



# National and International aquaculture networks and opportunities for mobility across Europe

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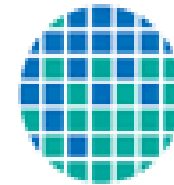
*Fish Immunophysiology and Stress in Aquaculture Research Group  
Dpt. Cell Biology, Physiology and Immunology*



**Universitat  
Autònoma  
de Barcelona**



**XRAq**



**AQUA-TNET**

Universitat Autònoma de Barcelona (UAB), Spain.  
Xarxa de Referència en Aqüicultura de Catalunya. Spain.  
AquaTnet wp3-Mobility Coordinator.



## OUTLINE

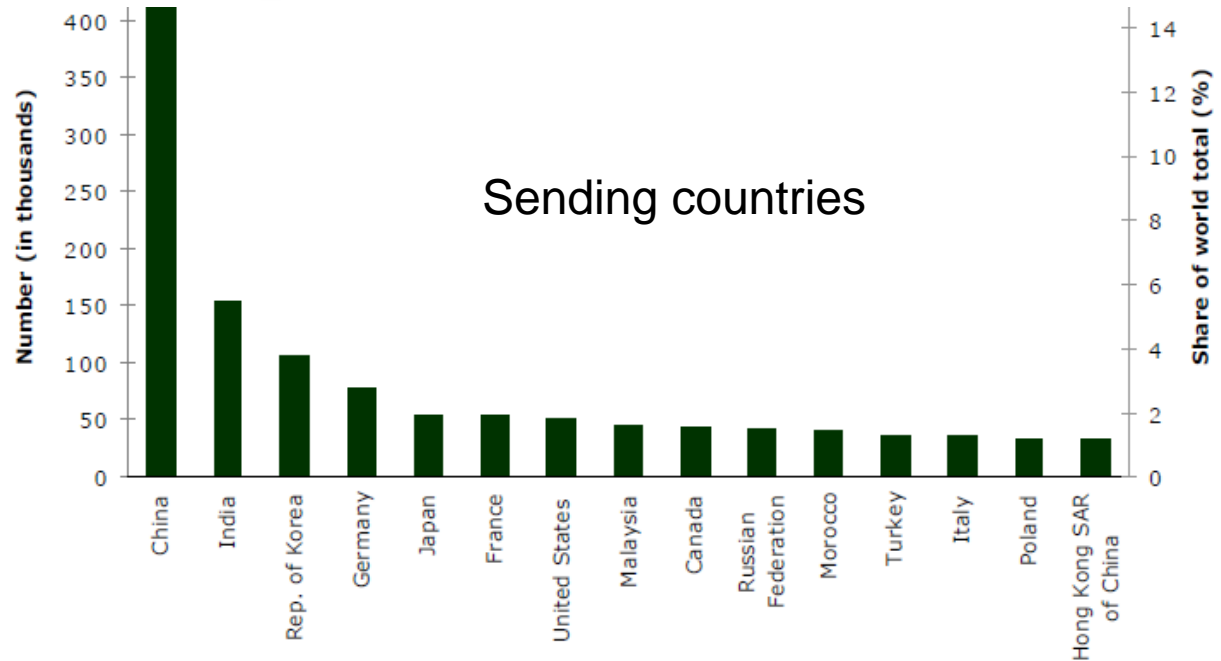
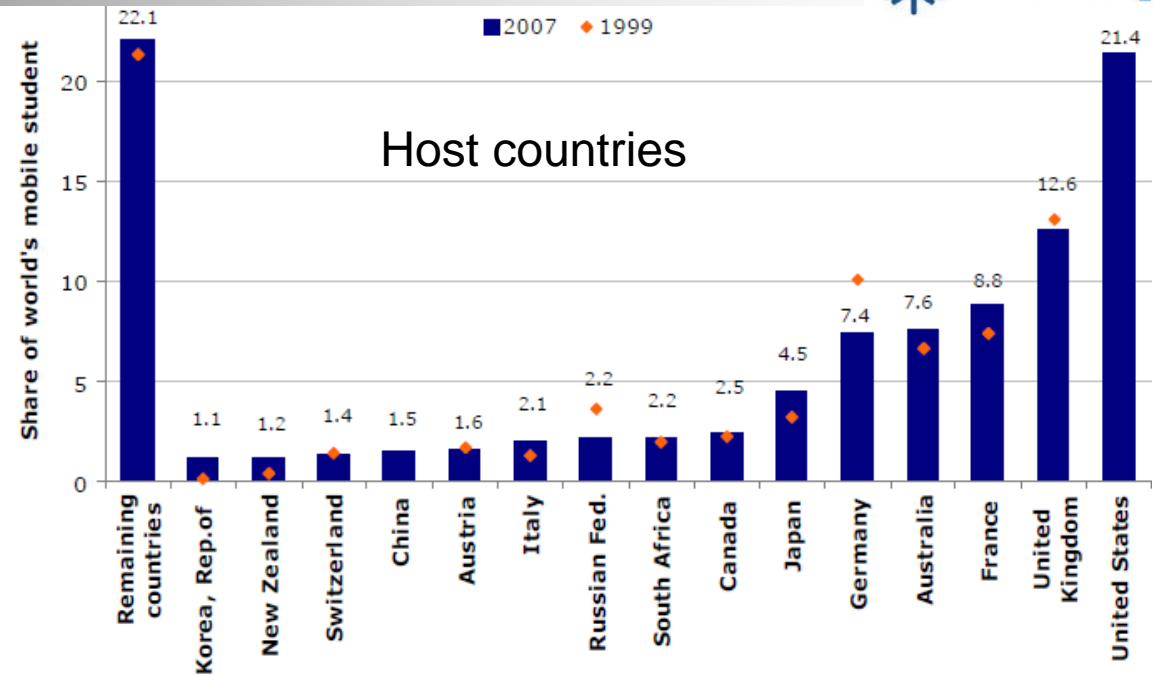
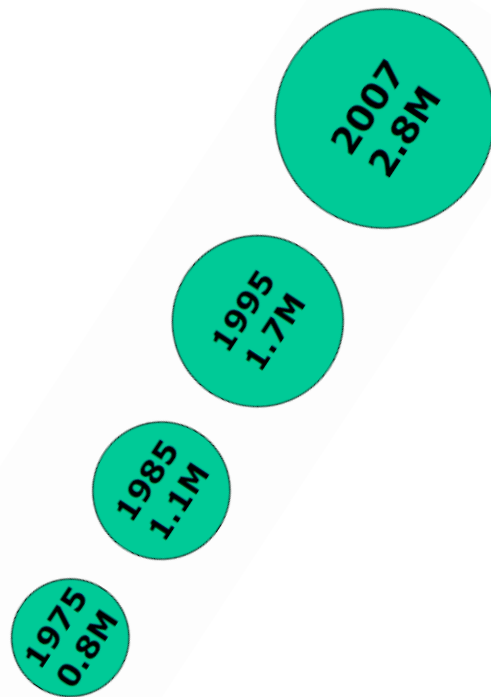
Regional, national and transnational networks and mobility in Aquaculture Education.

