



SUWANU EUROPE

Development of Regional Action Plans for the fast implementation of water reuse to the 8 pilot Regions of the SUWANU EUROPE project:

Steps for the implementation of the Local Action Plan for Occitanie, France

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The RAP bases their specific actions (4th level) on the SO (2nd level) and results (3rd level) set by the GAP (see Section **¡Error! No se encuentra el origen de la referencia.** above). The SO and elaborated strategy of the GAP form the basis for the specific steps/actions to the realisation of the RAP strategy.

For the RAP development actions have thus been proposed (4th level). Most of the actions are directly related and attached to results (3rd level): for each Result there can be zero (if not relevant for Occitanie region), one or several actions.

One action has been specifically dedicated to the SUWANU Europe general objective (1st level) as this action integrates all SO and all Results.

An additional SO (2nd level) (= SO7) has been added for Occitanie with three directly associated actions.

1.1 Methodological Framework

The first version of the RAP was elaborated by SUWANU French partner (ECOFILAE) based on previous SUWANU materials, and more specifically on:

- Deliverable 1.1 SUWANU Europe State-of-Play, Occitanie, France
- Deliverable 2.1 SUWANU Europe SWOT analysis, Occitanie, France
- Deliverable 2.2 SUWANU Europe AKIS analysis, Occitanie, France
- Deliverable 2.4 SUWANU Europe Participatory workshop, Occitanie, France, including the complete

This first draft of actions was submitted to RWG core and key members that have a broad and integrated vision of water reuse for agriculture in Occitanie (Occitanie region public entity, AD'OCC agency, INRAE and Occitanie Agriculture chamber). They could comment, modify, and add new actions. ECOFILAE then gathered all propositions and comments to consolidate a new version. Then specific vision and phone meetings were organized with RWG core and key members to discuss the propositions and validate a final version.

It was thus decided **to add a new SO (SO7)** “The local stakeholders and project participants are trained and empowered” gathering specific actions very important for Occitanie that could not fit in the other SO.

It was also decided to **prioritize the actions** from PRIORITY 1 (red – top priority – should be implemented in short term within 1-2 years) to PRIORITY 2 (orange– high priority – should be implemented in mid- term within 2-3 years), and finally to PRIORITY 3 (blank - lower priority – should be implemented within 5 years).

The following complement (in red) to the SO3 from the GAP was specifically added: “Public and private financial policy provides incentives for the use of reclaimed water for irrigation when the projects are assessed sustainable, safe and with important replication potential”. Moreover, the following complement (in red) to the Result 3.1 from the GAP was added: “Public administration invests or subsidises infrastructures for the treatment and distribution of reclaimed water”.

A specific ID was dedicated to each of the 23 Actions from A1 to A23.

- 12 actions are classified PRIORITY 1
- 6 actions are classified PRIORITY 2
- 5 actions are classified PRIORITY 3

Some key context elements related to Occitanie and France have been described when necessary to better understand how and why the actions have been proposed.

For each action responsible stakeholders were appointed based on AKIS analysis categories.

The “sources and origins” documents or events where and when the discussions about the related action started or are based on are also detailed.

The final version of the RAP validated by all RWG core and key members will then be disseminated to all participants to the participatory workshop, and to all stakeholders interested in water reuse for agriculture in Occitanie through ECOFILAE and SUWANU Europe social networks, and by RWG core and key members.

1.2 Specific Action plan for Occitanie

The actions planned in Occitanie region to develop sustainable water reuse in agriculture, the stakeholders involved and some contextual elements are gathered in the Table below.

