DISSEMINATION TOOLS AND MATERIALS

SmartH2O

Project FP7-ICT-619172

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Executive Summary

This report contains a detailed description of the SmartH2O project dissemination strategy and the tools set up to effectively support the communication of the project progress and results to a wide community of citizens, decision-makers, water utilities, and scientists. It reports dissemination and communication objectives and the plan set up to pursue them. The wider the communication channel with potential and actual end users and the stakeholders, the stronger the water saving impact of the SmartH2O both in the two pilot case studies and at the European level. To strengthen the link with the SmartH2O social community, a number of social channels (Twitter, Slideshare, LinkedIn) have been activated and linked to the project website. From the very beginning, SmartH2O has established strong connections and partnership with similar and relevant projects (e.g. iWidget, Cubrik, Proactive) both within and outside the EU funded research, eventually joining the 10-projects ICT4water cluster. Finally, the report provides a detailed description of the conferences/workshops SmartH2O has already participated in and plans to participate by the end of the year.

1. Introduction

SmartH2O is a project centred on the human and social role in water management and, therefore, dissemination is a key component. The communication strategy sets the targets for the message to be communicated and it also takes care of both effectiveness and right balance of technical/general purpose information to be disseminated depending on the target audience. An overview of the communication strategy is shown in Table 1.

Table 1: Overview of the SmartH2O Project's communication strategy.

Target audience	Dissemination message	Dissemination channel	Value to target
The public	New knowledge is provided in an organized way	• The web • Articles and interviews with mass media • Social media channels (Twitter, Slideshare) • Consumer workshops • Press departments of project partners • Customer relationship departments of business partners (TWUL, SES)	• Benefits for the citizen and the environment • Openness to social interaction
Stakeholders (public administrations)	Quantifiable approaches of SmartH2O in water savings	• Technical reports • Demonstration at validation sites • sH2O summer school	• Measurable benefits in resource management
The industry (water utilities)	A scalable solution that can be easily adopted to save on infrastructure by a better water management	• Technical reports • Demonstration at validation sites • Technology transfer events • sH2O summer school	• Partnerships can be established with the consortium to adopt/test the project innovation • Sustainability of investment: the SmartH2O solution can generate benefits along the value chain (SW vendors, utilities, PA)
The H2020 community and the scientific community	Scientific activities within a collaborative space where formal	• Scientific papers documenting the research made in	• Synergy and cooperation cross projects provide

	and informal teams and networks promote sharing of best practices and experiences	the project • Participation to international conferences • Social media channels (Twitter, Slideshare, LinkedIn)	advance of the state of the art

The dissemination activities first focussed on building a strong SmartH2O Project visual identity (i.e., logo, stylesheets) to harmonise communication both internally to the consortium and externally to the general public and the scientific community. The SmartH2O website (see Section 4.1) acts as an attractive showroom providing insights, documenting project progress and promoting events where to get in touch with the SmartH2O community. It dynamically reflects the progress made and achievements, hosting different information by sections: insights about the work being carried out, access to technology, project deliverables, promotional material for download (tutorials and other documentation), news and guidelines in research and industrial projects.

A key component for the success of the SmartH2O Project is a thriving social community of users, including citizens, Public Administration bodies, public utilities, water utilities and SMEs. These stakeholders, who are external to the project, are reached by means of existing social networks platforms (e.g., Twitter and LinkedIn), which are integrated in the SmartH2O website. The social communities ensure effective spreading of the project news, first of all providing information on the vision and, then, on opportunities for adoption, ultimately reinforcing the water saving message of SmartH2O.

Another major role in the creation of an active community of interest will be provided by the SmartH2O social app, which will be downloadable for the major mobile operating systems (iPhone and Android) and which will be usable not only by users from the two case studies, but by any user who might want to manually enter water consumption in order to get the social game making recommendations on how to save water under different scenarios. To further engage the stakeholders and reach out to a younger and family-oriented target group, a SmartH2O game will be developed which combines a digital mobile game with a traditional card game, and which may be connected to the SmartH2O social app.

As additional communication material, screencasts and videos about the SmartH2O prototypes and applications and their resonance among users and stakeholders will be provided.

2. Dissemination overview

2.1 Dissemination goals

The main dissemination objectives are the following:

- To design and implement an effective communication strategy for the SmartH2O project.
- To disseminate the project outputs at local level, including strengthening end user participation, expanding to other local and regional water authorities and businesses.
- To disseminate at national level, increasing the knowledge on ICT-supported water resource management.
- To disseminate at the international level, exploiting the various scientific and business networks of the project partners.
- To organise the major dissemination events of the project.

2.2 Dissemination plan overview

A list of the dissemination events planned for the SmartH2O Project lifetime is shown below (see Figure 1). Some activities are organized in occurrence of specific events, both at the local level, and at the international level, during conferences such as AGU (American Geophysical Union), EGU (European Geophysical Union), IWA (International Water Association), iEMSs (biennial congress of the International Environmental Modelling and Software Society), CIWEM (Chartered Institution of Water and Environmental Management), UNESCO sponsored conference, World Water Forum, EAERE (European Association of Environmental and Resource Economists), SocInfo (international conference on Social Informatics), INTERACT (International Conference on Human-Computer Interaction). A major dissemination event will be organized during the World Water Day 2016 in London.

The first year mainly sees the presence of SmartH2O researchers at various key events and conferences, including attendance to ICT4Water Cluster Meetings. Starting from the second year, workshop on Water and ICT tools will be proposed to conference organisations, in co-operation with other ICT for Water management funded projects. A Summer School offered to target audiences (early adopters, software developers, students, etc.) will be also organized for 2016 summer, with the identification of the courses to schedule, their inter-relations, specific needs for technological infrastructure supporting the delivery.

As for the dissemination directed towards the general public, additional activities are planned. Selected social media channels (Twitter, SlideShare, LinkedIn) are used to update about project news and outcomes, and to aggregate and share a broad scope of information about different topics that relate to the challenges of sustainable resource management. For the latter,

Twitter is the key channel, with communication representatives of all technical partners regularly tweeting about relevant content. Details about the Social Media Channels can be found in Chapter 4.2.

Information for water consumers of various household types in the case study areas is directly disseminated through user workshops (2 in 1st year, 1 in 2nd year), also in cooperation with local public administrations and the business partners (TWUL, SES).

