

Part A - Project summary

A.1 Project Identific	ation								
Acronym	URBAWa-FloN	BAWa-FloMa							
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Title	Urban and pen	an and peri-Urban Water Management from methabolic-ecosystemic approach to Circular Economy							
Project Number	UIA02-190								
(Main) Urban Authority	Alcoy City Cour	ncil							
ERDF rate	80.00%								
Project Duration	Start Date	01/11/2017							
	End Date	22/10/2020							
	Total Months	36							
	TOTAL INIOI ILLIS	30							
Topic	Circular econo	my							

A.2 Project summary

Description

Historically, there was little consideration of the impact of past land development and urban planning decisions upon hydrological systems in urban area's range. Despite their close relationship, water resources management (WRM) have typically been carried out separately and guided by different institutional arrangements. The impacts of urbanization growth on hydrological systems and the dependence of urbanizad areas upon these systems, call for better integration between urban, regional planning and WRM to ensure the sustainability and resilience of cities to future changes and uncertainties. The Integrated WRMapproach has proven to be a suitable option for efficient, equitable and sustainable development. Moreover, from a circular economy point of view, quantifiable standing as well as variable parameters must be integrated in a useful model, minimizing the loss of water and its energy and mater related flows. The inputs, outputs and inner flows will be analyzed and accounted form sustantability and eco-efficiency point of view.

In water-poor and touristic pressured regions, experiencing acute or chronic shortages, optimization techniques are a useful tool for supporting the decision process of water protection and allocation.

In order to maximize the value of water, a new enabling keymodel, the URBAN WATER DEAL, will be developed, involving multiple supply sources and users, improving at all level the

institutional capacity to address future changes and uncertainties

Partner		ERDF co-f	inancing		Contribution		Total		
Partner	Country	EUR	ERDFrate	Public	Private	Total	Budget	%of project budget	
PP 1 - Alcoy City Council	ES	793,689.92	80.00%	198,422.48	0.00	198,422.48	992,112.40	22.19%	
PP 2 - Alcira City Council	ES	940,269.80	80.00%	235,067.45	0.00	235,067.45	1,175,337.25	26.29%	
PP 3 - Alicante City Council	ES	859,306.00	80.00%	214,826.50	0.00	214,826.50	1,074,132.50	24.03%	
PP 4 - Valencian Politechnic University	⊆ ES	221,068.20	80.00%	55,267.05	0.00	55,267.05	276,335.25	6.18%	
PP 5 - University of Valencia General Study	ES	183,821.76	80.00%	45,955.44	0.00	45,955.44	229,777.20	5.14%	
PP 6 - Water General Directorate	⊑ ES	534,786.96	80.00%	133,696.74	0.00	133,696.74	668,483.70	14.95%	
PP 7 - Alicante University	⊑ ES	43,739.00	80.00%	10,934.75	0.00	10,934.75	54,673.75	1.22%	
Total (€)		3,576,681.64	80.00%	894,170.41	0.00	894,170.41	4,470,852.05	100.00%	



Part C - Project description

C.1 Project relevance and innovativeness

C.1.1 Main challenge(s) to be addressed

Main challenge(s) to be addressed

Following the UNO, FAO and EEA previsions, there is likely to be a global shortfall of 40 % in water by 2030, As 70% of european population lives currently in urban areas, urban adaptation to dimate change will be an overwhelming challenge. Cities in semi-arid regions as east and southeast Spanish regions, will suffer the most severe consequences. Additionally, Mediterranean river basins present a torrential regime with floods and droughts periods (less than 5 years recurrence). Those characteristics highlight the water management and, overall urban water management, as a critical bottleneck to adapt and transform cities into attractive climate-resilient and sustainable places

Public-small and medium experiences that provides knowledge about water use and reuse technologies(a) already exist throught the world. Moreover, Spain and specially the Mediterranean area, has a contrasted experience in implementation of partial solutions of reuse and water savings. However, a realistic knowledge of large water's amount reuse, technically, economically, environmentally as well as social acceptance, from societal impacts to input costs, are not well known. This situation hinders closing the water loop.

As the use of water is concerned, three urban nuclei: Alcira (end of river basin, high flood risk, poor water quality), Alcoy (upper river basin, then first water user and polluter), Alciante (big urban area, droughts and aquifer salination) will be compared. Alcira locates in a main agricultural surrounding, Alcoy in more industrial one, and Alicante is one of the most touristic cities in Spain, surrounded by a complete industrial and agricultural region with a clear saline water aquifer intrusion. Through an exhaustive analysis of technical, infrastructural, environmental and socio-economic parameters (viability), a common organizational scheme for an efficient water cycle will be proposed.

The social awareness is one of the pillars of the acceptance of water paradigm change (quality, use, value, etc). A conjugation of up-bottom and bottom-up approaches will be therefore necessary in this case. It is well-known that a multi-actor (fig.1 attachment) approach for global water use understanding is an essential component for the achievement and success of the project. For that purpose, through all the project life cycle, from the project design to implementation, a large panel of social, technical, scientific, private, legal and administrative agents will be involved. This board, with the active leading role of DGA), guarantee the translation and overall the continuity of the conclusions of this project. Aspecial regard to the young public involvement, with specific activities, will be developed.

C.1.2 Proposed solution

Proposed solution

An integrated proactive response scheme is the conceptual proposed solution by a commitment. The participation of a wide actors' spectrum will be achieved by the creation of the URBAN

WATER DEAL (UWD) The most impacting fi Contract (UWC). acting figure of this institutional agreement will be the firm of a binding contract (covenant) that involves transversal obligations for the signatory authorities, the Urban Water

It will include:

Act and Promote Efficiency, Ecoefficiency and Savings in the Use of Urban and Periurban Water Resources, in all Aspects of its Cycle, by the acceptance of
-the inclusion of technical, infrastructural, environmental and socio-economic parameters in the management and governance systems, from eco-efficiency (7th ENVIRONMENT ACTION
PROGRAMME TO 2020), with a special mention to Circular Economy (DECISION No 1386/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 November 2013 on a General Union Environment Action Programme to 2020 "Living well, within the limits of our planet"), to sustainable urban development,
-the common organizational scheme as base-line consequence of the three water use management systems analysed, the integration from technical, infrastructural, environmental to socio-

economic parameters for a more realistic approach of water use in urban and periurban area in water-poor touristic pressured regions, experiencing acute or chronic shortages -the modification of local norms and budget headings to offer the best possible sustainable water public service, including reuse norms, critical budget endorsements related to water resources (soil salination, energy requirements)

-the adherence to a data transparency interactive network platform with public accessibility, that will include, social, scientific, and economic as well as educational contribution and propositions

This form will offer an essential agreement to validate and quantify actions, as great water movement infrastructures modifications, small private or public-private initiatives linked to the use of water, scientific approaches of water cycles improvements, and dispersed institutional arrangements. The development and implementation of an integrated accounting tool for water use viability and sustainability linked to energy efficiency use in urban water cycles will be one of the successes of the project. Supported by the Regional Government of Valencia, the last step of the UWC, a transversal normative revision will empower the UWD at regional level, expanding its use and extracted

knowledge applications. Due to the valentian common water culture, the onslaughts of climate change and a proactive attitude of most establishments, the breeding ground for this empowerment is raising. Strengthened by a solid, regional policy framework, bom in large participative multi-actors involvement, the UWD will act as catalyst for sustainable urban development and its adaptation to climate change, through circular economy approaches.

C.1.3 Innovativeness of the proposed solution

Innovativeness of the proposed solution

Existing water use systems are often inefficient. From catchment to consumer and back to catchment, water is lost, polluted, wasted and misused. Such systems will contribute to exacerbate the gap between available freshwater supply and demand. The water pathway should be developed as a closed loop system. While urban-regional Ecosystemic approach through flow studies will be one of the base lines of the study, both knowledge of metabolic urban function and integration of socio-economic stakeholders in a multi-agent partnership, as further UWM transformation is concerned. It will contribute to the Urban Circular Economy Applied Knowledge. This action plan, by the characterisation of 3 urban nucleus with different complementary base line concepts, and their disruption points in the water loop, will offer real solutions to minimize the Urbs (often considered as a "black box") impact on water systems, allowing then, be water use and reuse practices implementation. From the steady state studies to the integration of infrastructural rearrangements, water use efficiency, reuse, water quality increasement, water use and reuse practices implementation. From the steady state studies to the integration of infrastructural rearrangements, water use emicency, reuse, water quality increasement, their costs and viability studies, the project will propose the above-mentioned Urban Water Deal, as an integrated social proactive enabling key model of urban water cycle and the Urban Water Contract as binding agreement. A critical point for the persistence of the proposed model viability as well as for public acceptance is that, following ecosystemic flows approach, the study of the path, variation rates and acceptance impact of emergent contaminants, including their costs-opportunity rates in urban water management, has to be introduced. From the point of view of water-resource circular economy concepts, an exquisite study of water reuse should include this knowledge for the "reinjection" of regenerated water. From the effort of the European Data Portal referring to bests practices (BP), dataset guidance and their local guidance will be integrated at regional level by the competent authorities. Due to the complex areas of interest of this project, the recommendations of UNO Habitat II, III, The International Recommendations for Water Statistics (IRWS), System of Environmental-Economic Accounting for Water (SEEA) Water, and the Recommendations of UNO Page in water integrated water integrated at regions in the programment for the COCC cruell and page to prove the page in water statistics. (SEEA-Water) and the Recommendation of the OECD Council on water, have been kept in mind as reference of BPs 's base-line. Some BPs in water infrastructure asset management from the The Global Water Research Coalition (GWRC), too. It has also considered The Green Public Procurement issues in all represented authorities in this proposition as participation standard. The BREF's line of the implementation of emissions legislation are analysed too falls proposal in the solution outputs. One of the project's key is to close the water loop, increasing reused water rates so, as CECs is concerned, "Development of the first Watch List under the Environmental Quality Standards" (JRC Tech report), is one of the reference documents

C.1.4 Potential obstacles and resistance

Potential obstacles and resistance

As developed in Partners Description, the General Water Directorate (DGA) of the Generalitat Valenciana (government and administration with autonomous competences in water management for 4.959.968 hab.) is the intellectual promoter of this work. This proposal requires "non-strictly financial parameters" to go on, because of economic static approaches and politically sensitive changes. Whin this region has historically come to a common understanding with enough independence of political conditions. Due to the traditional scarcity and drought situations aggravated by the city population increment (historical migrations, modern touristic pressures), and, overall, actual climate change conditions, a wide socio-political and economical consensus is upraising. Under the coordination of DGA and Alcoy Mayor Leadership, the all-level governance support is integrated. Other possible detected resistances are the public acceptance of the reused water quality and their uses; high cost of infrastructural renewal; entrenched economic interests, the lack or dispersion of needed data. This project is designed to provide those missing data. Another resistance will be the "Nihil de nobis, sine nobis", "Nothing about us without us", underlying concept acceptation. The inclusion of scientific society, industrial chambers, consumers, farmers and environmental associations, from the design stage to the implementation of proposed solutions, is the way of understanding and a quarantee of success

C.1.5 Integrated Approach

Project Acronym: URBAWa-FloMa

Integrated approach

This solution (UWD-UWC) is in fact, a powerful tool for the re-connection between urban water use, reuse and its quality, its value and citizenship rights

The common effort for the creation of a symbiosis between the multi-actor communities, the water knowledge area, and governance schemes will offer an integrated action plan for closing the water loop

As an integral approach, the binding purpose of this solution moves away from "laissez-faire" policies towards a rational model of urban water management. The adaptation to climate change, risk prevention and management or the environmental protection and resource efficiency are obvious concepts that lay in the foundation of this proactive proposition

The enhancement, development and promotion of water circular economy, as water as resource is concerned, is another underlying concept

The expected water savings (lower input flows, reuse, etc.) will relieve the scarcity of water in urban land-scale environment, affording sustainability in inner and surrounding urban productive tissue and avoiding jobs loss. The increase of provided and produced knowledge will be transferred to all industrial, social and governance stratum

Due to the inclusion ab initio of wide stakeholders groups, promoting public awareness, fair costs redistribution based on viability studies, also contemplate the social dimension of access to the UN-SDG6

C.1.6 Link to ERDF thematic objectives and investment priorities

Link to ERDF Thematic Objectives and Investment Priorities

Investment priorities (IP) that appear in the article 5 of Regulation 1301/2013, are strongly linked with thematic objectives (TO) that appear in article 9 of regulation 1303/2013

This project contributes mainly to IP from 1 to 4, however a significant support to several other paragraphs of both has been observed, as listed below:
TO1/IP1.a.b Is a cross-cutting priority present in the core of the project. It is guaranteed for the participation of universities and its technology transfer departments, in an integrated

partnership

TO2/IP2.c As a solution for water monitoring this project assess the advantage of e-government strategies based on the use of ITC's developing a Cities-to-EU water portal TO3/IP3.c Is a consequence of the knowledge extracted from the project TO4/IP4.c Reducing energy consumption by improving water infrastructures

TO5/IP5a.b Developing floods and droughts mitigation actions

TOG/IP6.b.e.f.g Investing in and supporting technologies for the adaptation to EU requirements and water use efficiency (EIP Water Priorities)
TO9/IP9.b. Urban physical and socio-economic regeneration with new infrastructures and new organizational approaches leading to a more equitable water use.

TO10/IP10 A new master degree specialization in urban sustainability and other training activities are planned for UPV & UV by using the knowledge extracted from this project

TO11/IP11 Improving the responsible authorities capacity to achieve an efficient governance of water resources

C.2 Project context and local partnership

C.2.1 Link with other local/regional/national strategies and policies

I ink with other local/regional/national strategies and policies National and regional EU norms transposition are often considered at local level as sufficient "implication" in strategic water cycle issues. Fortunately, the implication of regional authorities of the Valencian Region, has grown up those two last years as WM and Urban WM is concerned. Long term national Plans of water qualities, treatments, and more specific ones (ie. bathing water qualities) have been crushed by Spanish crisis. Of course, Watershed National departments have played this functions. However, these crisis years have almost stopped medium and long term plans (Hydrological national plan). Though, in water management inclusions as circular economy, or ecoefficiency are concerned, some little essays have been concluded. Alcoy as Aalborg Carte signatory has developed a urban water strategic plan. Unfortunately the fulfilment hasn't been convincing. Alicante developed a Strategic plan for healthy and sustainable city in 2025, following Europe 2020 strategy frame. Following the same pattern, the expected results were low. Alcira, in "response" to a "recent drinking water contamination" sic) has boosted a more restrictive drinking water local regulation. As former said, without a strong coordination figure as DGA, that will impulse such integrated projects, micro or partial strategies will never offer real results and advances in environmental, socio-economics, ecoefficiency and circular economy improvements in urban water management.

C.2.2 Synergies with other projects and initiatives

Synergies with other projects and initiatives DGA has a long list of synergic initiatives promotion. As example, in the last "Conference on WM and renewable energies in the Mediterranean" (CMPR-CIM\Valencia, 18-10-2016) the coordination task force (DGA), has extract some enabling key policies that support related WM and UVM\(general initiatives. Contribute to the sustainable development of the Med providing concrete responses to strategic challenges in the areas of Water was approved as one of the future policy pillars. The typology outputs were overall political positions and exchange of experiences. Through similar experience, cooperation in the EU and MED agendas as Water Framework Directive implementation on water reuse initiatives and development, or, transmitted opinions of the Committee of the Regions on "Effective water management system: an approach to innovative solutions" have been proposed. Follow-up of MED Cop Climate 2016, COP 22 in Marrakech, Nexus Water-Energy-Food Security (UN Water.) and new Sustainable Development Objectives are also considered in synergic meeting's agenda. The ENPI-Water-DROP-Project-II-B/4.3/0617, Integrated Water Resources Management GUIDELINES for the MEDITERRANEAN BASIN, has offered hopeful synergies.

As preparatory work, professional networking activities with the acceptance of DGA and the three involved urban authorities, have been developed. Barcelona, Paris, Bruxelles Region-capitale and Tuscani region inter alia, will institutionally been up to date of this project.

C.2.3 Involvement of wider stakeholders in project design

Involvement of wider stakeholders in project Following the idea of "nothing about us without us". DGA has traditionally been the receptacle that has collected suggestions and proposals for the regional and cities stakeholders. The consultation process for this project 'officially' started at early January 2017, but DGA has a wider set of contribution from social sector about water issues.

The most active stakeholders participating in the Project design have been: Valencian Farmers Association, Wetland Friends Association, New Water Culture Foundation, Ecologist in Action, Valencian Consumers Association, Alcoy Chamber of Commerce (industrial sector), Alicante and Castellon Universities and all the City Councils in La Ribera Baixa District.

Addressing its activities to the achievement of a sustainable urban development, dimate change adaptation, eco-efficiency and circular economy, DGA has coordinated some meetings and assemblies with stakeholder's representatives, enabling the creation of an emerging social dialogue about these issues. These dialogues manifest the social worries and urban authorities have to give reasonable answers to challenges like: water reuse (quality) for different applications; inefficient or disrepair water supply systems (water leaks); who can do the best and cost-effective management and exploitation of urban water systems, public or private entities?; which is the best urban vegetation for irrigation water savings; use of drinkable or waste water for this purpose; how much is end-user reasonable payment for water treatments (potabilization, depuration, regeneration, desalination, etc.); how manage disagreements in cost-sharing; what can offer rain water and flooding catchment; aquifer salinization and bad water quality uptake

Most activities and graphic reportages for Project design phase have been shared in the following link: http://www.agroambient.gva.es/ca/web/agua/fondos-europeos

C.2.4 Involvement of wider stakeholders in project implementation

Involvement of wider stakeholders in project implementation As knowledge is referred, Université libre de Bruxelles, Universidad de Barcelona, Aalborg Universitet, are involved stakeholders due to their participation and transversal experience in modelling, IUWM, live cycle assessment, and indicators proposals (preponderance in WP4, 6).

