D.T3.3.1 COMMON GUIDE FOR THE FUA-LEVEL STRATEGY BUILDING PROCESS

Subtitle

Version 1
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CONTENT

INTRODUCTION

The present document has been produced in the context of Activity A.T3.3 "Building FUA-level visions, concepts and strategies on CUW management" led by project partner ISD.

Five integrated urban strategies for introducing and boosting circular urban water management are expected output (O.T3.1) of WPT3 led by EZVD. The local strategies on circular urban water management will be prepared for FUA of Budapest-Zugló, Turin, Maribor, Bydgoszcz and Split.

This document shows the stages of creating a strategic document in connection with the activities already created and to be initiated of the CWC project. It also shows places where stakeholder involvement is expected according to their task: co-develop with the PPs local vision, strategies, action plan and concepts with an official endorsement.

For preparation of strategies including actions plans are responsible FCSM, Turin, MBVOD, Bydgoszcz and RERA.

Simplifying, the strategy building process can be divided into three stages, which can be characterized by questions:

1. Where do we want to be? What future do we desire?

2. What should we change to achieve the desired future?

3. What should we do to achieve the desired future?

The first stage covers vision creation, goal and objectives setting.

The second stage describes organisational, co-operational, financial, and attitude changes needed to realize the vision of the future.

The third stage contains a plan of action that needs to be taken to bring us closer to the desired future.

The core principle is that RW, WW and GW are the resources.

1. Determination of the territory covered by the strategy

FUAs can be considered as the correct territorial unit to assess the urban water cycle and to envisage potential policies and governance. A FUA is indeed an area in which all the anthropic activities that take place (work, transport and various service) are correlated.

Strategies and Action Plans should be developed at the FUA level. However, territorial planning, including rules and policies for water management, is developed locally according to administrative boundaries, and FUAs do not correspond to any administrative boundary.

Furthermore, FUAs are usually not the territorial units for monitoring activities and data collection. Most of the existing data collected and published by various sources (e.g. environmental agencies and public administrations) refers to different territorial units, such as administrative areas, or areas served by a single service provider (e.g. sewage and water treatment companies).

The 5 participant CWC CE FUAs are represented by 3 city administrations, 1 regional development agency, 3 public water/WW service providers, 2 non-profit organizations dealing with sustainable development, 1 research institute. Not only the CWC project partners are not directly representing the FUA, but there is no administrative body in charge of the FUAs outside the PPs to connect with.

This can have direct consequences on the possibility to implement and monitor the action plans. Reaching an accordance among the cities composing the FUA may be impossible in most cases. Since the reason to develop action plans is to then implement them and get a feedback by monitoring them, we recommend to prioritize the implementation and monitoring possibility over maintaining the precise FUA level in the formulation of the Action Plan, and eventually of strategies.

The FUA level has to be represented as much as possible, but wider or smaller areas may be addressed in the action plan. A possibility is also to address different areas with different actions.

2. Begining of the strategy building process

2.1. Stakeholder involvement

The strategy building process requires the participation and cooperation of stakeholders who are either using the water or who are responsible for taking care of its individual elements via policy-making, legislation, regulation, infrastructure, water and wastewater treatment, etc. **Stakeholder group** (SG) composition, its activities and tasks are described in "Common methodology for FUA-level stakeholder involvement and co-creation processes" (https://drive.google.com/drive/folders/1HY-eWnnaBMuC7CZPT4z4Y1xnHNOX-aDf). Each FUA already has a specific stakeholder group. SGs contribute in five FUA to the participatory planning process building local strategies on urban circular water management (O.T3.1). SGs, coordinated by the project partners (LP, POLIEDRA, EZVD, ISD, RERA), take part in the participatory strategy building process, they co-design and verify local outcomes through their regular meetings (5/each FUA). During the workshops, the SGs will gain knowledge and skills regarding water efficiency, reuse and cross-sectoral cooperation, to be used during the project and after its closure.

