

**SOCRATES THEMATIC NETWORK
AQUACULTURE, FISHERIES AND AQUATIC RESOURCE MANAGEMENT 2008-11**

**LIFELONG LEARNING PROGRAMME
ERASMUS
Academic Network**

Minutes of the **WP1 – MSc core group - meeting** (year 1)

21-22 April 2009

Held at University of Life Sciences (UMB), Ås (Norway)

Project Acronym: AQUA-TNET

Project title: Aquaculture, Fisheries & Aquatic Resource Management TN

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Agenda

1. Presentation of the WP1 home page, where do we need update, followed by a discussion (Marieke Reuver)
2. Power point presentations of Aquaculture and Aquaculture related MSc programs in each participant's home country.
3. Power point presentations (brief) of Aquaculture and Aquaculture related MSc courses/modules at the home university of each participant.
4. How to fill this into the MSc database; proposal and discussion (Odd-Ivar Lekang)
5. Discussion and proposal for MSc terminology (deliverable #WP1.2 – Report on MSc terminology) (Jean Claude Guary)
6. Program for the Annual Event 2009; discussion with proposals (Odd-Ivar Lekang)
7. Possibilities for increasing European cooperation; Current and future EU calls for project opportunities in our field (Marieke Reuver).

List of Attendees:

Odd-Ivar Lekang	University of Life Sciences (UMB) (Norway)
Jean-Claude Guary	INTECHMER (France)
Kim Jauncey	University of Stirling (UK)
Guy Fontenelle	Agrocampus ouest (France)
Frank Kirschbaum	Humboldt University Berlin (Germany)
Gilbert van Stappen	Ghent University (Belgium)
Bjarni Kristjansson	Holar University College (Iceland)
David Murphy	AquaTT UETP Ltd (Ireland)
Marieke Reuver	AquaTT UETP Ltd (Ireland)
Caroline van Geeteruyen	Ghent University (Belgium)

Minutes WP1 Core group meeting

Welcome and Introduction

WP1 coordinator Odd-Ivar welcomed the participants to the first core group meeting of WP1 in AQUA-TNET2008-11.

The agenda is discussed and the coordinator points out that a group management procedure should be implemented, as in the previous phase most work has been done by the coordinator and the AQUA-TNET Secretariat, and was not evenly spread amongst the core group. David Murphy comments that for certain parts of the project a project management tool is used (projectpath) and that WP1 can use that as a tool to manage the core group too.

The Assembly approved the proposed agenda.

Presentation of the WP1 home page

Marieke Reuver showed the participants the dedicated WP1 pages on the AQUA-TNET website. The homepage shows the highlights, and gives a link to the final deliverables pages where all the deliverables and outputs of WP1 in AQUA-TNET2005-08 can be accessed. All outputs and resources were shown, and it was highlighted which outputs will be extended, and build upon in the new phase. The new deliverables are based on work done in the first phase (2005-08), as shown by the reports produced (specifically 1.3 Master Programmes in the AQUA-TNET domain: bottlenecks and solutions), demonstrating the needs in this area, and proposed solutions.

It is discussed how to improve the WP1 web pages in the new phase. Suggestions are to reorganise the website according to user type; e.g. for students, lecturers, etc.

It is stated that the new web pages should be developed in such a way that it should come up high in Google. Suggestions made are that AQUA-TNET member should use the website on a regular basis (giving it more hits) and linking the AQUA-TNET website to their institutions websites, promoting the project. David Murphy comments that the website will be developed technically in such a way as to make it come up higher in Google too (e.g. using certain keywords).

Discussed is whether the web pages should be freely available to the whole world, or if certain sections should be restricted to AQUA-TNET members only. Most members would like to see only certain sections restricted, and most resources should be freely available to everybody.

It is discussed if a portal/database of AQUA-TNET related Master Programmes and Courses would be of added value to already existing similar databases? Many institutions already have their own resources that students use for looking for courses. Would students use the AQUA-TNET database, if they already have their national databases? The discussion regarding the database of programmes will be continued at a later stage.

