



# AQUAEXCEL

Aquaculture Infrastructures for Excellence in European Fish Research

Project number: 262336

Combination of CP & CSA  
Seventh Framework Programme  
Capacities

## ***Deliverable D2.7***

**Updated lists and resources descriptions on  
web sites from the Research Activities**

**Due date of deliverable:** M48

**Actual submission date:** M48

**Start date of the project:** March 1<sup>st</sup>, 2011

**Duration:** 48 months

**Organisation name of lead contractor:** AquaTT

**Revision:** V1

Project co-funded by the European Commission within the Seventh Framework Programme (2007-2013)	
Dissemination Level	
<b>PU</b> Public	<b>X</b>
<b>PP</b> Restricted to other programme participants (including the Commission Services)	
<b>RE</b> Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b> Confidential, only for members of the consortium (including the Commission Services)	

## Table of contents

Table of contents.....	2
Glossary.....	3
Summary.....	4
Introduction .....	5
Methodology .....	6
Deliverables .....	6
Ontologies.....	8
Data Management.....	9
Bioinformatic Tool ‘Fish and Chips’ .....	10
e-Infrastructure.....	12
Publications.....	14
Transnational Access.....	16
Interactive Map .....	18
Courses .....	24
Links .....	26
Glossary.....	29
Media Centre .....	29
Conclusion .....	31
Annex 1.....	32

## **Glossary**

AQUAEXCEL: Aquaculture Infrastructures for Excellence in European Fish Research

RI: Research Infrastructure, i.e. a site-specific cluster of research groups and tools that provide services for basic or applied research

## Summary

**Objectives:** The objective of D2.7 Updated lists and resources descriptions on web sites from the Research Activities is to facilitate ease of access to final results, tools and resources developed by the AQUAEXCEL project, ensuring widespread awareness of project outputs and encouraging uptake of these by all stakeholders and possible end users.

**Rationale:**

The AQUAEXCEL website offers general information about the project, freely accessible to all stakeholders and possible end users, including the general public. The project website was chosen as the forum to host the compiled final results, resources and tools developed by the project as it was decided that as the first port of call for individuals who are interested in the project it would be the most obvious and intuitive place to find its outputs.

The AQUAEXCEL website is designed according to Best Practice EU Project Website Structure and therefore is already an easy to navigate and user friendly space. All AQUAEXCEL public outputs are now easily accessible via the project website. Having all project information centralised at this entry-point accessible to both project partners and external users ensures that all interested parties are aware of the outputs of AQUAEXCEL and can easily avail of them.

The website also hosts the AQUAEXCEL European Aquaculture Research Infrastructures interactive map which is a key resource for the European aquaculture sector which was developed during the project. It seemed prudent to centralise all other project resources on the same website as the map. This is an end-user friendly approach to improve access provision, for both researchers at project partner institutions, and also external scientists and other users.

Centralising all project outputs and making them freely and easily available to potential end users has the combined effect of:

- Disseminating and raising awareness of the knowledge and tools developed by AQUAEXCEL
- Demonstrating the added value of AQUAEXCEL research and networking activities
- Promoting further scientific developments in European aquaculture research
- Maximising the impact of the funding obtained

The website and its associated resources and tools will remain active after the project has finished (currently we envision the website remaining online for a timeframe of at least 5 years), as a valuable public source of research information on the subject and promoting the outputs of publicly funded research in the domain.

Website address: <http://www.aquaexcel.eu/>

**Teams involved:** AquaTT (P16) developed the lists of resources with contributions from all partners.

**Geographical areas covered:** All European Union Member States and Associated Countries.

## Introduction

To ensure that the knowledge generated and the tools developed by the AQUAEXCEL project continue to have impact in the European aquaculture sector and beyond, the partners have compiled and centralised the final results, tools and resources developed by the project. These are all easily accessible and freely available on the project website: [www.aquaexcel.eu](http://www.aquaexcel.eu)

## Methodology

Below follows information on how to locate and use the resources which are available on the AQUAEXCEL website [www.aquaexcel.eu](http://www.aquaexcel.eu)

## Deliverables

The public deliverables of the project are all available to access on the website. You can find them by following the instructions below.

1. First click on 'Results' in the main menu



2. A drop down menu will appear. Select 'Deliverables'.



3. This will take you to a page with a list of all the AQUAEXCEL public deliverables.



## Deliverables

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Submitted (public) deliverables can be found below:

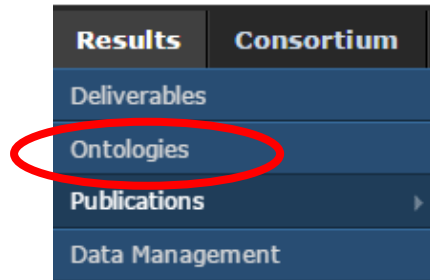
- 2.1: Online interactive system for registration of research infrastructure properties (📄, 1.57MB)
- 2.2: Directory of infrastructure facilities, services, biological resources (📄, 1.12MB)
- 2.3: Inventory of research needs based on Strategic Research Agendas (📄, 0.61MB)
- 2.4: Report on regulatory collaboration framework for research infrastructures (📄, 0.64MB)
- 2.6: Model for sustained research infrastructure collaboration (📄, 0.73MB)
- 3.1: Sanitary prescriptions and procedures for transfers and safety standards (📄, 1.53MB)
- 3.2: Best practices & cross-applicability of methods to measure phenotypes (📄, 2.33MB)
- 3.3: Fish-ontologic base (phenotyping/environment) and measure technical base (📄, 3.23MB)
- 4.1: First call for Access and accompanying guidelines (📄, 3.31MB)
- 4.2: Second call for Access and accompanying guidelines (📄, 3.45MB)
- 4.3: Interim Evaluation of the call for access (📄, 2.23MB)
- 5.1: Public website (🌐)
- 5.2: AQUAEXCEL brochure (📄, 1.02MB)
- 5.5a: First AQUAEXCEL newsletter (📄, 1.24MB)
- 5.5b: Second AQUAEXCEL newsletter (📄, 0.54MB)
- 5.5c: Third AQUAEXCEL newsletter (📄, 0.86MB)
- 5.5d: Fourth AQUAEXCEL newsletter (📄, 1.24MB)
- 5.6a: Short Intensive Training Courses - #1 (Recirculating Aquaculture Systems (RAS) Technology) (📄, 2.30MB)
- 5.6b: Short Intensive Training Courses - #2 (Contribution of Genomic Approaches to the Development of Sustainable Aquaculture for Temperate and Mediterranean Fish) (📄, 1.01MB)
- 5.6c: Short Intensive Training Courses - #3 (The Application of Chromosome Set Manipulations and the Importance of Gamete Collection and Management in Aquaculture) (📄, 1.02MB)
- 5.6d: Short Intensive Training Courses - #4 (Efficient Utilisation of New Monitoring and Control Systems in Fish Experiments) (📄, 2.15MB)
- 5.8a: Booklet describing key achievements of AQUAEXCEL, issue 1 (📄, 0.77MB)
- 5.8b: Booklet describing key achievements of AQUAEXCEL, issue 2 (📄, 6.21MB)
- 5.8c: Booklet describing key achievements of AQUAEXCEL, issue 3 (📄, 2.53MB)
- 6.4: Technical solutions, including revision of implementation guide (📄, 0.232MB)
- 6.5: e-Infrastructure open for TNA in IMARES, NORIMA, WU and SINTEF (📄, 0.23MB)
- 7.2: Development of new tagging tools and procedure for larvae and juveniles individual identification (📄, 1.36MB)
- 8.2: Scale effects in tanks and cages on Atlantic salmon and sea bass (📄, 1.45MB)
- 9.1: Optimization of gynogenesis in salmon (📄, 2.01MB)
- 9.2: Optimization of androgenesis in carp and seabass (📄, 0.65MB)
- 9.3: Phenotypic analysis in G1 offspring in salmon and A1 offspring in seabass and carp (📄, 5.45MB)

4. In order to view a PDF version of the full deliverable, just click on the hyperlink or PDF symbol of the deliverable in question.


