

B R U  
G G E

PUBLIC  
DOMAIN

# Bruges, Cluster Public Domain

Joachim Calcoen & Maarten Vansteenhuyse

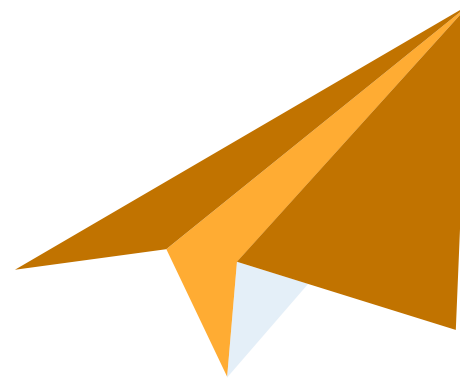
# From barriers to benefits Clustering grey, green and blue

Time for action!



Klimaatadaptatieplan historische binnenstad Brugge

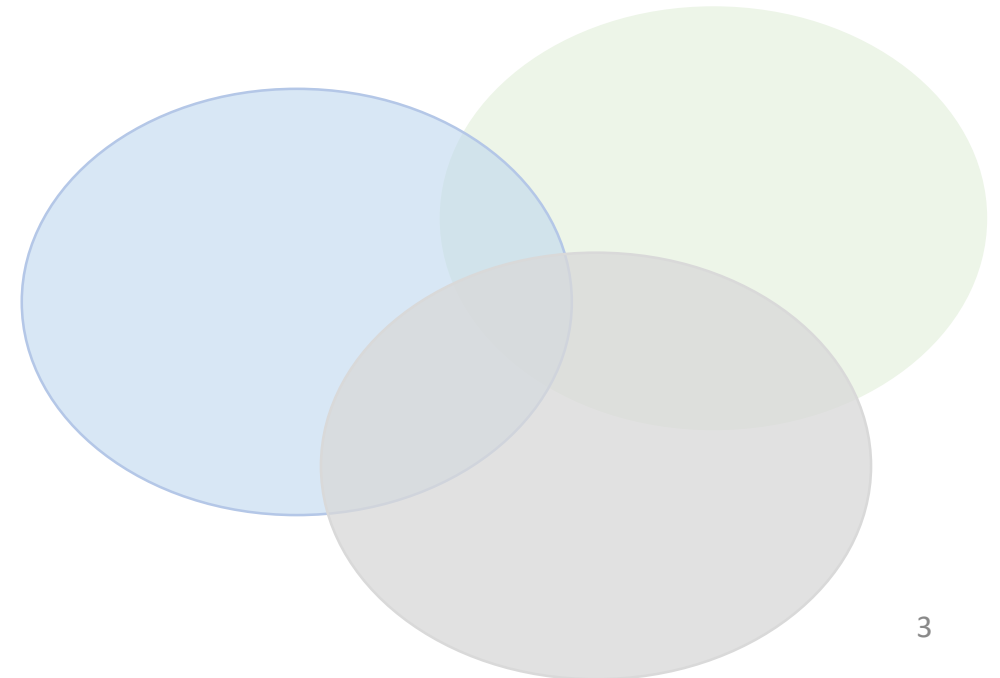
Climate adaption plan: how to avoid it dissapears somewhere in a closet?