- Mobility trends
- Aquaculture activity (production & training) in Europe
- Regional networks. The case of Catalunya
- National networks (Spain)
  - Research Institutes
  - Universities teaching Aquaculture
  - Assisting resources
- Transnational opportunities for mobility
  - Nova (nordic countries). Maqfish (Masters EU)
  - AquaTnet
  - Mobility Programs



# GROWING NUMBER OF MOBILE STUDENTS

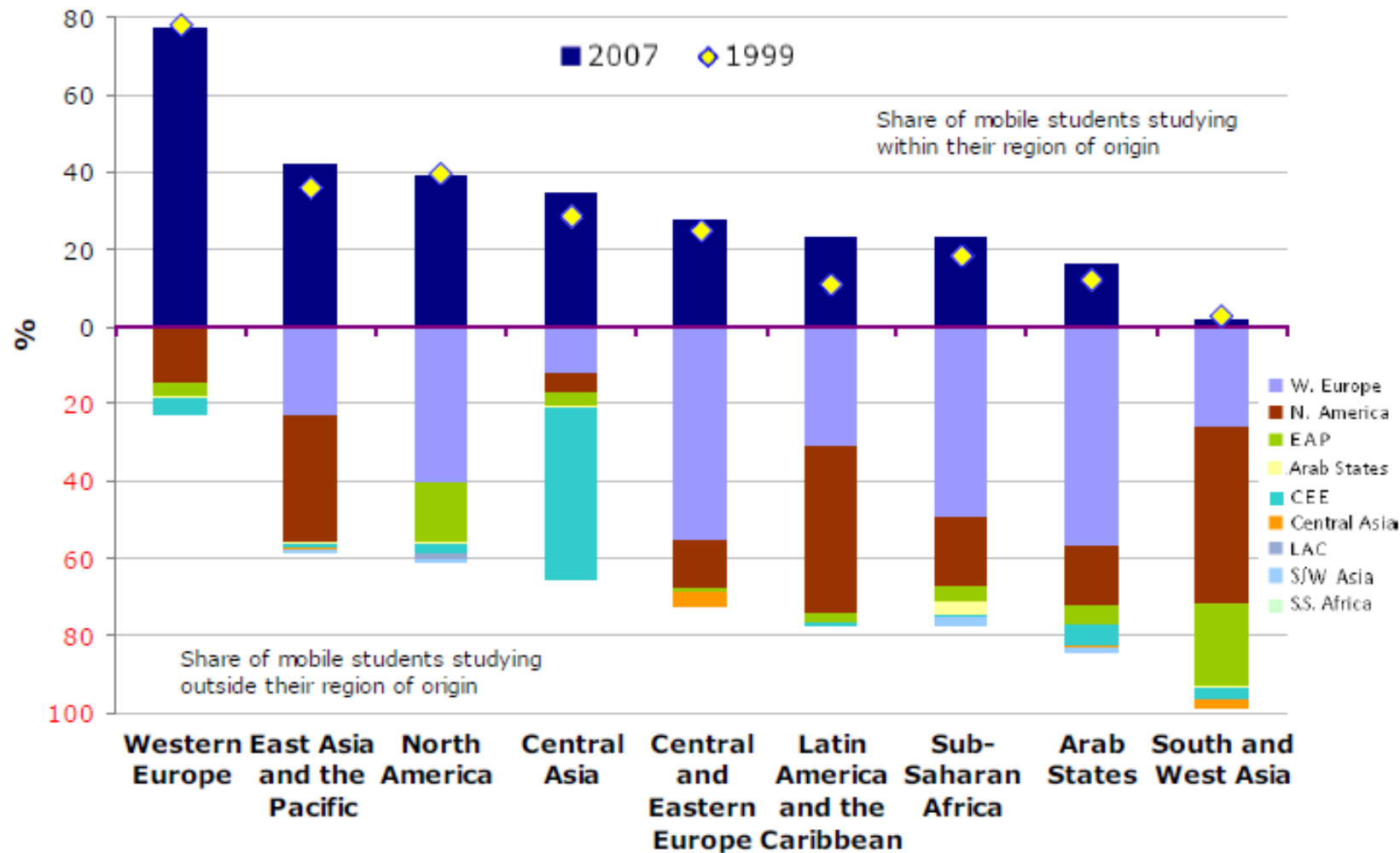
(3.5 fold from 1975 to 2007).  
H. Van der Pol, Unesco report 2009)