- 2.6: Model for sustained research infrastructure collaboration (📄, 0.73MB)

## Ontologies

1. First click on 'Results' in the main menu
2. A drop down menu will appear. Select 'Ontologies'.



This will take you to a page with further information on ontologies, including a link to the ontology tool and a tutorial on how to use the tool.



Home The Project Results Consortium Transnational Access Interactive map Courses Events Links Glossary Media Centre Search

Home > Results > Ontologies

## Ontologies

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An **ontology** is a formal description of a domain's symbolic knowledge, constituted of concepts and relations. It hinges on the notion of genericity (phenotypic traits), as opposed to data specificity (phenotype). Annotating data stored in databases by ontologies make possible their automatic interpretation. The goal of the AQUAEXCEL-ATOL ontology is to define and organize livestock traits, with a focus on the main types of fish production (meat, feed and fertility) in accordance with societal priorities (animal welfare, product quality, etc.). This ontology will be a reference for semantic search tools in order to improve queries on bibliographic resources about livestock animal phenotypes. Making homogeneous database annotation, it opens the possibility for meta-analysis and modeling.

Please follow the link to access the ontology tool:

<http://www.atol-ontology.com/index.php/fr/les-ontologies-fr/visualisation-fr>

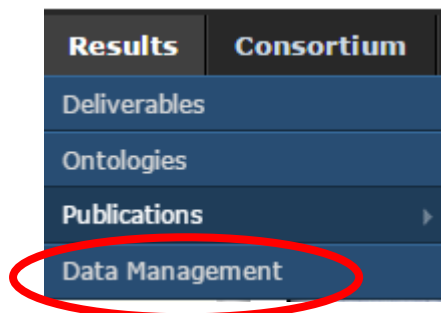
A tutorial on the tool can be found at :

<http://www.atol-ontology.com/index.php/fr/les-ontologies-fr/tutorial-webprotege-fr>



## Data Management

1. First click on 'Results' in the main menu
2. A drop down menu will appear. Select 'Data Management'.



3. This will take you to a page with further information on the Data Management 'BioWes' tool, including video tutorials on how to use it.

## BioWes data management

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The AQUAEXCEL BioWes repository is a solution for management of experimental data and metadata and was designed to improve the reproducibility of experiments, standardization and cooperation between AQUAEXCEL partners. The solution consists of a server with a commercial database and two access points to the repository – web interface (web based) and protocol manager (local computer software). The repository provides the tools for storage and management of experimental data together with the description of the experiment in electronic form.

**Key features of the repository:**

- Electronic protocol
- Electronic protocol template - reusability
- Standardized terminology – connection to ATOL, EOL
- Experimental data as a black box – all types of data
- Information from devices (data sets)
- Link between data and metadata
- Protocol chain – chain of data processing steps
- Simple protocol sharing
- Data processing modules
- Data queries

**Learn more about the repository:**

- [How to start with the system](#)
- [Scheme](#)
- Video guides (links below)

**System Overview**

- AQUAEXCEL - BioWes TUTORIAL - 01 - Protocol manager overview - <http://youtu.be/dtr3xdsdKkg>
- AQUAEXCEL - BioWes TUTORIAL - 02 - Protocol manager - Log off - <http://youtu.be/zTbRiDIB1rM>
- AQUAEXCEL - BioWes TUTORIAL - 03 - Design protocol template - [http://youtu.be/c8Q3r\\_mgGeU](http://youtu.be/c8Q3r_mgGeU)
- AQUAEXCEL - BioWes TUTORIAL - 04 - Design protocol template - Basic settings - <http://youtu.be/rgCFIRKqudo>
- AQUAEXCEL - BioWes TUTORIAL - 05 - Design protocol template - Components 1 - <http://youtu.be/SeKMteQfSfs>
- AQUAEXCEL - BioWes TUTORIAL - 06 - Design protocol template - Components 2 - <http://youtu.be/ggdZ-bBH7g0>
- AQUAEXCEL - BioWes TUTORIAL - 07 - Design protocol template - Text component - <http://youtu.be/ecr1C2C70PY>

**System Tutorial**

- AQUAEXCEL - BioWes introduction - 01 - Create user account - <http://youtu.be/xID7qOrowIA>
- AQUAEXCEL - BioWes introduction - 02 - Create protocol template - <http://youtu.be/Ta70s3Uik1I>
- AQUAEXCEL - BioWes introduction - 03 - Realization of experiment - <http://youtu.be/j0QC3cuV718>
- AQUAEXCEL - BioWes introduction - 04 - Share data - [http://youtu.be/dYLL1EKo\\_gw](http://youtu.be/dYLL1EKo_gw)
- AQUAEXCEL - BioWes introduction - 05 - Data processing - <http://youtu.be/3kq1Rt8gDTs>
- AQUAEXCEL - BioWes introduction - 06 - Protocol management - <http://youtu.be/jGcXWky204>

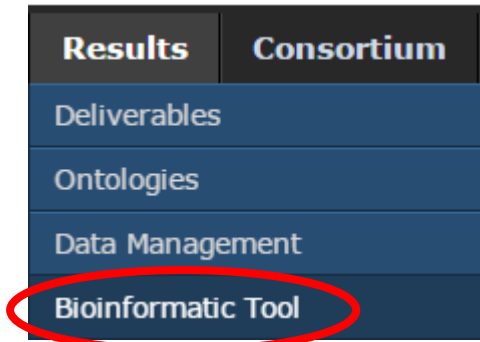
**Documentation**

- Protocol manager - <http://www.biowes.org/wp-content/uploads/2014/10/Protocol-manager.pdf>
- Web interface - [http://www.biowes.org/wp-content/uploads/2014/10/UD\\_BioWES\\_2014\\_English.pdf](http://www.biowes.org/wp-content/uploads/2014/10/UD_BioWES_2014_English.pdf)
- Particular example - [http://www.biowes.org/wp-content/uploads/2014/10/Particular\\_example.pdf](http://www.biowes.org/wp-content/uploads/2014/10/Particular_example.pdf)

 A screenshot of the BioWes data management interface. It features a 3D visualization of experimental data points in a 3D space, with axes labeled 'Depth, cm', 'Distance from center, cm', and 'Orientation, degrees'. To the right of the 3D plot is a control panel with options for 'Data Source' (Kinect, Folder), 'Stop', 'Pause', 'Show 2D', 'Show 3D', 'Show statistics', '# of frames' (150), 'Update' (0), and 'FPS' (1). Below the 3D plot are four histograms showing 'Statistical distributions' for 'Depth, cm', 'Distance from center, cm', 'Orientation, degrees', and 'Velocity, cm/s'.

