



3rd AQUALity Meeting & Mid-Term check

MINUTES

Date: 7th -8th March 2019

Venue: Ecole Polytechnique, Palaiseau (France)

The meeting has been organized by Stéphane Bouchonnet and held at *Ecole Polytechnique*, Palaiseau (France).

The meeting was attended by the following representatives of beneficiaries and partner institutions.

Namely:

- ✓ P. Calza, G. Magnacca, A. Bianco Prevot, E. Sannino (UNITO, coordinator)
- ✓ C. Richard (CNRS)
- ✓ M. Marin, A. Arques (UPV)
- ✓ S. Bouchonnet, Bourcier Sophie, Nicol Edith (EP)
- ✓ I. Oller, S. Malato, M.I. López (CIEMAT)
- ✓ Peter Roslev, Mads Jørgensen (AAU)
- ✓ V. Sakkas (UOI)
- ✓ R. Binetti (SMAT)
- ✓ I. Altin, E. Bacaksız (KTU)
- ✓ V.Candelario (LQT)
- ✓ Javier Climent (FACSA)
- ✓ I. Schiavi (IRIS)
- ✓ P. Bondgaard Mortensen (Eurofins VBM Laboratoriet)
- ✓ M. Manfredi (ISALIT)
- ✓ V. Dulio, A. Assoumani (INERIS)

E. Robotti (UNIPM) joined the meeting via Skype.

Nobody from MIRTEC and NIVA.

In addition, all the enrolled ESRs partook the meeting:

- ✓ ESR1 - Masho Hilawie Belay
- ✓ ESR2 - UNITO - Nuno Gonçalves
- ✓ ESR3 - UOI – Cristina Jimenez Holgado
- ✓ ESR4 - EP - Zsuzsanna Varga
- ✓ ESR5 - AAU - Reni Dimitrova
- ✓ ESR6 - SMAT - Dimitra Papagiannaki
- ✓ ESR7 - UPV - Alice Pavanello
- ✓ ESR8 – KTU - Chukwuka Bethel Anucha





- ✓ ESR9 - CIEMAT - Ivan Matias Sciscenko
- ✓ ESR10 - CNRS - Davide Palma
- ✓ ESR11 - CIEMAT - Ilaria Berruti
- ✓ ESR12 - AAU - Katarzyna Janowska
- ✓ ESR13 - LQT - Esra Eray
- ✓ ESR14 - UNITO - Fabrício Eduardo Bortot Coelho
- ✓ ESR15 - CIEMAT - Dennis Deemter.

Apostolos PARALIKAS, the REA Project Officer, joined also the meeting.

Day 1 - Mid-Term Check

The meeting started at 9:00.

A general introduction on the purpose of the meeting was given by the REA Project Officer and the Project Coordinator. The objectives of the meeting were:

- Check of the fulfilment of the recruitment procedure
- Check of the eligibility of ESRs
- Discussion on deviations of the original program
- Risks foreseen during the Action.
- Fellows' rights on the base of the Career Development Plan
- Quality of the supervision
- Planned activities.

A Tour de table followed. The scientists-in-charge and/or the representatives of beneficiaries and partner institutions gave short presentations on their research teams and roles within the network, detailing their scientific skills and the equipment that are at the project's disposal – in the following order:

1. UNITO - P. Calza
 2. UOI - V. Sakkas
 3. KTU – I. Altin
 4. UPV – A. Arques
 5. SMAT – R. Binetti
 6. LQT – V. Candelario
 7. CIEMAT – I. Oller Alberola
 8. UNIPMN – E. Robotti via Skype
 9. AAU –P. Roslev
 10. EP – S. Bouchonnet
 11. CNRS – C. Richard
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1. INERIS- V. Dulio
 2. FACSA- J. Climent
 3. ISALIT- M. Manfredi
 4. IRIS- I. Schiavi
 5. Eurofins VBM Laboratoriet-P.B. Mortensen
 6. MIRTEC- V. Sakkas instead of V. Stathopoulos
 7. 7. NIVA- A. Arquez instead of C. Escudero





Soon after, Apostolos PARALIKAS (REA Project Officer) explained to the audience the rules on the monitoring of the project in the framework of the mid-term check. In particular, he underlined that:

