

## D.T3.1.5

# COMPREHENSIVE FUA-LEVEL STATUS QUO STUDIES

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MARIBOR FUA

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# 1. Status Quo analysis

Based on analysing the FUA level self-assessment on background conditions related to circular water use (D.T3.1.3) and based on the local public perception assessments (D.T3.1.4) done in the MARIBOR FUA, we highlight the following main results.

## 1.1. Self-assessment on background conditions related to circular water use

For each of the main topics of the FUA-Level status Quo assessment:

1. Climate, environment and population
2. Water resources
3. Water infrastructures
4. Water consumption
5. Climate change
6. Rules, laws and good practices

we summarise the results highlighting challenges and strengths.

### 1. Climate, Environment and population

#### ■ Challenges:

- to persuade FUA's to invest in water and sewage infrastructure in relation to the growing population
- to research lacking data about spatial planning in MARIBOR FUA
- to systemically tackle the reuse of rainwater either for domestic or industrial use, or to recharge the aquifers

#### ■ Strengths:

- FUA's dedication to research and progress

### 2. Water resources

#### ■ Challenges:

- to provide enough water for the growing population

#### ■ Strengths:

- Good quality and abundance of natural water sources

### 3. Water infrastructures

#### ■ Challenges:

- to replace old parts of the water supply network (out of date pipelines etc.)
- to build infrastructure for recycled wastewater reuse
- to provide solutions for rainwater use at street scale



- Strengths:
  - real time monitoring system for water supply with more than 85 district metering areas to prevent water leakage

#### 4. Water consumption

- Challenges:
  - to inform citizens about responsible use of water
- Strengths:
  - initiatives are already in action by Maribor Water Supply (MBVOD)
  - 90% of citizens already use a tap water

#### 5. Climate change

- Challenges:
  - to provide quality sewerage system to deal with occasional floods with seepages to unburden the system in times of heavy precipitation and recharge the aquifers
- Strengths:
  - FUA's dedication to multidisciplinary approach in climate change crisis mitigation

#### 6. Rules, laws and good practices

- Challenges:
  - to provide legislation proposal about recycled water reuse
  - demand-side measures encouraging people and industries to use recycled water instead of fresh water
- Strengths:
  - overall high awareness of water protection
  - good practices with water supply system management

## 1.2. Water efficiency and reuse related public perception assessments

Analysing of the FUA level water efficiency and reuse related public perception assessments (D.T3.1.4), we summarise the results highlighting challenges and strengths.

#### 7. Public perception assessment

- Challenges:
  - how to inform citizens about responsible water use behaviour in a way they will understand that each citizen's action matters
  - Promote environmental reasons to water saving



- Strengths:
  - most of citizens already drink tap water
  - willingness of citizens to change their habits
  - most of citizens like information campaigns about the topic

### 1.3. Conclusions

After a few years of demographic decline in FUA MARIBOR, the population count started to increase again, which means that the development is growing and presenting ideal time for sustainable development, in general. On the other hand, FUA MARIBOR must provide enough sources to sustain or even improve quality of life, and support and encourage the citizens to change their habits. Good quality of tap water affects that most of the citizens use it for drinking and it already has a positive impact on the environment with smaller plastic waste by giving up bottled water. With information campaigns, the citizens will be more informed about opportunities to live more sustainably. For sure, FUA MARIBOR has to implement campaigns about opportunities of using recycled water. Big opportunity is investment into building adequate-infrastructure for recycled water, but on the other hand, there are no studies to confirm economic efficiency, unless the national regulation determining the prices of water is changed in a way to support more sustainable water use practices. There is always room for improvement for water supply system and sewage system with more investment in infrastructure and monitoring system. Result would be a win-win situation, good quality of infrastructure on one side and energy optimization (lower costs) related to water losses, on the other. It is necessary to connect all stakeholders to improve spatial planning and management with a more holistic approach.