## Bioinformatic Tool ‘Fish and Chips’

1. First click on ‘Results’ in the main menu
2. A drop down menu will appear. Select ‘Bioinformatic Tool’.



3. This will take you to a page with further information on the Bioinformatic Tool ‘Fish and Chips’. This page also contains a link to discover more about new genomic information identified through gene expression analysis to potentially characterise markers for welfare and health status in salmon, trout and sea brea



[Home](#) [The Project](#) [Results](#) [Consortium](#) [Transnational Access](#) [Interactive map](#) [Courses](#) [Events](#) [Links](#) [Glossary](#) [Media Centre](#) [Search](#)

[Home](#) [Results](#) [Bioinformatic Tool](#)

## Bioinformatic Tool Fish and Chips

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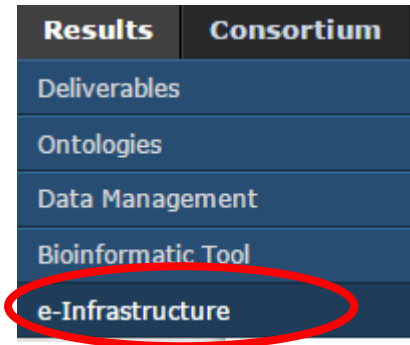
For more information on the bioinformatic tool "Fish and Chips" click [here](#).

For more informatin on new genomic information identified through gene expression analysis to potentially characterise markers for welfare and health status in salmon, trout and sea bream, click [here](#).



## e-Infrastructure

1. First click on 'Results' in the main menu
2. A drop down menu will appear. Select 'e-Infrastructure'.



3. This will take you to a page with further information on the e-Infrastructure, including a link to video tutorials on how to use it.



Home	The Project	Results	Consortium	Transnational Access	Interactive map	Courses	Events	Links	Glossary	Media Centre	Search
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Home ▶ Results ▶ e-Infrastructure

## e-Infrastructure

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An e-Infrastructure is an electronic infrastructure to facilitate interchange of data and remote operation between research facilities over the internet. AQUAEXCEL has developed, implemented and evaluated technical solutions for providing remote access to some of AQUAEXCEL's research facilities. The individual AQUAEXCEL partners have developed and adapted e-Infrastructures which suited their requirements. Given the diverse range of existing e-Infrastructures, a number of different solutions were investigated.

Five facilities were used for testing the developed e-Infrastructures. For each facility, a technical solution for external access (e-infrastructure) was provided as follows:

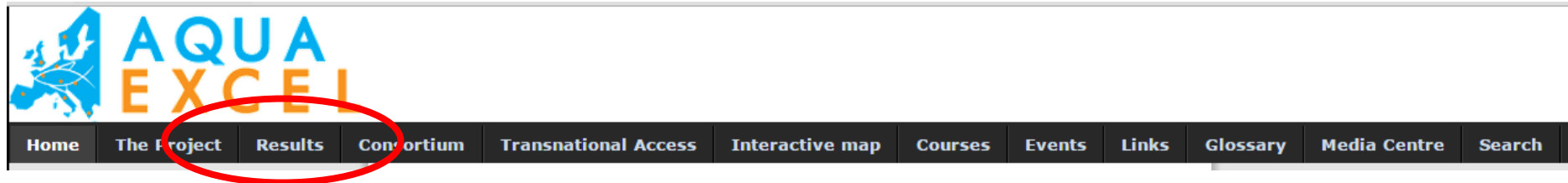
- **IMARES:** External accessibility of the system for monitoring water quality in Recirculating Aquaculture Systems (RAS) as well as using SharePoint to exchange data.
- **SINTEF/ACE:** Remote access to the Aquaculture Engineering (ACE) industry scale salmon farming Research Infrastructure, including oceanography data and also a common model for storage of data on water quality.
- **WAGENINGEN UNIVERSITY:** External data capture and access to the Metabolic Research Unit.
- **NOFIMA:** Data exchange on water quality data in Recirculation Aquaculture Systems.
- **NTNU:** Client-less secure remote access to the CodTech Marine Hatchery Automation Laboratory.

A central portal for entrance to the different e-Infrastructures was created through a Wikidot site. This provides a user interface which contains the necessary information regarding pre-conditions and login information for each facility. Access to the different partner e-Infrastructures is controlled locally to ensure compatibility with existing technical infrastructure and required security levels. You can request access to the e-infrastructure [here](#).

Five videos "AQUAEXCEL e-Infrastructure Training Sessions" are also available on the AQUAEXCEL Vimeo channel, to view these videos [click here](#).

## Publications

1. First click on 'Results' in the main menu



2. A drop down menu will appear. Select 'Publications' > 'Joint Research Activities'



3. This will take you to a page with a list of AQUAEXCEL related publications. Any of these publications which are available online are linked to the appropriate destination.



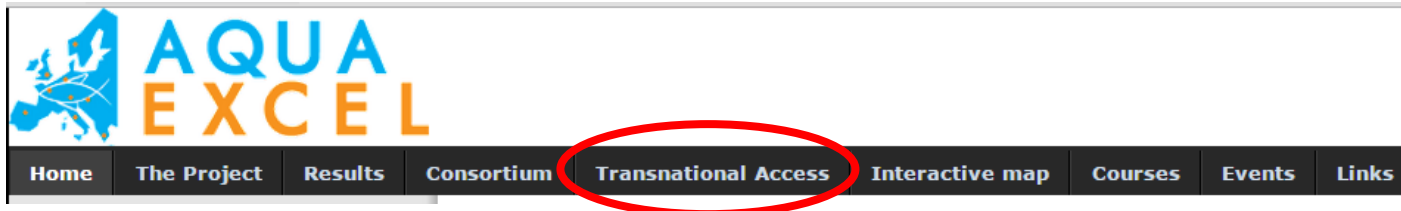
## List of AQUAEXCEL related Publications