- MSCA funds are not just finalized to cover salaries for PhD students, but they are provided to develop inter-sectoral and international training of young researchers that will enrich the European Union thanks to their skills;
- Annex A of the Grant Agreement has to be executed as it is the basis of AQUALity and of the specific scientific project designed for the ESRs;
- It is specific responsibility of the beneficiaries to fulfill their reporting duties and obligations;
- ETN is about researchers, and not just research itself. This means that this kind of Actions have to contribute to the overall development of the EU society at large;
- Communication within the network and with REA is essential for the best implementation of the project;
- ESRs are called to focus not just on their scientific work they are performing within their hosting laboratories, but also on the research environment they are acting in, from a political, economic and ethic point of view;
- ESRs are invited to try to get the best from the project and it is up to them to make the best of it.

After that, the coordinator presented her overall report about all the administrative and financial activities carried out so far, drawing the participants' attention on the **management of the project**. In particular, the following topics were touched:

- Roadmap toward the ESRs enrollment, described step by step and detailed with statistics and dates. Recruitment delays were justified and fellows' and host institutions' rights and obligations reminded;
- Milestones and deliverables submitted in the period from M1 to M18;
- Project Day-to-day management and management meetings;
- Activities of the Supervisory board;
- Financial aspects (pre-payment, salaries and cost category B);
- Re-orientation of the network's activities (amendment finalized in October 2018 and its main contents, such as plans of secondments, revised Gantt chart, new training activities plan, people involved in the project)
- Document management and Open Research Data.

Soon after, fellows' individual presentations and discussions followed. Each of them focused on her/his background and individual research project. The following order was followed:

1. ESR1 Masho Hilawie Belay
2. ESR2 Nuno Gonçalves
3. ESR3 Cristina Jimenez Holgado
4. ESR4 Zsuzsanna Varga
5. ESR5 Reni Dimitrova
6. ESR6 Dimitra Papagiannaki
7. ESR7 Alice Pavanello





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8. ESR8 Chukwuka Bethel Anucha
9. ESR9 Ivan Matias Sciscenko
10. ESR10 Davide Palma
11. ESR11 Ilaria Berruti
12. ESR12 Katarzyna Janowska
13. ESR13 Esra Eray
14. ESR14 Fabricio Bortot Coehlo
15. ESR15 Dennis Deemter

In the afternoon:

- a restricted session between all the ESRs and project officer took place;
- three bilateral meetings between ESRs and project officer followed;
- a restricted session between the coordinator and the project officer was organized.

In the end, REA project officer gave the audience his feedback and an open discussion concluded the meeting.

The meeting ended at 18:30.

In the evening the whole group met at the Restaurant for a networking event.





Day 2 - AQUALity Meeting

The meeting started at 9:00.

The local organizer, Stéphane Bouchonnet and the coordinator, Paola Calza welcomed the participants.

The following sessions took place. Namely:

- **WP1: Project management**

The minutes of the 2nd AQUALity meeting were approved.

The coordinator drew the participants' attention on the next deliverables to submit to the EC in October 2019 and reminded the participants that the ESRs' timesheets need to be collected and archived by the host institutions.

- **WP5 - Recruitment and training**

Isabel Oller (CIEMAT) made a brief summary on the WP's tasks related to the elaboration of the Personal and career development plans for all ESR. She also resumed the status of the training activities and asked the audience to communicate to Dr. E. Sannino (UNITO), the Dissemination and Exploitation Manager, all the local training courses in order to include them in the AQUALity website. Those local training should be opened to all ESRs.

In addition, the audience decided to organize some training about soft skills and entrepreneurship – both via Webex or in presence – to adapt to the ESRs needs.

- **WP2: High resolution analytical methods for the determination of CECs in aqueous systems and investigation of their environmental fate**

Masho Hilawie Belay, Nuno Gonçalves, Cristina Jimenez Holgado, Zsuzsanna Varga, Reni Dimitrova and Dimitra Papagiannaki presented their results.

Vasilios Sakkas (UOI) chaired the discussion reporting on the status of WP2 and resume the tasks achieved so far. It was decided that for non-target analyses 20 samples should be taken (INERIS 5, SMAT 5, AAU 3, UNITO 4, UOI 3), and extracted based on a revised analytical protocol provided by INERIS and UPO and will be sent to ISALIT until May 1st. At the same time INERIS will contribute with findings from data from 47 WWTs from seasonal sampling campaign.

