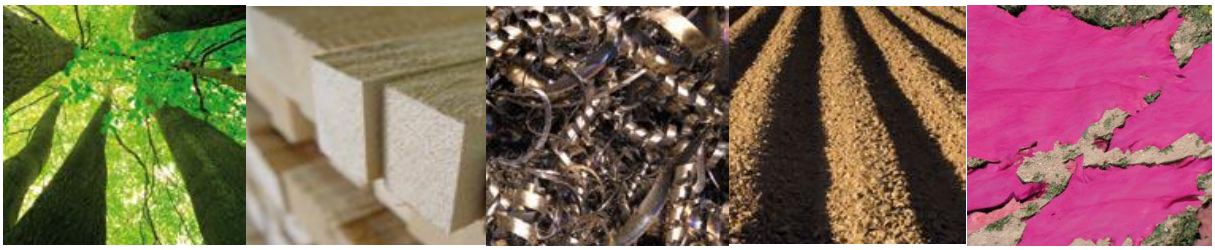

CIP Eco-innovation
Pilot and market replication projects
Call 20xx

Call Identifier: CIP-EIP-Eco-Innovation-20xx

Progress Report

Project acronym

Contract ECO/13/630492

Covering the reporting period from

01/11/2014 to 30/09/2015

Reporting Date

31/10/2015

Project coordinator: KWR, Kees Roest

Project website: www.screencap.eu

European Commission | Executive Agency for Small and Medium-sized Enterprises

1 Progress of work plan in the period

1.1 General progress.

Screencap had its kick off meeting on 13 November 2014 at the office of Waterboard Aa en Maas. The project will demonstrate at full scale a promising finescreen technology to recover suspended solids from waste water on the basis of particle size. Finescreens have potentially significant advantages in comparison with existing solid separation technologies based on density differences. These benefits include a significant reduction of chemicals and energy demands and the opportunity to recover energy and other resources from the waste water.

Screencap will adapt, install and operate at full scale the finescreen technology at one of the two identical treatment trains of a waste water treatment plant in the Netherlands. Comparison with the other treatment train enables to establish the performance of the finescreen technology. A dedicated impact assessment is part of the project.

Using the reference, the project will develop actions for further uptake of the finescreen technology. We will disseminate project outcomes through the project website (http://www.screencap.eu/), communications to relevant target groups and presence at trade fairs.

1.2 Progress on all work packages against initial objectives

As part of Work Package 1 (Management) we established an electronic project management tool for progress and resource monitoring and organised seven meetings with the WP leaders to discuss progress and actions. We also prepared a Consortium Agreement.

Work Package 2 (Design) designed the finescreen technology for implementation in one of the two existing waste water treatment lines of RWZI Aarle Rixtel in the Netherlands. This included preliminary design, detailed design and preparation of a tenderbook. Obligatory licenses and permits were taken into account. The new installation will be realized in a way that the existing plant can remain fully operational during the construction period, without adding risks to the performance. The pre-design (D2.2) is reported, including a short summary for the SCREENCAP website. A detailed engineering design is available (D2.3) and a summary of this detailed engineering design will be published on the SCREENCAP website. Licenses and permits (D2.4) have been obtained with a small delay. A short story about the obtained licenses and permits will be published on the SCREENCAP website.

We developed a monitoring plan, which describes parameter to be monitored, taking into account the specific points of attention at the various target markets for commercialization. The plan includes operational aspects such as energy, sludge growth, sludge quality, effluent quality, biogas production and running costs. The plan was reviewed by the consortium partners and a summary is available on the project website (D2.1).

WP3 (Construction) started and deliverables will be obtained as defined in the next reporting period.

WP4 (Building the reference) will start in the next reporting period.

As part of WP5 (Exploitation and business development) we have developed four finescreen feasibility plans for waste water treatment plants in the Netherlands, Italy, Denmark and Norway. They are available on the internal part of the project website. The next feasibility plan is currently finalized.

Work Package 6 (Dissemination) developed the website (www.screencap.eu), a Project Information Sheet, a project leaflet, and a mobile presentation banner. This banner is currently used as notification panel as well, but with the start of building activities at the waste water treatment plant Aarle Rixtel another notification panel (D6.10) will be placed on site. We issued a press release at the start of the project, which was picked up by a.o. Waterforum, and a second press release after signing the consortium agreement. Also we contributed to dissemination events, both on a national and European level. Examples are Aqua Nederland vakbeurs Gorinchem (17-19 March 2014) and the EIP-W annual conference in Barcelona (5, 6 November 2014). SCREENCAP will get attention during the upcoming AquaTech exhibition and the conference of the Amsterdam International Water Week (2-6 November 2015) and further dissemination events are planned in 2016 (including visits to the waste water treatment plant Aarle Rixtel).