Additionally, press releases and communication of project results to target the user audience are disseminated through the customer relationship departments of TWUL and SES.

Further details of the dissemination plan and associated communication activities for individual communication channels are presented in Chapter 4 and 5.

	2014	2015	2016
JAN			
FEB			
MAR		World Water-Tech Investment Summit	world water day
APR	SH2O kick off	EGU general assembly CIWEM annual conference World Water Forum	EGU general assembly
MAY			
JUN	iEMSs international congress	International conference on sustainable water resources management EWRA world congress EAERE annual conference	SmartH2O summer school
JUL			SmartH2O summer school iEMSs international congress
AUG	DAPA Event		SmartH2O summer school
SEP		IWA World Water Congress Stockholm World Water Week INTERACT 2015 Conference on Sustainable Development and Energy	SmartH2O summer school Stockholm World Water Week
OCT			
NOV	SocInfo international conference		
DEC	AGU fall meeting Winter Simulation Conference	AGU fall meeting Winter Simulation Conference MODSIM biennial congress	AGU fall meeting Winter Simulation Conference

Figure 1: Planned dissemination events.

3. Coordinated image and dissemination materials

3.1 SmartH2O identity and brand

All the material used for the dissemination activities reflects a common visual identity, which is associated to the project logos (see Section 3.2), banners (see Section 3.3), and documents templates (see Section 3.4).

3.2 Logos

The SmartH2O Project logo is reported below:

Figure 2: SmartH2O Project logo.

The technical characteristics of the colors employed in the logo are the following:

- Light blue
  - RGB = R(45), G(170), B(226)
  - Four color reproduction = C(71), M(14), Y(0), K(0)
- Black-1 (“H2” characters)
  - RGB = R(0), G(0), B(0)
  - Four color reproduction = C(91.2), M(78.8), Y(62), K(97.5)
- Black-2 (“the smartH2O project” characters)
  - RGB = R(29), G(29), B(27)
  - Four color reproduction = C(0), M(0), Y(0), K(100)
- Grey
  - RGB = R(106), G(107), B(103)

- Four color reproduction = C(26.4), M(18.6), Y(25), K(60)

The technical characteristics of the fonts employed in the logo are the following:

- "sH2"
  - S character – Myriad Pro, regular, 72 pt
  - H character – Myriad Pro, regular, 96.49 pt
  - 2 character – Myriad Pro, regular, 56.25 pt
- "the smartH2O project"
  - Franklin Gothic Medium, regular, 20 pt.
- "A European project on water sustainability"
  - Myriad Pro, regular, 9.9 pt.

3.3 Banners

The SmartH2O Project logo (see the previous section) is embedded in the project banner, which is employed in the SmartH2O Project website (see Section 4.1) as well as in the document templates (see Section 3.4).

The SmartH2O Project banner is reported below:

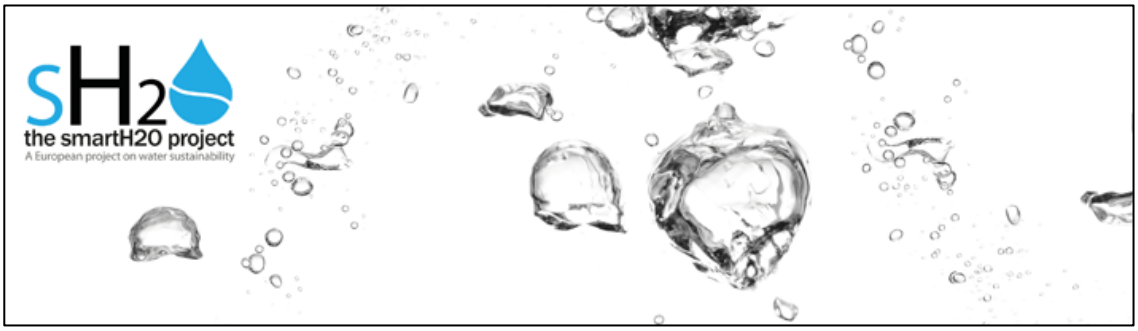

Figure 3: SmartH2O Project banner.

3.4 Templates

A set of templates for presentation, text documents, and leaflet was made available to all the partners in the Consortium in order to ensure a common and distinctive visual identity in all the dissemination events.

3.4.1 sH2O presentations

The sH2O Microsoft Power Point template for presentation is reported below:

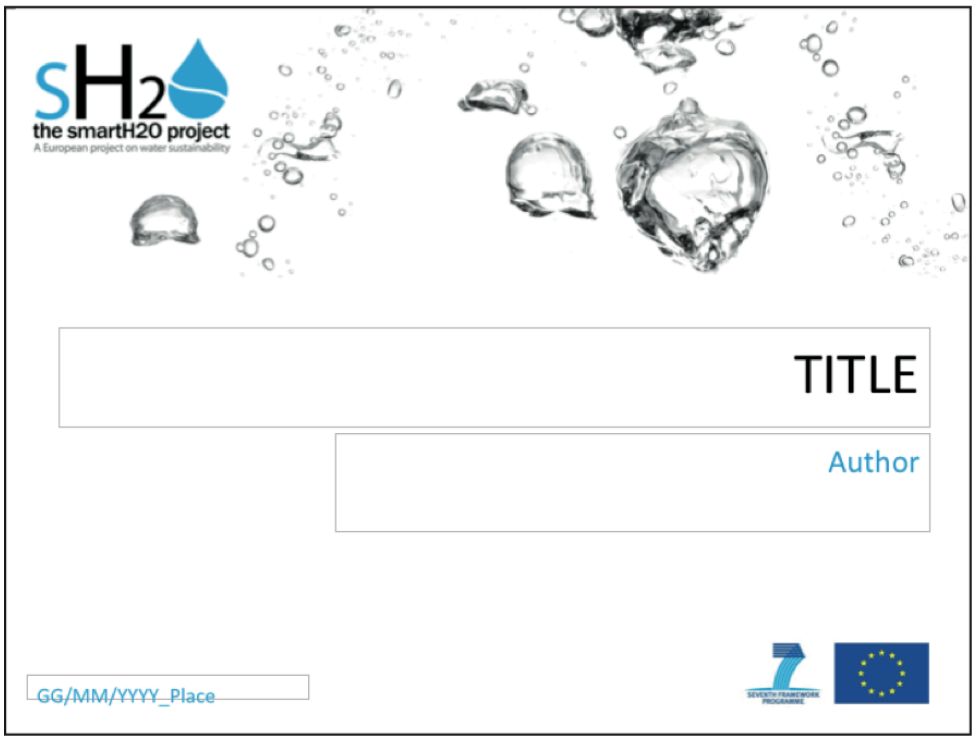

Figure 4: SmartH2O Project presentations template.