Analytical methods have been developed or are under development for antipsychotic drugs, chemotherapeutic agents, bisphenol and its DPs in model solutions by LC-MS/MS or by GCxGC-MS. A new software, SPIX, is developed for processing very complex mass spectra for reliable determination of emerging contaminants at trace levels. An UHPLC/MS-MS analytical method was developed for PFAS determination.





Moreover, with regards to Task 2.2 photodegradation of chemotherapeutic agents, ketoprofen, Ibuprofen, carbamazepine, 5-tolylbenzotriazole, Carbamezapine, atenolol and bisphenol in a variety of experimental conditions is in progress and identification of degradation products in different natural waters by LC-HR-MS/MS is carried out. Also occurrence studies on the presence of PFAS in the Metropolitan Area of Turin was investigated.

For Task 2.3 several methods are under optimization or optimized for the determination of antipsychotic drugs, chemotherapeutic agents, PFAS and their DPs in several aquatic systems and a new software, SPIX, is developed for processing very complex mass spectra for reliable determination of emerging contaminants at trace levels. MS spectra for preliminary evaluation has been processed using complex algorithms in order to check their application to real samples of different water matrix. The activity will be carried out by the ESR6 and during the SMAT ESR4 secondment.

Concerning Task 2.4 photodegradation of several ECs has been carried out for ketoprofen, Ibuprofen, carbamazepine, 5-tolylbenzotriazole, bisphenol A, atenolol in a variety of experimental conditions and main transformation products were identified or is in progress.

With regards to toxicity studies (Task 2.5), *Vibrio fischeri* and *Thamnocephalus* tests have been performed to samples polluted with single PFAS and with a mixture of PFAS. More testing activities (with other microorganisms) will be carried out in the next 2 months and also during ESR6 secondment in Aalborg. Toxicity tests have been performed with the herbicide glyphosate and the primary degradation product aminomethylphosphonic acid (AMPA). New environmental test bacteria have been isolated from aquatic samples and used in comparison with known test bacteria (*Vibrio fischeri*, *Eschericia coli*).

A new fluorescent staining procedure for measuring toxic effects in the crustacean *Daphnia magna* is under development. The procedure may be applicable to several of the CECs selected in the AQUALity project. For Task 2.6 and robustness studies it was discussed that both UPO and UOI would like to have collaboration with other partners since are not able to perform this task individually.

Finally, for Task 2.7 data from non-target analyses will be assessed for introducing new data to NORMAN database.

- **WP3: Solar AOPs for the enhanced removal of CEC**

Alice Pavanello, Chukwuka Bethel Anucha, Ivan Matias Sciscenko, Davide Palma and Ilaria Berruti presented their work.

Antonio Arques (UPV) chaired the discussion reporting on the status of WP3.

The state of the tasks corresponding to WP 1 has been revised by the people in charge of them.

Regarding to task 3.1 " Development of new photochemical materials/processes for wastewater treatment", new TiO₂/ZnO photocatalytic materials loaded with methoxy/nitro substituted silicon pthalocyanine photocatalyst have been developed by KTU, both in powdered and thin film forms.





In addition, structural and optical characterization of these new materials has been carried out as well as studies to test their photocatalytic abilities.

The next goal in this task is to develop other new TiO₂ /ZnO based photocatalytic materials and incorporate into them anthocyanin dye sensitizers to improve their photocatalytic abilities. Also fabrication of TiO₂/ZnO based ceramic semiconductor nanospherical photocatalytic materials is expected in collaboration with MIRTEC, Greece in the frame of a secondment.

Also new mesityl acridinium based photocatalysts with enhanced photostability and efficiency have been prepared by UPV upon incorporating it into different inorganic supports. The next goal is to achieve a full photophysical characterization of the new photocatalytic materials and test them with other families of pollutants as well as to explore the possibility of incorporating it into SiC based membranes

Finally, photo-Fenton removal of antibiotics (fluoroquinolones) has been studied at pH = 2.8 and partly at pH = 5 at different aqueous matrices. Analytical techniques (HPLC, EEM and toxicity) have been developed. The next goal is to perform the whole set of experiments at pH = 5, and to determine the role of organic matter.