- **ACTION: The project officers will promote the AQUA-TNET website actively, and make students familiar with the website and the databases.**
- **ACTION: The WP1 core group will think about how the AQUA-TNET Secretariat can service the Work Package.**

Power point presentations of Aquaculture and Aquaculture related MSc programs in each participant's home country

France

In France, higher education is organised around three degrees (LMD): the bachelor's degree (Licence), the master's degree (Master) and the doctorate (Doctorat), following Bologna. The organisation of the university year is according to a semester system; each university year is divided into 2 semesters of 4 months each. A semester consists of teaching units, which consist of modules who can be combined differently, according to the stream a student chooses. The Master is a 2 year Programme, and there is a research master's for students interested more particularly in continuing towards a doctorate and a vocational (professional) master's which is more oriented towards active working life. The system is not very flexible because once choosing one of these forms it is difficult to continue in another career, e.g. someone with a vocational Master will have difficulties being admitted to the Doctorate Programme, even though they would have the right level. In the last semester of the Master Programme students do a 6-month project or thesis.

Agrocampus Ouest Rennes has an alumnus tracking system (~800 alumni), so they can fine-tune their courses and program content.

Guy Fontenelle concentrated on presenting Aquaculture programmes only.

United Kingdom

Postgraduate Master's degrees in the United Kingdom can either be taught degrees involving lectures, examination and a short dissertation, or research degrees, and a mixture between these two forms. There are different exit point in a Master Programme: Post Graduate (PG) Certificate (30 ECTS), PG Diploma (60 ECTS) and MSc (90 ECTS), providing a service that is flexible and more responsive to the industry. This is in coherence with the Bologna objective to create more flexibility and individual choice in higher education qualifications.

At Stirling University, MSc modules are divided into foundation (or compulsory) and advanced modules: 30 ECTS: 6 subjects of each 5 ECTS in 2 week programs. The modules are described in Learning Outcomes, and advanced modules are offered as Continuing Professional Development (CPD) courses as well, offering professionals the chance to maintain, improve and broaden their knowledge and skills, without having to do a full Masters Programme.

Current difficulties the University of Stirling faces are recruiting UK students for Aquaculture Programmes and Courses as a result of the bad reputation of aquaculture, due to bad reviews in British press/media. Also recruiting non-European students has become very difficult: The University is legally responsible concerning visas, etc. for non-EU students. They also can't stay longer than exactly 4 years, making it impossible for some to graduate.

UK HEIs Offering 'Aquatic Studies' at MSc Level:

- Stirling University
 - Sustainable aquaculture
 - Aquaculture systems
 - Aquaculture and the environment
 - Aquaculture nutrition
 - Aquaculture business management
 - Aquaculture and development
 - Aquatic veterinary studies
 - Aquatic pathobiology
- University of Swansea
 - Aquaculture and the Environment

- University of Plymouth
 - Sustainable Aquaculture Systems
- University of Exeter
 - Aquatic Biology and Resource Management
- King's College London
 - Aquatic Resource Management
- Newcastle University
 - International Marine Environmental Consultancy
 - Tropical Coastal Management
- University of Portsmouth
 - Marine Resource Economics
- Edinburgh, Napier
 - Aquatic Ecosystem Management
- University of Stirling
 - Sustainable Development
- Queen Mary, University of London
 - Freshwater and Coastal Sciences
 - Marine Ecology and Environmental Management
- University College, London
 - Freshwater and Coastal Sciences

Germany

In Germany the former Diplom program (5 years) has been replaced by the separate three-year bachelor and two-year master programs, following Bologna as well. The completion of a scientific thesis is required. The Master's degree qualifies for a doctorate program.

Aquaculture and Aquaculture related MSc programs in Germany are:

- Fishery Science and Aquaculture (Humboldt University of Berlin)
- International Studies in Aquatic Tropical Ecology ISATEC (University of Bremen & the Center of Tropical Marine Biology (ZMT))
- MSc Aquaculture (University of Rostock) (in preparation, start probably October 2009)

All Master programmes are 120 ECTS (24 months) and are taught Masters.

The Master Fishery Science and Aquaculture at Humboldt University of Berlin offers modules (courses) in a 4-semester turn, in which students have to do 5 'basic' modules (choosing from 10 options), 6 'in-depth' modules (choosing from 17 options), 4 'free' modules and a Master thesis.

Belgium

In Belgium the federal government is not involved in education; education is regulated separately in Flanders and Wallonië.

Most universities apply a system of semesters, which means that the academic year is divided into two separate teaching periods or semesters.

For Belgian and European students, higher education is financed to a very large extent by the public authorities. Every year, students must pay a registration fee, depending on the higher education establishment and the type of programme followed. Admission fee for non-EU students is 55 euro due to scholarships so most of the students are non-EU.