To actively and effectively participate in the strategy development process, stakeholders should have knowledge of: rain water management, grey water recycling, water governance, water efficiency, and water loss reduction. Developed training materials (O.T1.2) and interactive local knowledge transfer trainings give the opportunity to expand / acquire knowledge and build self-competence of stakeholders.

The description of the stakeholders, and the way of their involvement in strategy building process should be included in document of strategy.

It is worth looking for "allies" among other organizations, local groups and authorities that might support our project. If possible, formalize the process of involving the stakeholders early in the process. The official endorsement / legitimacy for the outputs and results of their collaboration strengthens our credibility and stakeholders' motivation of involvement.

2.2. Baseline assessment

All activity **A.T3.1 Carrying out FUA-level status quo assessments** is the baseline assessment and provides an overview of the current situation, identifies key issues related to circular water use and collects the information that is necessary to carry out the subsequent phases of the strategic planning.

Five prepared "FUA-level self-assessments on background conditions related to circular water use" (D.T3.1.3) are collection and analysis of information associated with the water cycle in FUA. Both quantitative and qualitative data are collected to gain social, environmental, economic and technical knowledge. The assessment includes a wide range of information about:

- Territorial configuration (climate, environment) and population,
- Natural water resources,
- Water infrastructures,
- Water consumption,
- Potential issues arising due to climate change,
- Local laws and rules regulating the anthropic and natural water cycle and good practices.

As part of baseline assessment, a public perception survey was conducted in each FUA. The results are overview in "FUA level water efficiency and reuse related public perception assessments" (D.T3.1.4). The water usage habits and the attitude to water reuse of citizen is analysed in reports.

"Comprehensive FUA-level status quo studies" (D.T3.1.5) is the summary of self-assessment and public survey for FUA. Identified strengths and challenges gave key conclusions about gaps and potentials of circular water use and about public awareness about water efficiency and reuse in FUAs.

The synthesis of quantitative and qualitative assessment should be included in document of strategy.

The collected data and analysis made during the baseline assessment are essential for the following step of the strategy building process: to develop a common vision of the desired future of water cycle in FUA together with stakeholders.

3. Building a common vision

3.1. Creating a vision

To involve stakeholders (SHG and SAP) in the co-creation of vision, as well as strategic goals and objectives, a local competence building workshop and stakeholder meeting No. 2 (SGM2) are planned. Because of the COVID-19 pandemic, both of these events will be conducted online. The Methodology of the core Master Training (MT) was suggested to use for competence building workshop for stakeholders. In new unexpected circumstances, the methodology will be adapted depending on resources and capabilities of PPs. The shared vision developing can be difficult during workshop only. However, an initial version can be created during its session, and then it can be revised (verified) and approved during the SGM2.

The SOAR (Strengths, Opportunities, Aspirations, and Results/Response) analysis is suggested as a strategic planning technique, which focus on current strengths and opportunities, and create a vision of future aspirations and the result they will bring. In contrast to SWOT (strengths, weaknesses, opportunities, threats) analysis, which concentrate on internal weaknesses or perceived threats, SOAR analysis focuses on what is desired and find out how to make it real, enhancing what is possible and currently done well. Furthermore, SOAR approach motivates positive attitude to inclusive thinking: "Yes and..." instead of the exclusive one: "No but...". Weakness, threats, or problems should not be ignored, but rather be reframed into possibilities.

Supported by the findings from the baseline assessment and focusing on Strengths, Opportunities and Aspirations of the SOAR analysis, the stakeholders develop a vision – an aspiration for the future. If stakeholders work in groups and create different visions, these visions should be merged to unique vision (when several options come up, the best matching can be voted).

The description of the way of stakeholders involvement in vision creating process and outputs of this process should be include in document of strategy.

Practical hints

Vision - is a concise description of the city's desired future state, i.e. in the year set as the deadline for implementing the development strategy. This means that a destination (FUA) and timeframe for strategy needs be defined. The suggested time horizon for the strategy is 2030.

