



TAMPERE UNIVERSITY OF TECHNOLOGY



UNESCO-IHE
Institute for Water Education

UNIVERSITÉ
— PARIS — EST

European Joint Doctorate: ABWET

Advanced Biological Waste-To-Energy Technologies
International Doctorate

Suvi Ikonen
suvi.ikonen@tut.fi
19.5.2017

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European Joint Doctorates (EJD)



- Have the objective of promoting **international, intersectoral** and **multi/inter-disciplinary** collaboration in **doctoral-level training** in Europe through the creation of **joint doctoral programmes**, leading to the delivery of joint, double or multiple doctoral degrees
- They are composed of at least three beneficiaries established in different Member States or Associated Countries that are entitled to deliver doctoral degrees
- All researchers recruited in an EJD must be Early-Stage Researchers (ESRs).
 - The length of individual appointments for an ESR will be at least 3 months up to a **maximum of 36 months** within a network
 - Researchers can be of any nationality. They are required to undertake transnational mobility when taking up their appointment
 - At the time of recruitment by the host organisation, researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of their host organisation for more than 12 months in the 3 years immediately prior to the reference date)



(ABWET consortium)



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Beneficiaries

- Università degli Studi di Cassino e del Lazio Meridionale, Italy (coordinator) (UNICAS)
- UNESCO-IHE, Netherlands
- Université Paris-Est, France (UPE)
- Tampere University of Technology, Finland (TUT)

Partner organisations

- Université de Limoges, France
- Università degli Studi di Napoli Federico II, Italy
- Institut National de la Recherche Agronomique, France
- University of South Florida, USA
- National University of Ireland, Ireland
- University of La Coruña, Spain
- National Research Council, Italy
- International Water Association
- Faure Equipment, France
- Wallac Oy, Finland
- Watrec Ltd., Finland
- Acqua&Sole s.r.l., Italy
- Biothane Systems International B.V., Netherlands
- DMT Dirkse Environmental Technology B.V., Netherlands
- Wisdom NGO, Republic of Moldavia
- Aquanos, Israel
- Ekoinwentyka Sp. Z O.O., Poland



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Background and Aim of the Programme

- The Project aims to continue the successful Erasmus Mundus Joint Doctorate Environmental Technologies for Contaminated Soils, Sediments and Solid Waste, which developed a joint PhD education and research curriculum with joint selection, supervision and PhD defense procedures
 - The ETeCoS3 beneficiaries (University of Cassino and Southern Lazio, Université Paris-Est and UNESCO-IHE) issue already a fully joint PhD degree in Environmental Technology, recognized by the respective academic boards
- To provide education and research at PhD level on environmental technologies that convert waste materials into bioenergy, training doctoral candidates to think globally and work in multidisciplinary research teams.
- The legal value of this European joint doctorate degree is guaranteed by Université Paris-Est, University of Cassino and the Southern Lazio and Tampere University of Technology that are all legally entitled to deliver the doctorate degree.



Timetable

- Project duration: 1.1.2015-31.12.2018
- Project webpage (hosted by UNICLAM) opened on 18th of February 2015
- First news about the programme on TUT webpages on 25th of February 2015
- Recruitments:
 - 3 application rounds instead of 2
 - Totally 95 applicants, 15 selected
 - Each student has a individual research project
 - To ensure the exposure to different working environments, each PhD project will have 10 month secondments to other beneficiaries and associated partners and possible shorter secondments to industrial partners
 - Five students have TUT as their main host
 - Three students will come to TUT for a 5 month secondments
- Mid-term review meeting in UPE: 18.1.2017



(ABWET management structure)

Supervisory committee carries out the daily supervision and follows carefully the progress of the PhD research and publication writing.