Experts will also be invited through UPV, UV and UA networks. Legal and regulatory knowledge experts board from Spanish Mnisterio de Agricultura, Pesca, Alimentacion y Medioambiente,

Mnisterio de economía y competitividad, EEA, European Agency for urbanism, regional and urban policy will be involved in coordination with local authorities (preponderance in WP4,5). Social and economic stakeholders (ie.:SME's) are present through all the lifecycle project and will be the also "partners" for after project actions and knowledge transfer (preponderance in

WP4,5,6,7). SME's stakeholders, will take more importance in technical investment part realisation (ie.: water management new technologies), as receptor of the extracted knowledge (preponderanceWP6,8). In WP7 a set of activities are specially developed to increment the multi-actors communities.

Through the Regional Government official relationship, other Regional Governments will be invited and informed at project start, follow-up, and advances (Madrid, Barcelona, Paris-Région e, City council of Lisboa)

in this multidimensional project, thematical task group under the Coordination Team will be created for activities scheme proposal. (PDF doc, fig 2)



C.3 Project objectives, results and outputs

C.3.1 Overall objectives and expected results (changes in the local situation)

PROJECT main objective(s)

The achievement of the main objectives are realistiquely feasible thanks to the composition of the regional and urban authorities and the delivery partners team. The last objective, and the sent a summary and the real achievement of this proposition

1)-Definition of guidelines, methodology and economic, social, data acquisition and legal framework in urban water's areas of interest (including water quality of regenerated waters, flows of

emergent contaminants and energy needing linked to water cycle).

2)-Analytic revision of european, national, regional and local norms to detect barriers or bottlenecks for BAT Bref's integration or application at local level in water management is concerned (including historical water rights).

3)-Data acquisition and integration of technical, environmental, scientific and socio-economical approaches to define urban water management BP, with the goal of achieve the circular economy in water matters (including cascade water use patterns, use of regenerated water and eco-efficiency).

4)-Development and application of cost-benefices viability schemes, by inclusion of environmental, good health and well-being parameters (including cost's projections of the "do nothing"

paradigm), achieving a fair way to share water cost and its public acceptance.

5)-Inclusion of urban, peri-urban, and near-regional multi-actor communities in decisional processes, developing social and public awareness about water value and use, and the circular economy (including a network platform, the Urban Water Portal) by water knowledge divulgation and water education development.

6)-Revision and regulatory development of Urban Water Deal through the Urban Water Contract Mayor's firm commitment.

PROJECT main result(s)

-Obtaining of both analytic and descriptive model of urban water eco-systemic flows, urban inner metabolism flows, critical points detection and their quantitative distributions (Including parametrized life cycle assessment, environmentally and eco-efficiently quantified).

MOZ Result:

-Transversal adaptation or modified BAT proposition, for implementation of BREFs and GPP (lowering water fingerprint, some CEC's inclusions) to local policy and norms. Regional common normalisation transposition or analysis will be elevated to european organisms MO3 Result:

-Adapted implementation of data monitoring (water quality- CEC's-, flows, etc.) and of technical solutions for water savings, water cascade use and circular use of water or regenerated water.

MO4 Result

-Short, medium and long term investment plan viability studies of proposed and implemented solutions, including eco-efficiency, environmental and well-being parameters.

MO5 Result

-Increase of actors communities number and their adherence to the participative network platform.

-Application and viability test of the UWD-UCD development in three mediterranean cities with different water management situations.

Quantified global results:

It is obvious that some MOR (main objective result), have only a yes or no realisation result. Unfortunately, in depth measurements of water flows are practically inexistent or imprecise. (sad example: only the 68% of total valencian urban water public supply network is measured, 32% is estimated. INE, 2014)

However expected result's quantification are:
-Lower the total urban water external uptake in 20% for covering the same needing.
-Lower water leaks in 50%

-Increase the cascade water use in 40%

Increase the water reuse through regeneration process in 15%
-Lower industrial water consumption through stimulation of responsible production & consumption patterns in 10%

-Increase the quality of recycled water in one or two levels (Spanish Quality Index)

C.3.2 Outputs



Work package	Output Number	Project output	Target value of project expected output(s)		
	O4.1.1	Laws Revision	1		
	O4.2.1	Methodology and Guidelines	1		
WP.4 Urban Water Deal: Baseline and Framework Development	O4.3.1	Urban Water Portal			
	O4.4.1	Set of courses and training activities	1		
	O4.5.1	Political Compromises Document "Urban Water Contract"	1		
	O 5.1.1	Political Compromises Signature	1		
NAD 5 I labour Nation Dock to a sel	O 5.2.1	Local Regulations and Policies Improvement	1		
WP.5 Urban Water Deal Institutional Agreement Application in 3 case study by Urban Water Contract Implementation	O 5.3.1	Socio-Economic Water Aspects Improvement	1		
	O 5.4.1	O 5.4.1 Technical Studies Implementation Results			
	O 5.5.1	Civil Servants and technicians better trained for Circular Economy Management	1		
	O 6.1.1	Set of courses and training activities	1		
WP.6 Academic Knowledge Extraction	O 6.2.1	Set of universitary courses	1		
and Training Activities Development	O 6.3.1	New Master Degree	1		
	O 6.4.1	Formal proposal for a better urban water regulation	1		
	07.1.1	Final Report of social feeling	1		
	07.2.1	Results of the volnteering activities	1		
WP.7 Social and Political Awareness	07.3.1	Society losing the fear	1		
	07.4.1	Gamification Software	1		
	07.5.1	Urban Water Reportage	1		
	18.1	3D Modeling Geographic Information System Software, Equipment Purchase and necessary Inspections Performance	1		
WP.8 Set of Investments in Public Urban Water Services Improvement	18.2	Grants for encourage citizen initiatives to improve Urban Water Management in the frame of the Urban Water Deal	1		
	18.3	Innovative Insfrastructures Building Required for the Urban Water Deal Implementation	1		

C.3.3 Measurement of results

Measurement of results

The lack or dispersion of data is a common situation in such studies. The access and data's production strategy of the UWD-UWC consist precisely in the creation of an enabling key coordination structure for that purpose at highest level of regional water's authorities. Basic data are accessible (Eurostat, INE, CHJ, DGA, etc), precise one, never.

The global measurement strategy consists in the evaluation the impact/benefit of the water value chain improvement from the perspective of the circular economy. Alot of global "indicators" of water quality, sustainability, climate change, environmental impact, etc, are available (JRC, CCDE), however they don't offer a view of evolutionary state of active measures efficiency. Part of this proposition tends to cover this lack. However, the applied model will include parameters as different as atmospheric conditions, or turbidity flow schemes (transport of contaminants) or WMTP(quality of drinking water costs, it will be easy to define the variation rates of the efficiency of measures in water quality depending costs (environmental sustainability) as well as water savings in function of adopted measures or water origin/demand dependence (costs of water movements). It will appear that infrastructures design or modification (and their costs) will be rapidly simulated and adopted (ie.: in torrential regime, to avoid floods or drought, this is a critical point for mitigation or water retention and reuse). Dynamic participation scheme including multi-actors community representatives through and after the life cycle's project will be measured as public acceptance level. The quantity and quality of those representation as well as their implication will be a good evaluation method of social acceptance. Large N-age statistic analysis, is the most used method. Excepted specific objectives referred to available national index levels, for all the above expressed reasons, the quantified objectives are mostly expressed as variation rates.

C.3.4 Methodology for monitoring and measurement of outputs and results



Methodology for monitoring and measurement of ouputs and results

MO1: Based on international experiences, the Bruxelles r-c studies (modified Baccini-Eurostat 2001) are used as base line and basic descriptive water model used. However, the analytic flows and inner urban water metabolism (processes) require from more specific data acquiring and specification (Zhang), the water supply planning in water deficit areas (Molinos-Hernandez) optimization model, will offer a good approximation to analytic model aspects. Others reference papers and applied models (conf.: Bibliographic review) will be taken in mind. National Statistic Institute, Watershed Institutes, Urban authorities, regional government databases, etc., will provide the baseline data.

MO2: The specialized legal boards of DGA and Acoy, Alicante and Alcira cities, helped by University specialized department, will support the exhaustive norms analysis, from local to international level. It includes, UNO/UNEP/OCDE & FAO recommendations on water accounting, water fingerprint, LCA ISO's, value chains, and circular economy EU target's developments.

MO3: GIS (mapping), geo-radar (leaks detection), ITC monitoring support for water quality and flow analysis, are mainly supported by the three universities delivery partners. As emergent contaminants is concerned, UPV chemical dpt. will be in charge

MO4: Expanded Data Envelopment Analysis (DEA), as well as cost-benefits matrices will be used in different scenarios for viability testing and checks. The Aguaenvec tool (LCA LCC-costs nization-) from LIFE10/ENV/ES/520 and new parametrization adds will be used

MO5: Social investigation programs will be used. ACP, AFP, and ANOVA (SPSS, SPAD) analysis will be performed for principals descriptive acceptance range of implication, participation and

The quantitative expected results will be calculated on the obtained baseline data.

*The attached PDF bibliography give guidance of chosen indicators

C.3.5 Target groups

Target Groups

Main target groups are european authorities, concretly the water management policy and decission makers. This project aims to lead water policy makers to improve water management policies and regulation enabling better control systems and stimulation the application of best technologies in a sacheme based in a circular economy approach.

As explained in WP3, target groups include main decission makers from indusrial and agricultural sectors (Farmers communities and industrial bussiness associations) because they are the end-users of a significative percentaje of the regenerated water (in most of the regeneration processes less than 25% of trated water reaches quality enough to be drinkeable, however more than 3/4 of the remaining 75% can be used for agricultural and industrial application following Eopean and national legislation. Thi is why, urban water circular economy involves the "use in cascade" with the participation of the mentioned industrial/agricultural sector in dependence of the main economic activity of the city. More concretly, Alcoy will involve its industrial bussiness association and industrial comerce camera. Acira will implicate the farmers communities existing around the city, and Alicante will involve industrial as well as touristic sector

SMEs as project target groups.

In a more directly approach, the inhabitants os three urban nuclei shall be considered as target groups. The communication strategy includes the participation of several social groups of the cities, developing activities for the involvement and awarenes of all of them.

C.4 Project Project scaling up and transferability

C.4.1 Scaling up of the project

Scaling up of the project

Alcoy, the Main Urban authority, is a signatory of the Aalborg Carte in 1998 (The Charter of European Sustainable Cities and Towns Towards Sustainability). In addition, this action plan, as yet mentioned, is supported by the DGA (Key decision-maker, highest Regional Government Authority in water matters) and Alicante, the second most important city in the Valencian Region (450.000 habitants). It is per se, an applied scalable proposition.

The multi axis methodology that will be developed and applied, include a cost/inhabitant estimation, in function of implementation actions required to obtain the quantified MOR results. The DGA by the co-approval of UWD and UWC with cities, will study regional contributions to the implementation of the required actions (regional budget headings).

Moreover, the national-reginal allocation investments will be considered. The own regional contributions will round 2,5 times/years the amount of the cost of this project. The prevision of UWD-UWC adherence is from 6 to 9 more urban and peri-urban authorities in the following 5 years, covering about 60% of total regional population (about 3.000.000 people), offering economic, social and environmental improvements to 25% of regional territory. In addition to the participating three urban nuclei, two more cities of the Valencian Region have already marked their interest.

C.4.2 Transferability of the project: evidence of demand for your project in other cities

Transferability of the project: evidence of demand for your project in other cities

Following the EEA previsions for climate change, it is obvious that all mediterranean and peri mediterranean cities will be the most affected by water scarcity. Moreover, saline intrusions (cf.: Alicante example) will appear in most costal european urban areas. Floods are also a corre-lated climate change phenomenon (cf.: Alcira example) more and more recurrent in north and central europe too. Water quality of pristine water (diffuse contamination, CEC's, eutrophica-tion, etc,) are a common EU and world concern. The choice of the three urban authorities involved in the resolution of this action scheme cover these situations.

In addition to those situations, the water-resource will then become a crucial issue in sustainability schemes. From the circular economy point of view, the water loop is the near perfect resource-candidate for the demonstration of this concept. Without sustainable water use, at same level that renewable energies, circular economy doesn't exist

This project, that meets investment priorities of EFRD, perfectly encompassed in the Europe 2020 strategy, will demonstrate that applied strategic approaches is the best future option to sustainable urban water management, perfectly transferable to others european cities.

As political aspects are concerned, various times water worked to either foster greater urban cohesion or generate new forms of political conflict. This last aspect is fortunately low-ered by historical and clear survival reasons in Valencian region. The european urban authori-ties should take example of their possible future looking at a seriously endangered region by water scarcity and their proposition of feasible solutions

C.5 References

C.5.1 References of the project References



Part D - Work plan

WP Nr.	Title	Work package type	Start date	End date
1	Preparation	Preparation	12/2016	10/2017
2	Project Management	Project Management	11/2017	10/2020
3	Communication	Communication	11/2017	10/2020
4	Urban Water Deal: Baseline and Framework Development	Implementation	11/2017	08/2018
5	Urban Water Deal Institutional Agreement Application in 3 case study by Urban Water Contract Implementation	Implementation	08/2018	05/2020
6	Academic Knowledge Extraction and Training Activities Development	Implementation	04/2018	10/2020
7	Social and Political Awareness	Implementation	11/2017	09/2020
8	Set of Investments in Public Urban Water Services Improvement	Investment	12/2018	10/2020
9	Closure and knowledge transfer	Closure	10/2020	10/2021



Number			Start Date	End Date	WP budget				
1			16/12/201	31/10/2017	20,000.00				
Partners' involveme	nt								
WP responsible parti	ner Alcoy C	ity Council							
Summary									
Preparation and sub	mission of the applica	tion form							
Work Package Budç	get								
Partner name	Staff cost (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and construction works (€)	Sub-Total (€)	Revenues (€)	Total (€)
Alcoy City Council	0.00	0.00	0.00	20,000.00	0.00	0.00	0.00	0.00	20,000.00



Work Plan Per Work Packages - WorkPackage 2 (Project Management Work Package)

Title Project management

Start Date 01/11/2017

End Date 22/10/2020

Budget 369,913.55

Partners Involvement

PP 6 - Water General Directorate

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council PP4 - Valencian Politechnic University PP5 - University of Valencia General Study

PP6 - Water General Directorate PP7 - Alicante University

Summary

DGA due to its competences, will act as the responsible partner of the Project Management WP. However, this activity will require the participation of all partners and public authorities involved. Project Management WP, will be implemented with the support and the advice of UPV as the Technical and Engineering coordinator. Both organizations will be supported by an independent group of experts who will carry out the technic-administrative work including the performance of necessary reports. This external group of expers with high experience in EU co-funded projects magement tasks will guarantee the quality and transparency in project management activity as teamwork by the use of a network among all the participants enabling the information flows. The project management WP objective is to catch these information flows making UIAPS know them.

In this WP framework at least one report each 6 months will be sent to UIAPS. These reports will include the state of the project, its financial and temporal accomplishment and the selected quantitative and qualitative indicators measuring project results and social impact.