Vision is not a random 'wish list'. It needs to be ambitious but also, in principle, achievable within the chosen timeframe.

Vision reflects the priority issues by turning them into a desired state.

Vision should be formulated in a clear and structured way, and may have emotional overtones (e.g. *high water quality*).

3.2. Defining of strategic goals and specifying objectives

Next of strategy building process is break down common vision into different broad goals (aspects) which, when reached, will make the vision become reality. The strategic goals arise directly from the vision.

Reaching each strategic goal can require the achievement of several objectives. The objectives specify what changes in state need to be achieved for strategic goals to reach and the vision to become true in consequence.
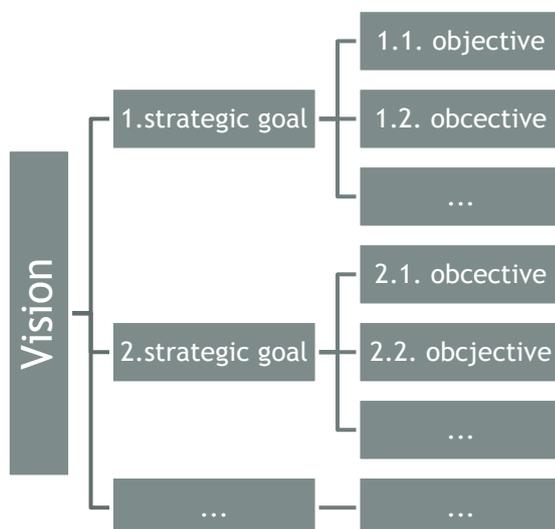
Strategic goals and objectives for local strategies on circular urban water management should be correlated to CWC goals:

1. Recycle and reuse wastewater;
2. Increase efficiency in water use and distribution;
3. Guarantee good quality of water bodies;
4. Retain water as long as possible on site;
5. Promote multiple water use and water sustainability;
6. Preserve flow in water bodies.

Using SOAR techniques, CWC goals should be made specific to the FUA context.

The description of the way of stakeholders involvement in goals and objectives defining process and outputs of this process should be included in document of strategy.
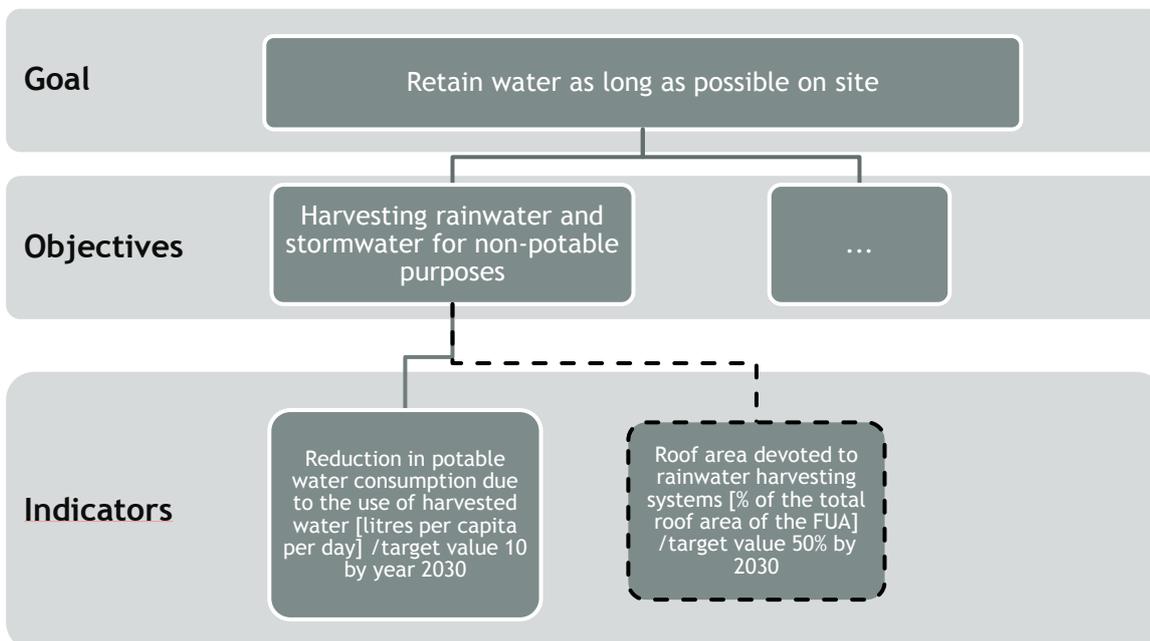
Practical hints

