MinWaterCSP

Minimized water consumption in CSP plants

Deliverable 10.8:
Dissemination actions: Print and digital tools - part 3
WP 10, Tasks 10.4: Printed and digital materials for communication and dissemination

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Author: Charlotte Schlicke; Steinbeis 2i GmbH

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0 Publishable Summary

WP10 on "Communication and Dissemination" is a horizontal work package, influenced by all technical actions and being associated with the exploitation activities.

This deliverable report D 10.8 is describing in more detail the Communication and Dissemination of project related information via digital and print materials that have been implemented over the last 11 months.

An effective communication and dissemination of information and thus a large visibility of the project shall be reached by the implementation of several communication and dissemination tools. Besides the legislative and academic audience, the target group of dissemination and communication activities comprises besides the legislative and academic audience, industrial stakeholders to whom the impact of the activities carried out in the technical work packages for actual and future CSP plants is highly relevant.

The tools and channels, that will be described in more detail, are:

- Press work
- Scientific articles
- Blogs and short articles
- eNewsletters
- Social media channels (Twitter, LinkedIn)

These media channels have been selected for the dissemination of project news as these are the channels preferably used by a large group of the targeted audience.

All partners of the MinWaterCSP consortium provide input for the communication and dissemination activities which are led by Steinbeis 2i GmbH.

The MinWaterCSP consortium consists of:
Kelvion Holding GmbH [overall coordinator] (Germany), ENEXIO Management GmbH [technical coordinator] (Germany), Kelvion Thermal Solutions Pty Ltd. (South Africa), Fraunhofer ISE (Germany), Sapienza University of Rome (Italy), ECILIMP Termosolar SL (Spain), Stellenbosch University (South Africa), Notus Fan Engineering (South Africa), Laterizi Gambettola s.r.l. – SOLTIGUA (Italy), ENEXIO Germany GmbH (Germany), Institut de Recherches en Energie Solaire et Energies Nouvelles – IRESEN (Morocco), Steinbeis 2i GmbH (Germany), WATERLEAU Group NV (Belgium).

1 Introduction

WP 10 provides a platform to communicate about the progress and outcomes of the technical activities but also about the outcomes of WP11 related to defined exploitable results and exploitation actions. Therefore, all partners have been involved in all tasks of WP10 in the last 11 months.

This deliverable report (D 10.8.) is describing in more detail the Communication and Dissemination of project activities via digital tools and print materials that have been implemented and realised in the last 11 months.

These tools, materials and channels are:

- Press work
- Scientific articles
- Blogs and short articles
- eNewsletters
- Social media channels

All activities have been performed as planned in Annex I. No major deviations have occurred.

Confidential information will be part of the periodic progress report in M36.

2 Objectives and expected Impact

The printed and digital materials communicating and disseminating project activities implemented in M1-36 helped to achieve the objectives of the actions described in Del. 10.2 (submitted in M6) (such as website, project leaflets and roll-up banners) and updated in Del. 10.3 (submitted in M13), in Del. 10.5 (submitted in M18) and Del. 10.6 (submitted in M25). They increased the visibility of the project activities among CSP stakeholders and allowed them to get in contact with the consortium easily.

Activities related to print and digital materials

- enabled the followers / interested stakeholders to learn from the MinWaterCSP approaches and ensured the know-how transfer to other stakeholders via a peer-reviewed-exchange.
- ensured an effective communication and dissemination of project information
- increased the community of interested plant operators, technical suppliers and utility providers to initiate future demonstration activities.

This Deliverable Report D 10.8 is an update of the last 11 months activities that shows that diverse stakeholders have been reached by the different print and digital materials employed.

3 Printed and digital materials for communication and dissemination

A regular information flow via different channels such as press channels, online platforms, social media and partner channels is crucial to keep contact with the strategic stakeholders and to create new contacts. All partners are involved in this WP and its activities.

Information on the website and leaflets have been reported in previous Deliverable reports. Updates will be given in the periodic report M36.