3.4.2 sH2O text documents

The sH2O Microsoft Word template for text document is reported below:

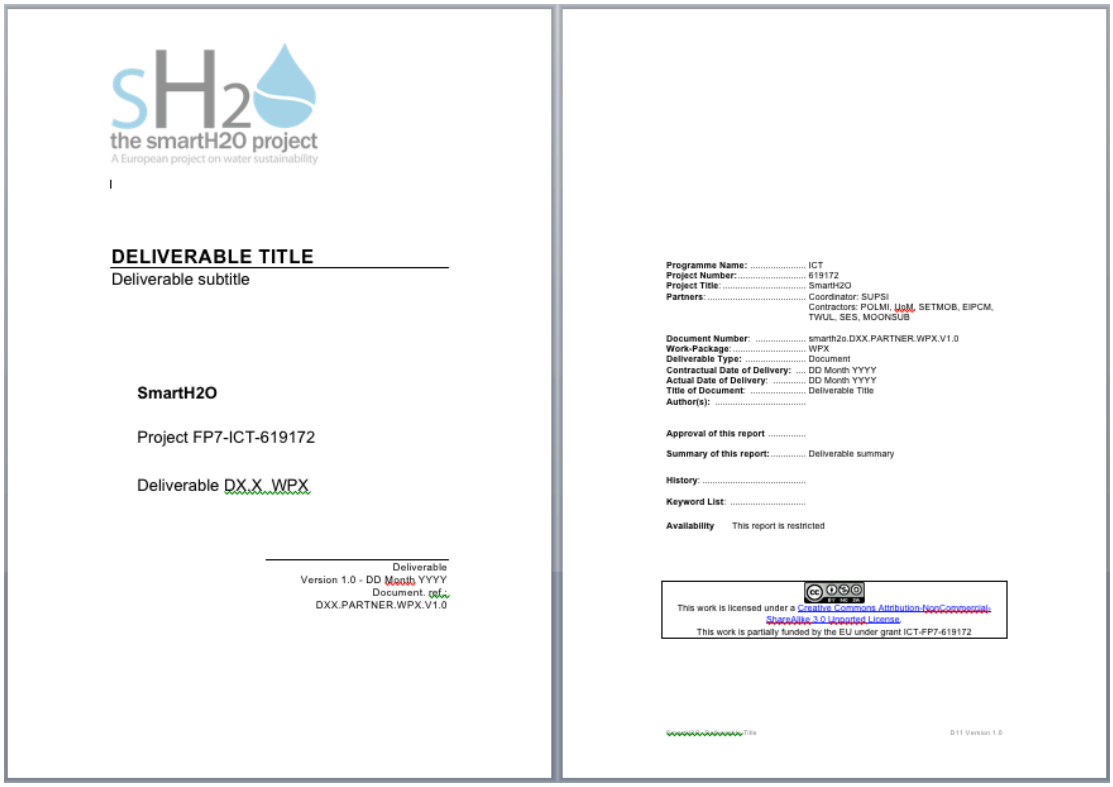

Figure 5: SmartH2O Project text documents template.

3.4.3 sH2O factsheet

A 2-page factsheet (see Figure 6) was prepared to provide a concise and effective summary of the SmartH2O Project, including information about the Consortium, the main objectives, the description of work and the expected results.

SmartH2O

SmartH2O: an ICT Platform to leverage on Social Computing for the efficient management of Water Consumption

SmartH2O in a nutshell

SmartH2O builds an ICT platform to apply social computing, data analysis and demand forecast, and flexible pricing to improve residential water consumption. We will proactively engage citizens by means of cooperative awareness tools, such as water consumption profiling and feedback, persuasive games for behavior change, and computer-supported community work. Results will be deployed in two challenging use cases, in London (UK) and Locarno (CH), potentially reaching millions of users.

At a Glance

Project acronym:
SmartH2O

Project type:
Collaborative Project

Programme:
7th EU Framework Programme

Project Coordinator:
Andrea Emilio Rizzoli, SUPSI IDSIA, Switzerland
andrea@idsia.ch

Project Partners:
- Politecnico di Milano (Italy)
- University of Manchester (United Kingdom)
- Set Mobile Srl (Romania)
- EIPCM (Germany)
- Thames Water Limited (United Kingdom),
- Società Elettrica Sopracenerina (Switzerland),
- Moonsubmarine Ltd (United Kingdom)

Start Date: 01.04.2014
End Date: 31.03.2017
Total cost: 3,607,919 EUR
EU Funding: 2,508,842 EUR
Project Website: http://www.smarth2o-fp7.eu

Objectives

The SmartH2O project develops an ICT platform for improving the management of urban and peri-urban water demand thanks to the integrated use of smart meters, social computation, and dynamic water pricing, based on advanced models of consumer behavior.

The SmartH2O project aims to provide water utilities, municipalities and citizens, with an ICT-enabled platform to design, develop and implement better water management practices and policies, leading to a reduction in water consumption, without compromising the quality of life, and to an increase in resource security.

The solution proposed by the SmartH2O project is to develop an ICT platform that will be able to:

- **Understand and model** the consumers' current behaviour on the basis of historical and real-time water usage data;
- **Predict** how the consumer behaviour can be influenced by various water demand management policies, from water savings campaigns, to social awareness campaigns, to dynamic water pricing schemes;
- **Raise the awareness** of water consumers on their current water usage habits and their lifestyle implications and to stimulate them to **reduce** water use;

The SmartH2O ICT infrastructure will thus enable water managers to **close the loop** between actual water consumption levels and desired targets, using information about how the consumers have adapted their behavior to the new situation (e.g. new regulations, new water prices, appeals to water savings during droughts). This feedback will then allow to aptly revise the water demand management policies, enabling to maximise the water and energy saving goals

Description of Work

The project is articulated into nine work packages; WP1 is the coordination and management work package.

WP2 deals with requirements and specifications and it delivers user stories and use cases to drive the development of the SmartH2O platform. The specifications are then formalized to achieve a unified vision on architectural models and implementation technologies.