Independent experts team will asign a score to each activity of the project in relation with its objectives fulfilment.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
A2.1	Periodic Reporting to UIA Permanent Secretariat	This activity will begin with a starting report, informing the initial situation of the project and stablishing the baseline. A set of 5 aditional reports will be sent to keep and adequate interaction between the UIAPermanent Secretriat and Project Partnership. An external technical team conducts this task, which help DGA UPV and Public Authorities in preparing tasks and will carryout monitoring and supervision in an independent and impartial way. Reports will describe the status of the project according to technical and acconomic indicators of progress (supervision both technical and administrative progress, which together with the deliverables associated to each task reflect the work performed and the means allocated in each action.	Start date 01/11/2017	End date 22/10/2020



Deliverable number		Deliverable and partners involved	Target value	Delivery date
	Title	Initial Report		
D 2.1.1	Description	This initial report will inform the baseline situation at the project starting. The measurement of results and the methodology used is described in section C3.3 and C3.4, however this report will enlarge the set of progress indicators that will be used and will settle the starting point.	Target value	Delivery date 08/02/2018
	Title	First Miestones Report		
D2.1.2	Description	As the project will last for 36 and important milestones are achieved in the first 6, a second report after this first period is adequate to keep a reasonable communication with UIA permanent secretariat. This report will describe the status of the project according to technical and economic indicators of progress / supervision both technical and administrative progress, which together with the deliverables associated to each task reflect the work performed and the means allocated in each action for this period.	Target value	Delivery date 26/07/2018
	Title	Md-Term First Report		
D 2.1.3	Description	The third Project Management report correspondig to the second activity period. The date has been scheduled to englobe the most importat milestones of this peiod. This report will describe the status of the project according to technical and economic indicators of progress / supervision both technical and administrative progress, which together with the deliverables associated to each task reflect the work performed and the means allocated in each action for this period.	Target value	Delivery date 21/02/2019
	Title	Md-Term Second Report		
D 2.1.4	Description	A Project Management report for the third project period. This report will describe the status of the project according to technical and economic indicators of progress / supervision both technical and administrative progress, which together with the deliverables associated to each task reflect the work performed and the means allocated in each action for this period.	Target value	Delivery date 25/11/2019
	Title	Final Period Initiation Report		
D 2.1.5	Description	A Project Management Report before starting the last working phase. This report will describe the status of the project according to technical and economic indicators of progress / supervision both technical and administrative progress, which together with the deliverables associated to each task reflect the work performed and the means allocated in each action for this period.	Target value	Delivery date 05/05/2020
	Title	Final Project Management Report		
D 2.1.6	Description	The last Project Management report. It shall be in line and used as a baseline for the realization of the final progress report and the final qualitative report in the frame of "Clousure and Knowledge Transfer" VMP. This report will describe the succes level at the end of the project according to technical and economic indicators of progress / supervision both technical and administrative progress, which together with the deliverables associated to each task reflect the work performed and the means allocated in each action for the whole Working Time.	Target value	Delivery date 22/10/2020

A2.2	Project Activities C	Coordination	UPV and DGA will be the responsibles of the coordination of project activities. As engineering university, UPV has the capability for technical and academic tasks coordination and supervision. DGA as regional government entity, has the capability for coordinating urban authorities participation. As a complex and multidisiplinary project with an actors wide spectrum, this one requires a meticulous coordination that could guarantee the accomplishment of the objectives in the scheduled time.	Start date 01/11/2017	End date 22/10/2020
	Deliverable				
	number		Deliverable and partners involved	Target value	Delivery date
		Title	Deliverable and partners involved Project Coordination Tasks	Target value	Delivery date



	get							
PP1 - Alcoy City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	As the Main Public Authority, this partner's staff are the responsible of communication with UIAPS thus will have constat staff working on, in a partial time.	N/A						
Amount (€)	8,916	1,337.40	0	0	0	10,253.40	0	10,253.
PP2 - Alcira City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Some work ours of this partner's staff will be dedicated to Project Management Tasks throughout the Project	N/A						
Amount (€)	1,836	275.40	0	0	0	2,111.40	0	2,111.
PP3 - Alicante City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Some work ours of this partner's staff will be dedicated to Project Management Tasks throughout the Project	N/A						
Amount (€)	1,836	275.40	0	0	0	2,111.40	0	2,111
PP4 - Valencian Politechnic University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	The required personal for partnership coordination and project management tasks. At least one person will dedicate nerby 40-50% of work time to this WP	N/A	This amount will cover all the necessary displacements among the City Councils, UPV and DGA offices for Project Management tasks. As well traels to appointments and meeting with other stakeholders					
Amount (€)	31,899	4,784.85	8,000	0	0	44,683.85	0	44,683.
PP5 - University of Valencia General Study	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Some work ours of this partner's staff will be dedicated to Project Management Tasks throughout the Project	N/A						



PP6 - Water General Directorate	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Some work ours of this partner's staff will be dedicated to Project Management Tasks throughout the Project	N/A		The implementation of this WP will be supported for an external group of experts in Project Management in order to ensure the the quality of the work				
Amount (€)	18,000	2,700.00	0	286,316	0	307,016.00	0	307,016.00
PP7 - Alicante University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Some work ours of this partner's staff will be dedicated to Project Management Tasks throughout the Project	N/A						
Amount (€)	1,625	243.75	0	0	0	1,868.75	0	1,868.75



	Indicative budget breakdown per year								
Year	2017	2018	2019	2020	Total				
Amount (%)	30 %	15 %	20 %	35 %	100.00 %				
Budget (€)	110,974.06	55,487.03	73,982.71	129,469.74	369,913.55				



Work Plan Per Work Packages - WorkPackage 3 (Communication Work Package)

Title Communication 12/11/2017 Start Date End Date 22/10/2020

Budget 123,986.95

Partners Involvement

PP 6 - Water General Directorate

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council PP4 - Valencian Politechnic University PP5 - University of Valencia General Study

PP6 - Water General Directorate PP7 - Alicante University

Summary

The communication strategy will be developed in two levels. In an international level, the participation in european platforms, entities and programmes such as URBACT, EUROCITIES, Energycities, EIP water and Wss TP will be used for communication actions disseminating the information along Europe. As well, the possition of Valencian Government in the European Comitee of the Regions is an important factor for policy actors awareness.

In a local level, the involvement of further local autorities and decision-makers is a communication priority, as well as the involvement of civil organizations (as mentioned in section C2.3 and C2.4). This will be achieved by official acts (that will be done coinciding with the main project milestones) coordinated by DGA.

For non governmental communications, UPV and UV will play a fundamental role by involving the University Community in the communications, a key sector in the objetives achievement. Both university will enable the participation of the projetc's partnership in seminars and conferences related with water management. Moreover, Universities will perform together a set of scientific and non-scientific publications about the projetc's achievements, for example in the magazzine "Urban Water Journal". There is agreed with local journals that will unlight the relevant articles. will publish relevant articles

DGA and Urban Authorities will enable a site inside its webs, for publicating all the projetc's news and other relevant information.

Communication objective

In the water circuar economy context, one of the main impediments is the lack of public aceptance of the reused water due to the popular beliefs about it could have worse quality than the pristine water. The objetive of this WP is to respond to the public worry enablig the public aceptance of re-used water if it has been properly treated.

Target groups

In a first approach, main target groups will be the inabitants of the urban areas involved in this project. Also, decision-makers of the industrial (impresarios associations) and agricultural (agriculteers and irrigators communities) sectors who will be the end-users of a significative percentage of reused water. Urban authorities from nearly areas will be the second target group and in a wider view, all the European Urban autorities and of course, other water management policy makers

Activities and Deliverables

Activity number	Activity	/ title	Activity description and partners involved	Start date	End date
A3.1	Start up activities		The start up event will consist on a great conference where one representative of each Urban authority, each Delivery Partner and UIAPS staff will explain their roles in the project. Representatives of main urban autority, DGA UPV, UV and UIAPermanent Secretariat will offer a dissertation to explain the framework of the project and the posibilities that UIA offers for urban authorities in the region. Regional public authorities (Mayors), decision-makers and civil organizations will be summoned for DGA however, the event will be open for all citizens. DGA will as well launch a call for european public authorities. The act will be recorded and uploaded to the partner's website. This act will be celebrated on the UPVs events hall.	Start date 25/01/2018	End date 26/01/2018
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Start up activity deliverable		
	5044		Adigital format report about the act.	Target value	Delivery date
	D 3.1.1	Description	It will be composed of a recording and pictures of the event as well as a transcrption of the dissertations that will include the questons and answers as an indicator of the interaction with the public. Aregistration sheet with the signature of all the participants will be attached	1	26/01/2018

		UPV has already agreed with the scientific journal "Urban Water Journal" that at least one article will be published for the UIA project.		
A3.2	Publications	Several other newspaper are foreseen to publish articles about this project. Urban Water Deal Document will be done as an "all together" publication between all the partners.	Start date	End date
A3.2		This last publication will be part of the teaching materials of the master degree developed in WP6.	22/08/2019	20/10/2020
		These publications will, of course, make clare reference to the ERDF and the UIA funding.		



Deliverable number		Deliverable and partners involved	Target value	Delivery date
	Title	"Urban Water Jorunal" Article		
D 3.2.1	Description	Acopy of the "Urban Water Journal" with an article about this UIAproject will be delivered. This article will explain in a scientific level language, the projetc's details, in order to achieve a good awareness in the sicentific community. Urban Water Journal aims to provide a forum for the research and professional communities dealing with water-related and water-based systems in the urban environment.	Target value	Delivery date 15/01/202
	Title	Compendium of articles		
D 3.2.2	Description	Acompendium of all publisehd articles, in relation with this project, will be delivered dose to the end project date. There exist several potential journals, maganizes and newspapers that is expected to be interested in the project. The "Publications" activity will lead to achieve quality and numerous publications that will be reflected on this deliverable.	Target value	Delivery date 15/09/202
	Title	Urban Water Deal Document		
D 3.2.3	Description	Urban Water Deal, is one of the main project's outputs. As a communication activity, this document will be published as a single book. Acopy of this book will be delivered as a project's deliverable.	Target value	Delivery date 21/11/201

A3.3	Digital activity		All partners are going to create a new site on their web to announce their participation in the project. As well, a new web will be created, where all the partners will contribute. This website will consist on two parts, one of them is the "Urban Water Portal" which is an output of the implementation NP4. The other part of the website will be a portal for project knowledge spread. This part will be done as a communication VP digital activity. Web site will be created by partners own staffs. Nevertheless, Project's Partnership will work hard for having a significative presence in social	Start date 10/01/2018	End date 21/10/2020
			media. The creation of a Twitter, Facebook and LinkedIn acount are guaranted.		
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Compendium of news published in the Partners and Urban Autorities websites	Target value	Delivery date
	D 3.3.1	Description	As all partnerts will publish informations on their own websites, this compendium will compilate all the digital communitication works for their own websites.	1 1	21/10/2020
		Title	Project's Website	Target value	Delivery date
	D 3.3.2	Description	After the project's approval, partners will create all together a website. A document with the descrption of this website will be a deliverable for this activity.	1	15/01/2018

As explained in section C 2.4, is expected to make at least 1 public act each 6 months since the starting date. This acts will include the participation of main stakeholders to explain the projects achievements in public awareness. Acts will be organized as a public chat, where all assistants will be able to ask questions after the projects representatives spoken. As the start up event, these activities are planned to be realizaed in the UPV events hall, however it could change, realizing activities in each participating city (Alcoy, Alcira, Alicante) to asecure a fair geographical localizations distribution. Participation in other public events like seminars and conferences, as national, international as UIA organized is foreseen.	0/2020	20
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Deliverable number		Deliverable and partners involved	Target value	Delivery date
	Title	First Public Event, Transcription and Record		
D 3.4.1	Description	Afile that will include the transcription of the discourse and subsequent dialogues as well as a video record of the activity. In the implementation WP "Social Awareness" these records and transcription will be used to analize the impact of the project effects on population.	Target value	Delivery date 14/06/20
	Title	Second Public Event, Transcription and Record		
D 3.4.2	Description	Afile that will include the transcription of the discourse and subsequent dialogues as well as a video record of the activity. In the implementation WP "Social Awareness" these records and transcription will be used to analize the impact of the project effects on population.	Target value	Delivery date 24/01/20
	Title	Third Public Event, Transcription and Record		
D 3.4.3	Description	Afile that will include the transcription of the discourse and subsequent dialogues as well as a video record of the activity. In the implementation WP "Social Awareness" these records and transcription will be used to analize the impact of the project effects on population.	Target value	Delivery date 15/08/201
	Title	Forth Public Event, Transcription and Record		
D 3.4.4	Description	Afile that will include the transcription of the discourse and subsequent dialogues as well as a video record of the activity. In the implementation WP "Social Awareness" these records and transcription will be used to analize the impact of the project effects on population.	Target value	Delivery date 20/02/202
	Title	Fifth Public Event, Transcription and Record		
D 3.4.5	Description	Afile that will include the transcription of the discourse and subsequent dialogues as well as a video record of the activity. In the implementation WP "Social Awareness" these records and transcription will be used to analize the impact of the project effects on population.	Target value	Delivery date 13/08/202
	Title	Sixth Public Event, Transcription and Record		
D 3.4.6	Description	Afile that will include the transcription of the discourse and subsequent dialogues as well as a video record of the activity. In the implementation WP "Social Awareness" these records and transcription will be used to analize the impact of the project effects on population.	Target value	Delivery date 20/10/202
	Title	Participation in external events		
D 3.4.7	Description	The participation in other events like seminars and confeences is expected. This participation can be either as public or as spoker. The assitance to the events will be recorded in a report that will be a deliverable for this action.	Target value	Delivery date 20/10/202

A3.5	Promotional mate	rial	Regenerated bottled water and desalinated bottled water, is a new concept of promotional material. When waste water is submitted to a regeneration procose good enough to make it drinkeable (e.g.nano-filtration) it could be called regenerated water. Desalinated is a seawater submitted to a desalination process. Both waters will be produced by using DGA water treatment infrastrucutres and will be bottled for human consumption. This promotional material is linked to the WP7 and will be used in the raising awareness activities. Also, as a promotional material, will be given in the project's public events and as a present for key decision-makers in order to demostrate the healthiness of these waters. Promotional pens are also considered here.	Start date 05/02/2018	End date 25/03/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Regenerated and Desalinated Bottled Water		
	D 3.5.1	Description	At least 3 different kinds of regenerated/desalinated water will be produced while the project implementation. These kinds of water will be bottled for human consumption and one bottle of each kind will be sent to the UIA permanent secretariat. These at least three bottles will be the deliverable of this activity, including a report that will explain the regeneration/desalination process	Target value	Delivery date 25/03/2020



A3.6	Media relations		DGA and other project partners are important entities in national or even european level. Project's news are expected to attract as much national as international media. Currently part of the work for media contacting is already done. TVMediterráneo, a TVchanel of the valencian region, is already interested in covering the news related to the UIA project, having agreed will cover the start up activity. Several national radio have shown as well their interest in talking about the project. UPV radio and UPV tv, are the UPV media channels which have national scope. Are as well followed by internet across the world by universitary public. Since UPV is a project partner, there is guaranteed that will use its own media for project diffusion.	Start date 12/11/2017	End date 11/10/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Media Relations File		D.F
	D 3.6.1	Description	Afile including the record of all the press aprearances (press releases, photos, fact sheets) as well as a report of all media contact will be performed as deliverable for this activity.	Target value	11/10/2020
A3.7	Final dissemination (mandatory)	on activity	The final communication activity will consist on the organization of the International Urban Water Conferences, a public event where international experts (e. g. BATir: http://batir.ulb.ac.be; Ecores, are expected to come) and UlA permenent secretariat will be encouraged to participate as speakers. Conferences will consist on water management innovations and new achievements and, of course, UIA Program (as PS) and this project results and attainments Urban Authorities and decision-makers around Europe will be invited to the event as well as Civil Society and SME's representatives. UPV events hall will serve as a perfect place for this activity This event will be co-financied by regional government, and private and public enterprises.	Start date 20/10/2020	End date 22/10/2020
A3.7		on activity	Conferences, a public event where international experts (e. g. BATir: http://batir.ulb.ac.be; Ecores, are expected to come) and UIA permenent secretariat will be encouraged to participate as speakers. Conferences will consist on water management innovations and new achievements and, of course, UIA Program (as PS) and this project results and attainments Urban Authorities and decision-makers around Europe will be invited to the event as well as Civil society and SME's representatives. UPV events hall will serve as a perfect place for this activity		
A3.7	(mandatory) Deliverable	on activity	Conferences, a public event where international experts (e. g. BATir: http://batir.ulb.ac.be; Ecores, are expected to come) and UIA permenent secretariat will be encouraged to participate as speakers. Conferences will consist on water management innovations and new achievements and, of course, UIA Program (as PS) and this project results and attainments Urban Authorities and decision-makers around Europe will be invited to the event as well as Civil Society and SME's representatives. UPV events hall will serve as a perfect place for this activity This event will be co-financied by regional government, and private and public enterprises.	20/10/2020	22/10/2020



PP1 - Alcoy City		Office and	Travel and	External expertise				
Council	Staff costs	administration	accommodation	and services	Equipment	Sub-total	Revenues	Total
	Alicante city Council staffs will	N/A	Car travels to assist the events	·Participation in external events				
	mandatory		(from Alcoy to	(registration fees)				
	participate in all public events as		either Alcira, Alicante or	·Promotional meterial				
	organizing and supporting DGA as		Valencia). Also travels to	acquisition				
Description	speakers. As well will participate in		assist to external events are					
	media relations,		contempled in this					
	website and publication		section					
	-Website							
Amount (€)	4,447	667.05	1,641	2,675	0	9,430.05	0	9,430.
PP2 - Alcira City	01-171-	Office and	Travel and	External expertise	F	0.1.4.4.1		T-4-1
Council	Staff costs	administration	accommodation	and services	Equipment	Sub-total	Revenues	Total
	Alcira city Council staffs will	N/A	Car travels to assist the events	·Participation in external events				
	collaborate in all public events as		(From Alcira to either Alcoy,	(registration fees) ·Promotional				
	organizing and supporting DGA as		Alicante or Valencia)	meterial acquisition				
Description	speakers. As well will participate in		Also travels to assist to external	Promotional Pens)				
	media relations,		events are					
	website and publication		contempled in this section					
	-Website							
Amount (€)	3,398	509.70	550	2,675	0	7,132.70	0	7,132.
PP3 - Alicante City	Staff costs	Office and	Travel and	External expertise	Equipment	Sub-total	Revenues	Total
Council	Otali Costs	administration	accommodation	and services	Едириен	Oub-total	Nevenues	Total
	Acira city Council staffs will	N/A	Car travels to assist the events	·Participation in external events				
	collaborate in all public events as		(From Alicante to either Alcoy, Alcira	(registration fees) ·Promotional				
	organizing and supporting DGA as		or Valencia) Also travels to	meterial acquisition (
Description	speakers. As well will participate in		assist to external events are					
	media relations, website and		contempled in this section					
	publication -Website		Section					
	-vebsite							
Amount (€)	3,410	511.50	1,650	2,675	0	8,246.50	0	8,246.
PP4 - Valencian Politechnic University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
	UPV will have a key role in	N/A	Most of the events will be done in	Participation in external events	Since UPV is contributing with			
	publications, media relations		Valencia, however is expected to	(registration fees)	its own events hall			
	and in the		make at least one public event in		for public events, normal fees			
Description	organization of communications		Alicante Province.		(1500€/day) shall be considered as			
	events. UPV will use its own staff		Participation in external events will		seen in the link: http://www.upv.es/			
	combined with students volenteer		need a budget reservation for		entidades/AG/info web/ag/info/tarifas			
	work -Website		travels		2016.pdf			

PP5 - University of Valencia General Study	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Professor Frances will be responsible of the drafting of most of the publications and will have a keyrole as spoker in public events. His fees are contempled here -Website	N/A	Most of the events will be done in Valencia, however is expected to make at least one public event in Alicante Province. Participation in external events will need a budget reservation for travels	Participation in external events (registration fees)				
Amount (€)	4,911	736.65	1,050	675	0	7,372.65	0	7,372.65
PP6 - Water General Directorate	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	-Staff coordinating Communication activities through the office for media relations and communications of the Valencian Regional government. -Website	N/A	This item will cover DGA respresentatives travels to attend the events. As well travels for inveted personalities are budgeted here.	-Participation in external events -Payment for press appearances and publicity -Publication of the book "Urban Water Deal" (1000 copies, around €5 each copy) International experts participation	Promotional Gifts Costs. 25,000 bottles (Around €1 per bottle) includind the plastic bottle, the labels, transport and the cost of desalination/regen eration processes			
Amount (€)	8,740	1,311.00	15,050	15,636	25,512	66,249.00	0	66,249.00
PP7 - Alicante University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Participating in Events as well as in the web design	N/A	Car travels to assist the events (from Alcoy to either Alcira, Alicante or Valencia). Also travels to assist to external events are contempled in this section	Participation in external events (registration fees)				
Amount (€)	3,418	512.70	1,636	675	0	6,241.70	0	6,241.70
Total (€)	35,793.00	5,368.95	22,627.00	25,686.00	34,512.00	123,986.95	0.00	123,986.95



	Indicative budget breakdown per year									
Year	2017	2018	2019	2020	Total					
Amount (%)	25 %	20 %	20 %	35 %	100.00 %					
Budget (€)	30,996.74	24,797.39	24,797.39	43,395.43	123,986.95					



Work Plan Per Work Packages - WorkPackage 4 (Implementation Work Package)

Title Urban Water Deal: Baseline and Framework Development

Start Date 22/11/2017

End Date 15/08/2018

Budget 312,250.90

Partners Involvement

Responsible Partner

PP 6 - Water General Directorate

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council PP4 - Valencian Politechnic University PP5 - University of Valencia General Study

PP6 - Water General Directorate PP7 - Alicante University

Summary

Urban Water Deal (UWD) is a functional conceptual model for urban water management, based on Methabolic Ecosystemic approach to urban ecosystem. UWD is being created with the aim of being applicable to every urban area.

