



## Sabadell water reuse governance workshop





# Welcome

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- Jordi Vinyoles Cartanyà





# Introduction

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- Jos Frijns, KWR
- Demoware project
- Workshop objectives



# Water reuse in Europe

Optimization of treatment technologies required

Need for effective monitoring technologies

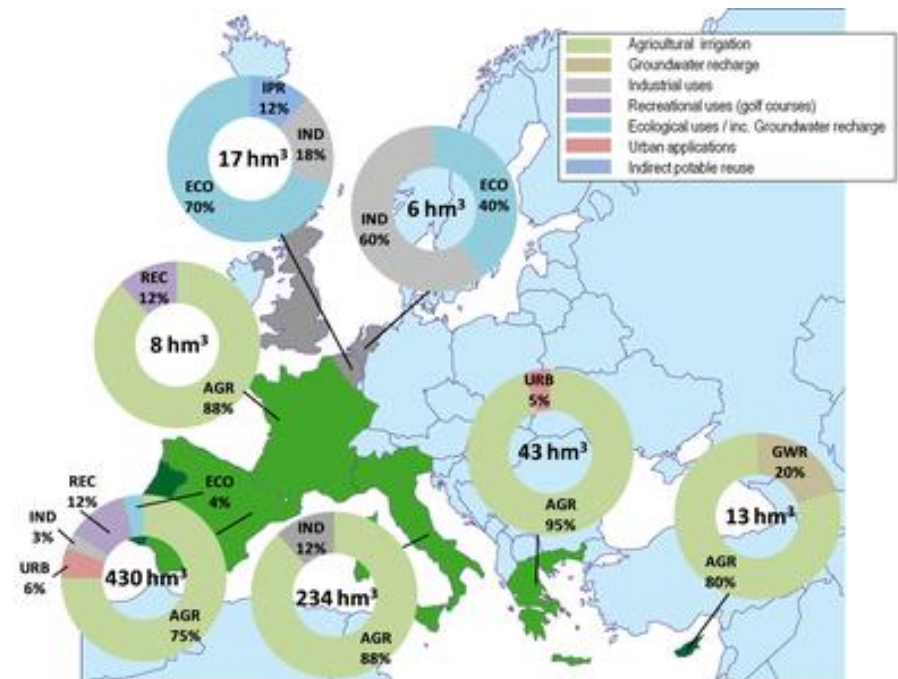
Challenge in health risk assessment

Low levels of public confidence

Inconsistent evaluation of costs and benefits

Poorly developed business models

Lack of unifying identity





# DEMOWARE



## Innovation Demonstration for a Competitive and Innovative European Water Reuse Sector

Demonstrate the feasibility of innovative technologies

Develop advanced monitoring and control options

Asses the environmental and public health risk

Develop business models and pricing strategies

Identify governance barriers and response strategies

Apply project outputs in a real case: Vendée Site

Increase awareness of water reuse practices

Develop a unifying identity / association



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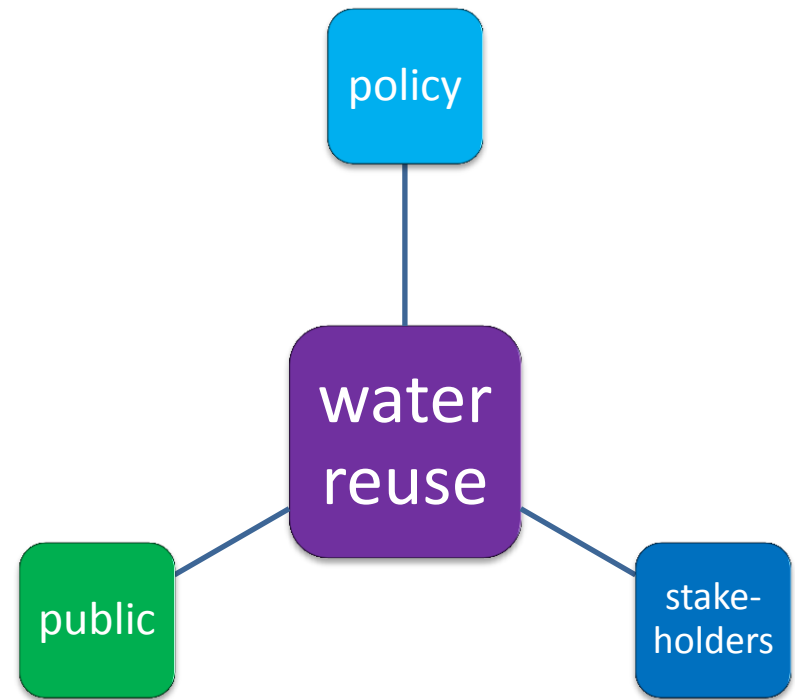
Increase awareness of water reuse practices

Develop a unifying identity / association



# Governance for Water Reuse in DEMOWARE

Demonstrate response strategies dealing with governance barriers in water reuse schemes