Every beneficiary has 2 scientific members and one administrative member

19 scientific members from beneficiaries and partners



(ABWET work packages)

- WP1: Joint doctorate management (lead: UNICLAM)
 - Joint admission, selection, supervision, governing structure, monitoring and assessment procedures
- WP2: Training through Research (lead: UPE)
- WP3: Training through Education, Dissemination and Societal Aspects (lead: UNESCO-IHE)
- WP4: Delivery of a Joint Doctoral Degree and Quality Control (lead: TUT)
 - Task 1. Delivery of a Joint Doctoral Degree (lead partner UPE)
 - Task 2. Quality Control (lead partner TUT)

Table 4.2b. Risk assessment of the ABWET EJD programme at consortium level.

Potential risk	Effect/impact	Contingency
TUT is not able to issue a joint degree with the 3 other beneficiaries at the time of graduation cohort 1 or 2	The fully joint degree cannot be issued	PhD graduates will get a double degree, one joint degree UNICAS, UPE and UNESCO-IHE and one from TUT
One of the beneficiaries does not want to deliver the joint degree any more	The fully joint degree cannot be issued	PhD graduates will be issued a joint degree by the remaining beneficiaries, as described in a modified Memorandum of Agreement
One of the planned partners cannot host the ESR anymore	The secondment cannot be carried out at the planned partner	Look for a partner within the beneficiaries' networks that is able to provide an equivalent training during the secondment.



What has been done in the consortium so far? (1/2)

- A joint admission procedure has been set up
- A joint selection has been carried out
- A joint supervision has been established, defining a supervisory team for each ESR, which includes supervisors at the Institutions visited for secondments
- A joint governing structure has been set up, with an ABWET Management Assembly (MA), including representatives of the 4 Beneficiaries, and a Supervisory Board (SB), including representative of Beneficiaries and Partner Organizations. The MA is responsible for the joint management of the ABWET EJD and the SB is responsible for the scientific aspects
- Two joint boards have been set up for joint monitoring and assessment, i.e. the SB and a Quality Assurance Committee



What has been done in the consortium so far? 2/2

- Training of the ESRs through research has been carried out on 4 sub-work packages: i) fermentation or anaerobic digestion of solid wastes and ii) wastewaters, iii) the use of side streams of anaerobic treatment processes and iv) biofuel clean-up. All ESRs have prepared a research plan that has been approved by the SB
- The ABWET introductory course, 2 dedicated summer schools, 1 ABWET conference have been carried out
- Dissemination has been started through the ABWET website and involvement in social media such as LinkedIn and ResearchGate
- A Memorandum of Agreement (MoA) on the delivery of the a fully recognized and accredited ABWET joint doctorate degree has been signed.



Educational structure

- The degree contains at least 40 ECTS of theoretical courses which are eligible for PhD studies or other eligible studies.
 - At least 25 cr of 40 cr has to be major studies (related to major subject)
 - At least 5 cr of 40 cr has to be general scientific studies. The meaning of the general scientific studies is to prepare the students for scientific work and introduce him/her to applying and conveying scientific knowledge. The studies should also take into account the needs of the personal aims and student's future career.
- Compulsory courses

ABWET introductory course	3 ECTS	(major studies)
Summer schools organized by partner organizations	3*3ECTS	(major studies)
LTT-90006 Orientation to doctoral studies online course	3 ECTS	(general scientific studies)
Research ethics online course	1 ECTS	(general scientific studies)
- An individual study plan will be drawn up by the PhD student in close consultation with his or her supervisors after acceptance to the programme.
- Furthermore two conferences are organised by ABWET consortium