The actions included in this WP describe the main sections of the UWD. Inside this WP, the definition of the Metabolic-Ecosistemic Flows Scheme is shaping.

UWD is still a concept framed for the knowledge and experience of the partnership. Even though the partner's capacties are excellent for this task, the implementation of the project solution is not only made of good wills, but it needs a big amount of work. This WP tackles the necessary works performance.

Starting with a Legislation and Policy revision as a baseline and frame definition. Once it's finished, universitary experts and authorities technicians will develop the methodology for

UMD implementation. After that the Urban Water Portal website will be done as a management and social awareness tool. The subsequent action consists in the proposition of the adequate training for civil servants implementing a water circular economy scheme.

This WP will finish with the creation of the Urban Water Contract, a binding political compromise which shall be signed to each authority implementing the UWD getting closer to the

circular economy.

Activities, Deliverables and Outputs

ctivity umber	Activity	rtitle	Activity description and partners involved	Start date	End date
A4.1	Legislation and Po	olicy Revision	This activity will include the revision of regional, national and EU legislative frameworks in order to detect legislative barriers and bottlenecks as well as oportunities for reinforce water regulation. In the same way this activity sall detect european initiatives and strategies that could make synergies with the Urban Water Deal (UWD). As a preparation for WP5 this activity shall generate an adequate methology for locals laws analysis and its positive or negative influence in the UWD implementation. As spanish government entities, DGA and 3 Urban Authorities have the capacity to demand legal consultancy support to spanish state through the state's legal consultancy department DGA will use as well regional government laws consultors	Start date 22/11/2017	End date 29/03/2018
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Legal Revision Summary		
	D 4.1.1		Areport with a summary of the work performed in this action will be sent as deliverable for this activity.	Target value	Delivery date
	D4.1.1	Description	The main conclusions, as bottlenecks and regulatory regulatory barriers for best technologies applications, will be on a special section for facilitate its revision by the UIA Permanent Secretariat and, if required, for the pertinent UIA expert. Will be delivered together with a report about how the work has been performed.	1	29/03/2018
	Output Number		Project output	Target value	Delivery date
		Title	Laws Revision		
			Areport created by project's partners, where all the water concerning regulation, from regional	Target value	Delivery date
	04.1.1		(Comunidad Valenciana), national (Spain) and European, will be compiled. As well an analysis of		



With the participation of both academic and governmental sectors, this activity will be able to create the adequate methodology for the performance of following activities: 4.2.11nvestigation of socity's feeling and social aceptance baseline 4.2.2Study of economic aspects and costs distribution UWD Implementation Methodology and Guidelines 4.2.3Infrastructures revision, cartography and 3D modelling 4.2.4Data adquisition protocols including the use of ITCs for monitoring 03/12/2017 21/06/2018 4.2.5Stablishment of a baseline for Best Available Technologies and technics in relation with each when autority problems and competences

There exist several guidelines for circular economy implementation, climate change urban adaptation, water treatments for regeneration, that will consist the baseline for this action Deliverable Deliverable and partners involved Target value Delivery date number Title Methodology and Guidelines Target value Delivery date D421 Acopy of all the methology and guidelines developed will constitute the deliverable for this activity, together with a report about how the work has been performed. 21/06/2018 Description Output Project output Delivery date Target value Title Methodology and Guidelines A conceptual guide for Urban Water Deal implementation will be performed including all the methodology developed in the Action A4.2

These guidelines shall consider the "Covenant of Mayors" and the Guidelines "Urban Adptation to Climate Change in Europe 2016, Transforming Cities in a Changing Climate" of the European Target value 04.2.1 21/06/2018 Description Environmental Agencywhich will complemet the UWD documnt "Urban Water Portal" is a website where the most important data bout urban water of each participating Urban Authority will be shared.

Maps of urban water flows (in a simplified and figurative mode) will be use as a powerful information tool for stakeholders and other citizens who ill be able to express their opinion and make "Urban Water Portal" desing and propositions as a kind of network. These maps will depict most important data, as energy consumpltion, water quality parameters, water reservoir volumes... Start date Fnd date A4.3 planning 22/01/2018 17/07/2018 This activity leads to the desing and planning of this on-line platform, the implementation of each map of each city is carried out in the WP5. Deliverable Deliverable and partners involved Target value Delivery date Urban Water Portal Report Target value Delivery date D 4.3.1 Adocument with a report about how the work has been performed and a "Urban Water Portal" 17/07/2018 website descrption and webmap. Description Output Target value Project output Delivery date Number

Staffs Instruction Training basics for civil servants implementig the Urban Water A44 Staffs Instruction Training basics for civil servants implementig the Urban Water Once the definition is performed and agreed between urban authorities, DGA and Universities, in the Start date End date	A4.4	Training basics for civil servants implementig the Urban Water	of the circular economy. Once the definition is performed and agreed between urban authorities, DGA and Universities, in the frame of this activity, the training activities and courses will be created in A6.1. In this activity, the implication of external experts from european institutions and european universities as advisors, will be an essential phase, that will enable the collection of the best		End date 24/05/2018
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Urban Water Portal is an interactive website that ill continue in use after the end of the projecte. This

website will be enlarged as more urban authorities will start joining and implementig the Urbar

This won't produce revenues, however will lead to a better administrative and management

ss improving the administration's envoronmental behaviour

Urban Water Portal

Water Deal.

effectivene

Title

Description

04.3.1

Target value

Delivery date

17/07/2018

1



Deliverable number		Deliverable and partners involved	Target value	Delivery date
	Title	Training and courses description		
D 4.4.1	Description	Areport including all courses and training activities description (temary, expected duration, target users) The report will include a description on how the work has been performed (participant people, number of meetings, bibliography consulted, external experts that have taken part in the process)	Target value	Delivery date 24/05/2018
Output Number		Project output	Target value	Delivery date
	Title	Set of courses and training activities		
04.4.1	Description	The set of courses and training activities developed in this activity, is an output that can be considered tangible or intabgible (as knowledge is intangble but papers are tangible). This output will be used for others actions WP 5 and 7. As well, one of the expected results of this project is to achieve that other urban authorities sign the Urban Water Deal, so this output will remain in use after the end of the project and potentially will	Target value	Delivery date 1 24/05/20

A4.5	Public Authorities Compromises Pro Water Contract)		Urban Water Deal will include a set of political compromises called "Urban Water Contract". This activity consist in the development of these political compromises in water management. Compromises will leave from a conexion between technical and academic part with the political actors. As well, this proposal will include the social view, extracted in the desing of this project. The Urban Water Contract will collect political compromises that a public authority shall sign for joining the "Urban Water Deal"	Start date	End date
	vvater Contract)		These compromises will be made bearing in mind main european circular economy, urban and water political initiatives acomplishment. Aalborg carte, basque declaration and the covenant of mayors will constitute a baseline for this action	15/01/2018	15/08/2018
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Urban Water Contract		
	D 4.5.1	Description	Are port summaryzing the work performed and including the "Urban Water Contract" with all the political compromises that mayors will sign, will constitute the deliverable for this action.	Target value	15/08/2018
	Output Number		Project output	Target value	Delivery date
		Title	Political Compromises Document "Urban Water Contract"		
	O4.5.1	Description	The Urban Water Contract will collects political compromises that a public authority shall sign for joining the "Urban Water Deal". These compromises will be sign for mayors of three participating urban authorities (Acoy, Acira, Alicante). This fact constitutes a tangible output (signed documents) and an intangible output since politiciens are compromising for doing a proper water management adapting the Urban Water Deal for their cities	Target value	Delivery date 1 15/08/201





ork Package Budç	jet							
PP1 - Alcoy City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	In this WP, civil servants of this urban authority will dedicate part of their work time to work on the project's activities. From administratives to technics specialized in water management	N/A	This WP involves a necessary set of meetings with at least one representative of each entity shall be present. Most of them will take place in Valencia city so transport costs are budgeted here.	-External expert's fees for legal consultancy, mainly A4.1 but also in all the other activities -External expert's fees for policy advise in A4.5				
Amount (€)	15,038	2,255.70	10,974	8,950	0	37,217.70	0	37,217.70
PP2 - Alcira City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	As salaryin all the city councils are approximately the same, there is budget the same amount of money for each Urban Authority. The three will have same participation on this WP.	N/A	This WP involves a necessary set of meetings with at least one representative of each entity shall be present. Most of them will take place in Valencia city so transport costs are budgeted here.	-External expert's fees for legal consultancy, mainly A4.1 but also in all the other activities -External expert's fees for policy advise in A5.5				
Amount (€)	15,038	2,255.70	11,182	3,400	0	31,875.70	0	31,875.70
PP3 - Alicante City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	As salary in all the city councils are approximately the same, there is budget the same amount of money for each Urban Authority. The three will have same participation on this WP.	N/A	This WP involves a necessary set of meetings with at least one representative of each entity shall be present. Most of them will take place in Valencia city so transport costs are budgeted here.	-External expert's fees for legal consultancy, mainly A4.1 but also in all the other activities -External expert's fees for policy advise in A4.5				
Amount (€)	15,038	2,255.70	10,824	3,550	0	31,667.70	0	31,667.70
PP4 - Valencian Politechnic University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	UPV respresentive (Prof. Guillem) will work partially in this WP. In a timely manner Prof. Guillem will distribute and coordinate work between different UPV specilists (Professors, researchers)	N/A	This WP involves a necessary set of meetings with at least one representative of each entity shall be present. Meetings with different members of the university and project collaborators are budgeted	UVP will require external advise and assistnce for actions A4.2 and A4.4 UPV coordinator will select advisors from other european countries to cover a wide range of expertise	An intensive use of UPV equipment (meeting room computers) sall be offset			
Amount (€)	37,029	5,554.35	12,077	12,642	1,700	69,002.35	0	69,002.35

PP5 - University of Valencia General Study	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	The Research Group in Water Economy is a key participant on this WP. Professor Hemandez (group director) will dedicate a great percentage of his worktime and will coordinate his Group participation	N/A	This WP involves a necessary set of meetings with at least one representative of each entity shall be present. Meetings with different members of the university and project collaborators are budgeted	UV will require external advise and assistnce for actions A4.2 and A4.4 UV coordinator will select advisors from other european countries to cover a wide range of expertise				
Amount (€)	32,181	4,827.15	11,927	12,254	0	61,189.15	0	61,189.15
PP6 - Water General Directorate	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	DGA's technics will provide the necessary support for the implementation of this WP. Technics and DGA's Director will work on a partial time for this WP. Salaries are civil servant normal salaries.	N/A	This WP involves a necessary set of meetings with at least one representative of each entity shall be present. Necessary meetings with other regional government entites are also budgeted here.	-External expert's fees for legal consultancy, mainly A4.1 -External expert's fees for policy advise in A4.5 -External informatc and programation expert's fees for A 4.3				
Amount (€)	18,924	2,838.60	12,246	22,517	0	56,525.60	0	56,525.60
PP7 - Alicante University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Department of ecology of UA will collaborate on the development of this WP. Some staff will dedicate part of their work time to the project implementation	N/A	This WP involves a necessary set of meetings with at least one representative of each entity shall be present. Meetings with different members of the university and project collaborators are budgeted	UA will require the assistance of external experts mainly in A4.2 and A4.5				
Amount (€)	15,758	2,363.70	5,406	1,245	0	24,772.70	0	24,772.70



	Indicative budget breakdown per year									
Year	2017	2018	2019	2020	Total					
Amount (%)	10 %	90 %	0 %	0 %	100.00 %					
Budget (€)	31,225.09	281,025.81	0.00	0.00	312,250.90					

	Indicative budget breakdown per activity								
Activity	Amount (%)	Budget (€)							
A4.1	20 %	62,450.18							
A4.2	26 %	81,185.23							
A4.3	14 %	43,715.13							
A4.4	25 %	78,062.73							
A4.5	15 %	46,837.64							
Total	100.00 %	312,250.90							



Work Plan Per Work Packages - WorkPackage 5 (Implementation Work Package)

Title $\label{thm:contract} \textit{Urban Water Deal Institutional Agreement Application in 3 case study by \textit{Urban Water Contract Implementation} \\$

Start Date 20/08/2018

End Date 28/05/2020

Budget 337,081.95

Partners Involvement

Responsible Partner

PP 6 - Water General Directorate

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council PP4 - Valencian Politechnic University PP5 - University of Valencia General Study

PP6 - Water General Directorate PP7 - Alicante University

Summary

Once WP4 has developed the Urban Water Deal (UWD) frame (Legal, technical, socio-economic andpolitical, methodological aspects) and while in WP6 (A6.1) the necesary courses and training activities are being developing to be used in A5.5 at the end of this WP5, the UWD shall be putted into practice throuth this WP. In this WP, the three participating urban authorities City of Acoy, Acira and Alicante) will implementate UWD. During the implementatin of this WP, the viability of this concept will be assessed with the aim to transfer it to other locations and for circular economy of other resources. After the finalization of this WP, DGA as the regional govenment entity responsible of water management, will elevate the UWD and the extracted knowledge to the European Comitee of the Regions as a proposal for a interegional new water management regulation for the achievement of a real water circular economy. As well, the results of this WP will be transferred to other urban authorities around Europe (WP9) as an example of good practices and better regulations real application. Even though it couldn't exist without other WP, this one is the most important WP since its a real application of currently existent best practices and new regulations that will be proposed.

Activities, Deliverables and Outputs

Activity number	Activity title	Activity description and partners involved	Start date	End date
A5.1	Political Compromises Signature	Political compomises developed in WP4 A4.5 will be signed in this action. The act is planned to be made in one of the Communication events refered in WP3 A3.4 and will be performed after the end of A4.5 since WP4 is mandatory previous to this WP. The act of signing will join 3 Urban Authorities mayors and DGA directeur and will be performed in each city council and in DGA office as a centralizer authority. These acts will take a week to be realized. The signature will start in Alcoy city council on August 20, later in Alcia on day 22, Alicante on day 24 and in DGA office on August 27 2017. Acommemorative souvenir will be made.	Start date 20/08/2018	End date 27/08/2018

Deliverable number		Deliverable and partners involved	Target value	Delivery date
	Title	Political compromises signature		
D 5.1.1	Description	Activity ends on August 27 2018. DGA civil servants will have the responsability to redact this deliverable. Delierable will include a record of the 4 signature events (three urban authorities and DGA the responsible authority of water management in the regional government), a graphic reportage and a conmemorative souvenir.	Target value	Delivery date 27/08/2018

Output Number		Project output Title Political Compromises Signature		Delivery date
	Title	Political Compromises Signature		
O 5.1.1	Description	This activity will produce an intangible, very valuable output. This output is a formal signed commitment of each urban authority and DGA (three city councils and DGA, the responsible authority of water management in the regional government), to adopt the best practices on urban water management. These compromises will remain in force after the end of the project.	Target value	Delivery date 27/08/2018



Even though legislation revision in regional, national and european level has been performed in WP4 A4.1, this action carries out a local legislation revision in each urban authority. These revisions will be a necessary baseline for the succes of the A6.4. Revision will be performed by using the methodology developed in WP4. Local Norms and Policies Start date End date Civil servants, from the legal department of each authority, are in charge of. Special attention for the inclusion of Circular Economy, LCA and Eco-Efficiency concepts will be included. Universities will collaborate, but are not responsibles for this activity. A5.2 Revision 10/01/2019 03/09/2018 Deliverable Deliverable and partners involved Target value Delivery date number Title Report of Regulations and Policies Revision This report will analyze the regulatory bottlenecks and normative barriers for implementation of Integrated Urban Water Management issues. The absence of clear (but foreseen) transnational, national and regional transposition of EU norms in CECs, circular economy and eco-efficiency are concerned, produces a local normative imlementation gap. Target value Delivery date D 5.2.1 10/01/2019 Description Output Number Project output Target value Delivery date Local Regulations and Policies Improvement Title By means of this analysis, a better match between policies and regulations will be achieved. As developed in UWC binding covenant (Section C1.2) BPs on urban water public management, will recive a regulatory support that currently doesn't exists (Overall in maters of water circular economy, eco-efficiency, public service efficincy and CECs). This experience approach will be offered to EU transposition. Target value Delivery date O 5.2.1 10/01/2019 Description Medium & long terms benefits are expected from this output.