# Where do mobile students study?

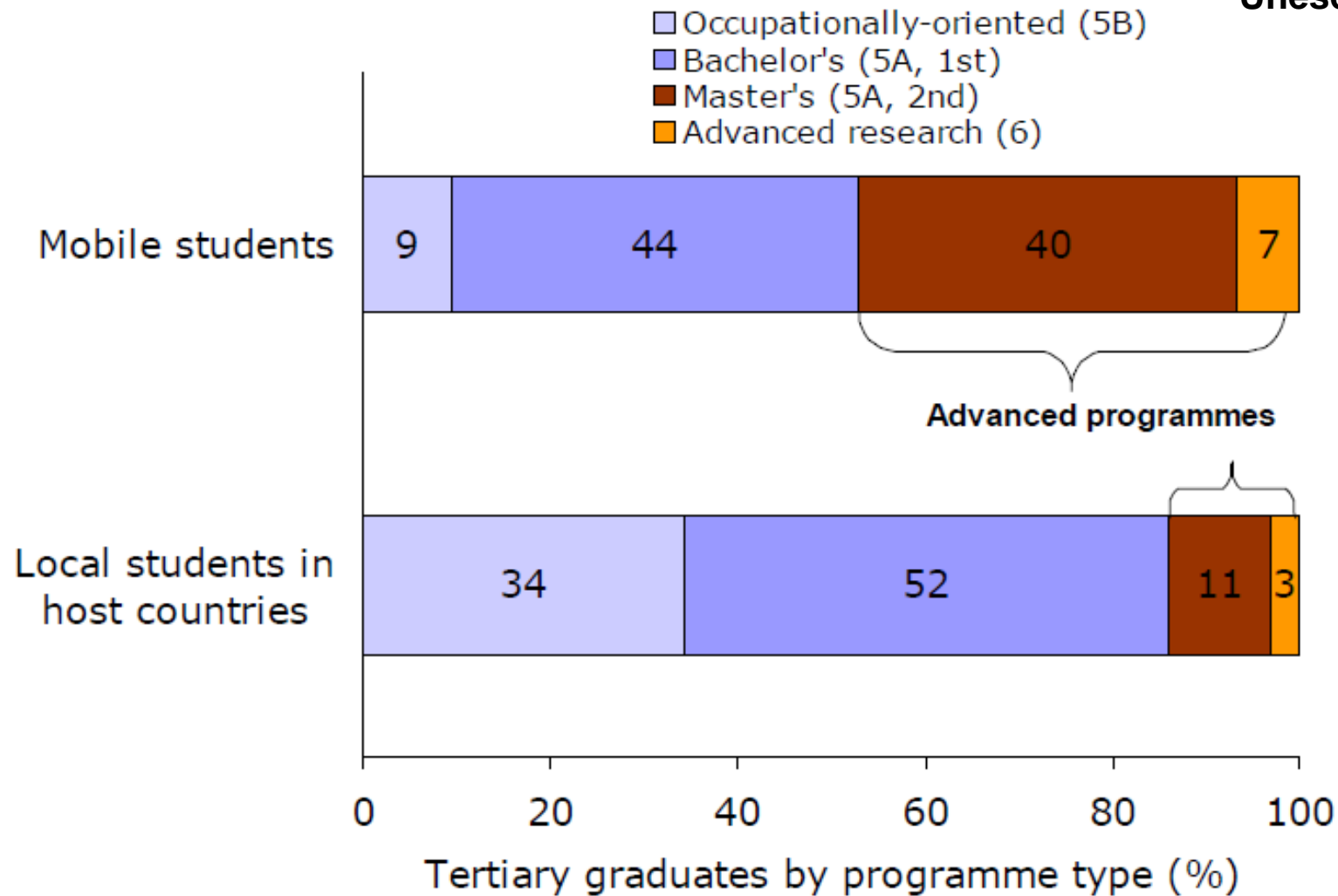
Unesco 2009





# What types of programme do mobile students choose?

Unesco 2009





## Patterns and Trends in International Student Mobility

(International student preferences and destinations are changing).

- **Majority** of students will still want to travel **overseas**
- **Increasing numbers** of students do **partial** international study
- Some students may consider pursuing a **foreign qualification at home** locally through ICTs and joint local-foreign provider arrangements.
- Traditional source countries are **looking to bolster domestic provision** of higher education,
- Major **English Speaking** Destination Countries are **still dominant** providers but have experienced **some declines** in their international enrolments
- Additionally, **increased student mobility within East Asia** also indicates a shift towards a stronger Asian influence in global international education student flows.