WP3 identifies the models of user behavior. It collects available data on past and present consumer behaviour, obtained from the smart meter infrastructure and standard offline meter data. The data are used to analyse the consumer behaviour and to extract models able to understand and reproduce it under various conditions. Finally the models are implemented in an agent-based modelling platform and validated.

WP4 studies how social awareness mechanisms can be exploited to save water. In particular, it studies how the paradigm of social games can be applied to the definition of individual or collective games for pursuing smart water management objectives. In this WP crowdsourcing techniques (e.g., task splitting, result collection) are used to integrate computational capacities of humans in order to improve the quality and efficiency of water usage

WP5 identifies and evaluates water pricing instruments being applied or considered in EU states, including an in depth analysis of water pricing in the UK. The result of this WP are validated econometric and agent-based behavioural models describing the impacts of water pricing on consumption.

In WP6 the SmartH2O platform is developed and implemented. The platform will interface with the advanced metering infrastructure of the two case studies.

WP7 demonstrates and validates the use of the SmartH2O platform, using social awareness and dynamic pricing to steer consumer behavior. The tests are conducted in two sites, in the London area in the UK, and in the Locarno region, in Switzerland.

WP8 takes care of business developments and opportunities to increase the expected impact of the project, while WP9 deals with all communication and dissemination issues

Expected Results

The project is expected to demonstrate how social awareness and dynamic pricing instruments can modify the behavior of water use. A quantifiable reduction of water consumption is expected, especially in drought periods, when water is scarcer. Water utilities can therefore assess the impact of smart metering to improve the efficiency of their operations.

Figure 6: SmartH2O Project factsheet.

3.4.4 sH2O leaflet

A 3-page folded brochure (see Figure 7 and Figure 8) was produced to promote the visibility of the project, illustrating the SmartH2O Project motivations and objectives. A first set of flyers was prepared after the project kickoff and they were distributed at the EWRI 2014 Annual Conference and at iEMSs 2014, the International Conference on Environmental Modelling and Software. The flyers were then used to support the other following events that were attended.

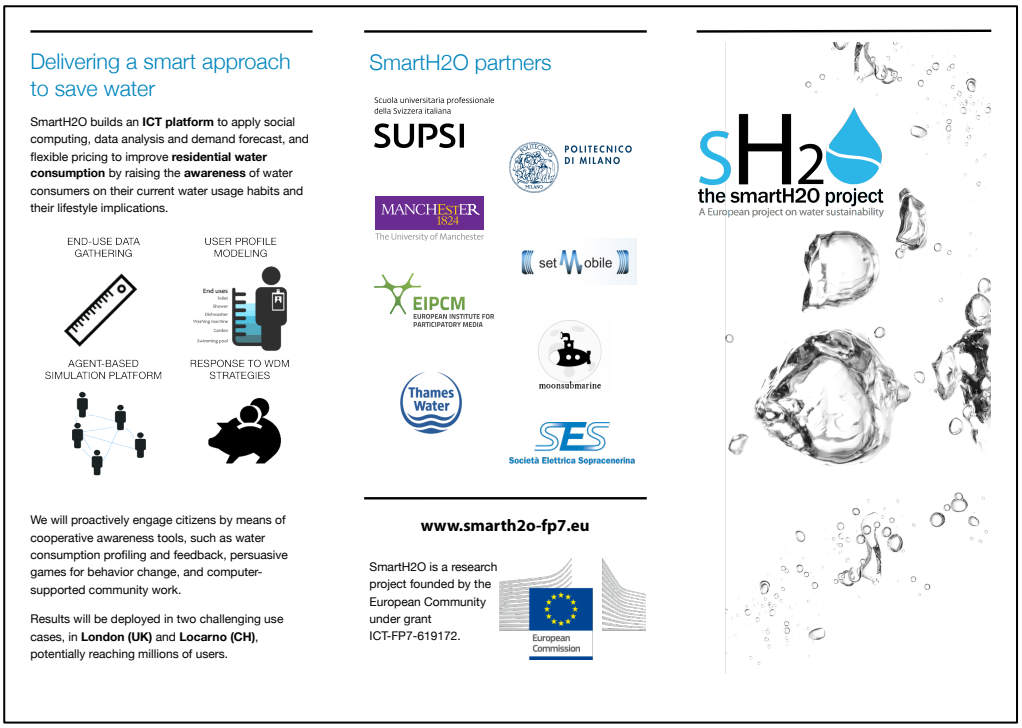

Figure 7: SmartH2O Leaflet (outside).

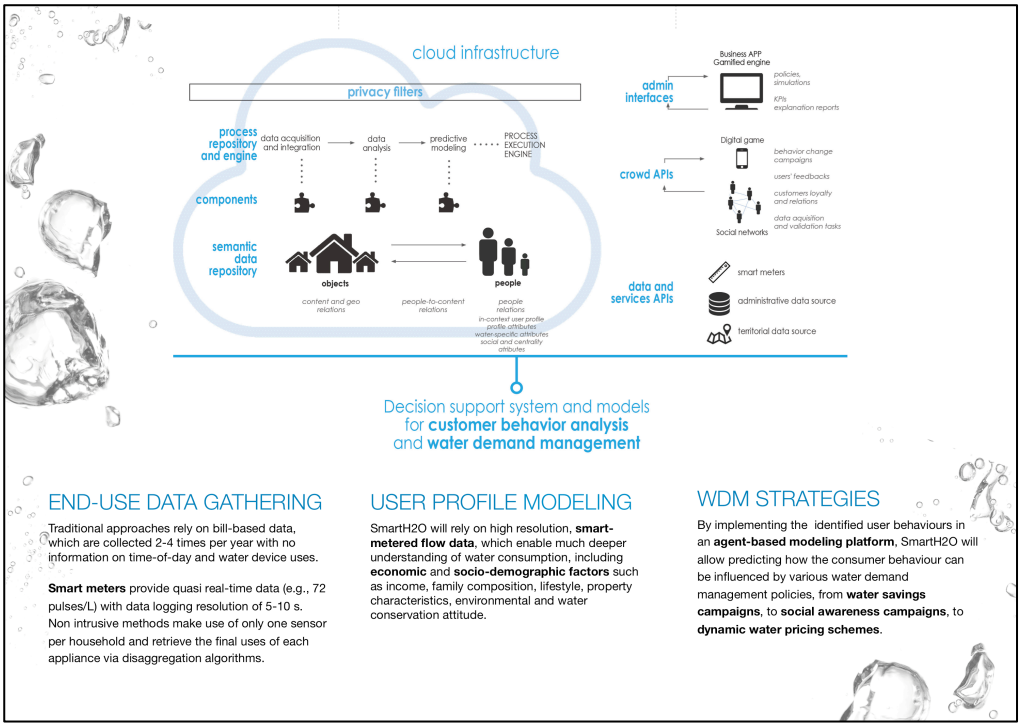

Figure 8: SmartH2O Leaflet (inside).