Table 7: Action plan for water reuse in agriculture in Occitanie region, France

PRIORITY 1 – PRIORITY 2 – PRIORITY 3

SUWANU EUROPE GENERAL objective		ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins	
To increase the use of reclaimed water in agriculture, resulting in a more resilient agricultural sector to cope with water scarcity and climate change effects		A1	Launch a study to assess potential and opportunities of water reuse at regional level	Region and Department public entities	Participation workshop report SUWANU EUROPE T2.4	
LEVEL 2 - GAP - SO	LEVEL 3 - GAP - Results	Occitanie context	ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins
SO1 - The European and national legal framework encourages the use of reclaimed water in agriculture.	1.1. National legislation complies with the European legislation regarding wastewater treatment and reuse of reclaimed water.	French regulation requirements are different from the EU requirements. French regulation integrates other uses than agriculture (Golf courses, green areas...).	A2 A3	At national level : - Establish and publish a clear regulatory framework for water reuse in agriculture in France as a declination and in compliance with EU regulation - Set clearly the framework for the uses not covered by EU regulation (golf courses, green areas...)	State authorities	Participation workshop report SUWANU EUROPE T2.4
	1.2. National legislation unifies existing regional policies on water reuse, avoiding fragmentation			Already implemented in Occitanie and in France		SUWANU D1.1
	1.3. The legislation allows the use of reclaimed water throughout the year for agricultural irrigation.			Already implemented in Occitanie and in France		SUWANU D1.1
	1.4. Strict regulations among European and National legislative frameworks regarding reclaimed water quality standards are enforced.			Already implemented in Occitanie and in France		SUWANU D1.1
	1.5. The legal framework must facilitate the procedures required for agricultural irrigation with reclaimed water.	Water reuse situations (technical, organisational, environmental and sanitary risks...) can be very different and specific from one project to another. Existing French "Circulaire du 4 avril 2016" for the current French regulation was a valuable document to assist local authorities and project stakeholders. A similar document covering different technical and organisational situations should be delivered based on EU requirement.	A4	At national level : Cover all possible water reuse situations (especially technical and organisational) into the future national regulatory texts in compliance with the EU regulation in order to facilitate the procedures both for state authorities and for project stakeholders.	State authorities	Participation workshop report SUWANU EUROPE T2.4
	1.6. Stakeholders participate in legislation discussion at the EU level.	Regional platforms/groups for water reuse gathering different stakeholders (mainly private companies) already exist.	A5 A6	- Enlarge stakeholders participation (including farmers), communication and activities (number of meetings) of regional platforms dedicated to water reuse (AFNOR platform on « Water Reuse & Normalisation », SUWANU platform, other groups...) - Ensure that results/feedbacks from those meetings and activities debating EU level legislation are gathered into reports shared with French ministry department (national level) in charge of water reuse and of discussions at EU level	Region and Department public entities	Participation workshop report SUWANU EUROPE T2.4

LEVEL 2 - GAP - SO	LEVEL 3 - GAP - Results	Occitanie context	ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins
SO2 - The administrative procedures are adequate for the implementation of reclaimed water for irrigation in agriculture.	2.2. Harmonized standards for administrative requirements of water reuse are enforced at national level.	The French authorities in charge of administrative and regulatory procedures and validations are empowered at the local level (13 départements in Occitanie region). Their role is to ensure that national administrative and regulation requirements are fulfilled.	A7	Organize specific meetings/exchanges on water reuse for 1) harmonization of procedures and 2) feedbacks about projects specificities between the 13 departments state authorities (ARS and DDT(M)) that belongs to Occitanie region	State authorities	Participation workshop report SUWANU EUROPE T2.4
	2.3. The bureaucratic procedures to acquire the licence for reuse in agriculture are clear, brief and inexpensive.	The bureaucratic procedures to acquire the licence for reuse in agriculture are already quite clear, brief and inexpensive.		No specific action proposed		