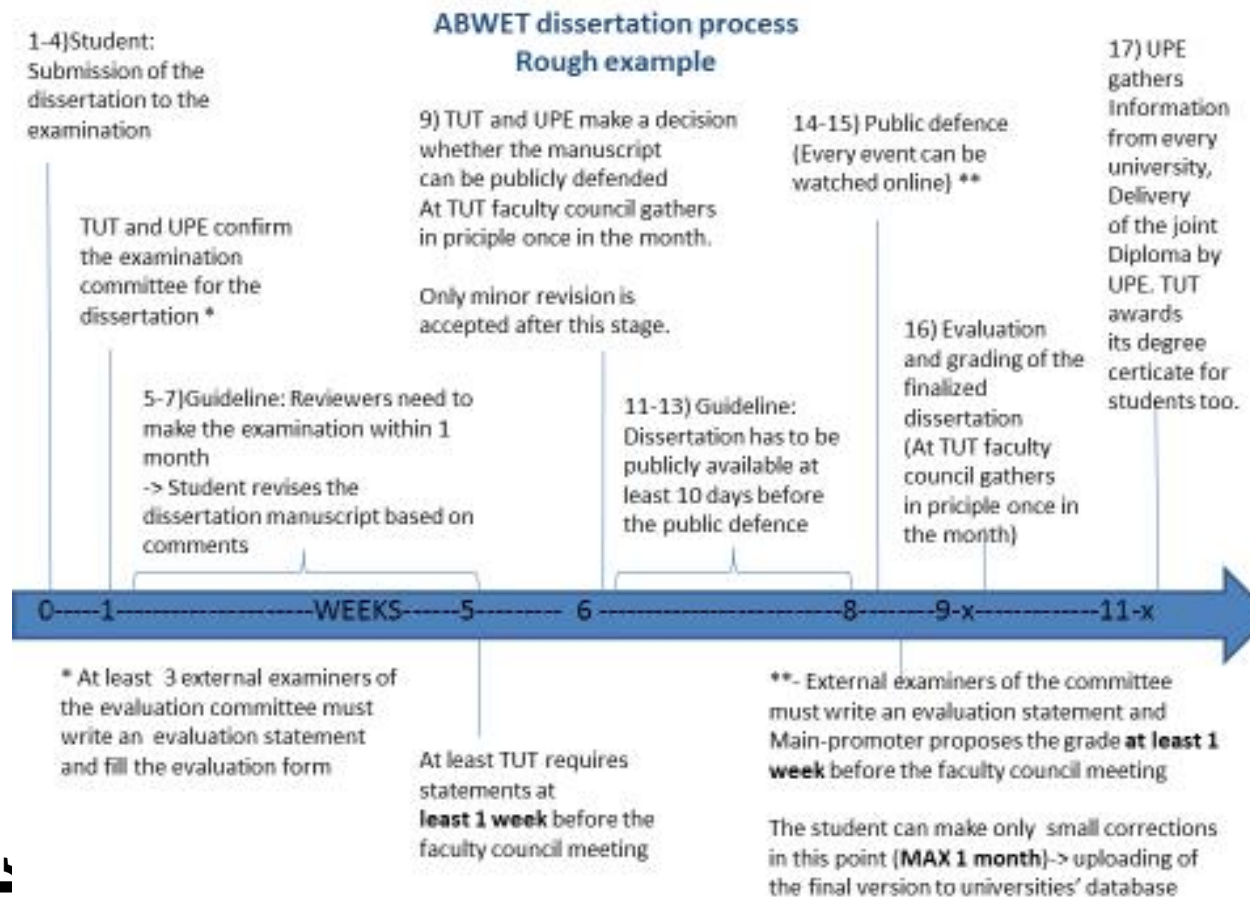
Quality requirements for the Doctoral Dissertation

The three following configurations will be considered for allowing the submission of the PhD thesis to the examination process.

1. The candidate presents a compilation style dissertation manuscript which includes a concise summary and scientific publications. The summary has to be more than an outline of the publications. The candidate has at least 2 papers published and 1 paper submitted in prestigious journals with a high impact factor (for example: quartile 1 in Web of Science classification).
2. The candidate presents a compilation style dissertation manuscript which includes a concise summary and scientific publications. The summary has to be more than an outline of the publications. The candidate has at least 3 papers published and 1 submitted in peer-review journals (typically ISI/SCOPUS journals).
3. The candidate presents thesis manuscript, which consists of a number of chapters with original and/or published data in the uniform structure. In this case the thesis may consist for example of 2 papers published and 2 submitted in peer-review journals (typically ISI/SCOPUS journals)



Examination process



Examination committee

ESR has a possibility for minor corrections after the defence before the step 16).