## Water Resilient Bruges

Climate proof planning & design  
Mr **Maarten Vansteenhuyse**

Organisational structure Cluster Public Domain  
Mr **Joachim Calcoen**

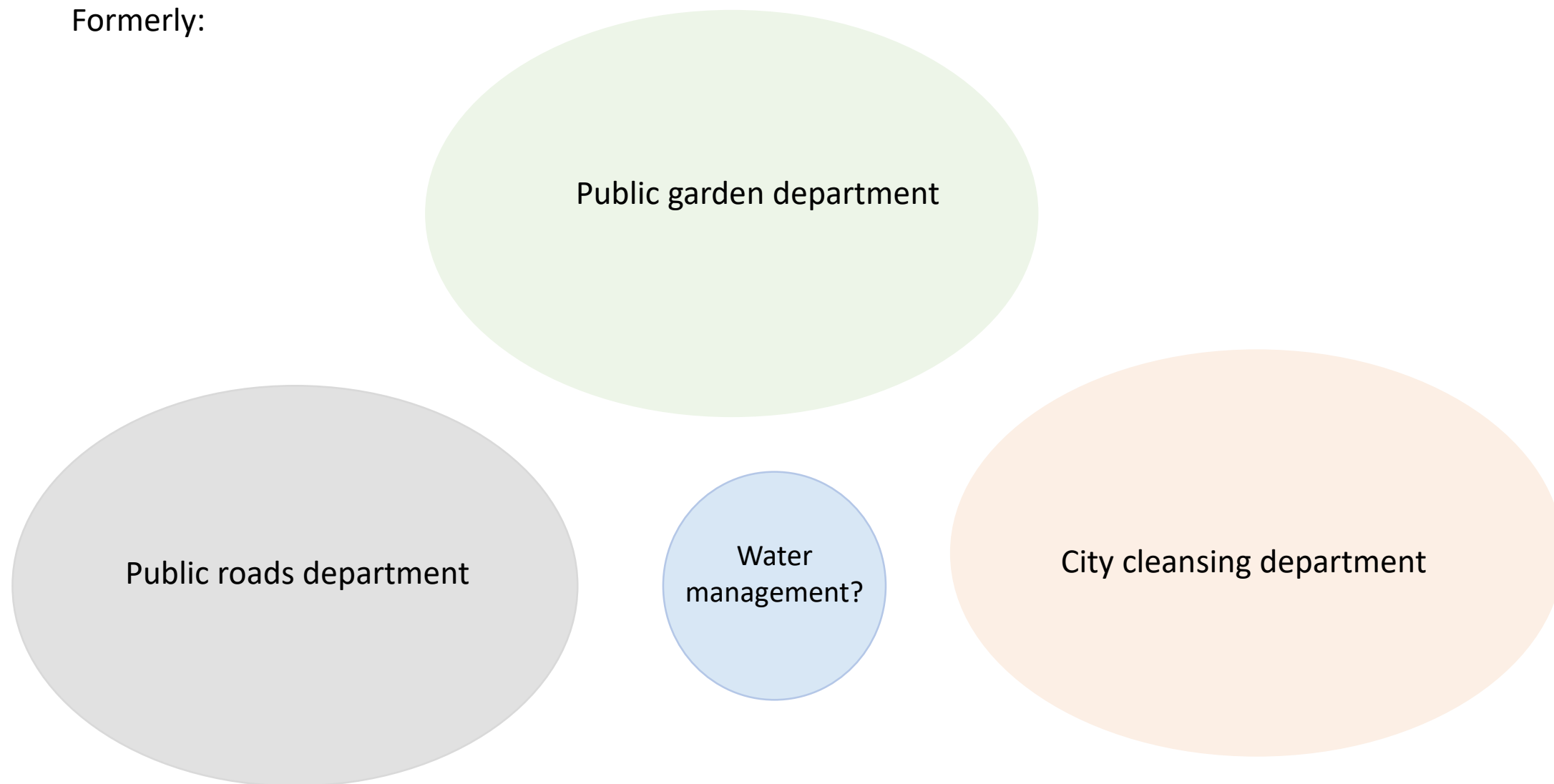


## **Central question:**

**How to anchor integrated water  
management into the organization  
of a local government**

# Organisational structure Cluster Public Domain

Formerly:





# Public roads department

## Main task

Design and maintenance of roads and sewerage

## Tasks in water management

Management of sewerage

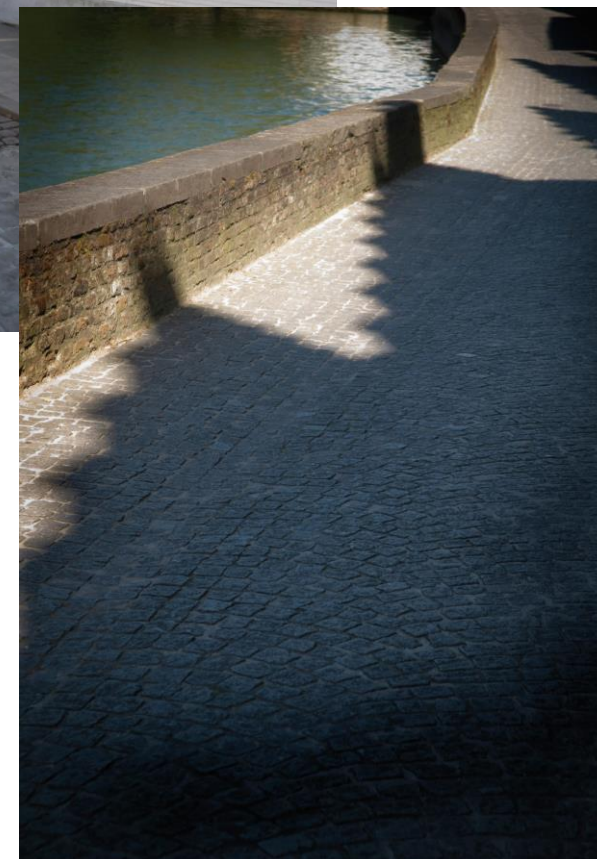
- Design
- Repair
- Maintenance
- Connection of private installations

Management of watercourses

- Bank reinforcement
- Dredging

## Strength

technical solutions





# Public garden department

## Main task

Design and maintenance of green spaces

## Tasks in water management

Space for water infiltration

Management of green banks

## Strength

nature based solutions





# City cleansing department

## Main task

Waste disposal and management

## Tasks in water management

Floating litter removing rounds

Periodical cleaning of sewer drains

Maintenance of syphons

Cleaning of public toilets

## Strength

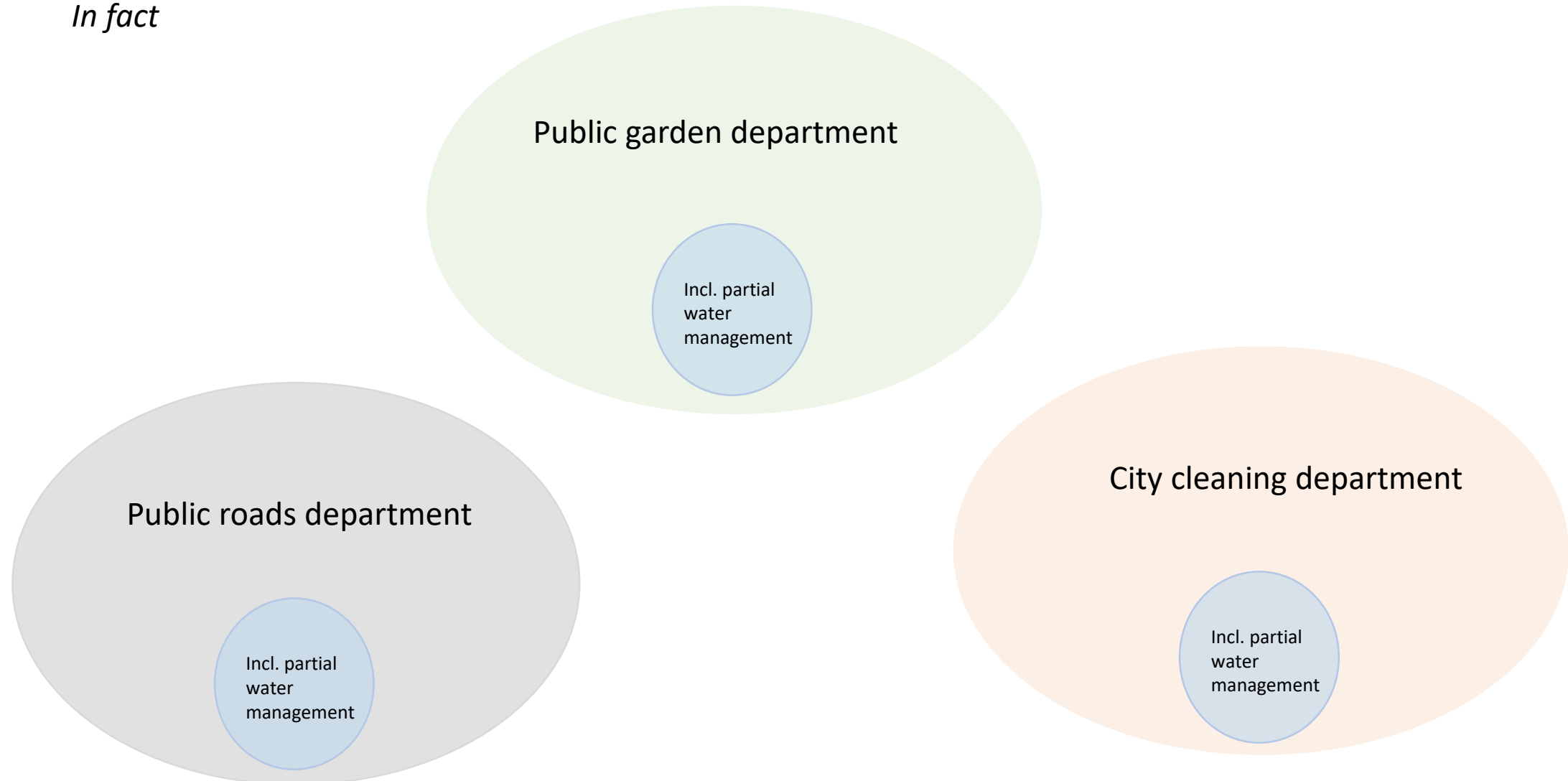
Human drive makes Bruges the cleanest city of Flanders