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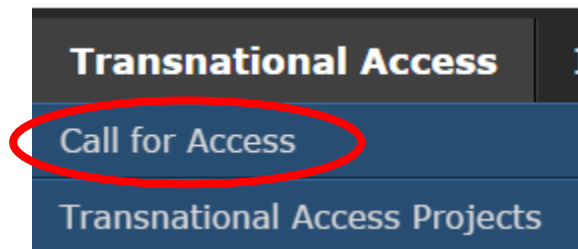
No.	Title	Main Authors	Type of Publication	Title of Publication	Date of Publication	Relevant Pages	Open Access? Y/N
1.	Objectives and applications of phenotyping network setup for livestock.	Hocquette J.F., Capel C., David V., Guéméné D., Bidanel J., Ponsart C., Gastinel P.L., Le Bail P.Y., Monget P., Mormède P., Barbezant M., Guillou F., Peyraud J.L.	Peer reviewed scientific publication	Animal Science Journal	2012	517-528	
2.	The effects of three different aquaculture related stress treatments on growth, feed intake, oxygen consumption, stress- and feed behaviour of gilthead sea bream ( <i>Sparus aurata</i> )	Marit Nederlof	Master Thesis		01/12/2012		
3.	ATOL: the multi-species livestock trait ontology	Golik, W., Dameron, O., Bugeon, J., Fatet, A., Hue, I., Hurtaud, C., Reichstadt, M., Salaün, M.-C., Vernet, J., Joret, L., Papazian, F., Nédellec, C., Le Bail, P.-Y.	Peer reviewed scientific publication	Computer and Information Science, 343	2012	pp. 289-300	
4.	Deep sequencing for de novo construction of a marine fish ( <i>Sparus aurata</i> ) transcriptome database with a large coverage of protein-coding transcripts.	Calduch-Giner, J.A., Bermejo-Nogales, A., Benedito-Palos, L., Estensoro, I., Ballester-Lozano, G., Sitjà-Bobadilla, A., J. Pérez-Sánchez, J.	Peer reviewed scientific publication	On line BioMedCentral	15/03/2013	Online	Yes

## Transnational Access

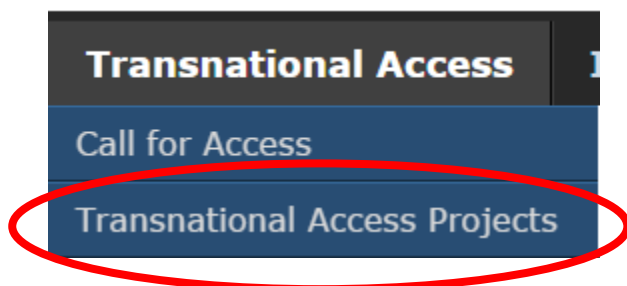
1. First click on 'Transnational Access' in the main menu



2. A drop down menu will appear. Select 'Call for Access' to view historical information on the periodic Calls for Access which took place throughout the AQUAEXCEL project



3. From the same menu select 'Transnational Access Projects' to view a list of all the Transnational Access Projects which were funded by the AQUAEXCEL project





## List of Funded Transnational Access Projects

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**1. Title: Preserved zooplankton as a novel food in aquaculture**

Leader Name: Dr Ike Olivotto

RI Accessed: ULPGC

Leader Org Name: Università Politecnica delle Marche, UNIVPM

Project Code: 0001/01/12/29/B

**2. Title: Cloning and ontogeny of the KISS system in gilthead seabream, *Sparus aurata***

Leader Name: Dr Catarina Oliveira

RI Accessed: UOS IOA, University of Stirling, Institute of Aquaculture

Leader Org Name: Centre of Marine Sciences, COMAR

Project Code: 0003/01/03/13/A

**3. Title: Epitheliocystis outbreaks in mesocosm culture systems**

Leader Name: Prof Lloyd Vaughan

RI Accessed: HCMR Aqualabs, Hellenic Center for Marine Research

Leader Org Name: Veterinary Pathology, University of Zurich

Project Code: 0004/01/05/15/A

**4. Title: Peracetic acid products can reduce fish pathogens in aquaculture systems.**

Leader Name: Dr Thomas Meinelt

RI Accessed: VURH PEU, Research Institute of Fish Culture and Hydrobiology, University of South Bohemia

Leader Org Name: Institute of Freshwater Ecology and Inland Fisheries, IGB

Project Code: 0007/02/09/24b/C

**5. Title: Potential of Recirculation Aquaculture System *Seriola rivoliana* Ongrowing (PRASERON)**

Leader Name: Dr Francisco Javier Roo Figueira

RI Accessed: Recirculation facilities of DLO- IMARES

Leader Org Name: Universidad de Las Palmas de Gran Canaria (ULPGC)

Project Code: 0009/01/15/32/A

**6. Title: Influence of coping styles on the learning ability and behavioural flexibility in Atlantic salmon *Salmo salar*.**

Leader Name: Ms Maria Filipa B. O. Falcão Castanheira

RI Accessed: IMR Matre Cell Institute of Marine Research

Leader Org Name: Centre of Marine Sciences, COMAR

Project Code: 0010/02/02/12b/C

If there is further information about the project available online this will be indicated by a hyperlinked title which will direct you to the appropriate resource:

**26. Title: [Effects of dietary tryptophan and phenylalanine on stress response in cod \(\*Gadus morhua\*\)](#)**

Leader Name: Marcelino Herrera

RI Accessed: NOFIMA NCBC, National Cod Breeding Centre

Leader Org Name: Select Andalusian Institute of Training and Researching in Fishery and Agrarian Sciences (IFAPA AS)

Project Code: 0040/03/08/21/A

## Interactive Map

The AQUAEXCEL European Aquaculture Research Infrastructures interactive map is an easy to access inventory of European RIs documenting important information such as:

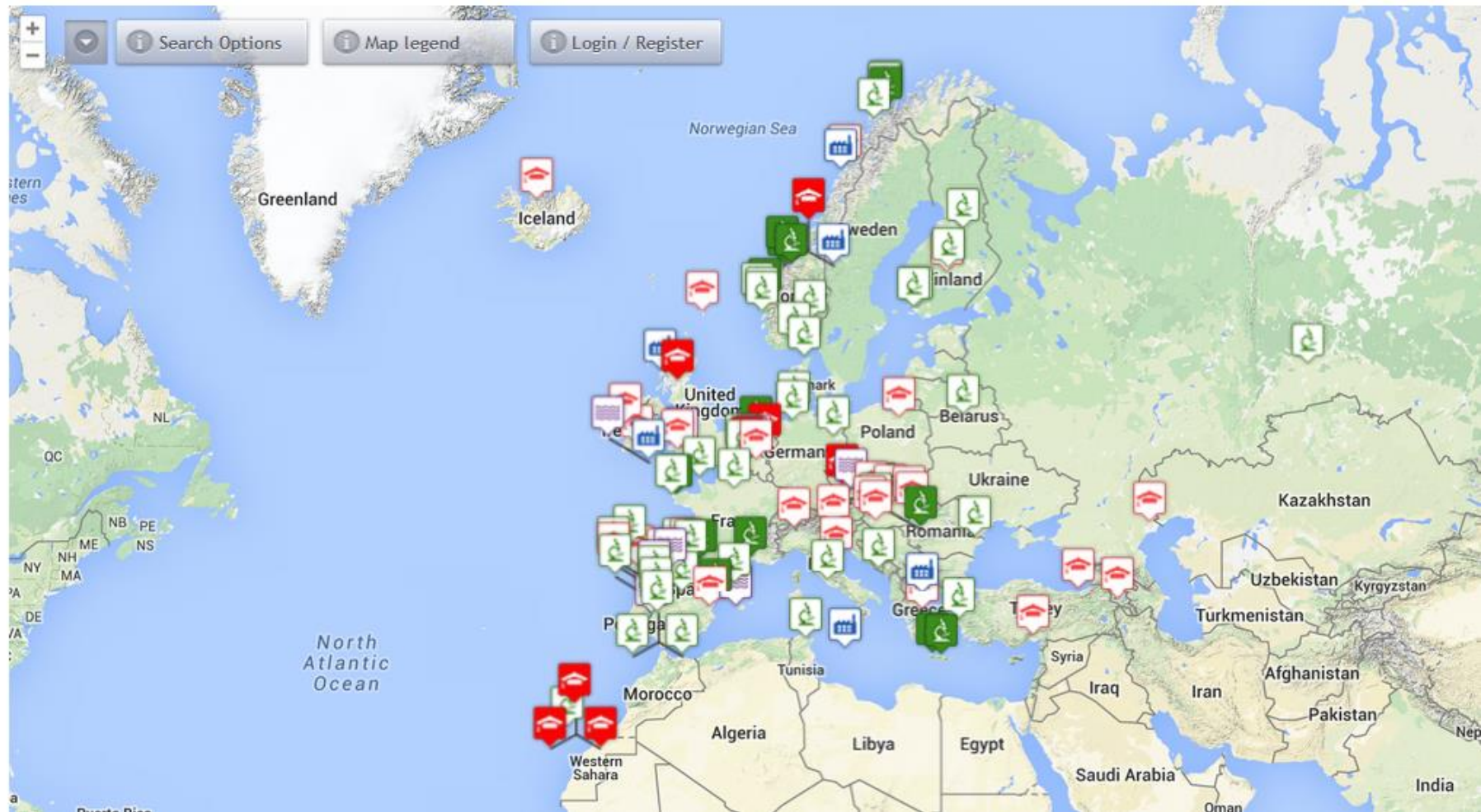
- Where they are
- What they offer
- Their expertise
- Their accessibility