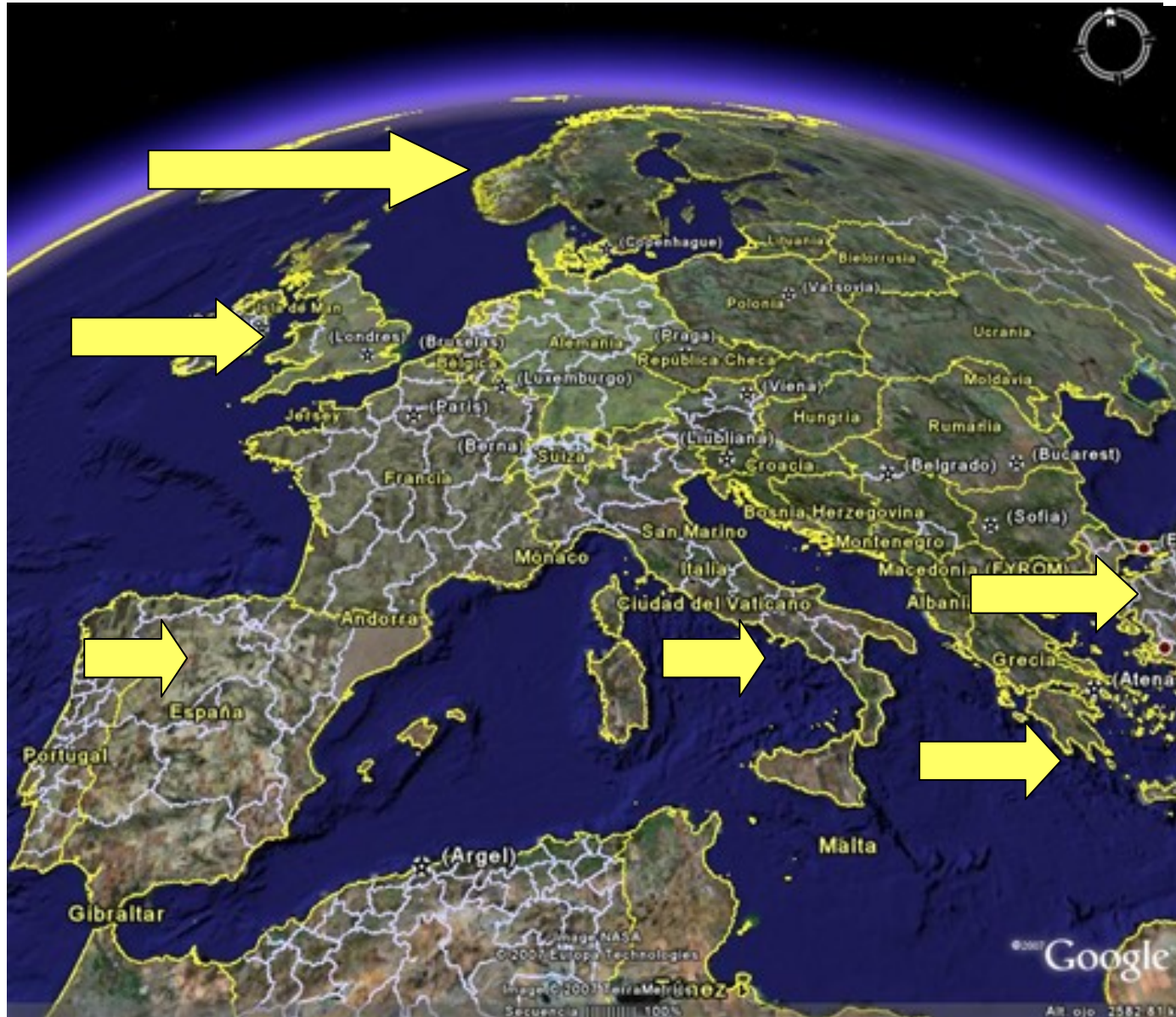
***BC East Asian Student Mobility Project. JWT Education. British Council 2008***



## Mobility Objectives in student training:

- Training** program designed **with the professional sector**, not only academic
- Students should not only be selected on the basis of academic performance, but also on the basis of **motivation**.
- Modular organisation** of the curriculum allows for concentration and suitability
- Curriculum should be **diverse**: Lectures, fieldwork demonstration
- An **active participation** (surveying, experimenting, comparing) is convenient
- Capacity building** of the staff is always needed.
- Capacity to **manage partnerships** becomes a key issue,
- Transparency**, efficiency, and accountability are required at all levels,
- Quality assurance** system is part of the product and should include student evaluation for every course, regular tracer studies to document results, and assessment of administrative services.