PARTNER	ACTION
S2i	Implementation of communication and dissemination tools; coordination of different actions
All partners	Providing input to different printed and digital materials, communicating to their client bases and networks, through their communication channels

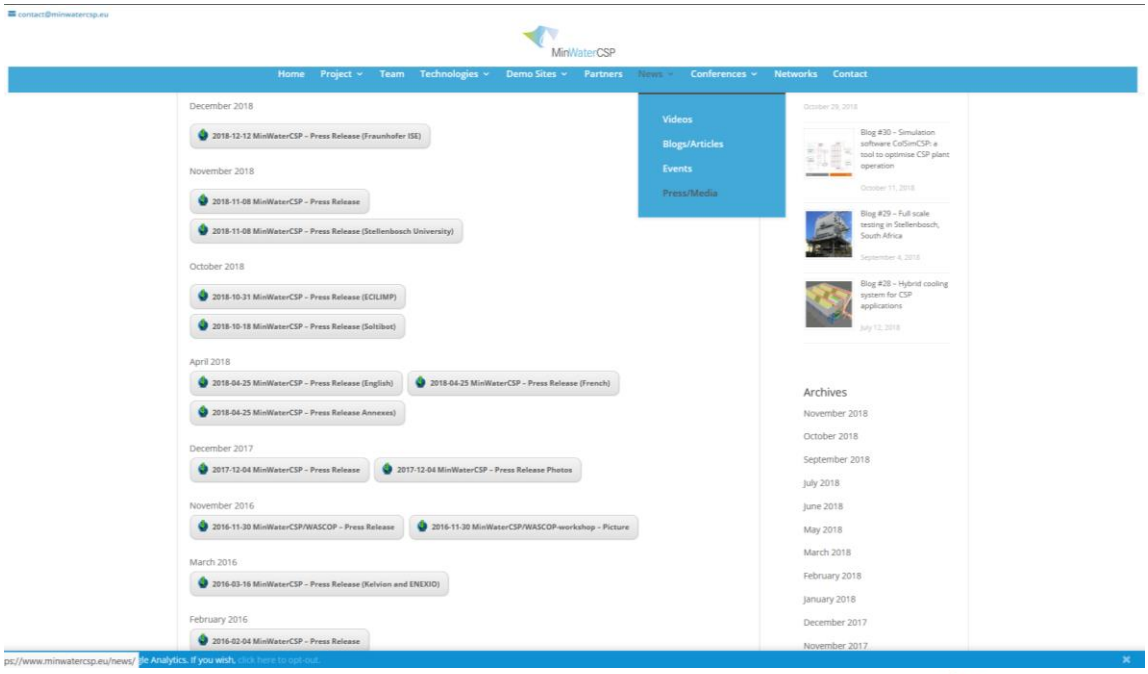
Table 1: Contributing Partners

During the last 11 months of the project, diverse stakeholders have been reached by the different printed and digital materials described in this deliverable report.

3.1 Press releases

In 2018, 6 press releases in English (one thereof also available in French) were published and disseminated at national, European and international level. They were linked to big events, exploitable results and good practices reached in the project.

In total, 10 press releases have been created and distributed (see all press releases on the project website under: https://www.minwatercsp.eu/news/mediapress/



DATE	TITLE	LINK (to press releases published on the MinWaterCSP website)
2018-04-25	International Conference on "Reduction of water consumption in CSP plants" presents innovative solutions in mirror cleaning, cooling systems & simulations	English Version: https://www.minwatercsp.eu/wp-content/uploads/2018/04/2018-04-25_presse-release_MinWaterCSP_Marrakech-Conference_EN_Final.pdf French Version: https://www.minwatercsp.eu/wp-content/uploads/2018/04/2018_04_25_presse_release_MinWaterCSP_Marrakech_Conference_FR_Final.pdf Annex: https://www.minwatercsp.eu/wp-content/uploads/2018/04/2018-04-25_MinWaterCSP_Marrakech_conference_press_annexes.zip
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2018-10-18	Cleaning robot Soltibot® successfully tested on Linear Fresnel Collectors	https://www.minwatercsp.eu/wp-content/uploads/2018/10/2018-10-18_MinWaterCSP_Soltibot.pdf
Published at: *CORDIS wire: https://cordis.europa.eu/news/rcn/130143_en.html* *IDW: http://idw-online.de/en/news704458*		
2018-10-31	New Generation of Cleaning Tools for CSP Plants Reduces the Water Consumption	https://www.minwatercsp.eu/wp-content/uploads/2018/10/2018-10-31_MinWaterCSP_PR-ecilimp_final.pdf
Published at: *CORDIS wire: https://cordis.europa.eu/news/rcn/130210_en.html* *IDW: http://idw-online.de/en/news705597*		
2018-11-08	2nd International Conference on the "Reduction of water consumption in CSP plants" offers technical solutions to tackle challenges in CSP plants	https://www.minwatercsp.eu/wp-content/uploads/2018/11/2018-11-08_presse-release_MinWaterCSP_Stellenbosch-Conference_final.pdf
Published at: *CORDIS wire: https://cordis.europa.eu/news/rcn/130243_en.html* *IDW: http://idw-online.de/en/news705598*		
2018-11-08	MinWaterCSP Conference at Stellenbosch University	https://www.minwatercsp.eu/wp-content/uploads/2018/11/2018-11-08_MinwaterCSP-Conference-site-visit_final.pdf (from SUN)
Published at: *http://www.sun.ac.za/english/Lists/news/DispForm.aspx?ID=6094* *https://www.thenewspaper.co.za/exceptional-test-facility-opened-at-international-conference/* *http://www.capetalk.co.za/podcasts/140/the-kieno-kammies-show/135096/stellenbosch-university-on-cutting-edge-of-water-saving-energy-generation*		
2018-12-12	Fraunhofer ISE Develops Solutions for Optimized Water Use in Solar Thermal Power Plants	https://www.minwatercsp.eu/wp-content/uploads/2018/12/2018-12-12_MinWaterCSP_press-release_Fraunhofer-ISE_final.pdf