# Organisational structure Cluster Public Domain

*In fact*



# Towards a new organisation

## NENO project

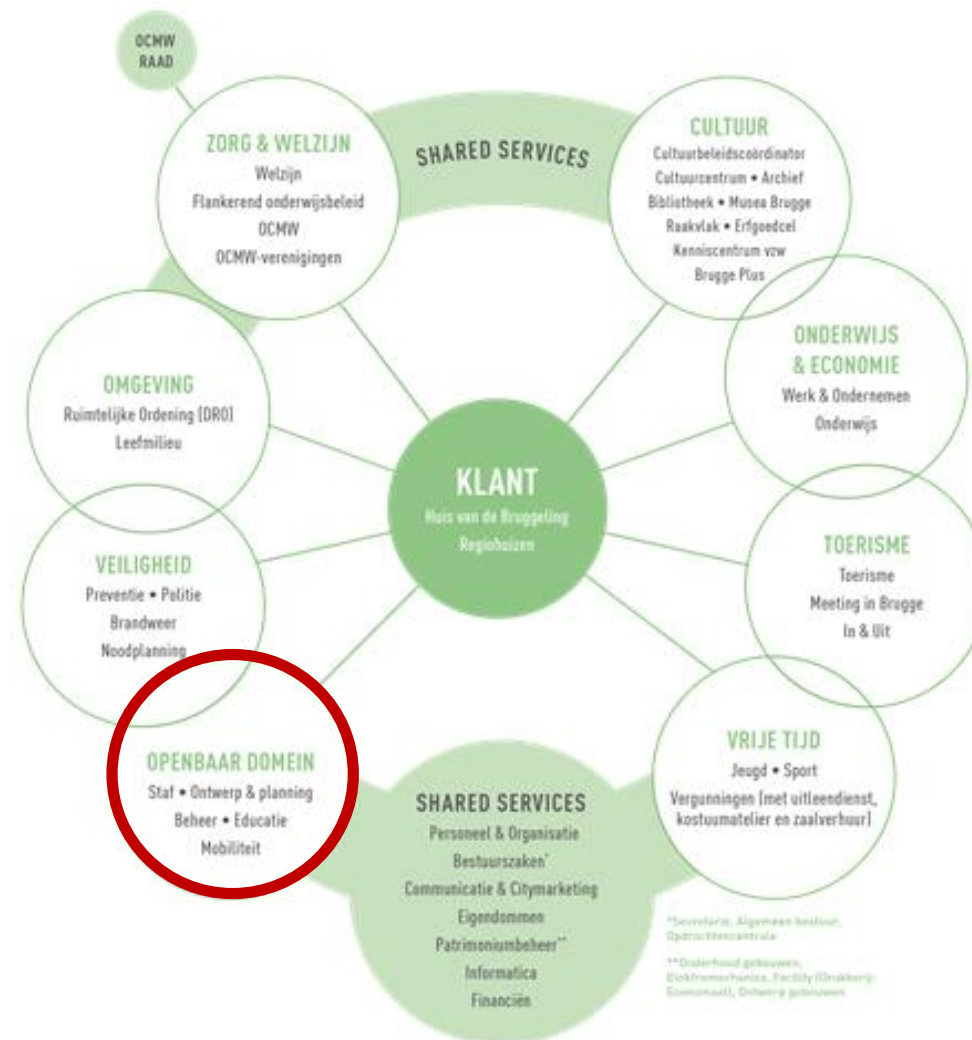
One cluster Public Domain