3.4.5 Screencasts and Videos

The dissemination materials will be extended with screencasts and videos of SmartH2O prototypes and applications as they become available. This will be accompanied with short video testimonials of users and other stakeholders following the first deployments of SmartH2O solutions in the two test cases (CH, UK).

4. Dissemination and communication channels

4.1 The SmartH2O website

The SmartH2O Project website (http://www.smarth2o-fp7.eu) is online since April 2014 and has been constantly maintained and updated to communicate the project progress. It has been implemented using Wordpress and is organized in 6 pages plus contact details.

The website has been instrumental for multiple objectives, such as disseminating a “brand identity” of the SmartH2O Project, informing the main project objectives and research questions, sharing the project outcomes, involving and engaging the stakeholders, broadcasting and sharing news through social networks (see, for example, the tweet roll shown in the homepage of the website in Figure 9).

The website indeed provides a summary of the SmartH2O Project in terms of concept, objectives, technical architectures and use cases, a description of the Consortium, the project results (i.e., deliverables, publications, software, datasets), a list of the main events organized/attended as well as a collection of media and project presentations (see Section 4.2.3).

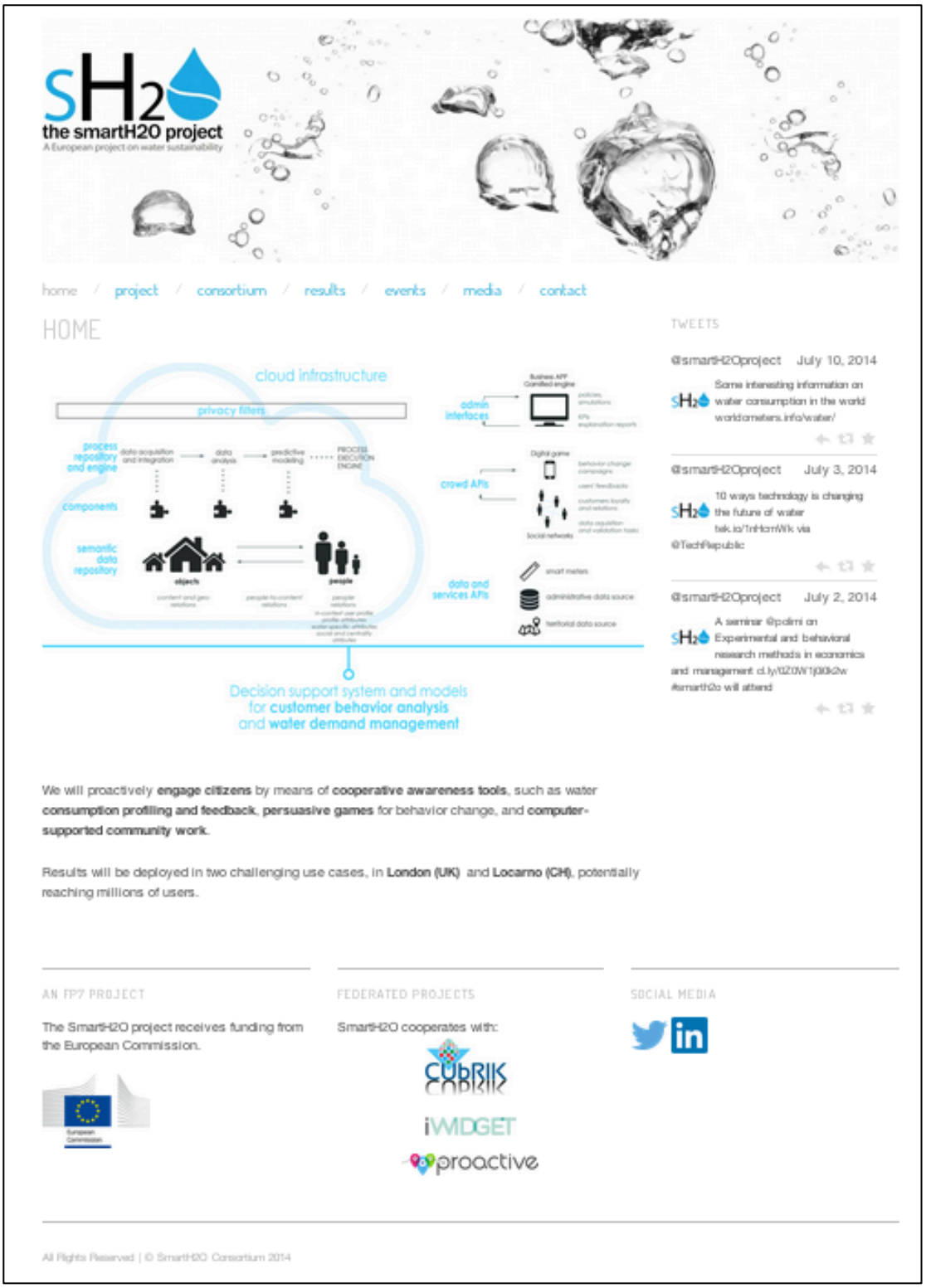

Figure 9: SmartH2O Project website.

4.1.1 sH2O Newsletters

Newsletters will be published online on the SmartH2O website twice or more per year; moreover they will be spread through those mailing lists the SmartH2O project has access to (e.g. iEMSs, ASCE-EWRI, IFAC). Contents will progressively make readers familiar with SmartH2O topics, introducing some of them in-depth, providing flash news about major achievements in the period and informing about ongoing initiatives in the SmartH2O social community. The target is to reach a wide audience, not necessarily belonging to the scientific community only.

An editorial team will be in charge of presenting the draft index to the General Assembly during meetings, to collect commitments from contributions, follow the editing workflow, selecting material. The editorial team will group complementary skills under the chair of the Communication Director.