In task 3.2. "possibility of reducing pollutants recalcitrant to oxidative processes" some work has been performed with reductive organic photocatalysis. In particular, reductive abatement of different pollutants have already been achieved: UV filters of the benzotriazole family in the presence of riboflavin and imidachloprid in the presence of Eosine Y. Amines have been employed as additives. The next goal is to investigate the mechanism of the photocatalytic reductions and explore further photocatalysts.

ZVI in the absence of hydrogen peroxide has been checked as reducing agent. UPV has performed experiments with iron wool and iron nanoparticles. Some groups (nitroaromatics, chlorinated or sulphonated) can be removed. Perfluoro-compounds cannot be efficiently dehalogenated. PSA has performed initial tests with iron wool at different pHs and has observed a continuous leaching of iron to the solution. The next goal is the application of ZVI to antibiotics. PSA will change to other commercial ZVI materials for testing the elimination of micro-pollutants at neutral pH and different water matrices.

Finally, preliminary experiments are being developed to combine reducing and oxidizing processes. Studies on dosage of hydrogen peroxide and pH control to couple ZVI and photo-Fenton will be carried out in the future.

In Task 3.3 " DOM from different origins (NOM, HLS from food processing industry residues) will be submitted to wastewater treatments (in particular photo-Fenton and discharge treatments) alone and in the presence of CECs", CNRS has studied the photodegrading effect on imidacloprid of the phenolic constituents of NOM and it is nearly accomplished. The oxidant species generated by irradiation of NOM sampled at different places of a natural site have been characterized and titrated. Imidacloprid and sulfamethoxazole have been used as probe molecules

Next goals in this task are: The use of NOM as additive in the photocatalytic reduction of CECs and a EEM-based study on changes in composition of natural organic matter along an oxidative process





The Task 3.4 is devoted to the "elucidation of reaction mechanisms, based on the steady-state and time-resolved experiments". Photophysical studies to investigate the mechanisms of the photodegradations have been started by UPV, exploring the participation of the singlet excited state

The next goal is to explore the participation of the triplet excited states of the photocatalysts to achieve a complete understanding of the mechanism involved in each case. The involved mechanism will be also explored in the case of the heterogeneous photocatalysts.

The goal of Task 3.5 is to evaluate the efficiency of various innovative AOP using 4 families of water pathogens of health impact meaning in natural fresh water resources, and compared with commercial drinking water technologies. The inactivation of a bacterial consortium (E. coli, E. faecalis and P. aeruginosa) by sulphate radicals activation with UCV and solar light has been investigated in clear waters by PSA. In addition, removal of Diclofenac, Trimetoprim and Sulphamethoxazole has been also studied simultaneously.

The next goal is to investigate the application of SR with new heterogeneous photocatalysts and to assess the influence of organic matter (DOM) on the kinetics of bacterial inactivation and CECs removal. Also acute and chronic toxicity of SR-AOPs will be assessed.

Finally, for month 25 two deliverables are expected to be ready: " Development of at least 2 new photocatalytic materials and selection of 2 organic photosensitizers " and "Building-up of two solar reactors for photocatalysis and photo-Fenton". Groups involved think that they can be achieved for this data.

- WP4: Innovative hybrid NF/AOPs for CECs abatement

Katarzyna Janowska, Esra Eray, Fabricio Bortot Coehlo and Dennis Deemter presented their results.

Mads Jørgensen chaired the discussion reporting on the status of WP2 and summed up the tasks achieved so far. WP tasks and (task referents):

4.1: Six filtration units (LQT))

4.2: Three new types of membranes (LIQ)

4.3 General transport model (AAU)

4.4 Fouling tests (AAU)

4.5 NF + plasma oxidation (IRIS)

4.6 Integration NF+AOPs (PSA)

Tasks leaders (selected during the first symposium are confirmed)

Status of deliverables:

D4.1 (LQT): Six membrane-filtration set-up. Status: Done, six systems have been developed.





