... what  
were the main  
challenges and  
obstacles?**

# **1. Lack of political support**

## **2. Internal differences & disagreements within the Local Stormwater Group**

### **3. Chosen Pilot Site – inadequate**

## **4. Existing knowledge and capacities – insufficient**



## **5. Difficulties in finding competent local expertise**

## 6. Other challenges?

# Thank you!



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