Directly downloadable from the public web site, Newsletters will complement additional dissemination material for distribution at events and conferences (Brochures, flyers, promotional videos and project presentations).

4.2 Social channels

Besides the official website, a set of social extensions have been set up on **Twitter, LinkedIn**, **Slideshare**, which facilitate the communication of the project-related activities to a wide external audience and promote the visibility of the project on the most widely used social channels.

4.2.1 sH2O Twitter account

The sH2O Twitter account and the associated hashtag (#SmartH2O) have been created to facilitate a direct, easy, immediate communication about the main project activities and results, as well as to share news or initiatives related to the general SmartH2O mission.

Figure 10: SmartH2O Project Twitter account.

To maximize the usage and the visibility of the sH2O account, a publishing plan for the social channels has been created and is coordinated and supervised by EIPCM. As agreed to by the whole project consortium, the plan specifies for each week the responsible technical partners and persons for publishing relevant tweets (a common practice in professional communication departments).

Via the Twitter account, both project related news and activities, but also other thematically related tweets that generate value for the SH2O target groups and that can attract followers, are disseminated. Topics that are disseminated include, among others, dynamic pricing, social awareness in resource management (water & energy), visualization, different water saving actions and new water saving technologies. Previous experience shows that publishing news on project activities only is not a successful strategy for attracting followers on social channels. Moreover, the channel's content needs to provide a value of its own for the users to join as followers.

In addition, a separate Twitter aggregator page is planned, that will collect the tweets from related European projects in the area of water management. This page will automatically collect tweets on a precompiled list of topical hashtags and display them in an overview form. In this way, a collective repository of social activity and news from water-related European projects is generated and made available to the target groups. The editorial team of the project will also use this page for identifying interesting tweets to be disseminated further also through the SmartH2O Twitter account.

The following table states the target number of Twitter followers to be reached over the course of the project. After the first quarter of the first project year, the SmartH2O Twitter profile has already reached 45 followers (status 31 August 2014).

TARGET	**Y1**	**Y2**	**Y3**
Number of followers	80	150	300+

4.2.2 sH2O LinkedIn group

A SmartH2O Linkedin group has been set up and will be populated as soon as the first project results become available. The target of the LinkedIn group are professionals and researchers working in the wider area of interest related to the project, from water management in particular to more general environmental and sustainability issues. This group will interlink materials shared through Twitter and Slideshare platforms allowing the access to a different target group and a different modality of social interaction and propagation.

TARGET	Y1	Y2	Y3
Number of members	30	70	120+

4.2.3 sH2O slideshare

The presentations produced during the project (some also before the project official start date) are shared on the SmartH2O Slideshare channel and are linked in the Media section of the SmartH2O website, see Figure 12. Their publication on SlideShare is also communicated through the project's Twitter account.

Figure 11: SmartH2O Slideshare channel.

TARGET	Y1	Y2	Y3

Presentations published	5	10	20

Figure 12: SmartH2O media webpage.

4.3 Press

The project will regularly issue press releases coordinated by the Communications Director. The press releases will be issued both by the Consortium as a whole as well as by the individual partners. A basic press kit is provided by the developed dissemination materials (described in Chapter 3) through the project website and will be periodically updated as the project proceeds (every 3-6 months).

The Consortium as a whole and the partners already individually advertised the project kickoff as well as the participation to major events by issuing press releases (see Chapter 7).

4.4 SmartH2O Communication Team

A team of members dedicated to the implementation of the established dissemination strategy has been designated. It consists of at least one representative from each partner and is responsible for effective

dissemination of project results through the defined channels. Specific functions associated to the SmartH2O Communication Team led by Andrea Castelletti (POLIMI) as the Communication Director of the project include:

- Promote the organisation of focused events by publicizing them on the project website;
- Request/suggest new dissemination materials and/or needs;
- Contribute to the population of the public website (new content, relevant events, news, links, etc..);
- Coordinate the production and distribution of press releases;
- Organise opportunities for the involvement of external actors in the project's activities;

Person	Organisation
Andrea Emilio Rizzoli	SUPSI
Matteo Giuliani	POLIMI
Isabel Micheel	EIPCM
Alexandros Maziotis	UOM
Luigi Caldararu	SETMOB
Ricardo Wissmann-Alves	TWUL
Marco Bertocchi	SES
Giuseppe Pasceri	MOONSUB

Table 4-1 Members of the SmartH2O Communication Team

4.5 Partner's channels

Existing communication channels of the project partners and associated links to their networks and communities will be used to disseminate and reinforce the communication effort. These channels include, but are not limited to, the ones described below.

Scientific and educational channels

- Public updates about the project progress will be reported on IDSIA website (i.e., the Dalle Molle institute for artificial intelligence of SUPSI). Major news will be also published on the Twitter, Facebook, and LinkedIn channels of SUPSI.
- Public updates about the project progress will be reported on the website and the Twitter channels of the Natural Resources Management group of Politecnico di Milano. Major news will be also published on the

Twitter and Facebook channels of POLIMI.

- Public updates about the project progress will be reported by University of Manchester through Tyndall Centre Manchester – School of Mechanical, Aerospace and Civil Engineering (MACE), Sustainable Consumption Institute (SCI) – School of Mechanical, Aerospace and Civil Engineering (MACE), Institute for Development Policy and Management - School of Environment, Education and Development, Environmental & Resource Economics (ERE) Research Group – School of Social Sciences.

Science and Research Institutional channels

- SmartH2O scientific publications authored by SUPSI staff will be listed on the annual report of the institution;
- SmartH2O scientific publications authored by POLIMI water management staff will be listed on the annual report of the department;
- Links to National research associations in Germany (e.g. German Society of Informatics) through EUROPEAN INSTITUTE FOR PARTICIPATORY MEDIA - EIPCM;
- Key Events can be advertised to the SI (Schweizerische Informatikgesellschaft) through SUPSI;
- News about SmartH2O and important announcements (such as the call for the Summer School) can be published to the mailing lists of iEMSs (International Environmental Modeling & Software Society) and EWRS (Environmental and Water Resources Systems);
- Internal quarterly newsletter of the School of Mechanical, Aerospace and Civil Engineering, University of Manchester;
- Weekly highlights from Staff news of the University of Manchester;
- Annual report of the University of Manchester;
- Leading science newsletters, blogs and platforms, such as CORDIS news, Innovation seeds platform, European Union of Water Management Associations, European Water Association, Global Water Partnership, European Water Partnership, UNESCO Waterportal, Water Forum.