### Reasons

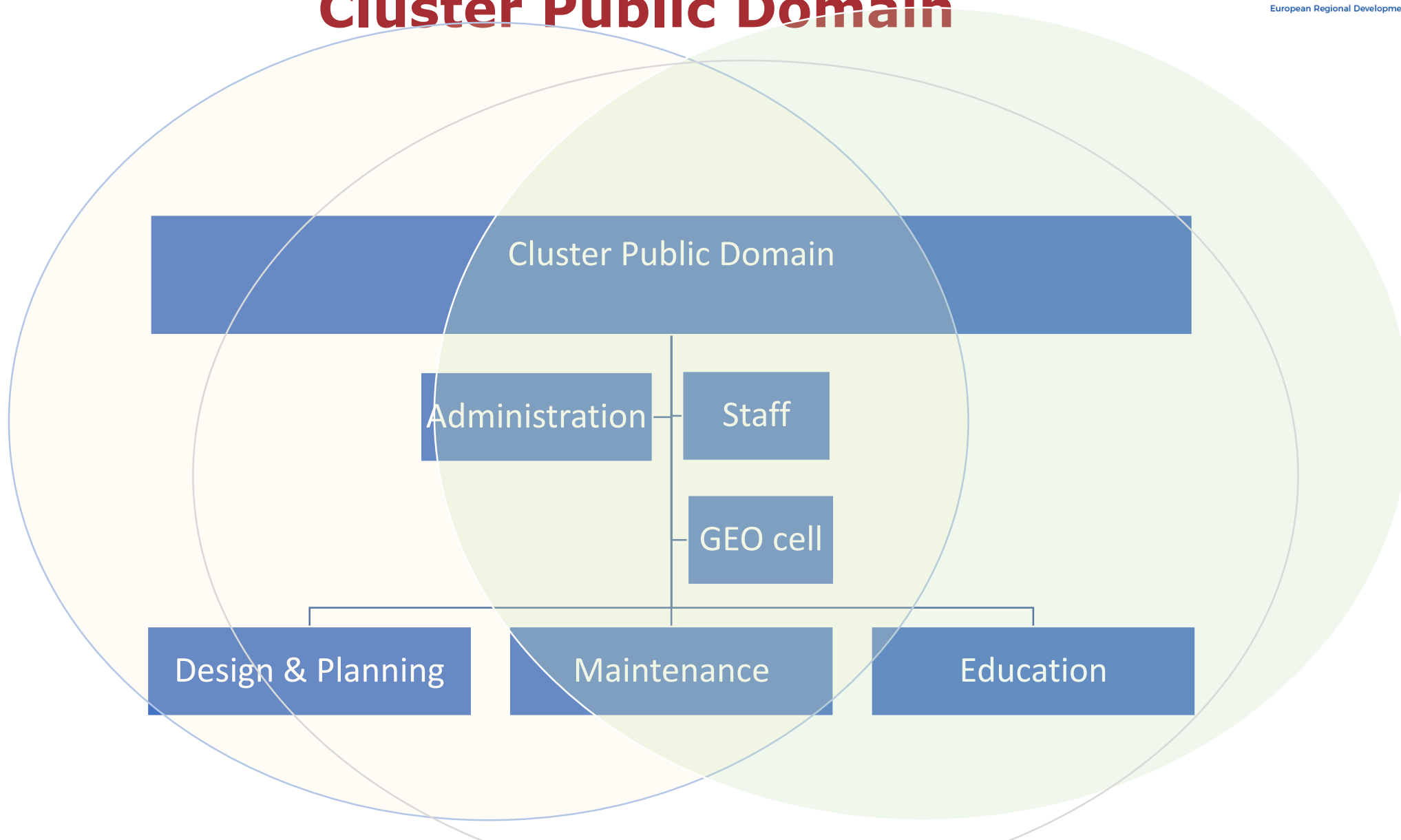
- Efficiency
- Effectiveness
- Transparance
- Customer oriented

### But also

Huge chances for integrated water management!