LEVEL 2 - GAP - SO	LEVEL 3 - GAP - Results	Occitanie context	ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins
SO3 - Public and private financial policy provides incentives for the use of reclaimed water for irrigation WHEN THE PROJECTS ARE ASSESSED SUSTAINABLE, SAFE AND WITH IMPORTANT REPLICATION POTENTIAL	3.1. Public administration invests OR SUBSIDISES infrastructures for the treatment and distribution of reclaimed water	So far the adopted strategy by regional and national funders is to support financially (subsidises or loans) studies and construction works to whoever carry those activities out (municipalities, farmers or WWTP operators...). The regional strategy nevertheless need to be harmonized between those funders and clearly defined to become clear to local project leaders. The following actions should be implemented.	A8	<p>Dedicate a specific budget from the main regional public administrations (Occitanie region, Energy and environment agency, Water regional agencies...) to support water reuse projects over the next 5-10 years</p> <p>Comments</p> <ul style="list-style-type: none"> - Only projects assessed profitable and sustainable should be supported (environmental and socio-economic analysis) - Should be supported in priority: <ul style="list-style-type: none"> - the projects with the highest local benefits and replication potential (full-scale demonstrators) - the areas where no regional irrigation network is spread - the areas where WWTP discharge is not consequent and valuable for the natural water resources - Specific CALLS FOR PROPOSALS shall be launched by all public administrations (coordination between funders) 	Region and Department public entities Water, environment and energy agencies	Participation workshop report SUWANU EUROPE T2.4 SUWANU EUROPE D1.1 Occitanie SWOT analysis (D2.1)
	3.2. Public and private stakeholders agree to reduce the cost of energy for the production of reclaimed water.	Energy costs are often the major expense item in OPEX of water reuse projects. So far no specific direct actions on energy cost reduction for the production of reclaimed water has been implemented.	A9	This proposition has not been discussed so far and shall be discussed with stakeholders from different regional platforms/groups	Region and Department public entities Water, environment and energy agencies	
	3.3. Public authorities, reclaimed water operators and administration provide direct economic incentives to farmers that use reclaimed water for irrigation.	So far no specific direct incentives is given to farmers willing to irrigate with reclaimed water except if they are gathered in a specific entities making specific studies or investments in the water reuse chain (reclamation, storage and / or distribution) (Cf Action A8)	A10	This proposition has not been discussed so far and shall be discussed with stakeholders from different regional platforms/groups	Region and Department public entities Water, environment and energy agencies	
	3.4. Subsidies are provided to farmers willing to irrigate their fields with reclaimed water.	So far no specific direct incentives is given to farmers willing to irrigate with reclaimed water except if they are gathered in a specific entities making specific studies or investments in the water reuse chain (reclamation, storage and / or distribution) (Cf Action A8)	A11	This proposition has not been discussed so far and shall be discussed with stakeholders from different regional platforms/groups	Region and Department public entities Water, environment and energy agencies	

LEVEL 2 - GAP - SO	LEVEL 3 - GAP - Results	Occitanie context	ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins
SO4 - Public and private stakeholders invest in research and technology to improve and expand the use of reclaimed water in agriculture.	4.1. The cooperation networks between the public and private sector are established, and both invest in research to increase water quality, distribution and overall use of reclaimed water.		A12	See Action A8 - Integrate research and innovation projects in partnerships with research centers (from low to high TRL) into specific budgets and calls for proposal	Region and Department public entities Water, environment and energy agencies	Participation workshop report SUWANU EUROPE T2.4
	4.2. A supervisory board, with representatives of all the stakeholders, has been established to expand and monitor the evolution of know-how and the technology for reclaimed water.	Regional platforms/groups for water reuse gathering different stakeholders (mainly private companies) already exist	see A5	See Action A5	Region and Department public entities	Occitanie region (AD'OCC - RWG member)
	4.3. Farmers are informed and advised about the new water treatment technologies and their application in agriculture.		A13 A14	See Action A8 Projects awarded with public subsidies should integrate the following activities: - Field visits on full-scale and demonstration sites shall be organized for farmers interested. - Pedagogical leaflets presenting water reuse and reclamation concepts shall be produced and dealt to farmers at regional and local levels.	Region and Department public entities Water, environment and energy agencies	Participation workshop report SUWANU EUROPE T2.4 SWOT analysis (D2.1)