The list of objectives should be concise and include only those that will directly lead to the achievement of the relevant strategic goal.

The strategic goals and objectives should be precise enough to be achievable in a realistic period of time.

The objectives specify in greater detail the mode of accomplishing each of the strategic goals. However, they do not provide for any specific activities or programs. Specific solutions and projects are defined in Action Plan.

3.2.1. Indicators and targets

A SMART (Specific, Measurable, Achievable, Realistic, Time-bound) approach should be used in the setting of objectives. It helps, and it is actually necessary if we want to monitor results, to define indicators that reflect progress towards the vision achieving. Indicators are tools to measure and/or visualise progress towards objectives (and thus the vision). Whereas targets are desired indicator values (the scope/the range). The value of indicator shows where we are and the target value shows where we want to be. Reaching the target value of the indicator means that the goal has been achieved.

The indicators and targets measure the results of programmes and actions that are implemented to achieve the objectives and in consequence the vision.

Practical hints

The indicators that can be compared with baseline data and be easily collected are preferred. In particular, it is preferable to choose an indicator which is measurable although approximate, to an indicator which is theoretically perfect but too costly or too difficult to measure.

It is better to assign only one indicator to each objective, which is a measure of the success of achieving the objective. However sometimes two (or eventually more) indicators may be needed to catch different aspects.

A system of indicators assigned to individual objectives, in respect of which the desired (target) values have been defined, is the base of monitoring (understandable as the process of a cyclical progress measurement of the implementation of the strategy objectives).

The way of stakeholders involvement and results of process described in chapter 2 and 3 should be summarized in **"FUA-level collaborative visions on creating enabling local frameworks of CUW use"** (D.T3.3.2 / 06.2020). The content should be agreed / accepted by the stakeholders.

Suggested template:
Introduction *(incl. destination)*
Baseline assessment *(synthesis: strengths, opportunities, challenges)*
Vision
Goals, objectives *(incl. indicators, state-value and tasks)*

4. Identification of necessary changes

To introduce and to boost circular urban water management the organisational, co-operational, financial, legislative or attitude changes may be needed. The sources of information about what prevents / hinders us from achieving the vision are the baseline assessment (e.g. identified gaps) and the analysis of the national legislative and policy frameworks (D.T3.4.2, 3).

The new approach to water management in cities should be based on the principles:
- Rainwater is a resource that can be harvested and reused
- Wastewater / greywater is a resource that can be recycled
- Infrastructure can be green.

Deliverable D.T1.3.2, Training material for municipalities on urban circular water management and governance (https://drive.google.com/drive/folders/1jUzEO5lnl5djdyR0yuO_hy7VV0Gn2vJu) identifies seven governance measures applicable in urban circular water management:

1. Water pricing systems
2. Water conservation programs
3. Minimum quality level standards
4. Incentives and financial support (for recycled water project & construction of harvesting systems)
5. Education programmes
6. Rainwater harvesting and reuse legislation
7. Greywater reuse legislation

Some of these categories of intervention are already in place, at least to some degree, in the FUAs (the situation varies in the different FUAs) but changes and introduction of new measures (e.g. greywater reuse legislation) should be implement to make water management circular, and to change people behaviour or attitude (e.g. to wastewater reuse).

The impact to FUA-level concepts on integrated CUW management (D.T3.3.3/ 01.2021) can be given by stakeholders during SGM3 (09.2020).