**KWR**  
Watercycle Research Institute

*Cranfield*  
UNIVERSITY

# Learning from governance challenges in water reuse schemes: baseline assessment

## Torreale

indirect potable reuse



## Shafdan

unrestricted irrigation



## Olympic Park

urban reuse



## Sabadell

urban reuse



## Torre Marimon

unrestricted irrigation



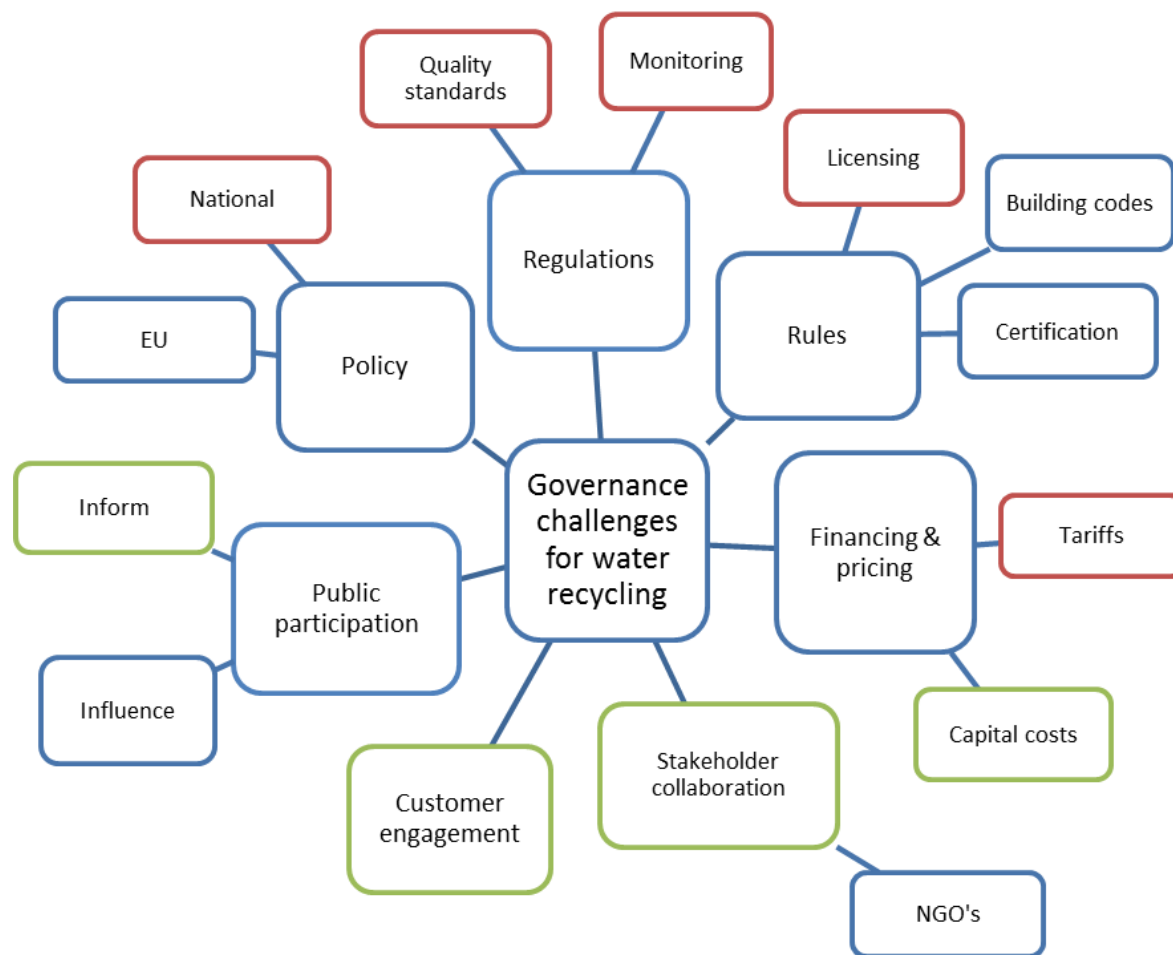
## Capitanata

restricted irrigation

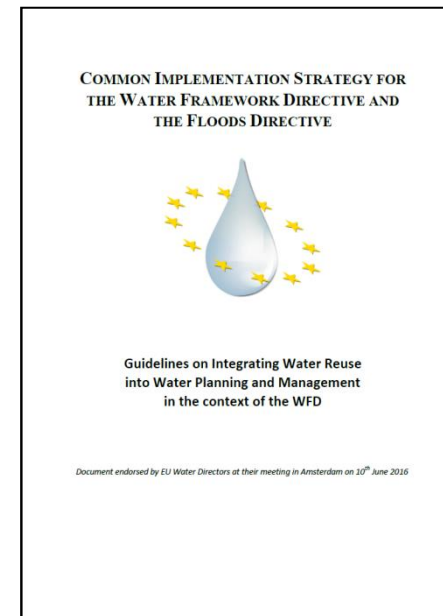




# Overall water reuse governance issues map

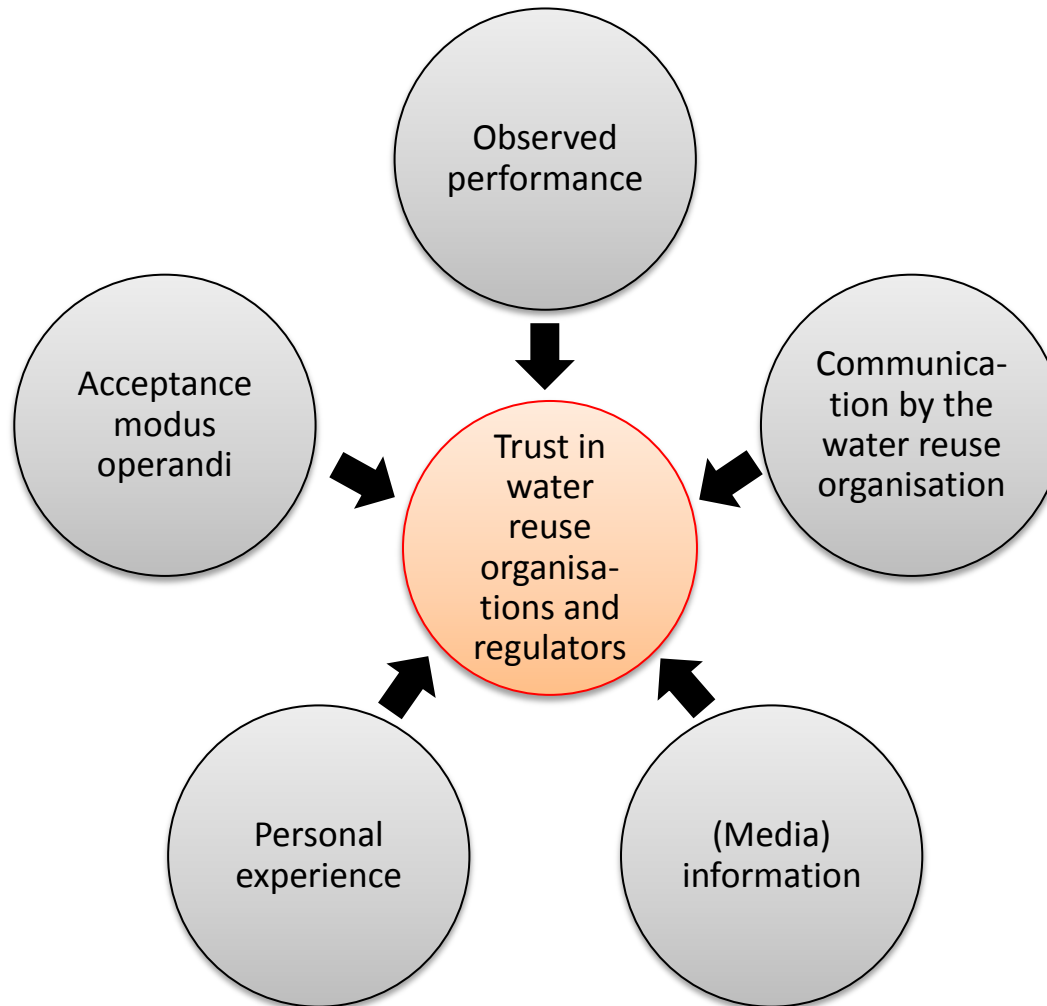


# EU policy review





# International review on public acceptance: trust is key





## Focus groups with citizens and customers





## Policy brief and workshops

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Good practice guidance: governance of water reuse schemes

- policy relevant summary of the Demoware research findings

Input from practitioners:

- workshops with stakeholders at the water reuse schemes of Capitanata and Sabadell

Workshop objectives:

- discuss the governance challenges of the Sabadell water reuse schemes
- learn from the experiences of other sites, e.g. Olympic Park
- derive water reuse policy recommendations



# Water reuse governance experience in Sabadell

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- Joan Berlanga, Ajuntament de Sabadell



# Public engagement in water reuse in Sabadell

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- Jos Frijns, KWR



# Governance baseline assessment Sabadell

Regenerated wastewater is currently used for urban purposes in Sabadell, mainly in commercial areas (flushing toilettes), street cleaning and public parks and private gardens irrigation.