A5.3	Implementation of Economics Aspec		By means of the methodology develop in WP4 A4.2, the three urban authorities will perform socio- economic studies (sociological, viability and costs re-distribution approach). Once key aspects indentified, urban authorities will be the responsible of procedures and BPs applications following the headlines of the above developed Institutional Agreement UWD and its Binding Covenant UWC. Parametrisation studies, following multi-actors requisities, will be obviously integrated in this action. Once A5.4 is started and UWP orbal (develop in A4.4) is fullfil with each urban authority data, cocio- economic analysis of the extracted data starts.	Start date 10/01/2019	End date 21/04/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
	D 5.3.1	Title	Common Socio-Economic Scheme Implementation		
		Description	Economic and viability studies of proposed actions for integral urban and peri-urban water management improvements, social investigation (social and public sense of urban water paradigm modification, change of urban water management organitational scheme and water related conflicts resolution).	Target value 1	Delivery date 21/04/2020
	Output Number		Project output	Target value	Delivery date
		Title	Socio-Economic Water Aspects Improvement		
	O 5.3.1	Description	This action will lead to the achievement of an intengible, very valuable output. Abetter managem of socio-economic urban water issues will be obtained. A more fairness of water treatment costs distribution and a better social aceptance of these costs is one of the considerable results of this action. Other interesting result will be the detection of the factors that determine water costs and impacts on circular economy transition.	Target value	Delivery date 21/04/202



A5.4	Technical Actions Implementation		Through methodology and baseline developed in WP4 (A4.2.3, A4.2.4 and A4.2.5), technical and engeneering urban water management actions will be implemented here. This action is directly linked with I8.1 and will lead to a set of improvement proposals (design of innovative infrastructures necessary for a circular economy transition and water management eco-efficiency increasement) shaped in I8.3. This action includes the obtention of water supply and discharge net cartogrphy (monitoring critical spots), leaks detection, collectors visual inspection, contamination points identification Obtention and transposition of data to the Urban Water Portal	Start date 22/04/2019	End date 06/12/2019
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Technical Studies Report		
	D 5.4.1	Description	All refered technical actions above mentioned will be extensively reported. This reports compendium, will be eminently technic and very huge. It will be performed by Universitie's experts working together with SMEs specialist. The complexity of the multi-disciplinary accomplishmments will be here unaffordable. One report for each urban authority will be sent.	Target value 3	Delivery date 06/12/2019
	Output Number		Project output	Target value	Delivery date
		Title	Technical Studies Implementation Results		
	O 5.4.1	Description	This output consist in the strategic operative improvements and action scaling up for the fullfillme of goals of efficency and eco-efficency from the point of view of circular economy and water value chain. As postuled in the UWD-UWC enabling key covenant.	Target value	Delivery date 06/12/201

A5.5	Civil Servant Train	ing	As circular economy and eco-efficiency are concepts whose application is a new challenge for Urban Athorities around Europe, Civil Servants and other technicians working for the government, will need to be trained in these concepts in order to enable a real administration efficiency and quality on the offered services. In this action, the set of courses and training activities proposed in A4.4 and developed in A6.1, will be teached to the relevant staff in each urban authority. These courses, adequated to the job position of each staff, shall lead civil servants and tecnicians to a better understandig of the concept "circular economy" and the possibilities that it offers for money saving and environmental better practices development.	Start date 22/10/2019	End date 28/05/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
	D 5.5.1	Title	Civil Servant Training Activity		
		Description	This deliverable, shall explain which subjects and courses have been teached to each staff and the pertinance of that in relation with the previuos experience and the job position of each one. Training staff will sign in a registry as a proff of its assitance, which will be useful as an indicator of the succes of this action.	Target value 1	Delivery date 28/05/2020
	Output Number		Project output	Target value	Delivery date
		Title	Civil Servants and technicians better trained for Circular Economy Management		
	O 5.5.1	Description	A very interesting and valuable intangible output will be extracted from this activity. The increase of managements and technics skills and habilities water circular economy related, will possibilitate real implementation of a circular economy scheme for water. These habilities will generate benefits evn after the end of the project and shall be updtes in the future to guarantee the highest efficiency of the local and regional administrations.	a	Delivery date 1 28/05/2020





Vork Package Budg	get .							
PP1 - Alcoy City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Alcoy Staffs will organize the first signature act in A5.1 in A5.2 will work on regulation revision. Will colaborate in A5.3 and A5.4 Stuffs in training shall be paid for days invested in trainingA5.5	N/A	A5.1 transport of Mayors to events A5.5 transport to UPV to recieve training	Social investigation studies in 5.3 will require external assistance for enquires and polls. A5.2 will require consultation to external experts A5.1 may require a small catering (coffe&croissants)	For events in A5.1 City Councils events rooms will be used as well as some matterial for assistants comfort. The degradation of this equipment by its use is covered here			
Amount (€)	32,713	4,906.95	1,175	24,431	382	63,607.95	0	63,607.95
PP2 - Alcira City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	A5.1 Alcira staffs will organize the second signature act In A5.2 will work on regulation revision. Will colaborate in A5.3 and A5.4 Stuffs in training shall be paid for days invested in trainingA5.5	N/A	A5.1 transport of Mayors to events A5.5 transport to UPV to recieve training	Social investigation studies in 5.3 will require external assistance for enquires and polls. A5.2 will require consultation to external experts A5.1 may require a small catering (coffe&croissants)	For events in A5.1 City Councils events rooms will be used as well as some matterial for assistants comfort. The degradation of this equipment by its use is covered here			
Amount (€)	29,957	4,493.55	1,128	19,419	345	55,342.55	0	55,342.55
PP3 - Alicante City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	A5.1 Alicante staffs will organize the third signature act In A5.2 will work on regulation revision Will colaborate in A5.3 and A5.4 Stuffs in training shall be paid for days invested in trainingA5.5	N/A	A5.1 transport of Mayors to events A5.5 transport to UPV to recieve training	Social investigation studies in 5.3 will require external assistance for enquires and polls. A5.2 will require consultation to external experts A5.1 may require a small catering (coffe&croissants)	For events in A5.1 City Councils events rooms will be used as well as some matterial for assistants comfort. The degradation of this equipment by its use is covered here			
Amount (€)	40,388	6,058.20	1,161	55,133	369	103,109.20	0	103,109.20
PP4 - Valencian Politechnic University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	UPV experts will advice urban authorities in A5.3 As well UPV will take the leadership in A5.4 putting 5 experts in around 50% of worktime In A5.5 UPV professor will teach civil servants	N/A	In A5.3 and A5.4 UPV staffs will attend to coordination meetings in Urban Authorities locations. Also will travel to supervise the works performance		In A5.5 UPV will be the training center making available the use of its equipment for the training activities			

PP5 - University of Valencia General Study	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	UV Professor F. Hemandez will have a key role in A5.3 as a consultant. In A5.4 will support UPV in specific tasks. In A5.5 UV Professors will teach civil servants togehter with UPVs	N/A	In A5.3 and A5.4 UV staffs will attend to coordintion meetings in Urban Authorities locations. Also will travel to supervise the works performance					
Amount (€)	24,350	3,652.50	1,432	0	0	29,434.50	0	29,434.50
PP6 - Water General Directorate	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	DGA Staffs will organize the last signature act in A5.1 In A5.2 DGA's will work on regulation revision. In A5.4 DGA Stuffs in training shall be paid for days invested in training in A5.5	N/A	Transport of DGA directeur and section chiefs to events performed in A5.1 Also the staffs displacements to UPV to receive lessons is budgeted here	A5.2 will require external laws experts advice. Also a small cattering for event (A5.1) is budgeted here. In A5.5 some lessons ill be teached for external exerts which is budgeted here	For events in A5.1 DGA's events rooms will be used as well as some matterial for assistants comfort. The degradation of this equipment by its use is covered here			
Amount (€)	22,788	3,418.20	566	2,462	375	29,609.20	0	29,609.20
PP7 - Alicante University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	UA experts will support A5.3 in particular moments As well UA will support A5.4 and A5.5 for particular tasks using around 10% of one staff worktime	N/A	In A5.3 and A5.4 UA staffs will attend to coordintion meetings in Urban Authorities locations. Also will travel to supervise the works performance					
Amount (€)	8,557	1,283.55	798	0	0	10,638.55	0	10,638.55



Indicative budget breakdown per year					
Year	2017	2018	2019	2020	Total
Amount (%)	0 %	29 %	36 %	35 %	100.00 %
Budget (€)	0.00	97,753.77	121,349.50	117,978.68	337,081.95

Indicative budget breakdown per activity							
Activity	Amount (%)	Budget (€)					
A5.1	2 %	6,741.64					
A5.2	20 %	67,416.39					
A 5.3	40 %	134,832.78					
A5.4	31 %	104,495.40					
A5.5	7 %	23,595.74					
Total	100.00 %	337,081.95					



Work Plan Per Work Packages - WorkPackage 6 (Implementation Work Package)

Title Academic Knowledge Extraction and Training Activities Development

Start Date 16/04/2018

End Date 22/10/2020 Budget 178,515.25

Partners Involvement

Responsible Partner

PP 4 - Valencian Politechnic University

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council PP4 - Valencian Politechnic University PP5 - University of Valencia General Study

PP6 - Water General Directorate PP7 - Alicante University

Summary

A key factor for a real adoptation of a circular economy (mainly when hydric resource is concern), is the correct training of technicians and other civil servants in charge of water affairs

Akey lated to did a lear adoptation of a directal experience of a standard experience of a stand

knowledge developed and extracted during the project implementation.

In a second phase, this knowledge will be transfered to Universitary courses which will be offered to SMEs and other interested entities. As revenues from this output can be estimated now, the UIApermanent secretariat will be informed in the appropiate moment.

As a final activity, a new master degree will be created by the collaboration of three involved universities

Activities, Deliverables and Outputs

Activity number	Activity	title	Activity description and partners involved	Start date	End date	
A6.1	Civil Servant Cours	This activity involves the creation of courses to solve the lack of adequate training of civil servants and other responsible technicians in water management affairs. The work will be carried out mainly for the Universities, that once A4.4 is performedwill design the courses temary. External expertise and knowledge consultation to other european entities is a key point for this action. Universities as "Universitia Politecnica delle Manche" and "University of Luxemburg", research centres as "Laboratory of Hydrology and Geochemistry of Strasbourg" and the research group on building, architecture and Town planning "BATir", are examples of the entities which are expected to participate as external experts. This activity will conclude in A5.5		Start date 16/04/2018	End date 22/10/2019	
	Deliverable number		Deliverable and partners involved	Target value	Delivery date	
		Title	Set of Courses			
	D 6.1.1	Description	This deliverable will consist of a description of how the work has been performed, sumarizing all the meetings and participation of external experts. This report will include a copy of all the developed courses. Responsibles of this deliverable will be the universities.	Target value	Delivery date 22/10/2019	
	Output Number		Project output	Target value	Delivery date	
		Title	Set of courses and training activities			
	O6.1.1	Description	The set of courses developed under this activity will consist a valuable output which will remain in use after the end of the project for new staff training. This set of courses will be easily transferible be used by other urban authorities around Europe. These courses will need to be updated in the future. It's a tasks that will be performed in the frame of future projects and activities. This output will be used in WPS since are expected to be a requirement for UWD joint	to larget value	Delivery date 1 22/10/2019	



Several courses developed in the previous action (A6.1) are, with small modifications, courses of a great interest as for professionals updating as for university students. These courses can be offered through the Universitie's Permanent Formation Centres. Creation of Univiersitary Courses These courses offered to SME's staffs will contribute to increase its competiveness in water Start date End date It is expected that these courses could generate revenues, however as its impossible to estimate, these are not budgeted here. Anyway coursed are expected to be cheap and supported by for Urban Water Management A6.2 01/09/2019 23/01/2020 Learning universitie's scholarships Deliverable and partners involved Target value Delivery date number Universitary Courses Title Target value Delivery date D 6.2.1 Areport, summarizing how the work has been performed, will constitute the core of the 23/01/2020 1 deliverable. Will include as well a detailed courses description. The responsible partners for this deliverable are the universities Description Output Number Project output Target value Delivery date Title Set of universitary courses Target value Delivery date The set of courses for universitary learning will be the output for this action. 06.2.1 1 23/01/2020 This set of courses will need an adequate team of teachers for being teached properly, however, as a teaching materials are very valuable. Description Both involved universities have already several Master's Degrees in environmental resources studies and management, however a Degree focused on urban eco-systems or urban water management does not yet exist.

The knowledge extracted during the project implementation (WP 4, 5, 7 and 8) will be used as Interuniversitary Master Degree conceptual basis for the development of a new Master's Degree as specialized studies in urban water management, e nablig the instruction of profesionals with the necessary skills to reach a holistic view of all the aspects in water management, from socio-economics to environmental and Start date End date for Urban Water Management A6.3 20/01/2020 22/10/2020 engineering approaches.

This activity will be performed for the 3 participating universities and will be done using the work developed in A6.2 and A6.3 Deliverable and partners involved Target value Delivery date number Title New Master Degree Raport

D 6.3.1	Description	Universities will be the responsibles for this deliverable performance. This deliverable will consist on a detailed description of the master degree and the work performed to carryit out.	Farget value	22/10/2020
Output Number		Project output	Target value	Delivery date
	Title	New Master Degree		
O 6.3.1	Description	The developed master degree will be implanted as a shared titulation between the 3 participating universities. It will constitute a very interesting output which will remain in function long time ago after the project end.	Target value 1	Delivery date 22/10/2020

technics. This document will be boosted on a regional level. In a national and european level will also be defended through the normal ways (European Cometee of the Regions and	Luidhealteranean egidha comitee)	A6.4	Transposition of Knowledge to Normative	Urban Authorities and DGA have the firm will of use the knowledge extracted from this work to propose new regluations and normatives in urban water management. Urban Authorities and DGA representatives, advised by universities experts, will draw up a formal document proposing posibilities for new and better regulation on urban water management and technics. This document will be boosted on a regional level. In a national and european level will also be defended through the normal ways (European Cometee of the Regions and Euromediterranean regional comitee)	Start date 18/09/2019	End date 21/10/2020	
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Deliverable number		Deliverable and partners involved	Target value	Delivery date
	Title	Knowledge transposition to normative, activity report		
D 6.4.1	Description	Adetailed report about how the activity has been developed including the formal legal document expressing the proposal, will consist the deliverable for this activity. Responsibles of this activity will be urban authorities and DGA	Target value	<u>Pelivery date</u> 21/10/2020
Output Number		Project output	Target value	Delivery date
Number		,	rai got raido	Delivery date
Number	Title	Formal proposal for a better urban water regulation		Delivery date



ork Package Budg	jet							
PP1 - Alcoy City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	In A6.1 Alcoy City Council's staff shall attend to the courses development to highlight which are the main deficiences in civil servants and technicians working in whatever water management tasks	N/A	This budget item will cover the costs for necessary displacements and meetings for A6.1 and A6.4					
Amount (€)	752	112.80	233	0	0	1,097.80	0	1,097.8
PP2 - Alcira City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	In A6.1 Alcira City Council's staff shall attend to the courses development to highlight which are the main deficiences in civil servants and technicians working in whatever water management tasks	N/A	This budget item will cover the costs for necessary displacements and meetings for A6.1 and A6.4					
Amount (€)	752	112.80	195	0	0	1,059.80	0	1,059.8
PP3 - Alicante City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	In A6.1 Alicante City Council's staff shall attend to the courses development to highlight which are the main deficiences in civil servants and technicians working in whatever water management tasks	N/A	This budget item will cover the costs for necessary displacements and meetings for A6.1 and A6.4					
Amount (€)	817	122.55	237	0	0	1,176.55	0	1,176.5
PP4 - Valencian Politechnic University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	In A6.1 several UPVs teachers will work on the courses development. As well will be needed in A6.2 and mainly in A6.3. In A6.4 this staff will work just advicing	N/A	Action A6.1, A6.2 A 6.3 will require several meetings and displacements, however most of the interactions may be made by telephon and internet which makes this item cheaper.	A6.1 will require several contacts with european experts in urban water. Their contribution will be used in all the training activities involved in this project. UPV has selected a group of experts.				
Amount (€)	36,696	5,504.40	1,036	36,562	0	79,798.40	0	79,798.4

PP5 - University of Valencia General Study	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	In A6.1 Water Economics Groups of UV will work on courses develpment. As well will be needed in A6.2 and mainly in A6.3 In A6.4 this group will work just advicing	N/A	Action A6.1, A6.2 A 6.3 will require several meetings and displacements, however most of the interactions may be made by telephon and internet which makes this item cheaper.	A6.1 will require several contacts with european experts in urban water. Their contribution will be used in all the training activities involved in this project. UV has selected a group of interest				
Amount (€)	27,710	4,156.50	961	38,663	0	71,490.50	0	71,490.50
PP6 - Water General Directorate	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	DGA's staff will work in A6.1 as Urban Auhoritie's staff. DGA's staff will be also important in A6.4 development	N/A	Action A6.1, A6.2 A 6.3 will require several meetings and displacements, however most of the interactions may be made by telephon and internet which makes this item cheaper.	DGA will need external consultation to support the other partnes on the implementation of this WP. From legislative and policy affairs to technical aspects should be advised for an expert team.				
Amount (€)	1,657	248.55	416	12,350	0	14,671.55	0	14,671.55
PP7 - Alicante University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	UA staff will support the development of actions A61, A6.2 A6.4 and will have an important role in A6.3	N/A	UA is located in Alicante, far away of Valencia, UA participant staffs will need to travel to Valencia at least 3 or 4 times for this WP.					
Amount (€)	7,211	1,081.65	928	0	0	9,220.65	0	9,220.65
Total (€)	75,595.00	11,339.25	4,006.00	87,575.00	0.00	178,515.25	0.00	178,515.25



Indicative budget breakdown per year									
Year	2017	2017 2018 2019		2020	Total				
Amount (%)	0 %	17 %	49 %	34 %	100.00 %				
Budget (€)	0.00	30,347.59	87,472.47	60,695.19	178,515.25				

	Indicative budget breakdown per activity								
Activity	Amount (%)	Budget (€)							
A6.1	85 %	151,737.96							
A6.2	3 %	5,355.46							
A6.3	8 %	14,281.22							
A6.4	4%	7,140.61							
Total	100.00 %	178,515.25							



Work Plan Per Work Packages - WorkPackage 7 (Implementation Work Package)

Title Social and Political Awareness

Start Date 22/11/2017

End Date 02/09/2020

Budget 324,421.10

Partners Involvement

PP 6 - Water General Directorate

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council PP4 - Valencian Politechnic University PP5 - University of Valencia General Study

PP6 - Water General Directorate PP7 - Alicante University

Summary

In the current society, circular economy has a dangerous lack of social aceptance that can carry out problems for decision-makers who wants to adapt a circular economy management approach.