The application of the SOAR analysis can help to draw up actions which "materialize" objectives. This time focusing on the R (results/response) of the SOAR analysis in 4 CWC areas of intervention:
1. Water Governance;
2. Water efficiency & water loss reduction;
3. Rain water management;
4. Grey water recycling.

Positive attitude to inclusive thinking: "Yes and..." can help to find solutions (needed changes) to make vision real.

To co-create the integrated CUW management concept for FUA with stakeholders, the different participation techniques described in D.T1.3.2 (https://drive.google.com/drive/folders/1jqSXSjJMRNjKfcCG6p_Av34Evbvdcvyw) can be used.

For creation of concept on integrated CUW management for each FUA and final version of document D.T3.3.3 are responsible LP, Turin, MBVOD, Bydgoszcz, RERA.

5. Development of Action Plan

FUA-level draft targeted Action Plans (AP) (D.T3.2.5/08.2021) are the deliverable of activity A.T3.2. AP drafts depict feasible desired interventions / solutions to utilize rainwater (RW), wastewater (WW) and greywater (GW) in FUAs. APs are based on local potential analyses of WW,GW and RW utilisation (DT3.2.2-3) and on pilot action upscaling plans (DT2.7.1).

Including AP to the strategy combines the objectives and desired interventions/solutions of WW,GW and RW utilisation.
There should be at least one activity for each specific objective. A specific action may respond to more than one of the objectives. Set of actions (AP) should be designed within a defined time and budget frame, with defined responsibilities.

Stakeholders can give inputs for FUA level action plan. This is an aim of SGM4 (05.2021) SGs contribute to design the FUA-level action plan and strategy outlining desired interventions to utilize RW, GW and WW.
Stakeholders have an impact on the final version of the strategic documents, discussing it in the SGM5 (09.2021). SGs take part in finalising the FUA-level strategies (OT3.1) identifying local policy measures fostering urban circle water use and finalized targeted action plans (based on DT3.2.5) to realize specific interventions.

Practical hints
Monitoring the process is an element of every strategy implementation. Monitoring and evaluating the results of the action plan is necessary to establish what progress is being made towards the targets and objectives. The assessment of this progress is based on indicators.

6. Completing the strategy building process

The draft version of FUA-level CWC strategy on integrated CUW management including targeted action plans will be supplemented with implementation, monitoring, and evaluation methods. The draft version of the strategy should be prepared before SGM5 so that stakeholders can assess it and comment on it. After making reasonable changes, the revised version (first version) of the strategy should be subject to open public consultations. Necessary remarks should be included in the final version of the strategy (OT3.1/10.2021). The ambition of the CWC project is the official approval of the strategy by the relevant decision-making bodies (D.T3.3.5), e.g. in the form of a declaration of adoption of the CWC strategies / action plans as a new strategic document or incorporated into existing ones.

To sum up the whole process, the work on the strategy conducts in stages as in the table below:

Stage	Connected to deliverable /deadline
Involving the stakeholders (SG and SAP)	SGM1 / 10.2019
Identifying, through assessment analyses, strengths and challenges faced by the FUA	D.T3.1.3-5 / 03.2020
Determining a vision of FUA in 2030	D.T3.3.2 / 06.2020
Setting goals and objectives, the implementation of which would result in achieving the vision	D.T3.3.2 / 06.2020
Developing a concept of integrated circular urban water management	D.T3.3.3 / 01.2021
Developing the Action Plan	D.T3.2.5 / 08.2021
Defining the strategy implementation, monitoring, and evaluation methods	draft version / 09.2021
Drafting the strategy document based on previously developed elements	draft version / 09.2021
Submitting the draft version of the strategy for stakeholders consultations and introducing the necessary changes	SGM5 / 09.2021
Submitting the first version of the strategy for social consultations and introducing the necessary changes	D.T3.3.4/ 10.2021
Finalizing the strategy documents	OT3.1 / 10.2021
Making formal arrangements on the adoption of the strategy	D.T3.3.5 / 01.2022