Ghent University offers the only Master of Science in Aquaculture in the Flemish part of Belgium. The Master of Science in Aquaculture is a two year postgraduate program oriented towards students from European and Developing Countries and leads to the degree of Master of Science (MSc) in Aquaculture. Ghent University also offers the European Master of Science in Aquaculture & Fisheries.

Iceland

In Iceland, the Bologna Declaration has been implemented at all higher education institutions now. All universities have adopted a formal system of quality assurance and methods of evaluation and quality control are constantly in the process of development. The ECTS system is being used and programs and courses are described in terms of Learning Outcomes.

A Master of Science in Iceland can be either a 1) research based MSc or 2) a course based MSc. A research based MSc consists of a large research project (60-90 ECTS) and courses (30-60 ECTS). A course based MSc consists of a selection of topic related courses and a small research project (15-30 ECTS). Traditionally, much research (at research institutions) was performed by Master students, doing their thesis.

Aquaculture related programs in Iceland:

- Research based M.Sc.
 - University of Akureyri – 120 ECTS, students can select aquaculture related projects.
 - University of Iceland, biology – 120 ECTS, students can select aquaculture related projects.
 - Hólar University College, M.Sc. aquatic biology. 120 ECTS, special focus on aquaculture
- Course based M.Sc.
 - Coastal and marine management –University Center of the Westfjord and UofA – 120 ECTS, 1,5 years

The MSc Aquatic Biology at Hólar University College is a research based Master, requiring doing a large research project of 90 ECTS and course work of 30 ECTS. Courses are taught in batches of 3-5 days at a time. Hólar University College offers courses in the framework of the NOVA network as well.

Also Iceland suffers from bad press concerning aquaculture, leading to little popularity of Aquaculture related education.

Ireland

Master programmes related to Aquaculture in Ireland are:

- MSc in Applied Science (Coastal Management & Informatics with GIS) - UCC
- MSc In Applied Science (Marine Biology) - UCC
- MSc Ecological Assessment - UCC
- MSc Geography (Coastal Management Systems) – UCC
- MSc Master of Applied Science (Environmental Science) – UCD
- MSc In International Seafood Management – Grymsby Institute, Norwegian College of Fishery Science & BIM/Enterprise Ireland

Norway

In Norway, the academic year in the Master Programme is divided into a block system, and has the ECTS credit system.

European Master of Science database; proposal and discussion

Deliverable 1.3 - The European Master of Science database – is discussed. In AQUA-TNET2005-08 a first database was set up, but due to confusion of terminology and lack of

partners putting in information, the database is inconsistent (a mixture of programmes, courses, modules, blocks, etc) and not complete.

It is commented that the database will be useful, only if it is up-to-date. This lead to the discussion on what information should be included; a complete database with lots of information, or a basic database, with links to the institution's pages to more information. Ideas are that it should be kept basic, a minimum set of items will keep it easier up-to-date. The database should be designed with the user – the student – kept in mind, and Programmes and Courses to be included should only be courses that are available to everybody – non-institution students too (mobility).

- **It is decided to make a basic database, as a complete database would be out of date soon, and would require a lot of maintenance. By giving links to the institutions, it is their responsibility to update on a regular basis.**

It is discussed what should be the minimum information to put in the database. In AQUA-TNET2005-08 a start had been made with discussing this, and a list has been made for both Programmes and Modules. It is now discussed whether this list is complete, and whether some information can be omitted.

- **New list with information for Programmes:**

1. Name University / Higher Education Institution
2. Name/Title of Program
3. Country
4. Language(s)
5. Credits (total ECTS)
6. (Subject area): options should only be 1. Aquaculture, 2. Fisheries, 3. Aquatic Resource Management, 4. Other (please specify)
7. Educational Form (Taught, Research, or Other)*
8. Link to Program home page

*Point 7 caused a lot of discussion, and definite decisions have not been made yet. French participants proposed to use Research and Vocational as Educational forms, but other countries opposed, as it depends on the national system used. Depending on the outcome of deliverable 1.2 (Report on MSc terminology) in which terminology will be proposed, a final decision will be made.

Discussed is how information should be uploaded to the database; directly by institutions, giving them a login, or via the secretariat by having institutions submit information in an excel document that the secretariat will upload. It is commented that, by looking at the current existing database, it seems that some courses are out of scope, and not related to the AQUA-TNET domain. Therefore it would be good if there would be a checking procedure, and not have institutions upload directly.