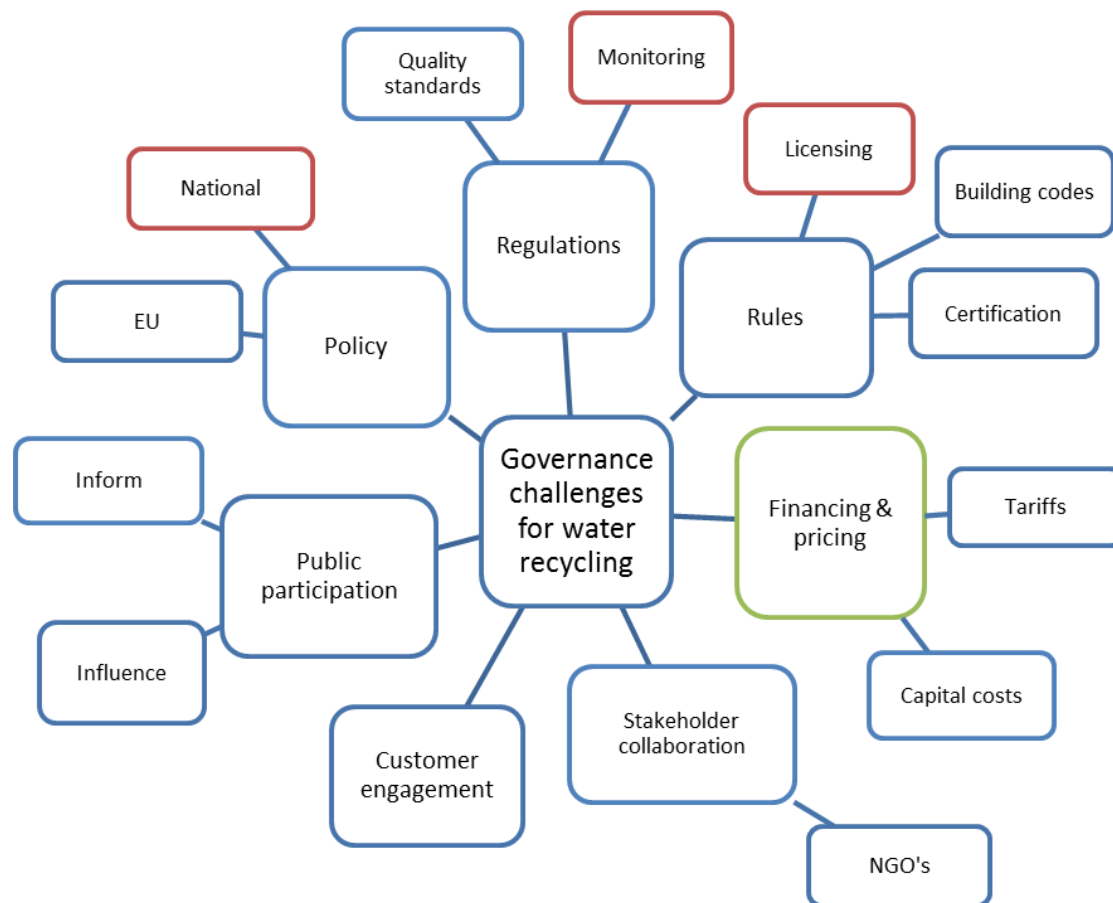




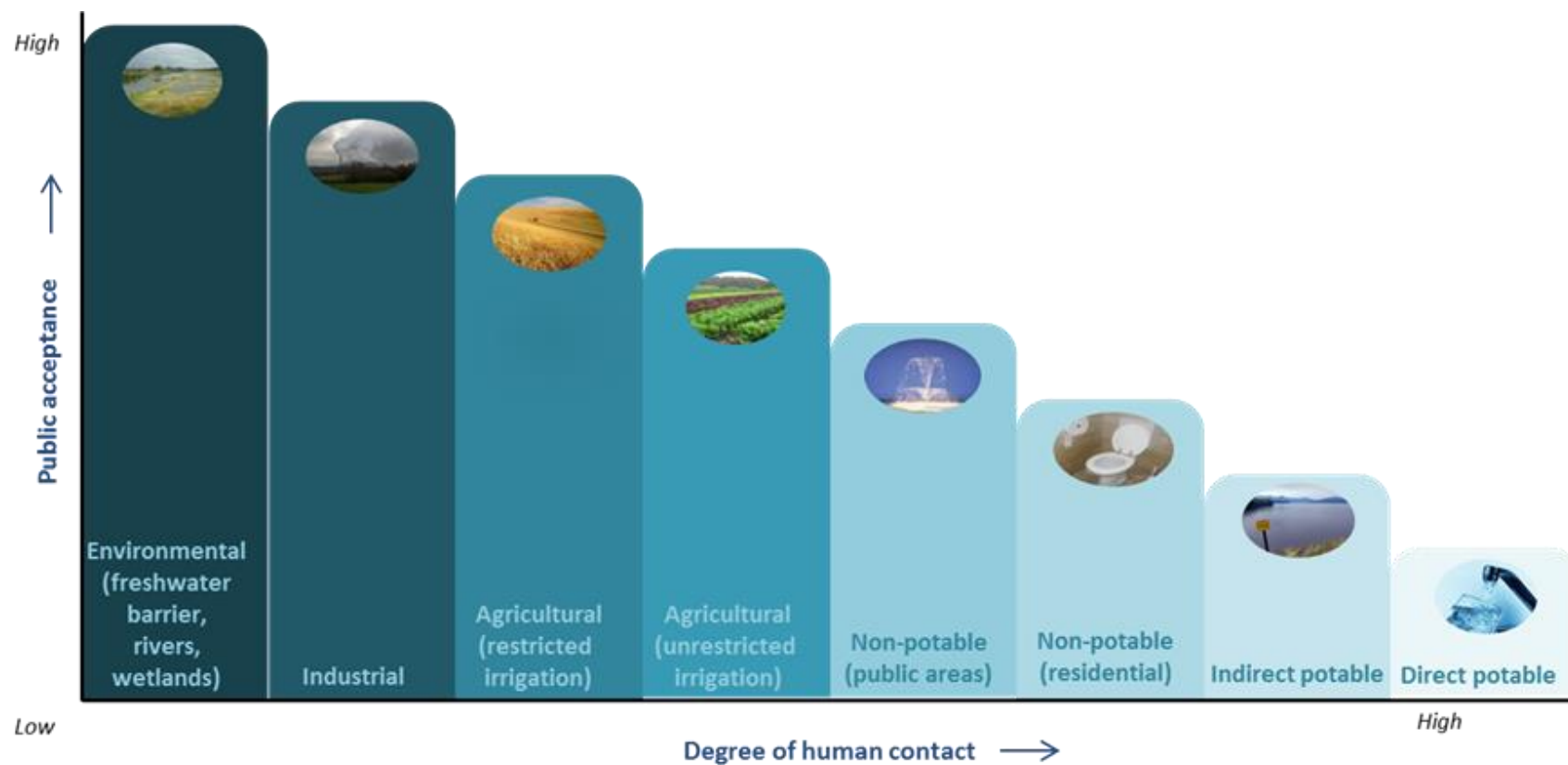
# Baseline assessment

Sabadell	
<ul style="list-style-type: none"><li>• EU funding has been important in establishing the Sabadell site, because it helped to the City Council of Sabadell and CASSA to start implement a part of the project.</li><li>• national policy and regulations hindered the development of the scheme, i.e., unrealistic frequency of monitoring and reporting, and slow authorisation process regarding water reuse (licensing).</li></ul>	<ul style="list-style-type: none"><li>• The creation of the reuse scheme was developed in collaboration with the customer, the city council of Sabadell.</li><li>• There has been no public involvement.</li></ul>

# Governance issue map of Sabadell



## Public acceptance: in general positive, but ...





# International review

public opposition is a **key barrier**

Project	Plan	Status
Toowoomba, Australia	Indirect potable	Scrapped
San Diego, United States	Indirect potable (reservoir augmentation)	Converted to non-potable use only
Tampa, United States	Indirect potable (river flow)	Scrapped
Western Corridor, Australia	Indirect potable (reservoir augmentation); Non-potable (industry)	Potable use suspended