In the case of water, public aceptance is one of the most important impediments. From the partner's previous work, there is obvserved, that even farmers and agriculteers reject the use

In the case of water, public aceptance is one of the most important impediments. From the partners previous work, there is onserved, that even farmers and agriculteers reject the use of regenerated water in most of the cases even when it is of good quality, better than te quality of the normal source of water used.

Framed in these conditions, this activity leads to achieve a good social understandig of what is "water circular economy" and the advantages that the use of regenerated water offers. The aim is to inform to society in general abut all the factors related to desalated and regenerated water.

Topics like emergent pollutants, best regeneration and desalination treatments and quality of the resultant water, green urban water infrastructures, water saving measures or the fairness of water prices shall be highlighted by this WP.

Social awareness is a key factor not only for this work, but for the viability of circular economy across Europe.

Activities, Deliverables and Outputs

number	Activity	title	Activity description and partners involved	Start date	End date
A7.1	Social Investigatio feeling knowing	n and public	Start date 22/11/2017	End date 12/04/2018	
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Public Feeling about water economy	Target value	Delivery date
	D 7.1.1	Description	A document summarizing all the tasks performed in the frame of this action and including a copy of the final report of social feeling (output) will constitute the deliverable for this action	1	12/04/2018
				Target value	Delivery date
	Output Number		Project output	rai get value	2011101 y diato
		Title	Project output Final Report of social feeling	Turget value	2011O. y dato

O 7.3.1

Description



A7.2	Volunteering Activi	ties	In the frame of this activity, each city council has organized a set of volunteering activities in their municipal area. -Alcoywill realize citizen campaigns for ravines cleaning -Alcira will construct artificial wetlands as green filters for water purification in the peri-urban area, with the participation of volunteers citizens as for example schools and SME doin coorporative social responsability activities. As well Alcira will lead reforestation campaigns as well with the participation of volunteers. -Alicante in organizing volunteers campaigns for construction urban green areas as gardens and urban orchars as receptors of non drinkable regenerated waters Budget for this action includes works supervisors salaries and equipment	Start date 15/11/2018	End date 25/03/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Report on vulunteering activities		
	D7.2.1	Description	These deliverables will consist on one report for each urban authority. Reports will detail the performed volunteering activities and will provide visual recording (photos), of the result of each successful work. These photos will be a comparision of the previous status of the activities areas and the status after the activity performed. It will provide a visual indicator of the activity succes. Reports will be complemented with a registry of participants.	Target value 3	Delivery date 25/03/2020
	Output Number		Project output	Target value	Delivery date
	O 7.2.1 Description		Results of the volnteering activities		
			This output has two levels: First, we have to consider the intangible value of the society awareness that will be achieved by the participation of stakeholders and other interested social groups in these activities.		Delivery date 1 25/03/2020
		Description	The tangible output for this project, will be the improvement in the environmental characteristics of the pert-urban area in each city that will consist on a larger forestal area and artificial wetlands (Alcira), urban or		23/03/20/
A7.3	Desalinated/Rege Tasting		The tangible output for this project, will be the improvement in the environmental characteristics of the peri-urban area in each city that will consist on a larger forestal area and artificial wetlands		End date 02/09/2020
A7.3			The tangible output for this project, will be the improvement in the environmental characteristics of the peri-urban area in each city that will consist on a larger forestal area and artificial wetlands (Alcira), urban orchards and gardens (Alciante) and cleaned ravones (Alcoy) Each urban authority will organize on their minicipally a set of public open activities for regenerated/dealinated water tasting where local key decison-makers will be encouraged to assist. For its part, DGA, as a regional government responsible in water management issues, has the capacity for generate greater social impact, so DGAwill organize as well these water tasting activities where, regional and national decision-makers will be summoned as well as mayors of regional cities. Decision-makers of national and european entities will be as well warmly invited to assist. This activity leads people decide which regeneration/desalinatin treatment achieves the bets water flavour.	Start date	End date
A7.3	Tasting Deliverable number		The tangible output for this project, will be the improvement in the environmental characteristics of the peri-urban area in each city that will consist on a larger forestal area and artificial wetlands (Alcira), urban orchards and gardens (Alciante) and cleaned ravones (Alcoy) Each urban authority will organize on their minicipally a set of public open activities for regenerated/dealinated water tasting where local key decison-makers will be encouraged to assist. For its part, DGA, as a regional government responsible in water management issues, has the capacity for generate greater social impact, so DGA will organize as well these water tasting activities where, regional and national decision-makers will be summoned as well as mayors of regional cities. Decision-makers of national and european entities will be as well warmly invited to assist. This activity leads people decide which regeneration/desalinatin treatment achieves the bets water flavour. All waters will have completly health safety, of course. Deliverable and partners involved Water Tasting Records	Start date 17/04/2019 Target value Target value	End date 02/09/2020 Delivery date
A7.3	Tasting Deliverable	enerated Water	The tangible output for this project, will be the improvement in the environmental characteristics of the peri-urban area in each city that will consist on a larger forestal area and artificial wetlands (Alcira), urban orchards and gardens (Alciante) and cleaned ravones (Alcoy) Each urban authority will organize on their minicipally a set of public open activities for regenerated/dealinated water tasting where local key decison-makers will be encouraged to assist. For its part, DGA as a regional government responsible in water management issues, has the capacity for generate greater social impact, so DGA will organize as well these water tasting activities where, regional and national decision-makers will be summoned as well as mayors of regional cities. Decision-makers of national and european entities will be as well warmly invited to assist. This activity leads people decide which regeneration/desalinatin treatment achieves the bets water flavour. All waters will have completly health safety, of course.	Start date 17/04/2019 Target value	End date 02/09/2020 Delivery date
A7.3	Tasting Deliverable number	enerated Water	The tangible output for this project, will be the improvement in the environmental characteristics of the peri-urban area in each city that will consist on a larger forestal area and artificial wetlands (Alcira), urban orchards and gardens (Alciante) and cleaned ravones (Alcoy) Each urban authority will organize on their minicipally a set of public open activities for regenerated/dealinated water tasting where local key decison-makers will be encouraged to assist. For its part, DGA as a regional government responsible in water management issues, has the capacity for generate greater social impact, so DGA will organize as well these water tasting activities where, regional and national decision-makers will be summoned as well as mayors of regional cities. Decision-makers of national and european entities will be as well warmly invited to assist. This activity leads people decide which regeneration/desalinatin treatment achieves the bets water flavour. All waters will have completly health safety, of course. Deliverable and partners involved Water Tasting Records Areport summarizing all the water tasting events, including a description of the events as well as pictures, a registry of all the participants and a summary of people's feeling about the tasted	Start date 17/04/2019 Target value Target value	End date 02/09/2020 Delivery date

The intangible output of this activity is one of the main outputs of this work plan. As told before, people is still unreasonable worried for the use of regenerated water. The achievent of this action in the field of social aceptance will constitute a key step in the transition to a cirular economy.

Target value

Delivery date

02/09/2020

1



A7.4	Children Adaptated Activities and Gamification		Understanded in the frame of this activity, gamification is the transformation of knowledge and training courses (WP6) in fun activities to bring this knowledge close to non specializated social actors. The development of an interactive software for not only childrens, but also adults, could enjoy, leming about urban water flows, treatments, and the main issues related with the distribution and recicling of this resource. Water Eonomics Group of UV, one of the Delivery Partners, has already a first version of this interactive software.	Start date 15/10/2019	End date 23/06/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Software Urban Water Knowledge Gamification	Target value	Delivery date
	D 7.4.1	Description	Areport describing in a detailed way, the process for software development and how it works, will constitute the deliverable for this activity.	1 al get value	23/06/2020
	Output Number		Project output	Target value	Delivery date
		Title	Gamification Software		
	O7.4.1 Description		The software developed in this activity constitutes a tangible outbut that will remain in use for urb authorities, DGA and universities. Partnership will cede this software to local public schools and other social entities.		Delivery date 1 23/06/2020

A7.5	Urban Water Repo	ortage	In this activity a reportage will be performed. Project development will be included, however, the main topic of the reportage, will be a general view of urban water, its associated processes and its importance. The film will be adressed to a spread spectrum of audiences, hower wil be focussed on the main target groups. This activity will be carried out with the support of an external SME from the audiovisual area. In the communication works WP3, the output of this project will be a very useful tool. The contacted	Start date 15/02/2018	End date 25/03/2020	
			TV channel may broadcast this reportage. To this action budget of €150.000 will be assigned in DGA External Expertise and services box.			
	Deliverable number		Deliverable and partners involved	Target value	Delivery date	
		Title	Water Reportage Deliverable			
	D 7.5.1	Description	This deliverable will provide, together with the project management reports, a detailed view on the economical aspects of this action, as well as a description of the works performed for this activity development.	Target value	25/03/2020	
	Output Number		Project output	Target value	Delivery date	
		Title	Urban Water Reportage			
	O7.5.1	Description	This reportage will be a very useful output for social wareness that will remain in use. As planned for the gamification software (O.4.1), this output will be used for urban authorities, DG and Universities for education and awarenes tasks after the end of the project. It will also be cede to schools and other social entities in order to give to this outbut the best possible diffusion.		Delivery date 25/03/202	





Work Package Budg	jet							
PP1 - Alcoy City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Civil servants will carry out the A7.2 and A7.3 organizing and attending the events on this Urban Authority area.	N/A	Activity A7.2 will require transport to the areas where volunteers activities will be realizated. Both actions (A7.2 and A7.3) require transport to be organized.		Alcoyshall make available the use of its own equipment as well as purchase, or renting, further equipment for volunteering activities (safety gloves, bags, trucks) Water bottles are budgeted in WP3			
Amount (€)	9,896	1,484.40	2,121	0	1,274	14,775.40	0	14,775.40
PP2 - Alcira City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Civil servants will carry out the A7.2 and A7.3 organizing and attending the events on this Urban Authority area.	N/A	Activity A7.2 will require transport to the areas where volunteers activities will be realizated. Both actions (A7.2 and A7.3) require transport to be organized.		Alcira shall make available the use of its own equipment as well as purchase, or renting, further equipment for volunteering activities (shovel, construction material) Water bottles are budgeted (WP3)			
Amount (€)	8,860	1,329.00	1,973	0	8,974	21,136.00	0	21,136.00
PP3 - Alicante City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	Civil servants will carry out the A7.2 and A7.3 organizing and attending the events on this Urban Authority area.	N/A	Activity A7.2 will require transport to the areas where volunteers activities will be realizated. Both actions (A7.2 and A7.3) require transport to be organized.		Alicante shall make available the use of its own equipment as well as purchase, or renting, further equipment for volunteering activities (growing plants material) Water bottles are budgeted (WP3)			
Amount (€)	8,860	1,329.00	2,050	0	3,309	15,548.00	0	15,548.00
PP4 - Valencian Politechnic University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	·UPV staffs will work partially for the performance of A7.4 ·A7.1 will need as well, a data analysis where UPV experts will participate	N/A	Performances of the activities where UPV is involved will require a set of meetings that forces UPVs staffs to move to urban authorities cities, Valencia, Alicante university and other meeting places		UPVs material degradation (meeting rooms, computers etc) is budgeted here			
Amount (€)	14,422	2,163.30	1,283	0	328	18,196.30	0	18,196.30

PP5 - University of Valencia General Study	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	-UV staffs are main responsible for action A7.4 -A7.1 will need as well, a data analysis where UV experts (economis and sociologist) are essential to perform this task	N/A	Performances of the activities where UV is involved, will require a set of meetings that forces UVs staffs to move to urban authorities cities, Valencia, Alicante university and other meeting places		UVs material degradation (meeting rooms, computers etc) is budgeted here			
Amount (€)	49,231	7,384.65	1,283	0	523	58,421.65	0	58,421.65
PP6 - Water General Directorate	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	DGA will play a key role, due tu its capacities, in the organization and coordination of events. As well will be responsible of this WP implementation	N/A	DGA's staffs will necessitate a set of displacements for assisting coordination meetings and participate in the different meetings. Also, contracting external services will require displacements.	External Support for realization of a social investigation in a regional level (polls and other social study technics) -Realization of the documental of Urban Water by an external filming team	DGA's material that will be used for A7.3, such as meeting rooms, posters, etc is budgeted here.			
Amount (€)	5,369	805.35	1,278	186,550	410	194,412.35	0	194,412.35
PP7 - Alicante University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	UA will support the implementation of the activities. UA staff will dedicate part of their worktime to support this WP	N/A	The involvement of UA in several activities of this WP, will require a set of meetings that forces UA's staffs to move to urban authorities cities, Valencia, university and other meeting places					
Amount (€)	736	110.40	1,085	0	0	1,931.40	0	1,931.40
Total (€)	97,374.00	14,606.10	11,073.00	186,550.00	14,818.00	324,421.10	0.00	324,421.10



Indicative budget breakdown per year									
Year	2017	2018 2019		2020	Total				
Amount (%)	1 %	27 %	33 %	39 %	100.00 %				
Budget (€)	3,244.21	87,593.70	107,058.96	126,524.23	324,421.10				

Indicative budget breakdown per activity				
Activity	Amount (%)	Budget (€)		
A7.1	37 %	120,035.81		
A7.2	6 %	19,465.27		
A7.3	5 %	16,221.06		
A7.4	3 %	9,732.63		
A7.5	49 %	158,966.34		
Total	100.00 %	324,421.10		



Work Plan Per Work Packages - WorkPackage 8 (Investment Work Package)

Title Set of Investments in Public Urban Water Services Improvement

Start Date 03/12/2018

End Date 22/10/2020

Budget 2,789,682.35

Partners Involvement

Poenoneihla Partna

PP 6 - Water General Directorate

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council

Summary

This WP is a support for the achievent of the project objectives through the development of the 4 Implementation WP (4,5,6,7)

Justification

The Urban Water Deal, includes a set of "Best Practices" in water management which will be adopted by each participating city council. These practices involve a set of investments for structural improvements and for management and decision-making tools. Most of the investment have been realized for city council as previous work in a continuous improvement activity, however not all the activities can be faced for city councils. Grants for NGO or SME to perform initiatives on structural improvements are an innovative way to improve water services and in the same time, implicate and aware citizens in water supply issues.

3-D water systems modelation software together with ITC's water sensorization tools for telemanagement, are a very innovative management ways and are proposed by several experts

3-D water systems modelation software together with ITCs water sensorization tools for telemanagement, are a very innovative management ways and are proposed by several experts for being one of the Best Reference Technics (e. g. European Urban Green Infrastructure Conference, Venna 2015) on urban water management. At first time, the purchase of a software that accomplish the requirements is needed, there are several options in the market, however, during the project, UPV, UV and UA will be working together, as well in deeloping their own software for these tasks. Also, a geo-radar pipelines inspection, a leakage detection and a visual inspection are considered here.

Improve water management systems necessarily require better infrastructures whose construction (crucial for the succes of the project) agrees with the spirits of UIAProgramme as Investments.