Administration: What have been done at TUT during 2016?

- ESRs have a right to study at TUT
- Individual Training Plan of ABWET Doctoral Candidates
 - LTT-90106 Transferable skills in practice course (maximum 5 credits) is established at TUT
 - Feedback about the plan for ESRs
- Memorandum of Agreement
 - Especially the quality requirements of the dissertations and the examination process
 - UPE is coordinating the examination process.
 - Turnitin-check is used before the examination process starts.
 - TUT's guidelines and statement forms are adapted to the examination process.



Mid-term review meeting

- 1) 9.00 - 9.15 Introduction
- 2) 9.15 - 9.45 Tour de table
- 3) 9.45 - 10.30 Coordinator's report

- 10.30 - 11.00 Coffee break

- 4) 11.00 - 13.30 Fellows' individual reports

- 13.30 - 14.30 Lunch break

- 5) 14.30 - 16.00 Meeting between the MC fellows and the REA representative
- 6) 16.00 - 16.30 Restricted session
- 7) 16.30 - 17.15 Feedback and open discussion
- 8) 17.15 - 18.00 Site visit



Mid-term review meeting: conclusion (1/2)

- The project is in general running well and in line with the objectives.
- Collaboration between the partners seems very good.
- The project will likely provide results with significant immediate or potential impact in the next reporting period.
- Some fellows have already submitted manuscripts for publication -> research is going beyond the state-of-the-art
- The project has reached all milestones and submitted all deliverables.



Mid-term review meeting: conclusion (2/2)

- Training activities have been carried out according to the planned schedule and one advanced training course and two summer schools had been organised during the reporting period covered by this report.
- Secondments that will facilitate the transfer of knowledge had started and the secondment schedule had recently been updated.
 - Please note that in EJD the 30% rule applies to short secondments *over and above* the mandatory requirements of the implementation mode



Recommendations from REA in the mid-term review meeting (1/2)

- When ESR is signing the contract of employment, officer should go clearly through the content of the work contract with the ESR
 - New country, many new things. Possibility to ask
 - University should indicate where an ESR can get further information nationally about the contract / contracts of employment act
- Education
 - ESR should have enough courses (eg. Transferable skills) available locally in English. If this is not possible, plan B should be discussed in the consortium.
 - Training in network, online-courses
 - Topics which are useful for ESRs for example: research ethics, scientific writing, writing of proposals, IPR, leadership
- Research:
 - Some fellows were concerned about the lack of relevant equipment to carry out the proposed research activities in some laboratories. -> causes stress. It is therefore recommended that the supervisors make a careful planning with the fellows to solve this issue (if possible) in order to avoid any time delays in the research activities.



- EJDs are 3 year programmes: Supervisors have important role in the process.
 - increase the supervision of the ESRs, create regular meetings between the supervisors, the trainers and other partners involved. Follow the progress of the ESR work and discuss on possible needs for additional specific complementary trainings
- The fellows should be involved in different organization activities in order to increase their managements and leadership skills.
 - Adjust the future training program and courses in accordance to the ESRs scientific and complementary needs (e.g. additional training in scientific writing, management, etc)
- update the ABWET Web site



Administration: Action plan 2017

- Doctoral Candidate Agreements are finished for all students.
 - ESR has supervisors from at least 2 beneficiaries.
 - ESR has a mandatory (at least 3 months) mobility period to another beneficiary. Maximum mobility period is 10.8 months.
- ESRs need to report their progress of studies biannually.
 - Coordinator organises this
- Eduuni-Wiki will be used for sharing information related to the examination process.
- Degree Diploma and Diploma supplement (DS) are under preparation
 - The degree certificate and DS of TUT are awarded to every student, along with the joint degree diploma and DS.



Administration: Action plan 2018

- 1st ESR should graduate in spring 2018
- Challenge: Supervisors have a number of manuscripts at the same time under review
- Check of examination process
- Examination committees
- Delivery of certificates