- **It is decided to give institutions an online login so they can complete the information themselves, but it will only be published after a moderator (e.g. AQUA-TNET Secretariat) checks the information.**

It is commented that it should be discussed in the future on what grounds the decision as to include something will be made. Some partners argued that we should strictly restrict to Aquaculture, Fisheries and Aquatic Resource Management Programmes and Courses. Another discussion point was if all courses within an Aquaculture Programme should be included, as that will involve also more general courses, not directly related to Aquaculture. By doubt, the WP1 core group will be consulted. It is stated that from a student perspective (our target group) it would be better to have more courses to choose from, than less, so the more the better.

- **It is decided to ask all partners coming to the Annual Event to complete information for the database for their institution**

- **New list with information for Modules:**
 1. Name University/ High Education Institution
 2. Name/Title of Course
 3. Country
 4. Language(s) of instruction
 5. Credits (total ECTS)
 6. Subject area (choose from the list in : <http://www.nova-university.org/novadb/courses/subjhome.php>)
 7. Link to more information

- **Programming of the database will be outsourced and will start as soon as possible. The AQUA-TNET secretariat is responsible.**

Discussion and proposal for MSc terminology

Jean-Claude Guary presented a proposal for Master terminology in Science. He focused on Master of Science only, as according to him Master of Art is not applicable in our area. He pointed out that Master is a grade of the LMD system and also a degree usually awarded for completion of a post graduate course.

He proposes all Masters (in sciences) should be categorized according to the following:

1. Master of Science (MSc.)

MSc. is a Research Master's Degree or Master of Research, i.e. a postgraduate academic master's degree awarded after a postgraduate programme, typically in pure and applied science, usually a two-year research-based full-time course. MSc. includes a thesis.
2. Professional/Vocational Master

It is a vocational Master's Degree, i.e. a postgraduate Diploma (PgDip) that trains students for a specific profession (e.g. Aquaculture), generally a one or two-year fully-taught course composed of traditional lectures, vocational classes, work experience, exams... Vocational Master is a « non-thesis Master » sometimes validated by professional bodies and giving a more professional recognition in a specific field of employment. This type of Master will not automatically give access to the Doctorate level.

The other core members have difficulties with adopting this approach as general practice, as in countries outside France other systems are in use.

United Kingdom: In the UK all masters will require a thesis, and are a mixture of the MSc and Vocational as proposed in the French system. In the UK vocational masters are called professional masters. They also have integrated Masters, which lead to MA (Master of Arts), even when it is a Science degree. Any Master degree will give access to the Doctorate level.

Iceland: In Iceland there is also mixture; they have also Masters based on courses, which are not necessarily Vocational masters. Another confusion factor is that a Master can consist of different ECTS amounts: 90, 120, etc ECTS.

Norway: experienced based master, which gives you 90 credits, and which includes a thesis too.

Other terminologies that partners mentioned were just Master only, Research Master, Academic Master and joint Master. It was concluded there is still a lot of confusion regarding terminology and nomenclature used for Master Programmes, and lots of difficulties exists in understanding the differences.

It is proposed that our task in WP1 could maybe be limited to describing the different terms used in the European countries, as it seems that every country uses its own terminology. However, it is commented our job might as well be also proposing an overall consistent system. As far as the core group is aware, this has not been done yet, and Bologna so far has concentrated only on the first cycle (Bachelor).

After some internet searching, the group found that in 2003, a Conference on Master-level Degrees in Helsinki was held, which states that the term Master degree is used to describe all second-cycle higher education degrees at master level irrespective of their different national titles. The outcome of the Conference recommends common denominators for a Master degree in the EHEA (European Higher Education Area).

- **The WP1 core members agree to use terminology as used in Bologna, as we should be in line with Bologna and the EHEA.**

It is discussed if it is important to define a term for the 'thesis' in the Master cycle. Some institutions make a clear distinction between thesis and dissertation or just project work. It is decided that it should not be our task to define that, but should be done at institution level. The WP1 core group will focus instead on (dis)similarities in procedures regarding theses between different institutions. Later on in the project the group will work on Deliverable 1.6, carrying out a survey of current network Master's thesis requirements in order to identify (dis)similarities in procedures. A report will be produced providing recommendations how to overcome current barriers to cooperation between network partners leading to reduction in the disparity of awards, and increased cooperation between European universities and between universities and research/industry.

- **It is decided to use the term Programme for a Master**

Discussed is what term should be used for the elements within a Master Programme, as there seems to be a lot of confusion regarding this element too. Different terms used are for example: Modules (can be subdivided in courses), Course, Unit, Class, Year / and year, Block. In addition, it was found that sometimes the same terminology is used for different things, meaning that the meaning of certain terms/words was interpreted different. In France for example, unit and modules are the same. It can be concluded that describing elements/units of Master Programmes leads to a lot of confusion.