Work Package Budget

PP1 - Alcoy City Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Sub-total	Revenues	Total
Description	I8.1: corresponds to the costs of civil servents involved in this action I8.2&I8.3: is the cost of civil senats working on burocratic, to cover evaluation court costs and works supervision	N/A		For I8.1 some services will need to be externalized: Ultrasound Water Leaks Inspection, geo- radar works, inside pipes video inspection	For I8.1. Costs are related with the purchase of the necessary equipment: ITC's water sensors for telemanagemen t	For I8.2 the sum is the total amount of the grants for implementing initiatives for water use improvements. For I.8.1 and I.8.3 urban authorities bears the most of the cost for Infrastructure and works			
18.1	30,711	4,606.65	0	72,000	182,387	0	289,704.65	0	289,704.65
18.2	9,423	1,413.45	0	0	0	80,000	90,836.45	0	90,836.45
18.3	8,860	1,329.00	0	0	0	430,000	440,189.00	0	440,189.00
Partner total (€)	48,994.00	7,349.10	0.00	72,000.00	182,387.00	510,000.00	820,730.10	0.00	820,730.10

Council	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Sub-total	Revenues	Total
Description	I8.1: corresponds to the costs of civil servants involved in this action I8.28/8.3: is the cost of civil servats working on burrocratic, to cover evaluation court costs and works supervision	N/A		For I8.1 some services will need to be externalized: Ultrasound Water Leaks Inspection, geo- radar works, inside pipes video inspection	For I8.1. Costs are related with the purchase of the necessary equipment: ITC's water sensors for telemanagemen t	In I8.3 Alcira will build an innovative infrastructure for floods protection that stores the water for a later use in the city.			
18.1	22,150	3,322.50	0	42,800	120,600	0	188,872.50	0	188,872.50
18.2	6,624	993.60	0	0	0	0	7,617.60	0	7,617.60
18.3	8,860	1,329.00	0	0	0	850,000	860,189.00	0	860,189.00
Partner total (€)	37,634.00	5,645.10	0.00	42,800.00	120,600.00	850,000.00	1,056,679.10	0.00	1,056,679.10
DDO All		Office and	Travel and	External expertise and	Equipment	Infrastructure	Sub-total	Revenues	Total
PP3 - Alicante City Council	Staff costs	administration	accommodation	services		and works			Total
	I8.1: corresponds to the costs of civil senants involved in this action I8.28/8.3: is the cost of civil servats working on burrocratic, to cover evaluation court costs and works supervision	administration N/A	accommodation		For I8.1. Costs are related with the purchase of the necessary equipment: ITC's water sensors for telemanagemen t	Alicante will reapir the obsolete pipelines system by the use of an innovative sheating to avoid saline intrusions from seawater.			Total
Description	I8.1: corresponds to the costs of civil servants involved in this action I8.28I8.3: is the cost of civil servats working on burocratic, to cover evaluation court costs and works		accommodation	services For I8.1 some services will need to be externalized: Ultrasound Water Leaks Inspection, geo- radar works, inside pipes	For I8.1. Costs are related with the purchase of the necessary equipment: ITC's water sensors for	Alicante will reapir the obsolete pipelines system by the use of an innovative sheating to avoid saline intrusions from	440,307.00	0	
Description	I8.1: corresponds to the costs of civil servants involved in this action I8.28I8.3: is the cost of civil servats working on burrocratic, to cover evaluation court costs and works supervision	N/A		For I8.1 some services will need to be externalized: Ultrasound Water Leaks Inspection, geo- radar works, inside pipes video inspection	For I8.1. Costs are related with the purchase of the necessary equipment: ITC's water sensors for telemanagemen t	Alicante will reapir the obsolete pipellines system by the use of an innovative sheating to avoid saline intrusions from seawater.			
Description	I8.1: corresponds to the costs of civil servants involved in this action I8.28I8.3: is the cost of civil servats working on burrocratic, to cover evaluation court costs and works supervision	N/A 6,327.00	0	For I8.1 some services will need to be externalized: Ultrasound Water Leaks Inspection, georadar works, inside pipes video inspection	For I8.1. Costs are related with the purchase of the necessary equipment: ITC's water sensors for telemanagemen t	Alicante will reapir the obsolete pipelines system by the use of an innovative sheating to avoid saline intrusions from seawater.	440,307.00	0	440,307.00
City Council	I8.1: corresponds to the costs of civil servants involved in this action I8.2&I8.3: is the cost of civil servats working on burocratic, to cover evaluation court costs and works supervision 42,180	6,327.00 1,531.65	0	For I8.1 some services will need to be externalized: Ultrasound Water Leaks Inspection, georadar works, inside pipes wideo inspection	For I8.1. Costs are related with the purchase of the necessary equipment: ITC's water sensors for telemanagemen t	Alicante will reapir the obsolete pipelines system by the use of an innovative sheating to avoid saline intrusions from seawater.	440,307.00	0	440,307.00



		Indicative b	udget breakdown per year		
Year	2017	2018	2019	2020	Total
Amount (%)	0 %	15 %	45 %	40 %	100.00 %
Budget (€)	0.00	418,452.35	1,255,357.06	1,115,872.94	2,789,682.35

Investment 1

3D Modeling Geographic Information System Software, Equipment Purchase and necessary Inspections Performance

Investment Description

Since Urban Water Deal is designed, it includes the modeling of all existing water infrastructures, its location in the field and other significatie elements like topography, buildings etc... The purchase of this innovative software will provide an useful tool for enable urban authorities to have the best managing capacity possible.

The investment includes the purchase of a modelling software for 3D structures inclusion in a basic GIS. This tool be used as well as a training tool in the WP6 for training activities

developed by the universities and is a key tool for the master degree lessons.

This software will remain in use by project partners even after the end of the project as other urban authrities will adapt this management system so will use the developed tool (software included).

For this work there is also needed some complementary actions: a pipelines detection with geo-radar to enable its modelling, a water leaks detection with ultra-sound system and a visual in the frame of this investment, these works need sensoriztion gadgets (ITCs) that will provide continuous monitoring of water parameters (volume, salinity, pH and other quality indicators)

that will be integrated in the management tool.

DGA as the highest public authority responsible of water issues, will centralize all data increasing its advising capacities. This software is needed for DGA to perform its tasks as maximum water responsible in the region

Involved Partners

PP 1 - Alcoy City Council

PP 2 - Alcira City Council PP 3 - Alicante City Council

Budget

918,884.15

Locations of investment

Number	Country	NUTS 2 level	NUTS 3 level
1	SPAIN	Comunidad Valenciana	Alicante / Alacant
2	SPAIN	Comunidad Valenciana	Valencia / València

Investment Risk

In spanish mediterran area, some of the most ancients water conduits were made even in the morish spanish age, so the current state is sometimes appalling. This fact makes the modeling of these systems and mainly the installation of sensorization tools a hard and difficult task. Urban Autorities have the compromise of make the necessary updates and repairs in order to adapt their urban water systems to the installation of monitoring tools.

Investment Documentation

In accordance with spanish legislation, the modelation of water infrastructures and water pathways and the installation of monitoring tools un water supply pipes or sewage pipes. is competence of each urban authority with the agreemento of DGA

As all mentioned authorities are project participants (Urban Authorities and DGA delivery partner and project promotor) is not necessarry to get worried of the permissions achievement.

Ownership

As the Cartography Engineering department of UPV is going to have the main role in the modelization and cartography activity, there is reasonbale that UPV will own the software, meanwhile DGA as the regional water management authority, shall have as well the ownership of the modeling software and, of course, each participating city council (3 Urban authorities) shalf have the capacity to check their own water systems, so will need the softwae as well and all the data and modelation realizaed to their own system shall belong each one of them beinf shared with DGA as a higher management entity

So, UPV, urban authorities and DGA will use an spanish legal figure of shared propiety

ITC's and monitoring equipment will belong each urban authority in whose territory are installed.

Activities, Deliverables



Activity number	Activity title		Activity description and partners involved	Start date	End date
A8.1	3D Modelation of Uurban Water Infras		This activity is in line with A5.4 (WP5) which consist of an application of technical considerations of the Urban Water Deal. The performance of 3D modelation of water insfrastructures and installation of monitoring tools, corresponds to this Investment action. This 3-D modeling in combination with the sensorization tools is the most effectie and innovative ways to detect leaks and infrastructures missfunctioning. As well will work for defining of best ways transport recirculated water, avoiding put together in tha same pipe different quality waters. A5.4 is complemented with this activity by the performance of the pipelines inspection works (georadar, leaks detection and visual inspection) enabling the modellation and fails detection.	Start date 03/12/2018	End date 24/02/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	3-D Modelation]	
	D 8.1.1	Description	A report with a summary of the works performed in relation with this action. As three cities are involved, one report for each city will be sent as deliverable. Reports will include a file with the 3-D modelation in order to UIA Permanent Secretariat could check the good performance. As software is required, the modelation will be sent in a video file, however, the real functioning of the tool could be cheecked by a visit or in the Project End event. Results of the inspections works will be included in the modelation marking the key points and the faults.	Target value	Delivery date 24/02/2020

Investment 2

Grants for encourage citizen initiatives to improve Urban Water Management in the frame of the Urban Water Deal

Investment Description

Aset of small grants will be created while the project implementation time, with the objective of encourage citizen initiatives that could be in accordance with the objetcites of the Urban Water Deal. These grants will be bound to a initiatives that could be developed inside the urban areas participating in the project (Acoy, Acira and Alicante)
These subvenction will be constituted for a part of this investment and a part of the own funds of DGA and the own funds of each citi council.

Its mandatory to explain in the grants specifications that these grants are in the frame of an UIA Project.

In the projects type that will be co-financed with these grants, there are the creation of artificial wetlands, small works for water infrastructures updates, awareness campaign, water saving measures, leaks repair, floods storage structures... However, initiatives on structural improvements will be priorized

Each city council will be free to choose which initiatives are co-financed.

Each digition in the lies to choose within initiatives are deministrated.

Grants will consist on around 40% UlAfunds, 40% Urban Authority own funds and 20% DGA funds

UIA contribution for this investment will be €80.000 for each city council, so a total contribution of €240.000

So each municipality will have a grants budget of £180,000
At least 9 initiatives, (3 in each municipality) shall be co-financied
Each beneficiry shall contribute with, at least 20% of the real costs of the initiatives Target beneficiaries are NGO's and SME's that could justify environmental concerns

Involved Partners

PP 1 - Alcoy City Council PP 2 - Alcira City Council PP 3 - Alicante City Council

Budget

110.196.70

Locations of investment

Number	Country	NUTS 2 level	NUTS 3 level
1	SPAIN	Comunidad Valenciana	Alicante / Alacant
2	SPAIN	Comunidad Valenciana	Valencia / València

Investment Risk

The main risk associated to this investment is the posssibility that the beneficiaries could make a fail on their initiative or a money missuse.

In relation to this risk, urban authorities have established security measures. Initiatives and beneficiaries will be scrupulously selected acording to the quality of the initiative and, of course, the beneficiaries economical and technical solvence, and capacities for achieve the initiative target objetives.

Meanwhile, in case of money missuse or a breach of the grants conditions, each urban authority and DGAwill use their legal departments in order to make the necessary actions to solve

problems

Investment Documentation

Grants Spanish law 38/2003 stablishes a serie of criteria that an entitie must fullfill to be able to get a grant.
In general, an NGO or SME shall have at least 2 years of existence for receive a grant, as well shall prove that it's not in bankruptcy or judically disabled. These conditions will figure in the calls for proposals. As well will establish the condition that entities shall prove environmental concerns and/or water management exerience and capacities. It could be checked by reading the NGO statutes, the environmental policy of the enterprise, or by previous activities in the field of environment and water.

In relation to the actions performance, the permissions for the realization of these actions is a urban authorities (Alcoy, Alcira or Alicante) responsability and competency with the agreement

of DGA As all these authorities are participants, the avaiability of the permissions is guaranteed.

Ownership

The ownership of each result of each grant will be the Urban Authority in whose area the co-funded initiative is performed

This fact shall be included in the call for proposals terms of reference to make clear for each applicant that the results of the initiative will be a city council ownership.

Activities, Deliverables



Activity number	Activity title		Activity description and partners involved	Start date	End date
A8.2	Call of proposal for Water Management Improvement Initiatives		Its a joint accion for the three participating urban authorities and shall be performed in he same time in the 3 locations. Each Urban Authority shall launch a call for proposal for water management improvement initiatiaves on each munucipality. Each one will select a court of judges to assess each initiative and thecide which are the best according wich the criteria of the ERDF priority investments and temathic objecties. Initiatives will have a period of 8 months to be carried out, to prove the realization and to deliver to each urban authority a cost justification. At least 9 initiatives, (3 in each municipality) shall be co-financied	Start date 15/10/2019	End date 24/09/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Water Management Improvement Initiatives Reports		
	D 8.2.1	Description	One report for each co-funded initiative will be delivered. These reports will include a detailed description of the funded initiatives and an audit of the costs justification. Beneficiaries shall fill a form that will guide them to make a kind of project management report ebanling a clear description of the performed initiative and the followed methodology. Also will provide beneficiaries with a financial form for a clear costs justification. As at least a total of 9 initiatives are expected to be co-funded, 9 is the target value of these deliverables.	Target value	Delivery date 24/09/2020

UIA	SECURITY INCIDES

Investment 3

Innovative Insfrastructures Building Required for the Urban Water Deal Implementation

Investment Description

Aprevious study of the three urban areas, performed as a part of the previous work, highlights several key points that shall be corrected to agree with the Urban Water Deal main aim (a correct urban water managemet procedure). These infrastructures will be designed while the project is in development (WP4 &WP5) however, its already possible to make some approximated predictions in the kind, size and costs of these infrastructures.

approximated predictions in the kind, size and costs of these infrastructures.

Acoy, an industrial city seated on a mountain with a considerable slope. These circunstances make water movements in Acoy, a high energy consumption process. The implementation of a innovative solar powered pumping system will enable Acoy to achieve a low energy water transportation infrastructure. *Estimated building cost is €430.000

Alcira, being an agricultural economy city, would find very useful the construction of a structure to storage flood water enabling the use of this resource for agricultural and urban tasks, palliating floods damages. Will consist of a new concept of a stormwater tank. *Estimated building costs €850.000

Alcirant is a near sea coastal city whose subsoil is suffering sea water intrusions (presumably due to the sea level increase as a side-effect of climate change). This situation (aggravate by the infrastructure oldness) is endangering Alicante's main pipelines which are suffering saline water intrusions. Impermeabilization of these pipelines is the most adequate fast reaction.

*Estimated reparision cost is €450.000

Involved Partners

PP 1 - Alcoy City Council PP 2 - Alcira City Council PP 3 - Alicante City Council

Budget

1,760,601.50

Locations of investment

Number	Country	NUTS 2 level	NUTS 3 level
1	SPAIN	Comunidad Valenciana	Valencia / València
2	SPAIN	Comunidad Valenciana	Alicante / Alacant

Investment Risk

The main risk associated with this Investment is the achievement of the necessary permissions for the planned construction, however, (as mentioned below) as the responsibles of these permises are each urban authority and DGA (Promotor of this project and main regional authority in water management affairs) the obtaining of those permission in guaranteed.

Other risk are the typical related with infrastructures constructions activities. These risks will be unavoidabilly present and shall be considered. The solid experience in hydraulic tasks of DGA technicians, which will support urban authorities in this activity, is the best measure that can be taken here (DGATechnicians participation is not budgeted here, however, for the regional normative, Urban Authorities shall necessarily be supported by DGA staffs. This participation will be covered by DGA)

Investment Documentation

These activities will require several permissions. The competence for the required permissions betowal are responsability of ecah Urban Authority with the agreement of DGA as the regional water management main authority

Ownership

The owner of the results of this investment, will be the urban authority where the Urban Authority (City Council) where each infrastructure is constructed.

Alcoywill own the near 0 carbon emission water transportation system installed on Alcoyarea.

Alcira will own the floods water storage structure built on its area and will use the water to irrigation and other applications. Alicante will enjoy the repairs perormed on its pipelines facing the new challenged presumibly due to the climatic change.

Activities, Deliverables



Activity number	Activity title		Activity description and partners involved	Start date	End date
A8.3	Innovative Infrastructures Implementation		Once WP4 and WP5 (A5.3 & A5.4) are started, this activity will lead to the building of the necessary infrastructured avobe mentioned. A5.4 will get the basis for the exact sizing of these infrastructures. Urbn water deal will require that the authorities that implement it, carry out the best water management practices reducing the water imputs required for the city sustainability. These investments have been thought-out following the EEA Report "Urban Adaptation to Climate Change", the handbook "Adapting Urban Water Systems to Climate Change", the "EU Action Plan for a Circular Economy, Closing the Loop" and the handbook on green public procurement "Buying Green!" This is the best way to go closer to a water circular economy in each city	Start date 13/10/2019	End date 22/10/2020
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Infrastructures Design		
	D 8.3.1	Description	Once A5.4 is started, A8.3 will use the extracted data to perform the exact design and sizing of these structures. One report for each Urban Authority will be sent to the UIA Permanent Secretariat and UIA assigned expert. These reports will include the exact design of the structures and the technical construction planning as well as the pertinent permissions and licences in order to enable permanent secretariat to be aware of the details concerning this investment. The responsible of these deliverables are each one of the Urban Authorities	Target value 3	Delivery date 19/12/2019
		Title	Infrastructures Construction Report		
	D 8.3.2	Description	The Project Management team will compile all the informtion regarding the performance of these constructions. Budgets, incidents and technical data will be included in this deliverable as a detailed record of this activity. Each urban authority supported by the external Project Management Team will be the responsible of these deliverables.	Target value 3	Delivery date 22/10/2020



Work Plan Per Work Packages - WorkPackage 9 (Closure and knowledge transfer work package				
Title	Closure and knowledge transfer			

Start Date 23/10/2020

End Date 22/10/2021 Budget

Partners Involvement

Responsible Partner

PP 1 - Alcoy City Council

15,000.00

Involved Partners

PP1 - Alcoy City Council PP2 - Alcira City Council PP3 - Alicante City Council PP4 - Valencian Politechnic University PP5 - University of Valencia General Study PP6 - Water General Directorate PP7 - Alicante University

Summary

An external certified auditor will be contracted to make the required audited expenditure. Alooy city council civil servants will fill the final payment claim forms. By using the final project management report, performed in WP2, the Final Progress Report required in this WP. Due to the previous project management work, the administrative clousure is expected to be an

easy process.