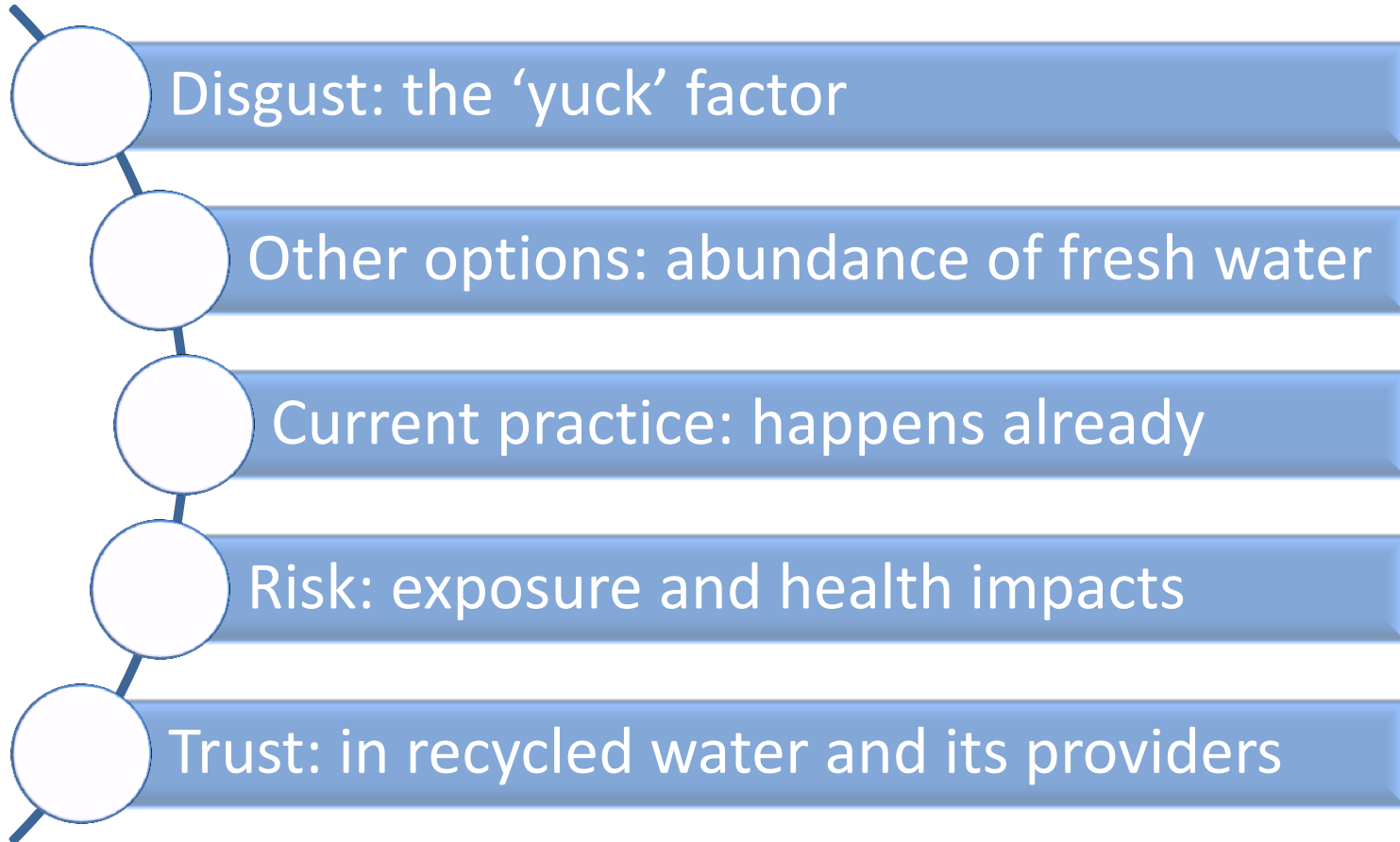
public participation is **key**

Project	Operation	Participation
Singapore	Indirect potable (reservoir augmentation)	Public education campaign incl. demonstration facility and media tours (informing).
Windhoek, Namibia	Direct potable	(negligible)
Orange County, United States	Indirect potable (groundwater recharge)	Campaign of talks (informing) and surveys to gauge common concerns (consulting).
San Diego, United States	Indirect potable (reservoir augmentation)	Workshops with community leaders in early planning stages, surveys (consulting), and public outreach (informing).