TUNING / Bologna recommend the term module, recommendable they are multiples of 5 ECTS. Course units/components are used too.

- **The WP1 core members agree to recommend the term module.**
- **Regarding producing deliverable 2.1; the report will be based on the minutes of this meeting and the proposed terminology in Bologna, as far as is available. WP1 partners not present at this meeting will be asked for feedback, and at the Annual Event all project partners can give input. Odd-Ivar and the AQUA-TNET Secretariat are responsible.**

Arrangements for organising the Annual Event are currently being made by the AQUA-TNET Secretariat and venue possibilities are Girona (Spain) or the Algarve (Portugal) on June 8-9.

Ideas from the WP1 core group are:

- Use the opportunity to collect information for the MSc database
- Use the opportunity to collect information for the report on terminology
- Invite somebody (from the EC?) to discuss for example the confusion related to terminology.
- Invite a TUNING representative; what are the new plans?
- Invite somebody related to the European Qualifications Framework
- Patrick Sorgeloos can approach people within the EC (DG Research, etc.) to give an interesting talk.

Possibilities for increasing European cooperation; Current and future EU calls for project opportunities in our field

Marieke Reuver presented calls currently open that are related to the MSc core group work.

- Lifelong Learning Programme: nothing open at the moment
 - Erasmus Mundus 2009-2013: Joint programmes: masters courses and doctorates (30 April 2009)
 - Action 3.2 of the 'Youth in Action' Programme (1 June 2009)
 - External Cooperation: EU-CANADA cooperation in higher education and vocational training (8 May 2009)
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- **Marieke Reuver will send information regarding these calls to the WP1 core group.**
 - **Marieke Reuver will search for any future interesting calls on a regular basis and forward information to the WP1 core group.**

Annex - interesting facts Master

The Bergen Conference of European Ministers Responsible for Higher Education 19-20 May 2005 adopted the overarching framework for qualifications in the EHEA and determined the following for Masters: Typically include 90-120 ECTS credits, with a minimum of 60 credits at the level of the 2nd cycle.

Report by Howard Davies, 2009. Survey of Master degrees in Europe. EUA publications 2009

- Master-level provision takes three principal forms. First, taught Master courses with a strong professional development application, available in full-time, part-time, distance and mixed modes. Secondly, research-intensive Master programmes, many of which are integrated into innovation and knowledge transfer activities and function as pre-doctoral studies for the career researcher. Thirdly, Master-level courses of varying duration delivered mainly to returning learners on in-service, executive release or self-referral bases. There is no reason to assume that patterns of demand will become less varied.

Beyond this typology, more precise definition is difficult. The list below indicates some categories of Master as they exist in some jurisdictions. Each category – and the limits of each definition – is discussed later in the report. The fact that readability is compromised by the proliferation of designations is one of the report’s main conclusions.

- Academic Master: used in binary systems to distinguish the university-based programme from the Professional Master awarded by non-university HEIs
 - Consecutive or Continuation Master: a Master undertaken immediately following, or very soon after, a Bachelor qualification in the same discipline
 - Conversion Master: a Master undertaken in a discipline other than that studied in the preceding Bachelor
 - Joint Master: a Master delivered by two or more HEIs awarding single or multiple diplomas
 - Lifelong Master: used in some systems to designate second cycle provision delivered quite separately from the Consecutive Master
 - Professional Master: used in binary systems to distinguish the Master awarded by non-university HEIs from the university-based Master
- The Master is well defined in terms of the bands of full-time duration and credit points determined by ministers. The level of academic attainment which it represents is expressed by agreed level descriptors.
 - This does not mean that the Master is ‘readable’ across the 46 Bologna jurisdictions. Its profile remains clouded by titles and nomenclature which, although usually clear at national level, lose clarity when viewed across external borders. It is not yet universally simple for students and other stakeholders to be guaranteed first-glance recognition of what a particular Master offers. **A set of informative markers should be developed for the benefit of all users.**
 - What is the Bologna Master?
 - Normally carrying ECTS 90-120, of which at least 60 should be at Master level
 - Typical duration of one to two full-time equivalent years
 - Disciplinary content consistent with generic level descriptors
 - Curriculum design and pedagogy defined by learning outcomes
 - A recognised point of entry to the European labour market