LEVEL 2 - GAP - SO	LEVEL 3 - GAP - Results	Occitanie context	ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins
SO5 - A European network may be established to disseminate existing results and exchange best practices regarding the use of reclaimed water.	5.1. European countries promote international exchange and dialogue to expand the use of reclaimed water.		A15	Regional platforms and groups should join international groups and networks on water reuse	Region and Department public entities	Occitanie region (AD'OCC - RWG member)
	5.2. European-based scientists and private companies have a specific network to share and exchange results and practices.			Already implemented in Occitanie and in France		
	5.3. Farmers' organizations across Europe communicate and compare their experience with the implementation of reclaimed water for irrigation.		A16	See Actions A5 and A6 Regional platforms and groups including farmers unions organize regional meetings (information, training, share of feedbacks) and professional visit trips in Europe for farmers	Region and Department public entities Farmers unions	Occitanie region (AD'OCC - RWG member)
LEVEL 2 - GAP - SO	LEVEL 3 - GAP - Results	Occitanie context	ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins
SO6 - The communities involved accept the agricultural products irrigated with reclaimed water.	6.1. The general public is aware of the benefits regarding the use of reclaimed water in agriculture.		A17	Integrate water circular economy as a safe and regulated practice into the ongoing adds campaigns from the Occitanie administrative Region promoting the use of local and circular resources. Those campaigns should highlight that water circular economy target water deficit and climate change challenges.	Region and Department public entities	ECOFILAE
	6.2. The general public accepts and consumes products irrigated with reclaimed water.	One poll has been conducted in 2016-2017 on general public acceptance and consumption (IRSTEA, SOPOLEAU project funded by AE RMC) - In Montpellier area, and not at regional scale	A18	Carry out regular updated polls to watch out the trend for general public acceptance and consumption should be carried out at regional level (at least one very 5 years)	To be defined	SUWANU D2.7 Indicators for RAP
	6.3. The public opinion is aware of the benefits of water reuse to face water scarcity and protect the environmental.		A19 A20	See Action A8 Project awarded with public subsidies should integrate the following activities: - Communication press released (local, regional and national) highlighting the benefits and the precautions to be taken - Forward some key results and benefits to the Occitanie administrative Region to enable general (all water reuse projects) communication at regional level	Region and Department public entities	Participation workshop report SUWANU EUROPE T2.4

LEVEL 2 - Other SO
<p>SO7 - The local stakeholders and project participants are trained and empowered</p>

ID	LEVEL 4 - "Steps to implementation" - Actions	Stakeholder	Sources/Origins
A21	Encourage specific training and awareness raising strategy and actions (seminars, training sessions, webinars, workshops...)	Region and Department public entities Water, environment and energy agencies	Participation workshop report SUWANU EUROPE T2.4
A22	Update the regional inventory on water reuse projects (description and feedbacks). It should feed the EU networks (SO5)	Region and Department public entities Water, environment and energy agencies	Participation workshop report SUWANU EUROPE T2.4
A23	Clearly define all possible regional funding sources entities and specific conditions into a document (e.g. "fundings for your water reuse project") broadcasted to all stakeholders including farmers	Region and Department public entities Water, environment and energy agencies	Participation workshop report SUWANU EUROPE T2.4

1.3 Conclusions for Occitanie region

The SUWANU Europe general objective (1st level) is “to increase the use of reclaimed water in agriculture, resulting in a more resilient agricultural sector to cope with water scarcity and climate change effects”. To target this objective the Occitanie region public entity has planned to launch a specific action that encompasses all SO: the Action A1 “**Launch a study to assess potential and opportunities of water reuse at regional level (PRIORITY 1)**”. This action was discussed at the SUWANU participatory workshop (see Participation workshop report SUWANU EUROPE T2.4) and will be launched in 2020 second semester. All topics from the SO will be covered.

The actions proposed above in Table put the Occitanie administrative region (public entity), the agricultural chambers (regional and department), and the farmers unions at the center of the regional stakeholders network on water reuse. The main objective is to "connect" them 1) to the already existing regional platforms (= groups) on water reuse mainly constituted by private companies from the Occitanie region in the field of water (AQUAVALLEY <http://www.pole-eau.com/> whose members are mainly consulting firms, manufacturers and WWTP operators), and 2) to research institutes. This objective is specifically targeted by Actions 5, 6, 8, 12, 15, and 16. As presented in the AKIS analysis the water agencies, the municipalities, the consulting firms, and the research institutes were already deeply involved in water reuse at regional level. **The low interlinks noticed in the Actor linkage matrix and mapping from the Occitanie AKIS analysis (D2.2 Occitanie) are thus targeted.**

Municipalities are often the local project leaders, but they need to bring feedbacks and results to Occitanie administrative region that can thus overview and assess the general regional strategy and success of RAP (see Action A20).

Based on SWOT analysis results (D2.1): priority is higher and emphasized for actions related to aspects identified as weaknesses, threats, and opportunities (PRIORITY 1):

- technical empowerment and sharing of knowledge
- clear definition of regulatory framework (adaptation to EU legislation) and funding sources framework
- economic and environmental (water availability) assessment of projects