Regional and National agencies channels

- Local and national UK media through Thames Water's Press Office;
- Public Relationships Department of UNIVERSITY OF MANCHESTER;
- Public Relationships Department of POLITECNICO DI MILANO in Italy;
- Contacts with local national newspapers and specialized press in Switzerland through SUPSI;
- Contacts with the press in Italy through POLIMI.
- Contacts with the press such as Utility week (http://utilityweek.co.uk) in UK through UoM.

Social and business communication channels

- Twitter channel and website of ThamesWater, along with internal employee communication through Thames Water's Press Office;
- Twitter channel of EIPCM;
- Links to social innovation communities for sustainability namely: www.chestproject.eu – CHEST project (350+ organisations), www.digitalsocial.eu –Digital Social Innovation (DSI) (500+ organisations)
- Twitter channel and website of Set Mobile.

5. Dissemination activities

5.1 Networking activities

In order to maximize the impact of SmartH2O project, networking activities for presenting project results to potential stakeholders are planned for the entire project lifetime, targeting an identifiable presence at important international meetings and exhibitions (e.g. the American Geophysical Union Fall Meeting organized every year and the ICT Conference organized every two years).

5.1.1 Conferences

The scientific conferences attended by members of the Consortium are reported in Table 2. Further details on the associated publications are reported in Section 6.2.

Table 2: List of conferences.

Conference	Place and Date	SmartH2O publications
AGU Fall Meeting 2014	San Francisco (CA), December 15-19, 2014	Cominola et al. (2014)
Gamifying Water 2014	Oxford, UK September 14-15, 2014	
Water IDEAS 2014	Bologna (Italy), October 22-24, 2014	
International Conference on Water Distribution Systems Analysis (WDSA 2014)	Bari (Italy), July 14-17, 2014	Harou et al. (2014)
International Conference on Environmental Modeling and Software (iEMSs 2014)	San Diego (California), June 15-19, 2014	Rizzoli et al. (2014).
SocInfo 2014 – International Conference on Social Informatics	Barcelona (Spain), November 10-13, 2014	Planned presentation at the SoHuman Workshop

The list of conferences and planned publications will be extended according to progressing project results; an updated table will be presented in the dissemination reports D9.2 and D9.3.

5.1.2 Workshops

Members of the Consortium co-organized the following workshops:

- *SoHuman 2014 – 3rd International Workshop on Social Media for Crowdsourcing and Human Computation (link) at SocInfo 2014, 6th International Conference on Social Informatics, Barcelona, November*

10, 2014.

Socially-aware Crowdsourcing - The Value of the Human Touch: this workshop aims at bringing together researchers and practitioners from different disciplines to explore the challenges and opportunities of novel approaches to collective intelligence, crowdsourcing and human computation that address social aspects as a core element of their design principles, implementations or scientific investigation.

5.1.3 Collaborations with other projects and SmartH2O liaisons

A cooperation agreement was established with other EU research projects (i.e., Cubrik, iWidget, Proactive) to further promote the sH2O project through their activities. The sH2O project has been also affiliated to the ICT4water cluster, which ensures connection with 10 projects on ICT and Water Management.

In addition, informal liaisons and information sharing through the existing contacts and other projects of the consortium partners will support wider diffusion of the sH2O project beyond the water management domain (e.g. in related areas such as energy or social innovation). Examples of such liaisons include:

- through EIPCM: the project will be promoted in and connected to social innovation and sustainability activities of the EIPCM such as the CHEST project and community (www.chestproject.eu) connecting a large community of social innovators, social enterprises, social impact labs and the European CAPS projects on collective awareness platforms for sustainability
- through POLIMI web group: cross-fertilize the findings from crowdsourcing and gamification applications to innovation and business process management from the BPM4people and CUbRIK projects with water management issues in SmartH2O
- through POLIMI web group and WebRatio: promote the gamification applications of SmartH2O in a wider network of stakeholders and potential transfer domains;
- through POLIMI and EIPCM: through their members' role as Associate Editors promote the project results in the community of the Human Computation journal;
- through POLIMI water management group: the project will be promoted through their members' role as Associate Editors in the community of the water- and environment-related journals (e.g., Water Resources Research, Journal of Water Resources Planning and Management, PLOS One, Acta Geophysica, Environmental Modeling and Software), as well as through the organization of sessions at international conferences (e.g., EGU, IFAC, IHAS, EWRI/ASCE).
- through UoM and TWUL: the Smarth20 findings will be shared with academic communities from other EU FP7 projects such as SmartWater4Europe and policy makers such as regulators (Water

Services Authority (Ofwat), Environmental Agency (EA)) and other water utilities.

5.2 Spreading the knowledge to users

The SmartH2O project will organize a series of dissemination events, targeted to the general public and the users, aiming to present the project results and to promote water savings by increasing consumers' awareness. In particular, two main events are planned. These will be performed in close collaboration with the local partners and municipalities of the two test case sites (CH, UK). This will be accompanied by involving the customer relationship management channels of TWUL and SES to reach out the target user population.

Furthermore, the twitter analysis techniques for the analysis of community roles and user types to be developed in WP4 aim at identifying the most appropriate (and/or) influential users to be recruited as potential core user group for the up-take of the social awareness up. The user group identified with these techniques will be pro-actively addressed by Twitter-based communication activities in order to attract first a critical mass of followers and subsequently core users of the social awareness app.

The SmartH2O final dissemination event

This event is organized by the SmartH2O consortium. We have tentatively proposed to organize the event in London on the World Water Day 2016, when the SmartH2O platform will be in the validation phase, and first meaningful results will be available. London is a major European capital, and Thames Water (TWUL) is the major UK water utility. TWUL will support the organization of the event and will provide support for its launch. UK and European media will be contacted and invited to report on the launch of the SmartH2O platform. At the same time, the social community will also be involved in this launch, in order to cover all media type.

The SmartH2O Summer School

The Summer School will be a dissemination event lasting a week during which the project scientific results and the technological infrastructure will be presented to Water Utilities, Software Developers, PhD students through a series of lectures and hands-on workshops. Special attention will be paid to creating an interesting learning environment where water management and ICT issues are treated in a truly interdisciplinary way. The Summer School will also provide all its course material (including data and software, recording of presentation, and workshop howtos) on the SmartH2O portal, making it available to the scientific and industrial community.