Published at: *Cordis wire: https://cordis.europa.eu/news/rcn/130464_en.html* *IDW: http://idw-online.de/en/news708014* *Fraunhofer ISE published at:* *https://www.ise.fraunhofer.de/en/press-media/press-releases/2018/fraunhofer-ise-develops-solutions-for-optimized-water-use-in-solar-thermal-power-plants.html* *Fraunhofer ISE Facebook* *CSP Focus (LinkedIn)*

Table 2: Press release published in 2018

3.2 Scientific publications

Several scientific publications have been initiated, many of them being still under review.

Scientific publications that have already been published are listed below, the pending ones will be reported in the M36 periodic report.

TITLE	YEAR	Type of sc. Publication	JOURNAL / CONFERENCE proceeding
Evaluation of a magnetic gear for air-cooled condenser applications	2018	Article in Journal	IET Electric Power Applications
Modelling and Simulation of PTC plants based on real operating data	2018	Article in Journal	Solar Energy journal
Performance testing of an axial flow fan designed for air-cooled heat exchanger applications	2018	Publication in conference proceeding	Proceedings of ASME Turbo Expo 2018
Effects of fan inflow distortions on heat exchange in air cooled condensers. Unsteady computations with synthetic blade model	2018	Publication in conference proceeding	Proceedings of ASME Turbo Expo 2018
Noise reduction of a large axial flow fan for CSP air-cooled condensers	2018	Publication in conference proceeding	fan 2018
Rapid prototyping adn testing of a small scale fan for CSP power plant applications	2018	Publication in conference proceeding	fan 2018
CFD Simulation results for the MinWaterCSP cooling fan	2018	Publication in conference proceeding	fan 2018
Performance testing of a retrofitted ACC fan	2018	Publication in conference proceeding	fan 2018

Table 3: Scientific publications (Status Dec 2018)

3.3 Blogs & Articles

Numerous blogs and short articles have been published on the project website and promoted on the MinWaterCSP social media channels (Twitter and LinkedIn). Posts on these social media channels allow to link to the MinWaterCSP website and thus to increase the website visits. In addition, thanks to the publication of the latest project information in blogs and articles, the website is kept up to date.

During the course of the project, all partners contributed several times to the blogs and articles section of the website by describing the progress of their activities, the project results and the benefit they gained of their project involvement.

Blogs were published once per month. The first blog appeared in May 2016, one month earlier than scheduled. Short articles are not only published on the MinWaterCSP website but also in partners' media channels, magazines or on internet portals. Articles were published on different platforms of the partners or partner networks.