As of February 2015 there were 109 facilities documented across 26 countries. The map is an excellent resource which is comprehensive, flexible and searchable. It will remain online for at least the next 5 years.

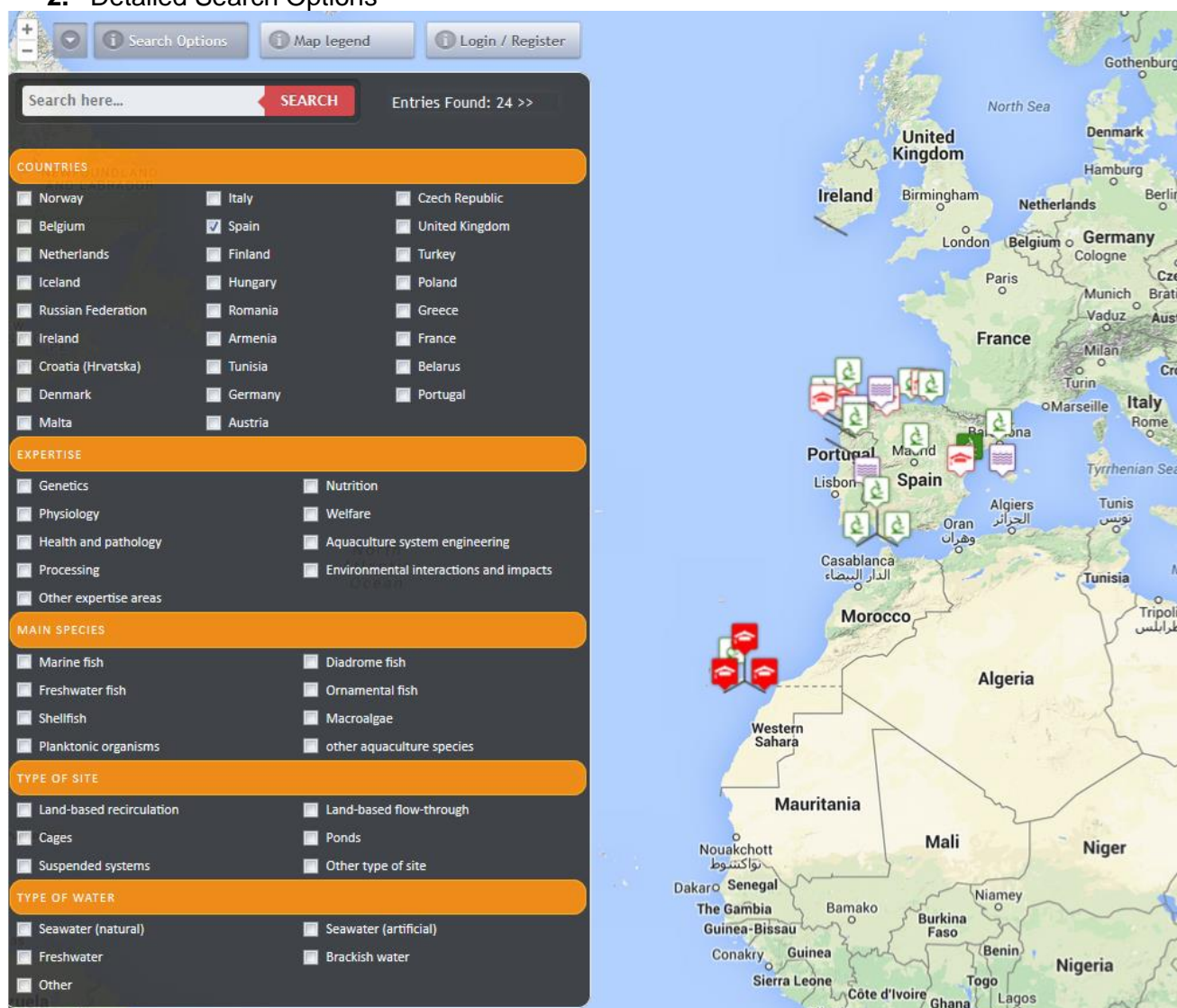
1. In order to access it you just need to click on 'Interactive map' in the main menu



## European Aquaculture Research Infrastructures interactive map



## 2. Detailed Search Options



## 3. Ability to add your own Research Infrastructure to the map and detail the facilities available.



**Research Infrastructure: Instituto de Acuicultura Torre de la Sal (IATS)****Research  
Infrastructure**

Name: Instituto de Acuicultura Torre de la Sal (IATS)  
 URL: [www.iats.csic.es](http://www.iats.csic.es)  
 Address: Torre de la Sal, s/n. 12595 Ribera de Cabanes, Castellón  
 Country: Spain  
 Contact person: Ariadna Sitjà-Bobadilla  
 Email: [aquaexcel.wp4@iats.csic.es](mailto:aquaexcel.wp4@iats.csic.es)  
 AQUAEXCEL Member: ☒  
 AQUAEXCEL TNA facility: ☒ For Trans National Access please [click here](#)  
 Open for use by external users: ☐

**Operating  
Institution**

Name: Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)  
 Type: Research Institute  
 URL: <http://www.csic.es>

**Fields of  
Expertise**

**Most Important:** Nutrition  
 Subfields: Feeding and digestion, New feed resources, Product quality,  
**2nd Field of Expertise:** Physiology  
 Subfields: Endocrinology, Other physiological aspects of domestication, Reproduction  
**3rd Field of Expertise:** Health and pathology  
 Subfields: Bacteriology, Parasitology,