6. Scientific publications

6.1 Journal papers

Journal papers will aim at presenting major project results at highest scientific standards and disseminating them to the scientific audience. As they typically involve long time-to-publish periods these publications will aim at substantial, matured and empirically verified project results and are thus more likely to appear towards the project end. No journal papers have been published so far, but some are in preparation. Relevant target journals include:

- Water Resources Research (link)
- Environmental Modeling and Software (link)
- Journal of Water Resources Planning and Management (link)
- Water Research (link)
- Journal of Hydrology (link)
- Water Resources Management (link)
- Environmental Science and Policy (link)
- Water Policy (link)
- Journal of Industrial Economics (link)
- Journal of Regulatory Economics (link)
- Review of Industrial Organization (link)
- Journal of Environmental Management (link)
- Water Resources & Economics (link)
- Water and Environment Journal (link)
- Environmental & Resources Economics (link)
- International Journal of Human-Computer Studies (link)
- Human Computation (link)

6.2 Conference papers

Conference papers aim at presenting fresh interim project results of appropriate scientific quality in a timely manner in order to disseminate them as quickly as possible in the scientific community.

- Cominola, A., Nanda, R., Giuliani, M., Piga, D., Castelletti, A., Rizzoli, A.E., Maziotis, A., Garrone, P., Harou, J.J., 2014. The SmartH2O project: a platform supporting residential water management through smart meters and data intensive modelling. Submitted to AGU Fall Meeting 2014, December 15-19, San Francisco, CA.

ABSTRACT: Designing effective urban water demand management strategies at the household level does require a deep understanding of the determinants of users' consumption. Low resolution data on residential water consumption, as traditionally metered, can only be used to model consumers' behavior at an aggregate level whereas end uses breakdown and the motivations and individual attitudes of

consumers are hidden. The recent advent of smart meters allows gathering high frequency consumption data that can be used both to provide instantaneous information to water utilities on the state of the network and continuously inform the users on their consumption and savings. Smart metered data also allow for the characterization of water end uses: this information, coupled with users' psychographic variables, constitutes the knowledge basis for developing individual and multi users models, through which water utilities can test the impact of different management strategies. SmartH2O is an EU funded project which aims at creating an ICT platform able to (i) capture and store quasi real time, high resolution residential water usage data measured with smart meters, (ii) infer the main determinants of residential water end uses and build customers' behavioral models and (iii) predict how the customer behavior can be influenced by various water demand management strategies, spanning from dynamic water pricing schemes to social awareness campaigns. The project exploits a social computing approach for raising users' awareness about water consumption and pursuing water savings in the residential sector. In this work, we first present the SmartH2O platform and data collection, storage and analysis components. We then introduce some preliminary models and results on total water consumption disaggregation into end uses and single user behaviors using innovative fully automated algorithms and overcoming the need of invasive diary collection campaigns.

- Harou, J.J., Garrone, P., Rizzoli, A.E., Maziotis, A., Castelletti, A., Fraternali, P., Novak, J., Wissmann-Alves, R., Ceschi, P.A., 2014. Smart metering, water pricing and social media to stimulate residential water efficiency: opportunities for the SmartH2O project. In Proceedings of International Conference on Water Distribution Systems Analysis (WDSA 2014), July 14-17, Bari, Italy.

ABSTRACT: Traditionally new supplies are deployed to address increasing public water demands leading to increasing environmental and financial costs. Information and communication technologies (ICT) can contribute to transitioning to more sustainable exploitation of water reserves by decreasing demands. Although technological solutions cannot work by themselves in complex socio-technical systems such as public water supply systems where consumer behaviors depend on a variety of factors and motivations, smart meters and social media offer new opportunities. The SmartH2O project aims to provide water utilities, municipalities and citizens with an ICT enabled platform to design, develop and implement better water management policies using innovative metering, social media and pricing mechanisms. This project has as a working hypothesis that high data quality obtained from smart meters and communicable through social media and other forms of interaction could be used to design and implement innovative and effective water pricing policies. Planned case studies in the UK and Switzerland are introduced. We anticipate that SmartH20 research outcomes will be of use to those interested in linking smart metering, social media and smart pricing approaches to achieve more sustainable water management outcomes.

- Rizzoli, A.E., Castelletti, A., Cominola, A., Fraternali, P., Diniz dos Santos, A., Storni, B., Wissmann-Alves, R., Bertocchi, M., Novak, J., Micheel, I. , 2014. The SmartH2O project and the role of social computing in

promoting efficient residential water use: a first analysis. In Proceedings of the 7th International Congress on Environmental Modelling and Software, June 15-19, San Diego, California, USA. ISBN: 978-88-9035-744-2.

ABSTRACT: SmartH2O is an EU funded project which aims at creating a virtuous feed- back cycle between water users and the utilities, providing users information on their consumption in quasi real time, and thus enabling water utilities to plan and implement strategies to reduce/reallocate water consumption. Traditional metering data, usually gathered twice a year, can be used to model consumers' behaviour at an aggregate level, but the motivations and individual attitudes of consumers are hidden. The advent of smart water meters allows gathering high frequency consumption data that can be used to provide instantaneous information to water utilities on the state of the network. At the same time, the consumption information can be fed back to the user to stimulate increased awareness on water use. The SmartH2O project aims at developing methodologies to involve consumers and promote water savings by increasing their awareness, using a social computing approach, and also exploring their sensitivity to water prices, e.g., to penalise water waste during droughts. In this paper, first we review similar experi- ences that exploit consumer awareness to reduce consumption, then we review the role of persuasive games for sustainability, and finally we present the SmartH2O approach, sketching the architecture of its modelling and social computing components.

6.3 Workshop papers

Workshop papers aim at sharing interim project results, which may not be yet substantial enough for a full conference publication but present a promising basis for timely dissemination and for being developed further through interaction with workshop attendees. In that way, they also represent a valuable feedback loop from the scientific and professional community back into the project.

No workshop papers have been published so far.

7. Press releases

Updated list of press releases.

- Radio interviews on the Italian Swiss Radio (RSI)
- Article on “Giornale del Popolo”
- Article on “La Regione Ticino”
- Article on waterbriefing.org

- Press release to Assolombarda Newsletter
- Press release on Swiss and Italian press about the project kickoff.