Deliverable N°	deliverable name	Type	WP n°	Delivery date from Annex I (proj month)	Delivered (yes/no) and status (draft/f	Submission with report	Forecasted delivery da	Comments on progress	
1	Electronic project management tool for	Other	1	31/05/2015 (7 months)	yes	pr1	31-10-2015		
2	Progress report	Report	1	30/09/2015 (11 months)	no		30-9-2015		
3	Interim report	Report	1	31/08/2016 (22 months)	no		31-8-2016		
4	Final report	Report	1	31/10/2017 (36 months)	no		31-10-2017		
1	Monitoring plan	Other	2	31/01/2015 (3 months)	yes	pr1	31-10-2015		
2	Pre-design	Report	2	28/02/2015 (4 months)	yes	pr1	30-10-2015		
3	Detailed engineering design	Report	2	30/04/2015 (6 months)	no		30-4-2015		
4	Licenses and permits	Other	2	30/04/2015 (6 months)	no		30-4-2015		
1	Operational and maintenance manuals	Report	3	31/10/2015 (12 months)	no		31-10-2015		
2	Implemented fine screens	Other	3	31/01/2016 (15 months)	no		31-1-2016		
3	Trained operators	Other	3	31/01/2016 (15 months)	no		31-1-2016		
1	0-measurement	Report	4	31/01/2016 (15 months)	no		31-1-2016		
2	Optimized finescreen operation	Report	4	30/06/2016 (20 months)	no		30-6-2016		
3	Monitoring report	Report	4	30/04/2017 (30 months)	no		30-4-2017		
4	Performance assessment (LCA)	Report	4	31/07/2017 (33 months)	no		31-7-2017		
1	Market study	Report	5	30/04/2016 (18 months)	no		30-4-2016		
2	Decision support model	Other	5	30/04/2016 (18 months)	no		30-4-2016		
3	Feasibility plans	Other	5	31/10/2017 (36 months)	no		31-10-2017		
4	Business plan	Other	5	31/10/2017 (36 months)	no		31-10-2017		
1	Project information updates (pre-defined)	Other	6	31/10/2017 (36 months)	yes	pr1	31-10-2015		
2	Inputs to additional common	Other	6	31/10/2017 (36 months)	no		31-10-2017		
3	Project presentations (pre-defined)	Other	6	31/10/2017 (36 months)	no		31-10-2017		
4	Layman's report (pre-defined)	Other	6	30/04/2017 (30 months)	no		30-4-2017		
5	Evaluation report including	Report	6	31/10/2017 (36 months)	no		31-10-2017		
6	Project website	Other	6	30/04/2015 (6 months)	no		30-4-2015		
7	New media output	Other	6	31/10/2017 (36 months)	no		31-10-2017		
8	Exhibitions/fairs	Other	6	31/10/2017 (36 months)	no		31-10-2017		
9	press releases	Other	6	31/10/2017 (36 months)	no		31-10-2017		
10	Notification panel	Other	6	28/02/2015 (4 months)	no		28-2-2015		
11	Leaflets and brochures	Other	6	31/01/2016 (15 months)	no		31-1-2016		
12	Open day	Report	6	31/01/2016 (15 months)	no		31-1-2016		
13	Visitor programs	Report	6	31/10/2017 (36 months)	no		31-10-2017		
14	Presentations at seminars, fairs and	Other	6	31/10/2017 (36 months)	no		31-10-2017		
15	Articles	Other	6	31/10/2017 (36 months)	no		31-10-2017		

1.3 Identified deviations, problems and corrective actions taken in the period

There has been some delay in execution of WP2. This is mainly due to the licensing and permit procedures. Still, completion of the installations is planned in the first half of 2016, which means limited delay and no foreseen problems in execution of the overall SCREENCAP project. Obviously, efforts will be undertaken to speed up construction and implementation of the finescreen technology at waste water treatment plant Aarle Rixtel.

Furthermore, an additional short finescreen pilot experiment is planned at waste water treatment plant Aarle Rixtel. Practical insights will be obtained with this pilot and these can be directly implemented for optimization of the finescreen technology in the next steps.

1.4 Progress regarding performance indicators

Since construction has just been started and therefore the finescreens are not yet operational, no intermediate performance indicators can be produced at this moment.

2 Progress regarding market uptake and exploitation

Interest in the finescreen technology is growing. We have developed four finescreen feasibility plans for waste water treatment plants in the Netherlands, Italy, Denmark and Norway. Additional feasibility plans are currently underway. BWA, the SME technology provider has won several prices in this reporting period, from the WssTP European Water Innovation Award 2015 to a top three place as most sustainable SME innovator in The Netherlands, with SCREENCAP specifically mentioned as sustainable initiative. These highlights are also published on the SCREENCAP website (www.screencap.eu).

Furthermore, we also contributed to dissemination events, both on a national and European level. Examples are Aqua Nederland vakbeurs Gorinchem (17-19 March 2014) and the EIP-W annual conference in Barcelona (5, 6 November 2014). SCREENCAP will get attention during the upcoming AquaTech exhibition and the conference of the Amsterdam International Water Week (2-6 November 2015) and further dissemination events are planned in 2016 (including visits, with associated partners and other stakeholders, to the waste water treatment plant Aarle Rixtel).