1. NF for ceramic tubes (Kate, silica-alumina tubes, done; Esra, silicon carbide tubes, done)
2. Higher pressure NF system. ESR13 will test silicon carbide tubes at high pressure: before October 2019
3. NF small-area flat sheet polymeric membrane. ESR12 will tests integration of plasma discharge with NF: before July 2019
4. NF flat sheet system. ESR12 and ESR14 will test thermo-catalytic membranes at this system
5. High pressure NF system. ESR13 will test silicon carbide tubes at high pressure before October 2019
6. NF pilot system at PSA for combination with solar AOPs. System is available and can be tested by ESR's.

D4.2 (LQT) Three new types of membranes: Statues: Three new types of membranes have already been developed, but there is still ongoing work to produce new self-cleaning membranes.

1. AAU: Kate (AAU) has developed silica-alumina tube membranes.
2. LQT: Esra developed new SiC LQT membranes. Current work involves fabrication of membrane with smaller pore sizes.
3. UNITO - LIQ: Fabricio (UNITO) works on photocatalytic oxides coating on LQT membranes
4. AAU-IRIS: Thermocatalytic MF membranes have also been developed, further work will focus on optimization and characterization
5. UNITO-AAU: Self-cleaning thermodynamic NF membranes are under investigation.

D4.3 (AAU): April 2020: Refined transport model (literature review)

MKJ will develop in collaboration with ESR12 (and 13-15) to integrate in relevant ESR's systems

D4.4 (PSA), October 2020: four hybrid AOP-NF systems

AOPs will be selected based on the outcome of WP3

Ozonation might be used as benchmark technology.

Membrane will be selected on the base of the outcome of D4.2

Deliverable D4.5 April 2021; report on NF/AOP systems. (PSA)





Interactions within WP4 and with WP2 and WP3 have been and will be monitored by the reports and the presentations of the ESRs.

- **WP6 - Involvement of the industrial partners and result exploitation**

Elisa Robotti (UNIPM) shortly resumed the status of the secondments.

- **WP7: Data management, dissemination and outreach**

E. Sannino (UNITO) reminded the network the general obligation to communicate and disseminate the project's results and to use the common graphic identity.

She gave a presentation on the status of outreach and dissemination activities inviting all the participants to update the information – to be sent periodically to the coordinator, the Dissemination Manager and the Public Relation Team for the project's archive and the website.

In particular, attention was devoted to:

- The project's website – to be implemented with addition info about dissemination and outreach activities.
- AQUALity newsletters. The next release is expected to be published in May 2019. Four ESRs have been selected to give their personal contribution to the document (Ilaria Berruti, Zsuzsanna Varga, Davide Palma, Esra Eray).
- Downloadable *ad hoc* AQUALity materials (leaflet etc.) to be spread
- Social media. The network decided to improve the project's presence online, enlarging the LinkedIn group and creating new groups/pages on Research Gate, Twitter and Instagram.
- Public engagement activities carried out both with students and the general public so far. The network has been invited to participate in the next European Researchers' Night 2020 call for proposals.
- AQUALity Lab already performed and to be presented again in the future. Specific guidelines about how to manage the Lab have been draft and circulated.
- International meetings & workshops in which posters and oral presentations were presented.
- Awards won by three of AQUALity ESRs (Davide Palma, Katarzyna Janowska and Esra Eray).

She finally underlined again the importance of:

- Acknowledge the REA in the correct way in all the dissemination activities;
- Deposit the publications in the institutional repositories linked to Openaire;
- Open science and the need to have all the publications in open access;
- Strengthening links, interactions and collaborations to publish jointly;
- Fostering the interaction with other EU and national projects;
- Specifying – if possible - quantitative indicators and associated metrics related to AQUALity communication and dissemination activities for the purposes of evaluation.

Lastly, after a general discussion, the network decided to:





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- Use the specific EU channels for dissemination – option to be explored;
- Find a user-friendly right way to share scientific data between the researchers.

The **Supervisory Board Meeting** followed.

It was chaired by Paola Calza, the coordinator.

No particular issues arose, election of the new ESRs representants occurred.

A final section about the planning of the next project meetings took place. In particular, I. Altin (KTU) gave details about the organization of the 4th AQUALity Network Symposium (2-3 September 2019) and International Congress on Chemical Energy and Semiconductor Photochemistry (4-6 September 2019) (KTU) (I. Altin)

In conclusion, P. Calza summarized the decisions taken during the meeting and thanked the all participants, speakers and local organizers for the very fruitful meeting.