**Main Species**

Marine Fish: Sparus aurata, Dicentrarchus labrax, Solea seleganesis, Psetta maxima  
 Shellfish: Mytilus galloprovincialis, Ruditapes decussatus, Ruditapes philippinarum, Pecten jacobaeus  
 Planktonic Organisms: Artemia, rotifers, phytoplankton  
 Other Species: Oryzias latipes, Danio rerio

**Identified Fish  
Lines**

Identified Fish Lines: ☒  
 Whole Genome: ☐  
 Detailed Genetic Maps: ☐

**Facility Units**• **IATS-EXP**

Address: Torre de la Sal, 12595 Ribera de Cabanes, Castellon, Spain

Contact: Ariadna Sitjà-Bobadilla

Email: [aquaexcel.wp4@iats.csic.es](mailto:aquaexcel.wp4@iats.csic.es)URL: [www.iats.csic.es](http://www.iats.csic.es)TNA: ☒• **IATS-ANA**

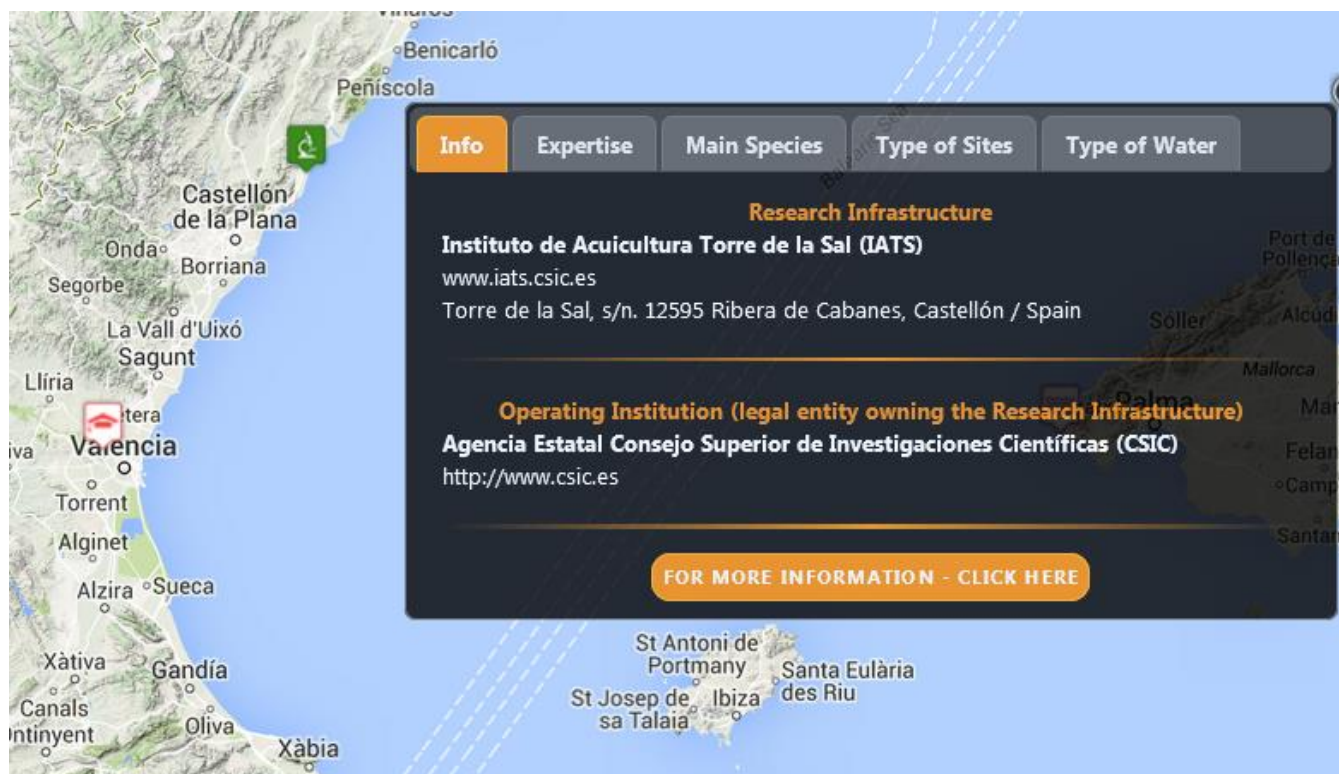
Address: Torre de la Sal, 12595 Ribera de Cabanes, Castellon, Spain

Contact: Ariadna Sitjà-Bobadilla

Email: [aquaexcel.wp4@iats.csic.es](mailto:aquaexcel.wp4@iats.csic.es)URL: [www.iats.csic.es](http://www.iats.csic.es)TNA: ☒**Identified Fish Lines**Identified Fish Lines: ☒Whole Genome: ☐Detailed Genetic Maps: ☐

Main species	Identified fish lines	Type of site	Time of water	Instrumentation
<b>Identified Fish Lines</b> Tick the box if you have fish lines and complete the additional information (if a subcategory is not applicable you can leave it empty) <input checked="" type="checkbox"/>				
<b>General Information</b> Give management data for each fish line (identify them as fish line 1, fish line 2 etc): for example mode of propagation, effective population size, number of generations, selection trait(s) and cryobanking				
		Fish line 1: Zebrafish Longfin from ZMP, wild type (+/+) Fish line 2: Zebrafish Tu from Skarmeta's lab, wild type (+/+) Fish line 3: Zebrafish TAB14 from Cone's lab, wild type (+/+)		
<b>Management Data</b> Give management data for each fish line (identify them as fish line 1, fish line 2 etc): for example mode of propagation, effective population size, number of generations, selection trait(s) and cryobanking				
		Fish line 1: F>10 generation, effective population: < 50, cryobanking: no Fish line 2: F>10 generation, effective population: < 300,		
<b>Performance Data</b> Give performance data for each fish line (identify them as fish line 1, fish line 2 etc)				
Indicate the molecular marker data available at your facility for the following:				
Whole Genome		<input type="checkbox"/>		
Detailed Genetic Maps		<input type="checkbox"/>		
Other (Please Specify)		Whole genome of zebrafish is available for the general public		

4. Detailed information available on Expertise, Main Species, Types of Sites and Type of Water **per Research Infrastructure**



## Courses

All historical information from the 4 pioneering technical training courses will remain available online. Simply select 'Courses' from the main menu to access this.





#### Training Courses (all complete)

**Course 4: Efficient Utilisation of New Monitoring and Control Systems in Fish Experiments** Course complete. Click [HERE](#) for further information on the course.

Course provider: [Norwegian University of Science and Technology \(NTNU\)](#) (Jan Ove Evjemo, Elin Kjorsvik, Jo Arve Alfredsen, Morten Alver), [SINTEF](#) (Gunnar Senneset), [Wageningen University](#) (Ep Eding).