3 Work plan for the next period

3.1 Planned activities in the next period

In the next upcoming reporting period one of the main activities is the construction and implementation of the finescreen technology at waste water treatment plant Aarle Rixtel. Completion of the installations is planned in the first half of 2016, which is slightly behind schedule, but efforts will be undertaken to speed up construction and implementation.

In the meantime, a short finescreen pilot experiment will be executed at waste water treatment plant Aarle Rixtel. With this pilot, additional insights will be obtained, which can be directly implemented for optimization of the finescreen technology.

After realization and commissioning of the finescreen technology a 0-measurement and optimization of the finescreen operation will be performed. The monitoring plan will be started. The performance of the finescreen installation will be determined by measuring, sampling and analyzing all flows to and from the finescreen installation. Parameters to be analyzed are for instance the concentration of suspended solids, COD, BOD, nitrogen components, phosphorous components… etc. From these results the removal efficiency for

the different parameters can be calculated. The impact on the waste water treatment process is determined by comparing the performances of the two treatment trains at Aarle Rixtel, with and without finescreen, AT1 and AT2. Attention points are effluent quality, energy consumption and sludge characteristics like dewatering, settlleability, sludge composition and sludge production.

3.2 Planned meetings, activities related to market uptake and dissemination activities

Regarding exploitation and business development, several activities are planned in the next upcoming reporting period. With a running reference installation and on-going performance assessment of the impact, a decision support model will be developed. This decision support model will be used in the feasibility plans for application of influent fine screens at different WWTPs in Europe. With positive outcomes in feasibility plans, implementation, and therefore further market uptake of the new finescreen technology, will take place.

A market study will be performed. This market study includes an inventory of wastewater characteristics by region/country and determination of opportunities, the major concerns and obstacles for the individual target markets.

In the next period, SCREENCAP will get attention during the upcoming AquaTech exhibition and the conference of the Amsterdam International Water Week (2-6 November 2015). A specific symposium on finescreen technology will be organised, including visits with associated partners and other stakeholders to the waste water treatment plant Aarle Rixtel.

When more results are obtained regarding the performance and impact of the finescreen technology, further dissemination activities like presentations, articles and workshops are foreseen.

4 Other issues

No other issues.

5 Overview on hours spent

Project Hours (Partner / Workpackage)	
Project Number and Acronym	630492 - SCREENCAP
Reporting period (M1 to MX)	M1-M11
Deliverable (PR, IR, etc)	management

Total Project Hours:
Total Spent Project hours:

Hours x Partners	WP1		WP2		WP3		WP4		WP5		WP6		WP7	
	Annex I*	Spent**	Annex I*	Spent**	Annex I*	Spent**	Annex I*	Spent**	Annex I*	Spent**	Annex I**	Spent**	Annex I*	Sp
KWR Water B.V.	600,0	111,0	50,0	50,0			140,0				450,0	61,0		
Waterschap Aa en Maas	120,0	16,0	2.552,0	1.952,0	1.348,0		2.796,0		450,0		240,0	12,0		
BWA B.V.	120,0	55,0	730,0	763,0	1.110,0	99,0	1.640,0		600,0	259,0	1.150,0	293,0		
Partner 4 (optional)														
Partner 5 (optional)														
Partner 6 (optional)														
Partner 7 (optional)														
Partner 8 (optional)														
Partner 9 (optional)														
Partner 10 (optional)														
Partner 11 (optional)														
Partner 12 (optional)														
Total hours x WP	**840,0**	**182,0**	**3.332,0**	**2.765,0**	**2.458,0**	**99,0**	**4.576,0**	**0,0**	**1.050,0**	**259,0**	**1.840,0**	**366,0**	**0,0**	

Total hours x Partner	
Annex I*	Spent**
1.240,0	**222,0**
7.506,0	**1.980,0**
5.350,0	**1.469,0**
0,0	**0,0**
0,0	**0,0**
0,0	**0,0**
0,0	**0,0**
0,0	**0,0**
0,0	**0,0**
0,0	**0,0**
0,0	**0,0**

% Project Hours already spent x WP (as compared to Annex I)	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9
KWR Water B.V.	18,5%	100,0%		0,0%		13,6%			
Waterschap Aa en Maas	13,3%	76,5%	0,0%	0,0%	0,0%	5,0%			
BWA B.V.	45,8%	104,5%	8,9%	0,0%	43,2%	25,5%			
Partner 4 (optional)									
Partner 5 (optional)									
Partner 6 (optional)									
Partner 7 (optional)									
Partner 8 (optional)									
Partner 9 (optional)									
Partner 10 (optional)									
Partner 11 (optional)									
Partner 12 (optional)									
Total % x WP	**21,7%**	**83,0%**	**4,0%**	**0,0%**	**24,7%**	**19,9%**			

* As originally proposed
** From M1 to the time of reporting.