The activities ended at 17:00.





ANNEX I

AGENDA

Day 1 - Mid-Term Check

09.00- 09.10 Introduction by the REA Project Officer and the Project Coordinator on the purpose of the meeting

09.10 –10.00 Tour de table – Short presentation of the research teams and their role within the network by scientists-in-charge *3-4 minutes each*

1. UNITO - P. Calza
2. UNIPMN – E. Robotti via skype
3. AAU –P. Roslev
4. CNRS – C. Richard
5. EP – S. Bouchonnet
6. KTU – I. Altin
7. LQT – V. Candelario
8. SMAT – R. Binetti
9. CIEMAT – I. Oller Alberola
- 10.UOI - V. Sakkas
- 11.UPV – A. Arques

10.00 – 10.20 Introduction of the Partner Organisations- *2-3 minutes each*

8. IRIS- I. Schiavi
9. FACSA- J. Climent
- 10.INERIS- V. Dulio
- 11.ISALIT- M. Manfredi
- 12.MIRTEC- V. Stathopoulos (via skype)
- 13.NIVA – C. Escudero (via Skype)
- 14.Eurofins VBM Laboratoriet-P.B. Mortensen

10.20–10.40 REA Project officer presentation on the monitoring of project implementation, reporting and purpose of the mid-term check

10.40 – 11.00 Coffee break

11.00 – 12.00 Coordinator's report: presentation of the network, progress of the activities and management, in particular:

- Recruitment report
- Deliverables
- Milestones
- Ethical issues, if applicable
- Management meetings (activities of the Supervisory board, etc.)





- Financial aspects (if necessary)
- Critical implementation risks and mitigation actions
- Any proposed re-orientations of the networks' activities
- Document management and Open Research Data, if applicable

12.00 – 13.15 Lunch

13.15 – 14.30 Fellows' individual presentation (background and individual research projects including foreseen research, training, secondments, etc.) – *5 minutes each*

- ESR1 Masho Hilawie Belay
- ESR2 Nuno Gonçalves
- ESR3 Cristina Jimenez Holgado
- ESR4 Zsuzsanna Varga
- ESR5 Reni Dimitrova
- ESR6 Dimitra Papagiannaki
- ESR7 Alice Pavanello
- ESR8 Chukwuka Bethel Anucha
- ESR9 Ivan Matias Sciscenko
- ESR10 Davide Palma
- ESR11 Ilaria Berruti
- ESR12 Katarzyna Janowska
- ESR13 Esra Eray
- ESR14 Fabricio Bortot Coehlo
- ESR15 Dennis Deemter

14.30 – 14.45 Coffee break

14.30 – 16.00 Restricted session with all fellows and Project Officer

16.00 – 16.15 Bilateral meeting with Project officer (first fellow)

16.15 - 16.30 Bilateral meeting with Project officer (second fellow)

16.30 – 16.45 Restricted session: meeting between Coordinator and Project Officer

16.45 – 17.00 Feedback from the REA Project Officer and open discussion.





Day 2 - AQUALity Meeting

09.00-09.05 Welcome to participants and adoption of agenda **S. Bouchonnet/P. Calza (EP/UNITO)**

WP1: Project management

09:05-09.20 → Recap of the management of the project **P. Calza (UNITO)**

WP2: High resolution analytical methods for the determination of CECs in aqueous systems and investigation of their environmental fate

09:20-10.20 → WP2 ESRs presentations

- ESR1 Masho Hilawie Belay
- ESR2 Nuno Gonçalves
- ESR3 Cristina Jimenez Holgado
- ESR4 Zsuzsanna Varga
- ESR5 Reni Dimitrova
- ESR6 Dimitra Papagiannaki

10.20- 10.40 Coffee Break

10.40-11.00 WP2 discussion **V. Sakkas (UOI)**

WP3: Solar AOPs for the enhanced removal of CEC

11.00-11.50→ WP3 ESRs presentations

- ESR7 Alice Pavanello
- ESR8 Chukwuka Bethel Anucha
- ESR9 Ivan Matias Sciscenko
- ESR10 Davide Palma
- ESR11 Ilaria Berruti