# Organisational structure Cluster Public Domain





# Water quality of Bruges canals

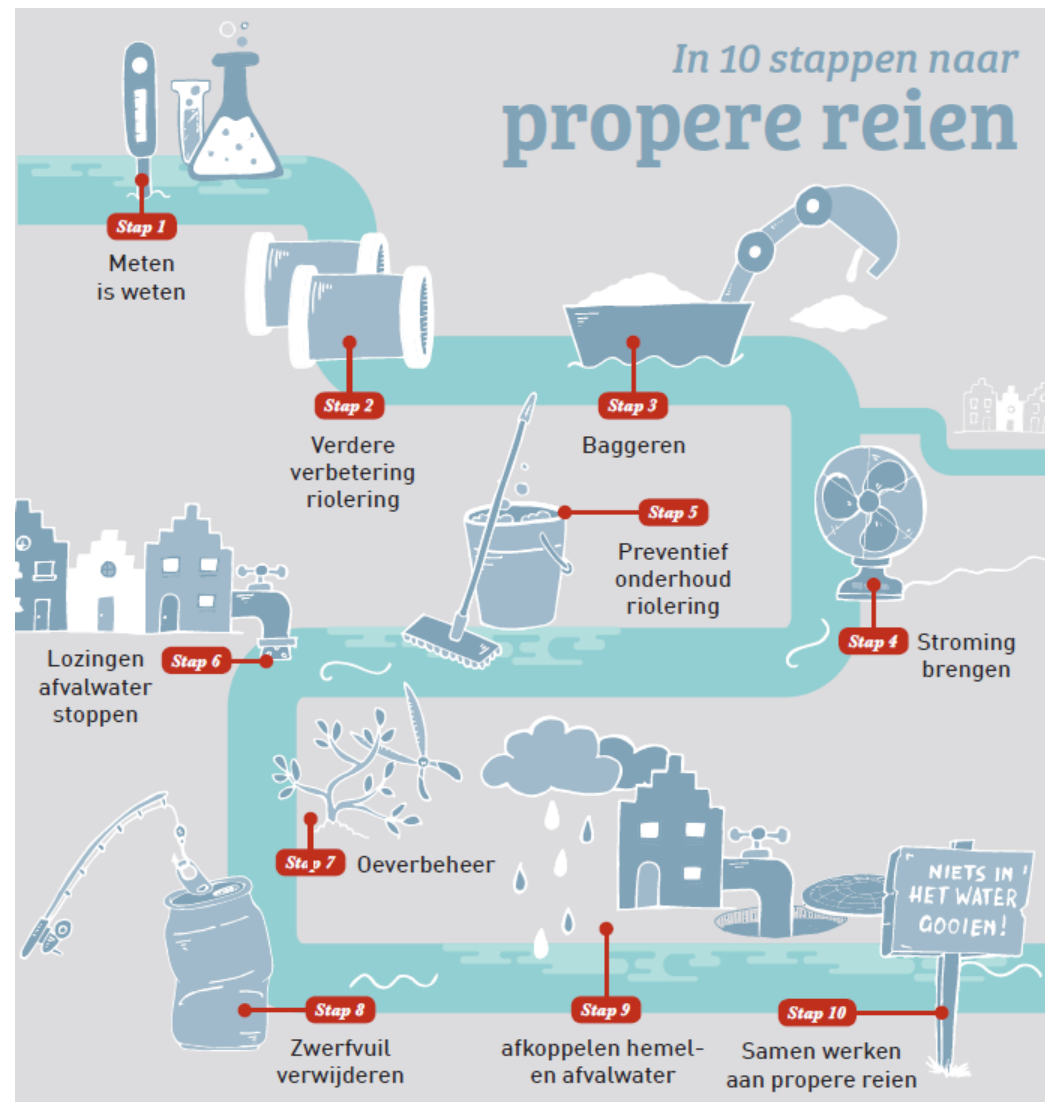
Example of integrated water management



# Water quality of Bruges canals

Example of integrated water management

- Step 1: To measure is to know
- Step 2: Improvements to sewer system
- Step 3: Dredging
- Step 4: Adding current
- Step 5: preventive sewer maintenance
- Step 6: Putting a stop to the discharge of waste water
- Step 7: canal bank management
- Step 8: Removing litter
- Step 9: Disconnecting rainwater and waste water
- Step 10: Working together for clean canals

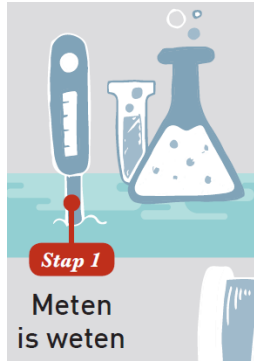




# Water quality of Bruges canals

Connection with WRC

Step 1: To measure is to know

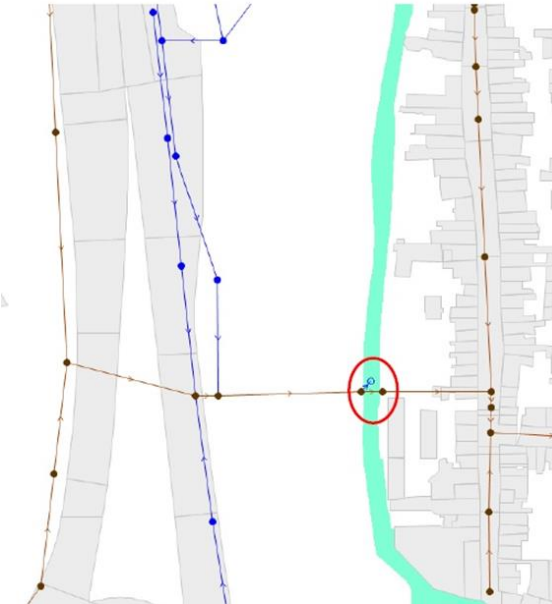