From 2016 to until today (20.12.2018), 33 blogs and 7 articles have been published:
https://www.minwatercsp.eu/news/blogs/

BLOGS 2018		
MONTH	**TITLE**	**LINK**
2018-01	Announcement of the first MinWaterCSP Conference in Marrakech, Morocco	https://www.minwatercsp.eu/blog-22-announcement-minwatercsp-conference_marrakech/
2018-02	Wire Structure Heat Exchangers: A Better Design for Air Cooled Condensers?	https://www.minwatercsp.eu/blog-23-wire-structure-heat-exchangers-a-better-design-for-air-cooled-condensers/
2018-03	Performance testing of a Reduced scale fan	https://www.minwatercsp.eu/blog-24-performance-testing-of-a-reduced-scale-fan/
2018-05	First International MinWaterCSP Conference in Marrakech showed new approaches to reduce water consumption in CSP plants	https://www.minwatercsp.eu/blog-25-first-international-minwatercsp-conference-in-marrakech-showed-new-approaches-to-reduce-water-consumption-in-csp-plants/
2018-06	ENEXIO presents innovative cooling technology at North Africa Renewable Energy Summit in Casablanca	https://www.minwatercsp.eu/blog-26-enexio-cooling-technology/
2018-07	Cleaning robots successfully tested on Linear Fresnel collectors	https://www.minwatercsp.eu/blog-27-cleaning-robots-successfully-tested-on-linear-fresnel-collectors/
2018-07	Hybrid cooling system for CSP applications	https://www.minwatercsp.eu/blog-28-hybrid-cooling-system-for-csp-applications/
2018-09	Full scale testing in Stellenbosch, South Africa	https://www.minwatercsp.eu/blog-29-full-scale-testing-in-stellenbosch-south-africa/
2018-10	Simulation software ColSimCSP: a tool to optimise CSP plant operation	https://www.minwatercsp.eu/blog-30-simulation-software-colsimcsp-a-tool-to-optimise-csp-plant-operation/

2018-10	HELIOS & CURVE! The new cleaning solutions by ECILIMP for Heliostats and Parabolic Trough	https://www.minwatercsp.eu/blog-31-new-cleaning-solutions-by-ecilimp_heliostats_parabolic-trough/
2018-11	2nd International MinWaterCSP Conference in Stellenbosch offered technical solutions to tackle challenges in CSP plants	https://www.minwatercsp.eu/blog-32-2nd-international-minwatercsp-conference-in-stellenbosch/
2018-12	ENEXIO presents innovative MinWaterCSP hybrid cooling technology at the Power-Gen International 2018 and launches new cooling system App	https://www.minwatercsp.eu/blog-33-enexio-presents-innovative-minwatercsp-hybrid-cooling-technology-at-the-power-gen-international-2018-and-launches-new-cooling-system-app/

Table 4: List of blogs published in 2018 until 19th December 2018

SHORT ARTICLES 2018			
MONTH	**TITLE**	**MEDIA / CHANNEL**	**LINK**
2018-05	Large Scale Fan Test Facility [Faculty of Engineering – News of Stellenbosch University]	Online newsletter	https://www.minwatercsp.eu/article-large-scale-fan-test-facility-news-of-sun/
2018-06	MinWaterCSP conference article in RAISELIFE Newsletter	Online newsletter	https://www.minwatercsp.eu/article-raiselife-newsletter/

Table 5: List of short articles published in 2018

3.4 eNewsletters

3.4.1 MinWaterCSP Newsletter

Since 2017, three editions of the eNewsletter were published per year – two more than planned in Annex I. This was decided by the consortium end of 2016 to create a more up to date bulletin.

The structure of the eNewsletter has been described in Del 10.1 (M3).

The eNewsletter presented the scope and approach of the project and linked to different sections of the MinWaterCSP website: demo-sites, technology descriptions and News/Events/Media.

The editions were distributed as html versions but are also available on the website as pdf files. In addition, they have been announced and distributed on the social media channels.

The following special topics have been presented in the three editions:

EDITION # / DATE	**SPECIAL TOPIC**	**LINK**
#6 / 2018-04	ColSimCSP – A Software tool chain for optimization of CSP plants	https://www.minwatercsp.eu/wp-content/uploads/2018/04/2018-04_MinWaterCSP_newsletter_april.pdf

#7 / 2018-09	Performance of Wire Structure Heat Exchangers	https://www.minwatercsp.eu/wp-content/uploads/2018/09/2018-09_MinWaterCSP_newsletter_september.pdf
#8 / 2018-12	Full scale test facility in Stellenbosch – Deluge condenser and fan system testing	https://www.minwatercsp.eu/wp-content/uploads/2018/12/2018-12_MinWaterCSP_newsletter_december_final.pdf

Table 6: List of MinWaterCSP eNewsletters published in 2018

Statistics on the eNewsletter subscribers:
In April 2018 the eNewsletter was sent to 157 subscribers.
On 23rd May 2018, an email related to the new GDPR law was sent to 193 subscribers to confirm their registration via opt-in, but only 25 % did so.
In December 2018, the eNewsletter counted 94 subscribers (opt-in).