Location: Norwegian University of Science and Technology (NTNU) and SINTEF Sealab, Trondheim, Norway

Date: 19 - 22 May 2014



**Course 3: The Application of Chromosome Set Manipulations and the Importance of Gamete Collection and Management in Aquaculture** Course complete. Click [HERE](#) for further information on the course.

Course provider: [Institute of Aquaculture, University of Stirling](#) with additional inputs from [INRA](#) and [IMR](#).

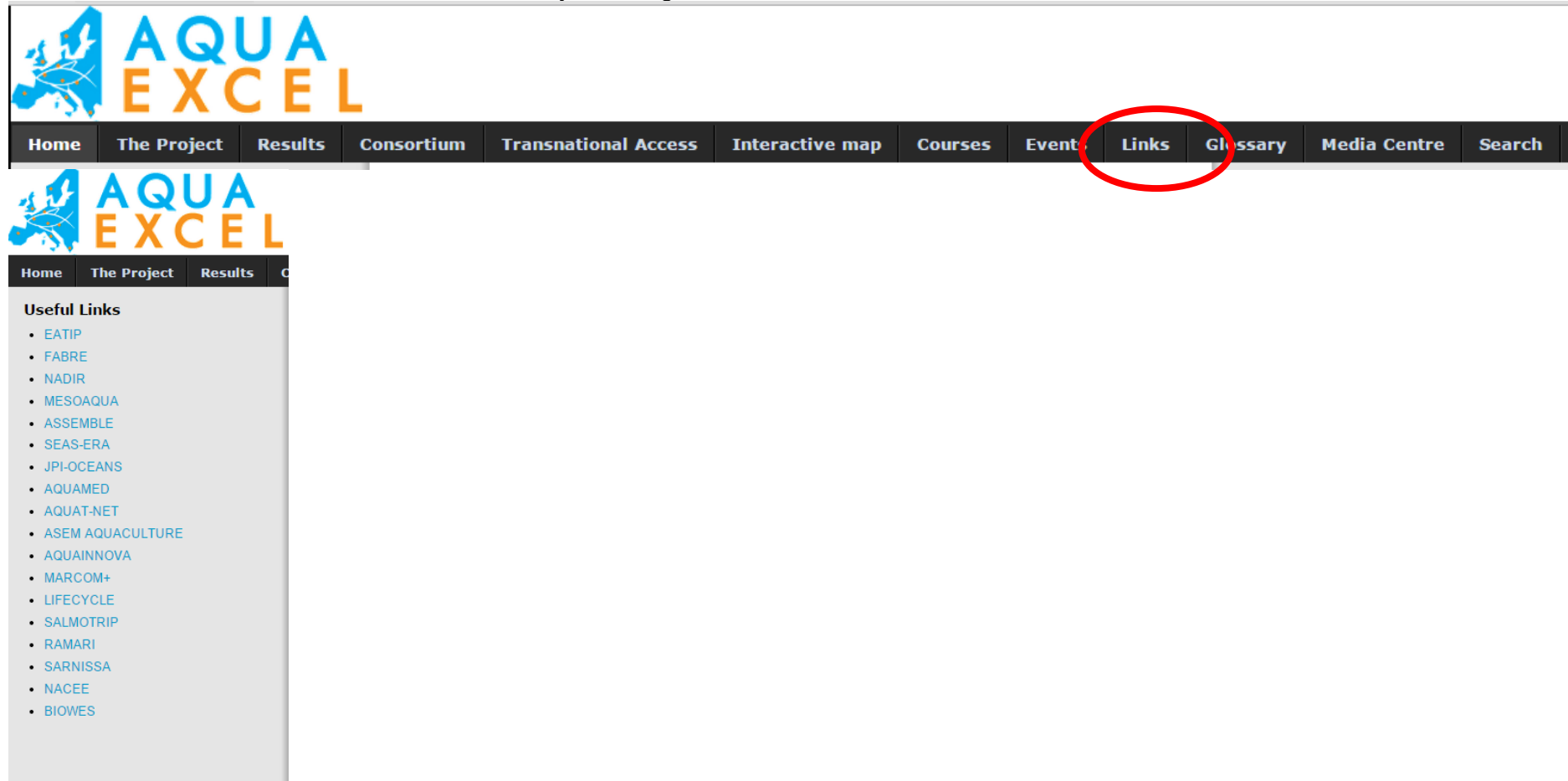
Location: Stirling, UK

Date: 18 - 22 November 2013



## Links

Links to relevant resources can be accessed by selecting 'Links' from the main menu.



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## **PROJECTS AND INITIATIVES**

### ***SEAS-ERA Towards Integrated Marine Research Strategy and Programmes***

To develop a coherent trans-national strategy to ensure excellence in European marine research, with enhanced added value and cost-effectiveness.

To learn more, please visit their [website](#).

### ***JPI – OCEANS The Joint Programming Initiative Healthy and Productive Seas and Oceans***

To increase the value of relevant national and EU R&D and infrastructure investments by concerted and joint planning, implementation and evaluation of national research programmes.

To learn more, please visit their [website](#).

### ***AQUAMED The future of research on aquaculture in the Mediterranean Region***

To develop a knowledge-based strategy for the sustainable development of Mediterranean aquaculture.

To learn more, please visit their [website](#).

### ***AQUAT-NET The European Thematic Network for Education and Training in the fields of Aquaculture, Fisheries and Aquatic resources management***

AQUA-TNET is a multidisciplinary Thematic Network that unites the academic and vocational aspects of the Bologna reforms and the establishment of the European Higher Education Area in the field of Aquaculture, Fisheries and Aquatic Resources Management.

To learn more, please visit their [website](#).

### ***ASEM AQUACULTURE PLATFORM Asia-Europe political consultation and coordination mechanism***

To develop an action-oriented agenda for co-operation and to develop a multi-stakeholder platform for dialogue, networking and continued coordination concerning sustainable aquaculture between EU and Asia.

To learn more, please visit their [website](#).

### ***AQUAINNOVA Supporting governance and multi-stakeholder participation in Aquaculture Research and Innovation***

To develop an international framework that will facilitate the development of vision documents and strategic research agendas on the sectoral components of European aquaculture

To learn more, please visit their [website](#).

## **TECHNOLOGY PLATFORMS**

### ***EATIP European Aquaculture Technology and Innovation Platform***

To reinforce the research and innovation processes that are needed within a modern and developing Europe, the European aquaculture sector has established the European Aquaculture Technology and Innovation Platform.

To learn more, please visit their [website](#).

### ***FABRE The Sustainable Farm Animal Breeding and Reproduction Technology Platform***

To support stakeholder involvement in the set up of a partnership led by industry to tackle major issues concerning sustainable animal breeding and reproduction in Europe, and taking into account what is happening in the developing world.

To learn more, please visit their [website](#).

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## **INTEGRATED INFRASTRUCTURES INITIATIVES**

### ***NADIR The Network of Animal Disease Infectiology Research Facilities***

NADIR will be a key vehicle in coordinating European animal infectiology facilities, with the aim of reducing the current overlaps between these facilities and thus enabling the community to address new scientific and technology issues.

To learn more please visit their [website](#).