## 3. Optimalisatie overstortconstructies



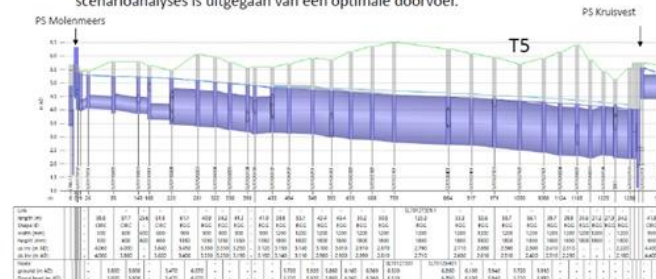
7/12/2017

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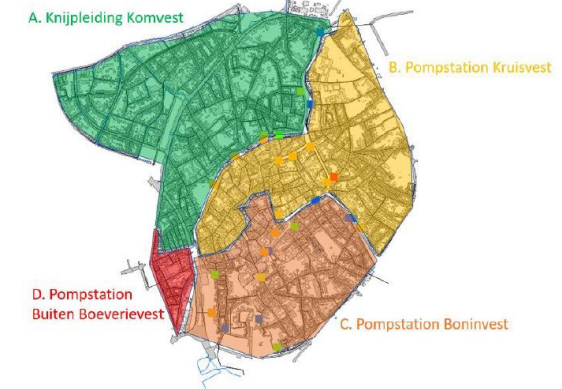
## 1. Doorvoer op de rand

- PS Kruisvest: Pompkamer gemodelleerd a.d.h.v. aannames. Water kan niet goed tot in de pompkamer, er wordt nooit continu gepompt. Voor de scenarioanalyses is uitgegaan van een optimale doorvoer.



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# Water quality of Bruges canals

Connection with WRC

*Step 4: Adding current*





# Water quality of Bruges canals

Connection with WRC

*Step 10: Working together for clean canals*





# From barriers to benefits Clustering grey, green and blue

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Klimaatadaptatieplan historische binnenstad Brugge