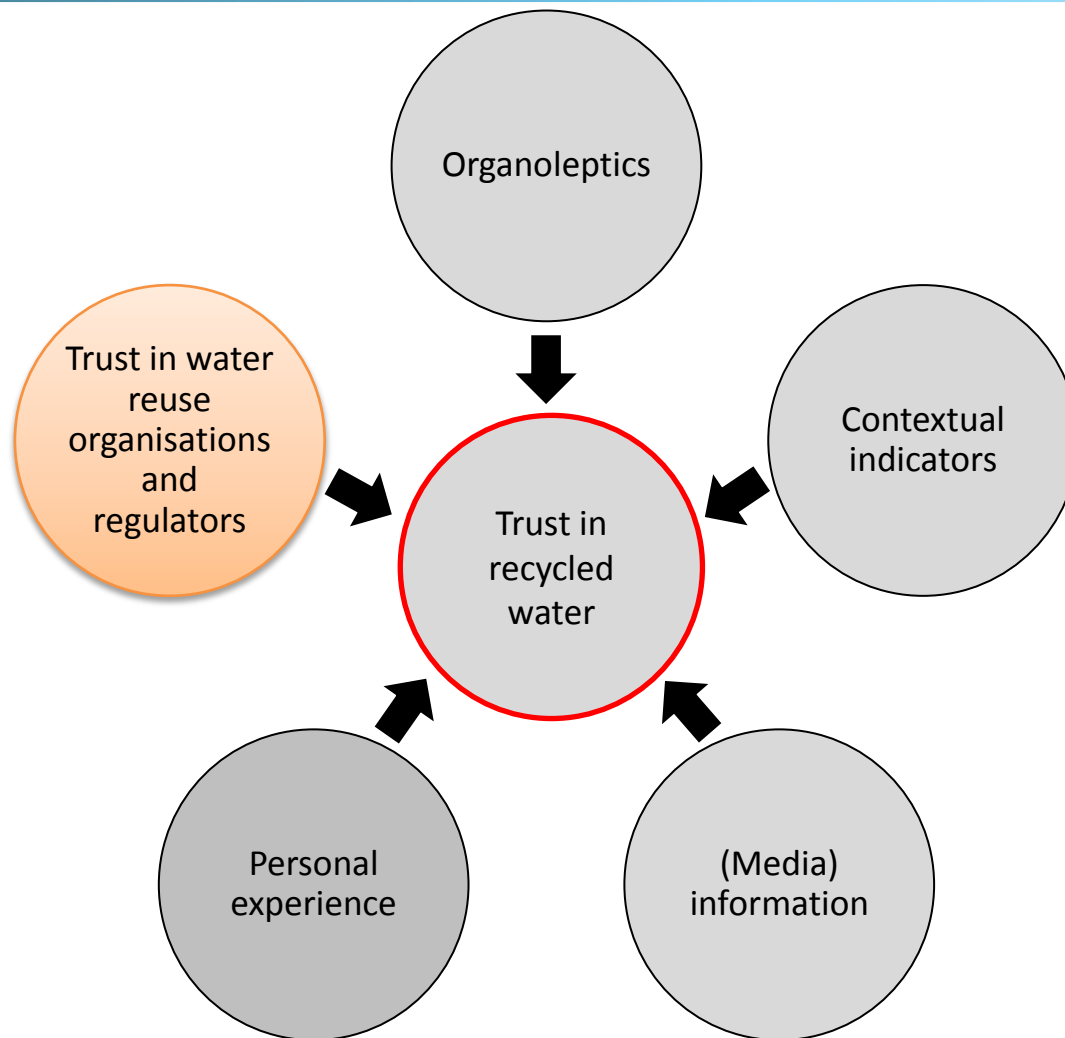
## Public reactions to water reuse

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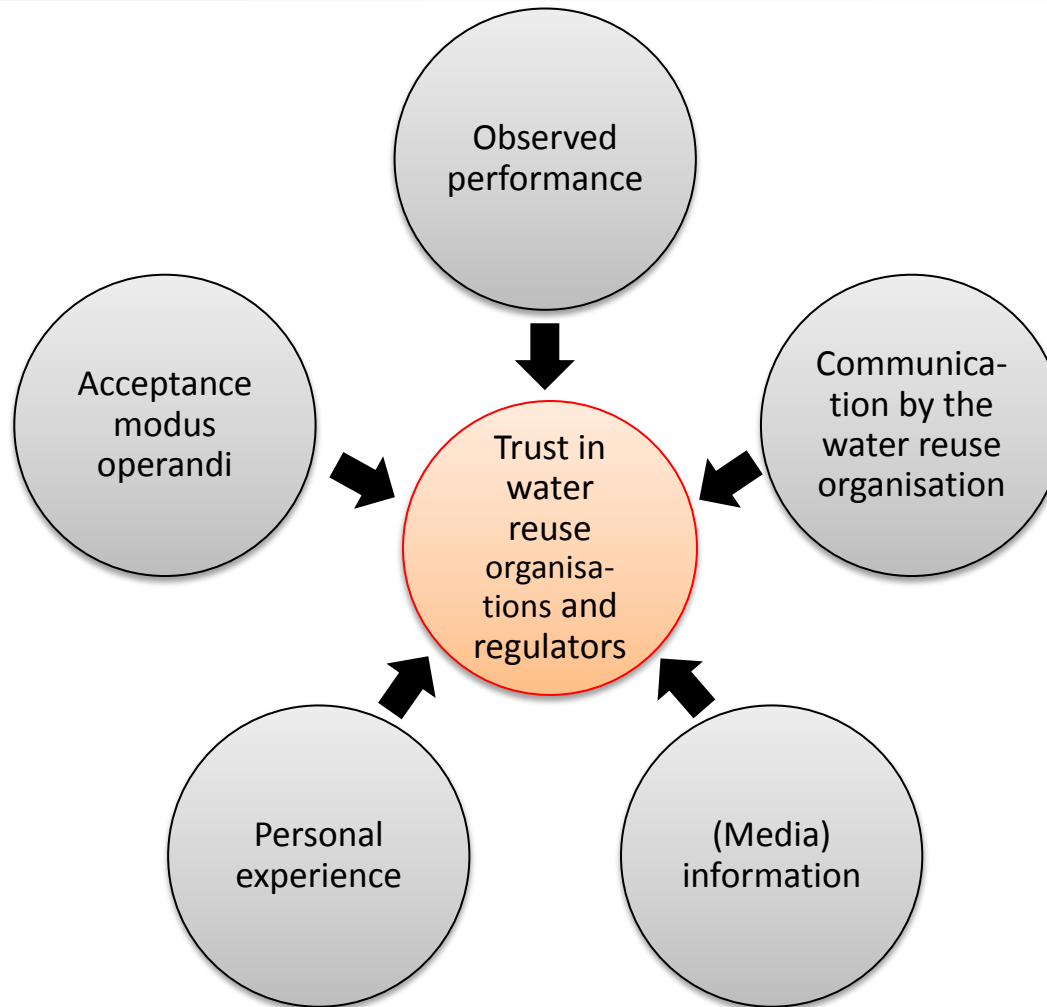