### ***MESOAQUA A Network of leading MESOcosm Research Facilities***

To provide access to tools allowing experimental approaches to near-natural pelagic systems for European Marine Ecology scientists.

To learn more, please visit their [website](#).

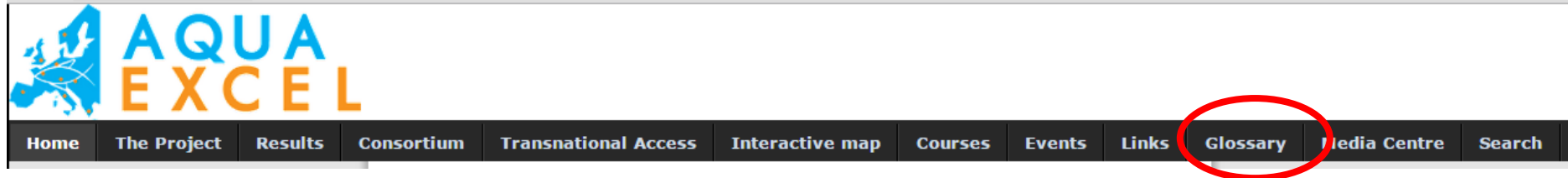
### ***ASSEMBLE Association of European Marine Biological Laboratories***

To develop an integrated infrastructure to optimize the possibilities for European research groups to excel in research on marine ecosystems and marine biological models using the most advanced approaches in modern biology.

To learn more, please visit their [website](#).

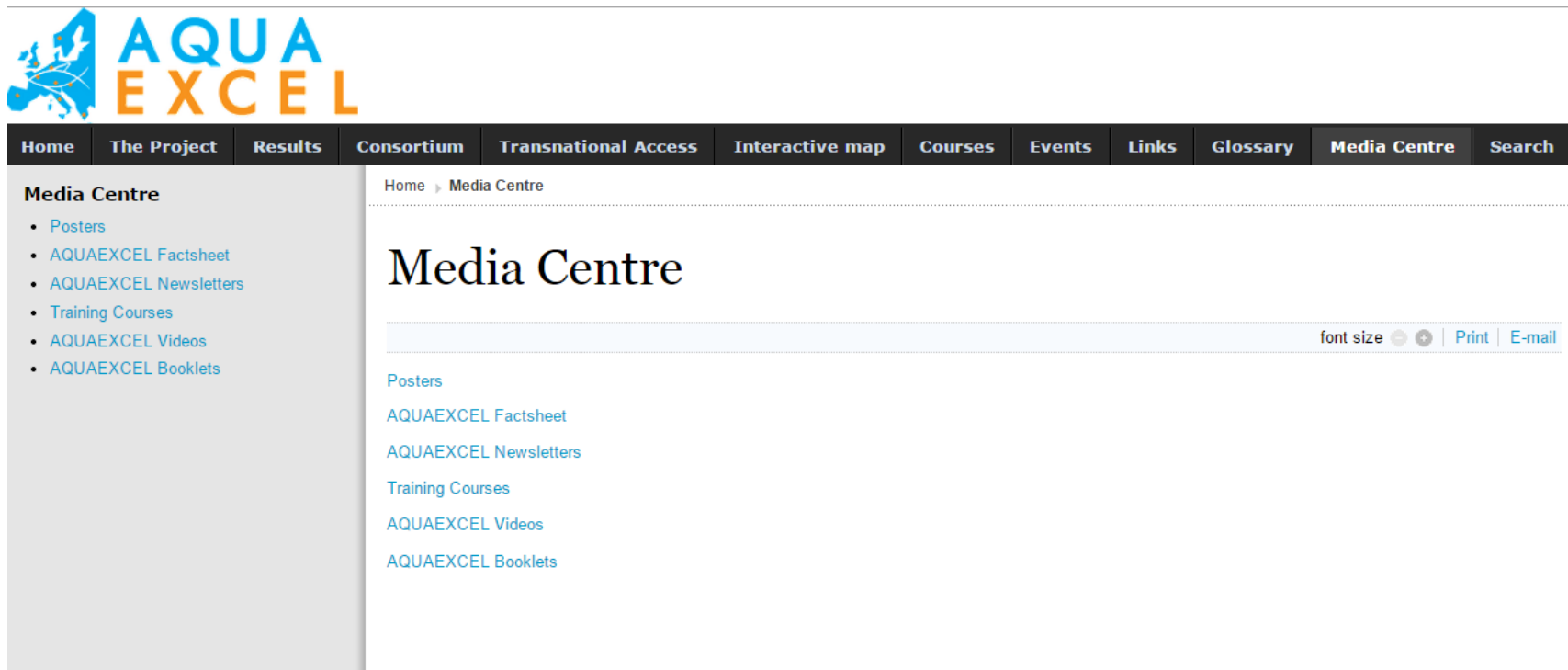
## Glossary

A glossary of terms can be accessed by selecting 'Glossary' from the main menu.



## Media Centre

The Media Centre contains AQUAEXCEL promotional publications and resources and can be accessed by selecting 'Media Centre' from the main menu.





## Conclusion

The AQUAEXCEL website serves to facilitate communication and dissemination of the AQUAEXCEL project, ensuring widespread project awareness to all stakeholders and possible end users. It was deemed to be the most appropriate place to centralize all resources and tools developed during the AQUAEXCEL project.

Several other websites have direct links on and to the AQUAEXCEL website, in particular the individual partners. The website and associated results, tools and resources are anticipated to remain online and accessible to the public for a time period of at least 5 years.

Website address: <http://www.aquaexcel.eu/>

## Annex 1

Deliverable Check list (to be completed by Deliverable leader)

	Check list		Comments
BEFORE	I have checked the due date and have planned completion in due time	X	<i>Please inform Management Team of any foreseen delays</i>
	The title corresponds to the title in the DOW	X	<i>If not please inform the Management Team with justification</i>
	The dissemination level corresponds to that indicated in the DOW	X	
	The contributors (authors) correspond to those indicated in the DOW	X	
	The Table of Contents has been validated with the Activity Leader	X	<i>Please validate the Table of Content with your Activity Leader before drafting the deliverable</i>
	I am using the AQUAEXCEL deliverable template (title page, styles etc.)	X	<i>Available in "Useful Documents" on the collaborative workspace</i>
<b>The draft is ready</b>			
AFTER	I have written a good summary at the beginning of the Deliverable	X	<i>A 1-2 pages maximum summary is mandatory (not formal but really informative on the content of the Deliverable)</i>
	The deliverable has been reviewed by all contributors (authors)	x	<i>Make sure all contributors have reviewed and approved the final version of the deliverable. You should leave sufficient time for this validation.</i>
	I have done a spell check and had the English verified	x	<i>Ask a colleague with a good level of English to review the language of the text and do a spell-check too.</i>
	I have sent the final version to the Activity Leader and to the 2 <sup>nd</sup> Reviewer for approval	x	<i>Send the final draft to your Activity Leader and the 2<sup>nd</sup> Reviewer and leave 2 weeks for feedback and final changes before the due date. Once validated by the 2 reviewers, the draft is ready to be sent to the Management Team that will ask for the Coordinator validation and then transfer it to the EC.</i>