11.50-12.10 WP3 discussion **A. Arques (UPV)**

12:10-13.10 Lunch

WP4: Innovative hybrid NF/AOPs for CECs abatement

13:10-13.50 WP4 ESRs presentations

- ESR12 Katarzyna Janowska
- ESR13 Esra Eray
- ESR14 Fabricio Bortot Coehlo
- ESR15 Dennis Deemter

13.50-14.10 WP4 discussion **V. Boffa (AAU)**





WP5 - Recruitment and training

14.10-14.40 WP5 Discussion on ESRs training events **I. Oller (CIEMAT)**

WP6 - Involvement of the industrial partners and result exploitation

14:40- 15.10 WP6 Discussion on ESRs' secondments **E. Robotti (UNIPMN)**

WP7: Data management, dissemination and outreach

15.10-15.40 WP7 Dissemination/Outreach activities of the project **E. Sannino (UNITO)**

15:40-16.00 Coffee Break

16.00-16.30 Supervisory Board meeting

16.30-16.45 Planning for the next project meetings:

- 4th AQUALity Network Symposium (2-3 September 2019) and International Congress on Chemical Energy and Semiconductor Photochemistry (4-6 September 2019) (KTU) (**I. Altin**)

16.45-17.00 Round table and planning of the research/dissemination activities up to September 2019

17.00 Conclusive remarks.





ATTENDANTS

Consortium Member	Short Name	Attendants
Università degli Studi di Torino	UNITO	Paola Calza, Emila Sannino, Alessandra Bianco Prevot, Giuliana Magnacca
Università degli Studi del Piemonte Orientale Amedeo Avogadro	UNIPMN	Elisa Robotti – via Skype
Aalborg Universitet	AAU	Peter Roslev, Mads Jørgensen
Centre National de la Recherche Scientifique	CNRS	Claire Richard
École Polytechnique	EP	Stéphane Bouchonnet, Bourcier Sophie, Nicol Edith
Karadeniz Teknik Universitesi	KTU	Ilknur Altin, Emin Bacaksız
LiqTech International A/S	LQT	Victor Manuel Candelario Leal
Società Metropolitana Acque Torino S.p.A.	SMAT	Rita Binetti
Centro de investigaciones energeticas, medioambientales y tecnologicas	CIEMAT	Isabel Oller Albarola, Sixto Malato, Maria Inmaculada Polo López
Panepistimio Ioanninon	UOI	Vasilios Sakkas
Universitat Politècnica de València	UPV	Antonio Arques, Maria Luisa Marin
Sociedad de Fomento Agrícola Castellonense	FACSA	Javier Climent
IRIS s.r.l.	IRIS	Ilaria Schiavi
Eurofins VBM Laboratoriet	VBM	Peter Bondgaard Mortensen
NIVA	NIVA	-
ISALIT	ISALIT	Marcello Manfredi
INERIS	INERIS	Valeria Dulio, Azziz Assoumani
MIRTEC	MIRTEC	-





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Consortium Member	Short Name	ESRs
Università del Piemonte Orientale, Alessandria, Italy	UNIPMN	Masho Hilawie Belay
Università di Torino, Italy	UNITO	Nuno Gonçalves
Ioannina University, Greece	UOI	Jimenez Holgado
Ecole Polytechnique, Palaiseau, France	EP	Zsuzsanna Varga
Aalborg University, Aalborg, Denmark	AAU	Rennie Dimitrova
SMAT, Torino, Italy	SMAT	Dimitra Papagiannaki
UPV-CSIC, Valencia, Spain	UPV	Alice Pavanello
Karadeniz Technical University, Trabzon, Turkey	KTU	Chukwuka Bethel Anucha
Escuela Politécnica Superior de Alcoy, Universitat Politècnica de València, Spain	CIEMAT	Ivan Matias Sciscenko
CNRS, Clermont Ferrand, France	CNRS	Davide Palma
CIEMAT, Almeria, Spain	CIEMAT	Ilaria Berruti
Aalborg Univeristy, Aalborg, Denmark	AAU	Katarzyna Janowska
LQT, Aalborg, Denmark	LQT	Esra Eray
Università di Torino, Italy	UNITO	Fabricio Bortot Coehlo
CIEMAT, Almeria, Spain	CIEMAT	Dennis Deemter