Details on the target group will be presented in the periodic report M36.

3.4.2 Joint CSP Newsletter

In 2017, **MinWaterCSP and the LCE projects: MOSAIC, WASCOP and CAPTure** agreed to publish a joint newsletter twice a year additionally to their own project newsletters.

In 2018, the activities of the four projects were presented during the CSP coordinators meeting in Brussels. F Starting with issue 4 of the joint CSP newsletter, more projects joined. To date, the following projects are contributing to the newsletter: **Hycool, INSHIP, MUSTEC, Next-CSP, ORC-PLUS, POLYPHEM, SHIP2FAIR, SOCRATCES, SOLPART, SOLWATT and SUN to LIQUID**.

Joint action with other LCE projects		
Issue 3: 2018-06	H2020 Projects Bulletin on Concentrated Solar Power	https://mailchi.mp/2a3bc4514ad6/h2020-projects-bulletin-on-concentrated-solar-power-issue-june-632891
Issue 4: 2018-11	H2020 Projects Bulletin on Concentrated Solar Power	https://mailchi.mp/0c3134e0f1f5/h2020-projects-news-on-concentrated-solar-power-771887

Table 7: List of joint eNewsletters published in 2018

Statistics on the joint eNewsletter subscribers:
In June 2018, the eNewsletter counted 99 subscribers.
In November 2018, the eNewsletter counted 181 subscribers.

These members cannot be described in more detail, as the data is collective data from all involved projects and therefore confidential. The partner hosting the mailing software informs about the number of subscribers but keeps further information protected. This was agreed at the beginning of the joint activities with the involved dissemination and communication contact persons of the diverse projects. Furthermore, subscribers did not need to select an organisation type or similar when they registered, so the information is not available.

All joint Newsletters are available on the MinWaterCSP website under:
https://www.minwatercsp.eu/news/mediapress/ (Joint Newsletters with other projects)

3.5 Videos

3.5.1 Videos

On 18th September 2017, a team of Euronews TV visited IRESEN's Green Energy Park (Morocco) to produce videos of the containerized fouling test rig, consisting of four small cooling towers. Kelvion Thermal Solutions carried out the concept design in cooperation with ENEXIO Germany and managed the manufacturing; shipment to Morocco and the subsequent commissioning. The test rig was manufactured by TF Design of Stellenbosch, South Africa. In Morocco at Green Energy Park, IRESEN is running the fouling test program.

All the activities and expectations were summarised in a TV production broadcased on 9th October 2017 on the Euronews channel.

Link to the two videos: https://www.minwatercsp.eu/news/mediapress/

3.5.2 Project Videos

In the second half of 2018 Kelvion TS has developed a branding for the Stellenbosch test facility in collaboration with a service contractor. This work included a branding of the University Stellenbosch, the Mechanical Institute, MinWaterCSP and EU on the façade of the test facility as well as inside the test-facility and in the corridors leading to the control room, next to the test facility.

Finally, a video has been produced with interviews of the coordinators and partners involved from Kelvion Holding, Kelvin TS, Stellenbosch University and ENEXIO Management. They explain the MinWaterCSP objectives as well as history of the facility erection and its future opportunities.

Link to the videos: https://www.minwatercsp.eu/videos/

3.6 Social Media

By its social media activities, MinWaterCSP was also connected to target groups that did not participate to events or similar physical meetings. This connection enabled an international outreach that is much more diverse than achieved through events. While participants of events included e.g. international solar / solarthermal projects, networks, associations, interest groups, NGOs and other multipliers, social media activities also reach European institutions. More detailed statistics will be integrated in the M36 periodic report.

3.6.1 Twitter

A MinWaterCSP Twitter profile was created in March 2016 and was used to promote the MinWaterCSP blogs, short articles, press work and event announcements published on the project website.

Furthermore, news from specific Twitter followers such as from specific EC channels: EU Research Results, SET Plan, Horizon 2020, INEA as well as from other CSP H2020 projects and MinWaterCSP project partners were retweeted.

It was also possible link the project to CSP plant operators/owners and technical suppliers at EU and international level e.g. by following international conferences (partners participated at), industrial associations (at national, international level), NGOs as well as media channels.