In relation with A.9.1, the final qualitative report will be performed on the basis of the final project management report (WP2) and the academic knowledge extraction activity (WP6). This previous work will facilitate the fill of the final qualitative report.

The participation in the UDN will be carried out for the Urban Areas Representatives, the required UIA expert and, if seems necesary, repreentatives from each delivery partner.

Activities and Deliverables

Activity number	Activity	title	Activity description and partners involved	Start date	End date
A9.1	Transfer of knowle	dge activities	Drafting and submission of the final qualitative report Participation to Urban Development Network (UDN) Project evaluation with UIA Experts	Start date 23/10/2020	End date 22/10/2021
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Final qualitative report	Target value	Delivery date
	D 9.1.1	Description	Final qualitative report	1	22/10/2021

A9.2	Administrative clos	sure	Preparation and submission of final progress report	Start date 23/10/2020	End date 23/01/2021
	Deliverable number		Deliverable and partners involved	Target value	Delivery date
		Title	Final progress report	Target value	Delivery date
	D 9.2.1	Description	Final progress report	1	23/01/2021



Work Package Budget

Partner name	Staff cost (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and construction works (€)	Sub-Total (€)	Revenues (€)	Total (€)
Alcoy City Council	0.00	0.00	0.00	15,000.00	0.00	0.00	0.00	0.00	15,000.00



Part E - Project Budget

E.1 Project Budget Co-Financing Source (Fund) - Breakdown per Partner

Partner		ERDF co-f	inancing		Contribution		То	tal
Partner	Country	EUR	ERDF rate	Public	Private	Total	Budget	%of project budget
PP 1 - Alcoy City Council	⊑ ES	793,689.92	80.00%	198,422.48	0.00	198,422.48	992,112.40	22.19%
PP 2 - Alcira City Council	⊑ ES	940,269.80	80.00%	235,067.45	0.00	235,067.45	1,175,337.25	26.29%
PP 3 - Alicante City Council	ES	859,306.00	80.00%	214,826.50	0.00	214,826.50	1,074,132.50	24.03%
PP 4 - Valencian Politechnic University	Œ ES	221,068.20	80.00%	55,267.05	0.00	55,267.05	276,335.25	6.18%
PP 5 - University of Valencia General Study	<u></u> ES	183,821.76	80.00%	45,955.44	0.00	45,955.44	229,777.20	5.14%
PP 6 - Water General Directorate	⊆ ES	534,786.96	80.00%	133,696.74	0.00	133,696.74	668,483.70	14.95%
PP 7 - Alicante University	ES	43,739.00	80.00%	10,934.75	0.00	10,934.75	54,673.75	1.22%
Total (€)		3,576,681.64	80.00%	894,170.41	0.00	894,170.41	4,470,852.05	100.00%

E.2 Project Budget - Overview per Partner/ per Period

Partner	Preparation (Period 0)	Jan - Dec 2017	Jan - Dec 2018	Jan - Dec 2019	Jan - Dec 2020	Closure	Total
PP 1	20,000.00	9,303.06	182,651.75	401,577.90	363,579.69	15,000.00	992,112.40
PP 2	0.00	5,815.53	210,869.47	504,771.92	453,880.34	0.00	1,175,337.25
PP3	0.00	6,017.30	201,607.55	455,421.16	411,086.49	0.00	1,074,132.50
PP 4	0.00	25,315.94	104,294.89	74,228.04	72,496.38	0.00	276,335.25
PP 5	0.00	9,106.92	93,288.31	66,754.19	60,627.78	0.00	229,777.20
PP 6	0.00	116,263.73	173,747.41	156,657.45	221,815.11	0.00	668,483.70
PP 7	0.00	4,617.63	28,998.25	10,607.45	10,450.42	0.00	54,673.75
Total (€)	20,000.00	176,440.10	995,457.64	1,670,018.10	1,593,936.21	15,000.00	4,470,852.05
%of total budget	0.45%	3.95%	22.27%	37.35%	35.65%	0.34%	100.00%

E.3 Project Budget - Overview per Partner/ per Work Package



Partner	Preparation (WP 1)	WP 2	WP 3	WP 4	WP 5	WP 6	WP7	WP8	Closure (WP 9)	Total
PP 1	20,000.00	10,253.40	9,430.05	37,217.70	63,607.95	1,097.80	14,775.40	820,730.10	15,000.00	992,112.40
PP 2	0.00	2,111.40	7,132.70	31,875.70	55,342.55	1,059.80	21,136.00	1,056,679.10	0.00	1,175,337.25
PP3	0.00	2,111.40	8,246.50	31,667.70	103,109.20	1,176.55	15,548.00	912,273.15	0.00	1,074,132.50
PP4	0.00	44,683.85	19,314.35	69,002.35	45,340.00	79,798.40	18,196.30	0.00	0.00	276,335.25
PP 5	0.00	1,868.75	7,372.65	61,189.15	29,434.50	71,490.50	58,421.65	0.00	0.00	229,777.20
PP 6	0.00	307,016.00	66,249.00	56,525.60	29,609.20	14,671.55	194,412.35	0.00	0.00	668,483.70
PP 7	0.00	1,868.75	6,241.70	24,772.70	10,638.55	9,220.65	1,931.40	0.00	0.00	54,673.75
Total (€)	20,000.00	369,913.55	123,986.95	312,250.90	337,081.95	178,515.25	324,421.10	2,789,682.35	15,000.00	4,470,852.05
%of total budget	0.45%	8.27%	2.77%	6.98%	7.54%	3.99%	7.26%	62.40%	0.34%	100.00%

E.4 Project Budget - Overview per Work Package/ per Period

Work Package	Preparation	Jan - Dec 2017	Jan - Dec 2018	Jan - Dec 2019	Jan - Dec 2020	Closure	Total
WP 1	20,000.00						20,000.00
WP2		110,974.07	55,487.03	73,982.71	129,469.74		369,913.55
WP3		30,996.74	24,797.39	24,797.39	43,395.43		123,986.95
WP 4		31,225.09	281,025.81	0.00	0.00		312,250.90
WP5		0.00	97,753.77	121,349.50	117,978.68		337,081.95
WP 6		0.00	30,347.59	87,472.47	60,695.19		178,515.25
WP7		3,244.21	87,593.70	107,058.96	126,524.23		324,421.10
WP8		0.00	418,452.35	1,255,357.06	1,115,872.94		2,789,682.35
WP9						15,000.00	15,000.00
Total (€)	20,000.00	176,440.10	995,457.64	1,670,018.10	1,593,936.21	15,000.00	4,470,852.05
%of total budget	0.45%	3.95%	22.27%	37.35%	35.65%	0.34%	100.00%

E.5 Project Budget - Overview per Partner/ per Budget Line



Partner	Staff	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and construction works	Sub-total	Revenues	Total
PP 1	120,756.00	18,113.40	16,144.00	143,056.00	184,043.00	510,000.00	992,112.40	0.00	992,112.40
PP 2	97,475.00	14,621.25	15,028.00	68,294.00	129,919.00	850,000.00	1,175,337.25	0.00	1,175,337.25
PP 3	131,630.00	19,744.50	15,922.00	191,358.00	265,478.00	450,000.00	1,074,132.50	0.00	1,074,132.50
PP 4	163,115.00	24,467.25	26,166.00	49,879.00	12,708.00	0.00	276,335.25	0.00	276,335.25
PP 5	140,008.00	21,001.20	16,653.00	51,592.00	523.00	0.00	229,777.20	0.00	229,777.20
PP 6	75,478.00	11,321.70	29,556.00	525,831.00	26,297.00	0.00	668,483.70	0.00	668,483.70
PP 7	37,305.00	5,595.75	9,853.00	1,920.00	0.00	0.00	54,673.75	0.00	54,673.75
Total (€)	765,767.00	114,865.05	129,322.00	1,031,930.00	618,968.00	1,810,000.00	4,470,852.05	0.00	4,470,852.05
%of total budget	17.13%	2.57%	2.89%	23.08%	13.84%	40.48%	100.00%	0.00%	100.00%

E.6 Project Budget - Overview per Work Package/ per Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP1	0.00	0.00	0.00	20,000.00	0.00	0.00	0.00	0.00	20,000.00
WP2	65,737.00	9,860.55	8,000.00	286,316.00	0.00	0.00	369,913.55	0.00	369,913.55
WP3	35,793.00	5,368.95	22,627.00	25,686.00	34,512.00	0.00	123,986.95	0.00	123,986.95
WP4	149,006.00	22,350.90	74,636.00	64,558.00	1,700.00	0.00	312,250.90	0.00	312,250.90
WP 5	194,353.00	29,152.95	8,980.00	101,445.00	3,151.00	0.00	337,081.95	0.00	337,081.95
WP 6	75,595.00	11,339.25	4,006.00	87,575.00	0.00	0.00	178,515.25	0.00	178,515.25
WP7	97,374.00	14,606.10	11,073.00	186,550.00	14,818.00	0.00	324,421.10	0.00	324,421.10
WP8	147,909.00	22,186.35	0.00	244,800.00	564,787.00	1,810,000.00	2,789,682.35	0.00	2,789,682.35
WP9	0.00	0.00	0.00	15,000.00	0.00	0.00	0.00	0.00	15,000.00
Total (€)	765,767.00	114,865.05	129,322.00	1,031,930.00	618,968.00	1,810,000.00	4,470,852.05	0.00	4,470,852.05
%of total budget	17.13%	2.57%	2.89%	23.08%	13.84%	40.48%	100.00%	0.00%	100.00%



Part F - Partners contribution

Source(s) of Contribution

 Total Contribution
 894,170.41
 Total Contribution Target
 894,170.41

PP1 - Alcoy City Council

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Own funds of the entity	Public	35.49 %	70,422.48	in-kind	Acoy City Council will contribute in-kind with the required equipment purchase and facilities use. Acoy has already reserved a budget headline to cover the project expenses and the advanced payments. As well, in I8.1, I8.3 (WP6 and A5.4, this city council will cover the costs of the necessary estructural updates for the succes of the project by using own funds, however due to the incertainty of the costs it's not budgeter here as well as a contribution of €80.000 in I8.2
Own funds of the entity	Public	64.51 %	128,000.00	cash	By the mean of a formal agreement, all the partner authorities (Alicante, Alcira and Alcoy city council, and DGA as a regional authority) have decided to directly contribute to the project with an input of cash of €320.000, where each authority will contribute wi €80.000. Also, costs derived form the civil servants and other technicians work time is budgeted here as a cash contribution.
Γotal (€)		100.00	198,422.48		Contribution Target 198,422.4

PP2 - Alcira City Council

Name of Organisation/ Source of Contribution	Legal Status	%of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Own funds of the entity	Public	44.70 %	105,067.45	in-kind	Alcira City Council will contribute in-kind with the required equipment purchase and facilities use. Alcira has already reserved a budget headline to cover the project expenses and the advanced payments. As well, in I8.1, I8.3 (WP8) and A5.4, this city council will cover the costs of the necessary estructural updates for the success of the project by using own funds, however due to the incertainly of the costs it's not budgeted here as well as a contribution of €80.000 in I8.2
Own funds of the entity	Public	55.30 %	130,000.00	cash	By the mean of a formal agreement, all the partner authorities (Alicante, Alcira and Alcoy city council, and DGA as a regional authority) have decided to directly contribute to the project with an input of cash of €320.000, where each authority will contribute with €80.000. Also, costs derived form the civil servants and other technicians work time is budgeted here as a cash contribution.
Total (€)		100.00	235,067.45		Contribution Target 235,067.45

PP3 - Alicante City Council



Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Own funds of the entity	Public	48.80 %	104,826.50	in-kind	Alicante City Council will contribute in-kind with the required equipment purchase and facilities use. Alicante has already reserved a budget headline to cover the project expenses and the advanced payments. As well, in 18.1, 18.3 (WP8) and A5.4, this city council will cover the costs of the necessary estructural updates for the success of the project by using own funds, however due to the incertainty of the costs it's not budgeted here as well as a contribution of €80.000 in 18.2
Own funds of the entity	Public	51.20 %	110,000.00	cash	By the mean of a formal agreement, all the partner authorities (Alicante, Alcira and Alcoy city council, and DGA as a regional authority) have decided to directly contribute to the project with an input of cash of €320.000, where each authority will contribute with €80.000. Also, costs derived form the civil servants and other technicians work time is budgeted here as a cash contribution.
Total (€)		100.00	214,826.50		Contribution Target 214,826.50

PP4 - Valencian Politechnic University

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Own funds of the entity	Public	69.17 %	38,227.05	cash	UPV will contribute to the project implementation making available the participation of its staff (Professors, researchers, technicians, teachers)
Own funds of the entity	Public	30.83 %	17,040.00	in-kind	UPV dasrooms, teaching materials and events hall, will be used in WP3, WP4, MP5, WP6 and MP7. That is how UPV is contributing in-kind to the project budget
Total (€)		100.00	55,267.05		Contribution Target 55,267.05

PP5 - University of Valencia General Study

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Own funds of the entity	Public	100.00 %	45,955.44	cash	UV staffs (mainly the Water Economics Group) will contribute to the project with personal work time. This work carries a set of costs (fees and taxes) that are also budgeted here as a cash contribution. UV experts and teachers will have a keyrole in WP4, WP5, WP6 and WP7.
Total (€)		100.00	45,955.44		Contribution Target 45,955.44

PP6 - Water General Directorate

Name of Organisation/ Source of Contribution	Legal Status	%of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Own funds of the entity	Public	40.16 %	53,696.74	cash	DGA (Water General Directorate) as a regional water management authority, will contribute in cash with staffs worktime and with the required currently purchased equipment. DGA has already reserved a budget headline to cover the project expenses and the advanced payments. As well in I8.2, will contribute with an extra of €240.000 to support the grants activity, which is not budgeted here, but will be shaped in the appropriate deliverable.
Own funds of the entity	Public	59.84 %	80,000.00	cash	By the mean of a formal agreement, all the partner authorities (Alicante, Alcira and Alcoy city council, and DGA as a regional authority) have decided to directly contribute to the project with an input of cash of €320.000, where each authority will contribute with €80.000.
Total (€)		100.00	133,696.74		Contribution Target 133,696.74



PP7 - Alicante University Name of Organisation/ Source of Contribution % of Total Partner Contribution Cash or In-kind Contribution Legal Status Amount (€) Comment This item is budgeted to cover the payment od AU participanting staff as a in cash contribution. Own funds of the entity Public 100.00 % 10,934.75 cash Total (€) 100.00 10,934.75 Contribution Target 10,934.75



Part G - Risk Management

Description of the risk	Properties	Actions to mitigate the risk
Alack of coordination betweeen different Urban Authorities and task groups would slow down the project implementation and would carry a deadlines breackdown.	Impact Serious Likelihood Improbable	The presence of DGA(regional authority main responsible of water affairs) as the main project promotor enables an adequate coordination between different authorities and stakeholders. Moreover a coordination task gorup has been defined to avoid management failures. This group is constituted by one representative of each participating entity and will be lead for DGA and UPV coordination experts.
Non public aceptance of re-used water, even though it would be of adequate quality. As explained in WP7, some social groups reject regenerated and reused water due to the common belief that it is unsafe. This fact entails a risk for a real circular economy implementation.	Impact Serious Likelihood Possible	Foreseeing this rik, an whole WP has been designed focused on social unaceptance mitigation. WP7 includes activities A7.1, A7.3 and A7.5 for awareness, public involvement and water circular economy aceptation.
Economical Aspects Risks. In a first instance, shall consider the entrenched economical interests that a new scheme in water management could affect. Linked with the above explained, there is a risk associated with the distribution of water treatment costs which are required for a circular water use.	Impact Incident Likelihood Probable	To prevent this risk, the project design team, has prepare some measures. The involvement from the design phase of Industrial Chambers, bussiness associations and other socio-economic stakeholders, ensures the common aceptance of new economic schemes. A5.3, as costs distribution revision is concem, will be highly linked with communication activities in order to garantee total transparency.
Investments WP carry out significative risks related with the activities included. These risks are explained in each investment description. Construction of infrastructures, grants open to public participation and the purchase of special 3D modelation material together with the performance of services such as pipelines state inspection, pipelines localization by georadar and ultra sound system for leaks detection may produce considerable risks.	Impact Serious Likelihood Possible	UPV and DGA engineers and technicians, have a solid experience in this kind of tasks and are compromised to take care of these actions advicing and supporting Urban Authorities. These risk are the typical risks associated to the performance of infrastructures and other technics tasks, except in relation to the grants, where a risk of money misusing is detected. As explained in WP8 city councils will check the solvency of each beneficiary and will use their legal departments to palliate risks.



Part H - Confirmation

(Main) Urban Authority confirmation and signature

(Main) Urban Authority

Alcoy City Council

By signing the application form the (Main) Urban Authority hereby confirms that:

- the Urban Authorities involved in this project proposal are not involved in other proposals submitted to the UIA Initiative as part of this current Call for Proposals;
- the project neither in whole nor in part has or will receive any other complementary EU funding (except for the funding indicated in this application form) during the whole duration of the project;
- the project partners listed in the application form are committed to take part in the project's activities and financing;
- the (Main) Urban Authority and the project partners will act according to the provisions of the relevant national and EU
 legislation and policies (especially regarding structural funds, public procurement, state aid, environment and equal
 opportunities) as well as the specific provisions of the UIA Initiative;
- the information in the Application Form is accurate and true to the best knowledge of the (Main) Urban Authority
- general information about this project can be used by the UIA Initiative to liaise with national and regional authorities in charge of implementation of operational programmes funded by the European Structural and Investment Funds

Forename, Surname	Francés, Antonio	Date	05/04/2017
Position	Mayor	Place	Alcoy City Council, Alcoy Spain
Authorized signature of (Main) Urban Authority			