# Trust in recycled water

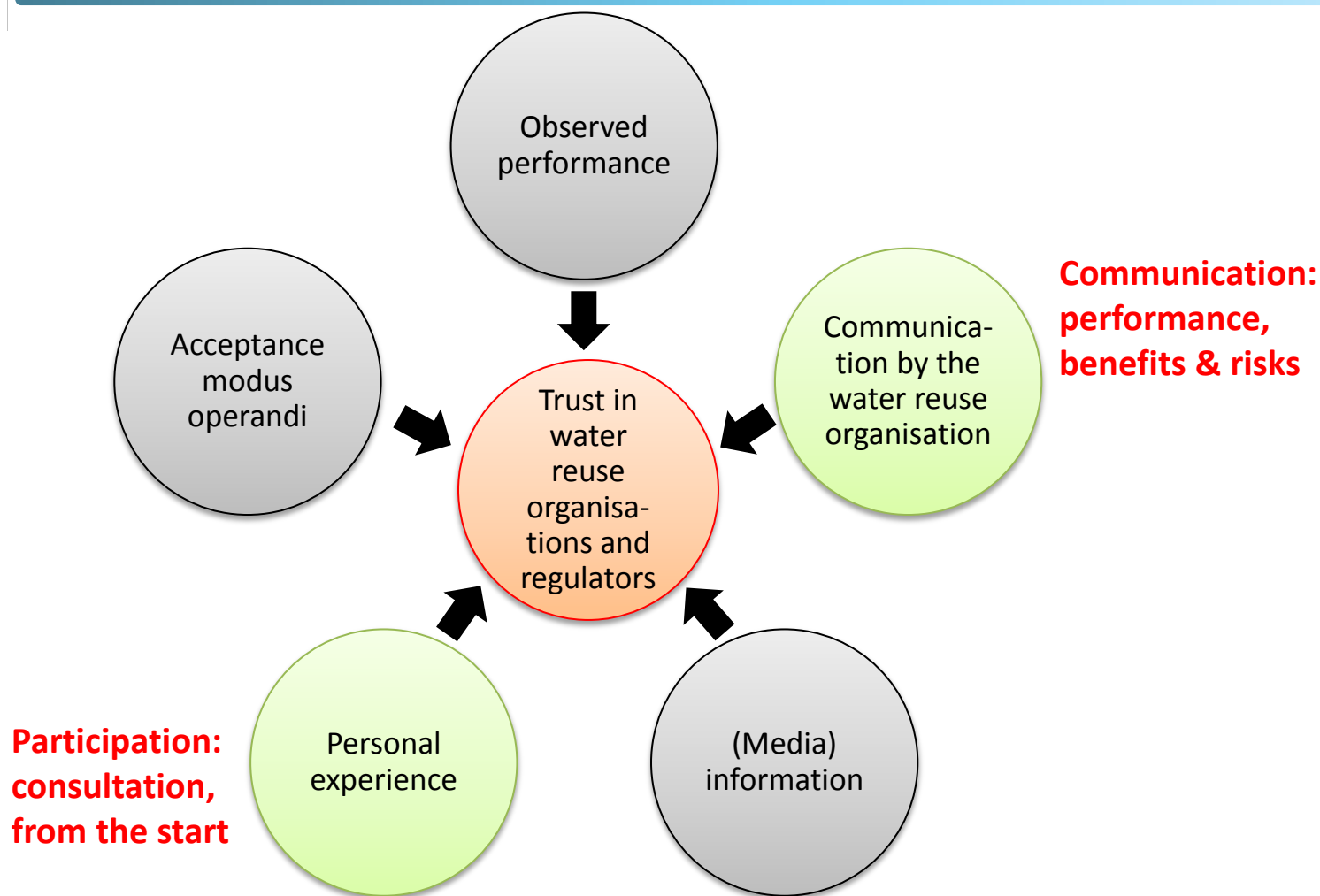




# Trust in water reuse organisations and regulators



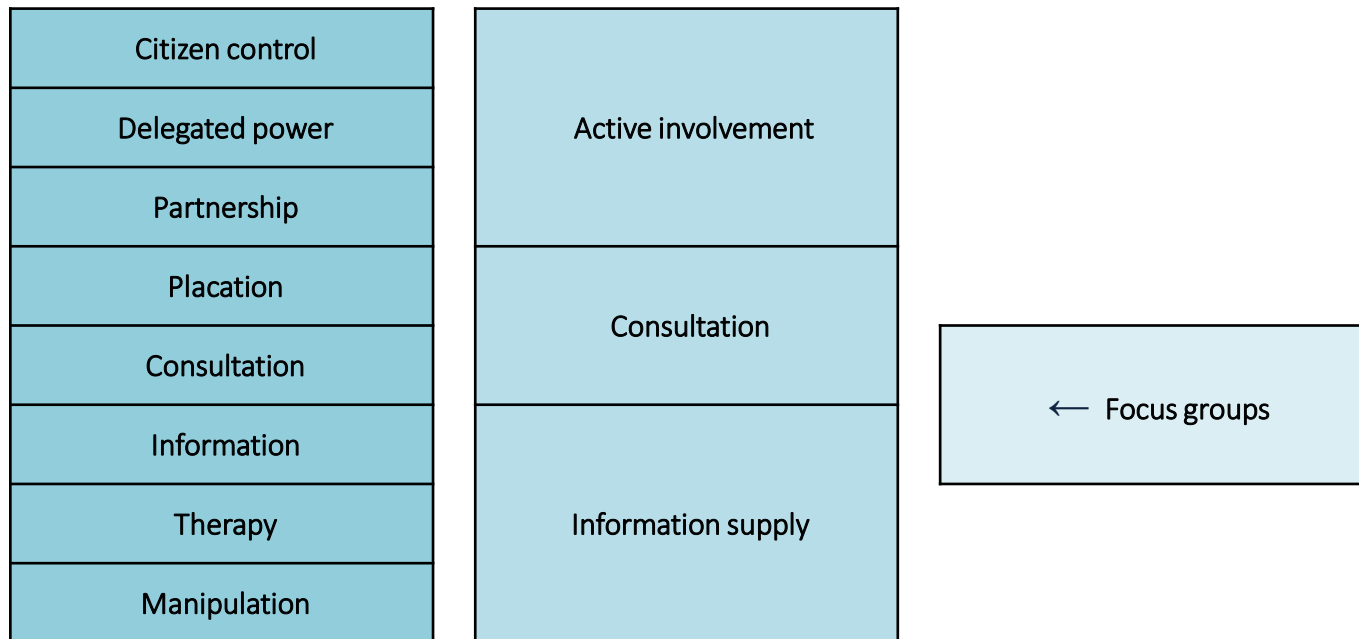
# Public participation and communication







# Stakeholder engagement & public participation





## D5.3 Tailored advice: Sabadell

CASSA: 18-1-16

- Citizens: positive attitude
- City council: only urban reuse

Need for :

- communication plan
  - e.g. defacto water reuse video



“Water reuse is common practice in space, thus it can be done.”



## D5.3 Tailored advice: Sabadell

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### Recommendations:

- Raising public awareness of water reuse
  - risks (health) and benefits (cost saving, environment)
- More active forms of engagement
  - focus groups with community; public outreach programmes
- Communication and educational material on water reuse
  - multiple channels
- Building public confidence
  - independent water reuse advisory group



# Water reuse governance challenges: lessons from Olympic Park, London

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- Daniel Goodwin, Thames Water / Cranfield University



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