The screen shot below shows the current status of the tweets that have been published until 20th December as well as the number of followers. As further activities are still ongoing, both figures might change. The Twitter profile is accessible via a link from the project website and is communicated in power point presentations, eNewsletters, blogs and press releases.

Link to MinWaterCSP Twitter profile: https://twitter.com/MinWaterCSP

Status 20.12.2018

MinWaterCSP partners active on Twitter:
Kelvion Holding, Fraunhofer ISE, UROME, ECILIMP, SUN, S2i, Waterleau, IRESEN.
Their outreach was not counted to the reached number of target groups, but they supported the D&C activities.

3.6.2 LinkedIn

MinWaterCSP LinkedIn profile

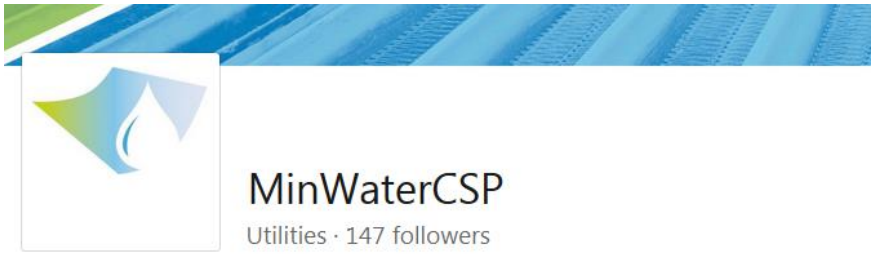
A MinWaterCSP LinkedIn profile was created only in the second half of 2016 as S2i faced some administrative obstacles in the opening of an account. As no "project account" was accepted by the system, the decision was made to create a "company account". Before that, each partner has published information about the project under individual partner profiles.

MinWaterCSP has joined several LinkedIn groups such as ORC-PLUS, H2020 CSP, Enterprise Europe Network, H2020 and Green Energy groups. MinWaterCSP requested membership in the groups of CSP South Africa and CSP Spain, the request being still pending.

The profile has been used to promote the MinWaterCSP blogs, short articles, press-work and eNewsletters.

The screen shot below shows the current status of the followers at 17th December 2018. The LinkedIn profile is accessible via a link from the project website and is communicated in power point presentations, eNewsletters, blogs and press releases.

Link to the MinWaterCSP company profile on LinkedIn:
https://www.linkedin.com/company/minwatercsp?trk=biz-companies-cym



Status 20.12.2018

MinWaterCSP partners active in LinkedIn:
e.g. Kelvion Holding, Fraunhofer ISE, IRESEN, ECILIMP, ENEXIO, SUN, Soltigua, Steinbeis, UROME, Waterleau.
Their outreach of the partner profiles was not counted to the reached number of target groups, but they supported the D&C activities.

Joint CSP LinkedIn Group (''H2020 CSP Group")

In 2017, the CSP projects MOSAIC, WASCOP, CAPTure and MinWaterCSP agreed to perform joint dissemination and communication activities in order to promote technical news, implementation achievements, results, events and publications.

In 2018, after the coordinators' meeting for CSP projects in Brussels in June, 15 CSP projects in total joined forces in this group.

The created LinkedIn Group is called H2020 CSP Group – link:
https://www.linkedin.com/groups/13519618

Status: 20.12.2018

Other social media channels/profiles used

Some MinWaterCSP partners also used Facebook to distribute information, e.g. Kelvion Holding and Steinbeis.

4 Gantt chart and Deliverable for WP10

MinWaterCSP Gantt chart		Project year / month										
		Year 3										
WP		25	26	27	28	29	30	31	32	33	34	35	36
10	**Communication & Dissemination**												
10.1	**Corporate identity**												
10.2	**MinWaterCSP Website**												
10.3	**Stakeholder identification**												
10.4	**Printed & digital communication**												
	Project leaflets												
	Press releases	**D10.6**											**D10.8**
	Publications	**D10.6**											**D10.8**
	Master PPT												
	eNewsletter	**D10.6**											**D10.8**
	Roll-up Banner												
	Blogs / Articles	**D10.6**											**D10.8**
	Social Media	**D10.6**											**D10.8**
10.5	**Events**	D10.7											D10.9

Table 8: MinWaterCSP Gantt chart and Deliverable Report overview for WP10 - year 3