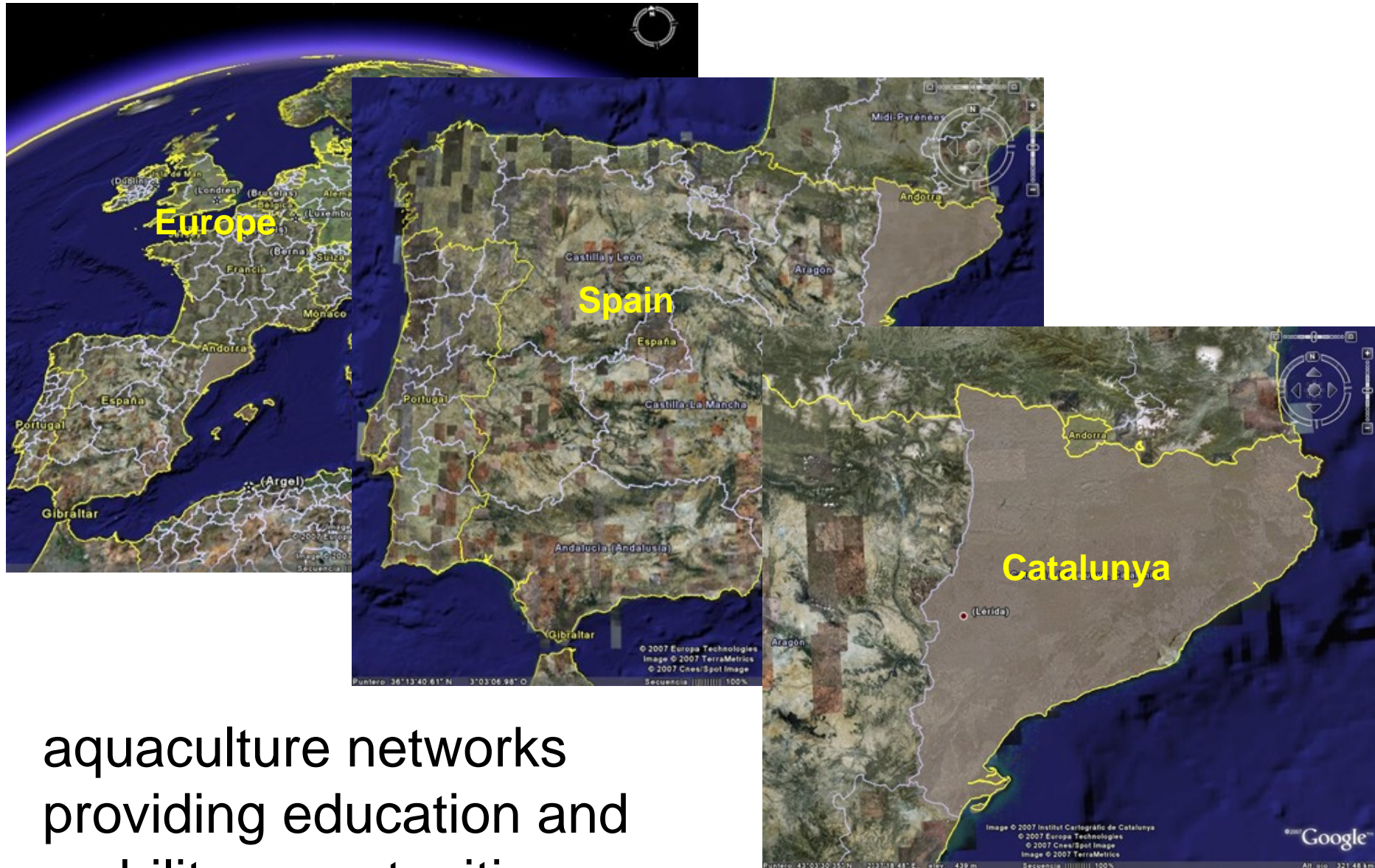
*Second EAHEP (Europe-Asia Higher Education Platform) Workshop.  
Feb 2009. Kuala Lumpur, Malaysia*



Countries with high activity in fish Aquaculture production



Countries with high activity in Aquaculture technology and training



aquaculture networks  
providing education and  
mobility opportunities



**REGIONAL**

Area: 7 million people  
10 universities



### Educational Activities

#### Inter-University Masters in Aquaculture

(1, 3,4) in collaboration with (2, 5).

#### Ph.D. Programs in Aquaculture

(1,3,4)

#### Professional Technician Degree

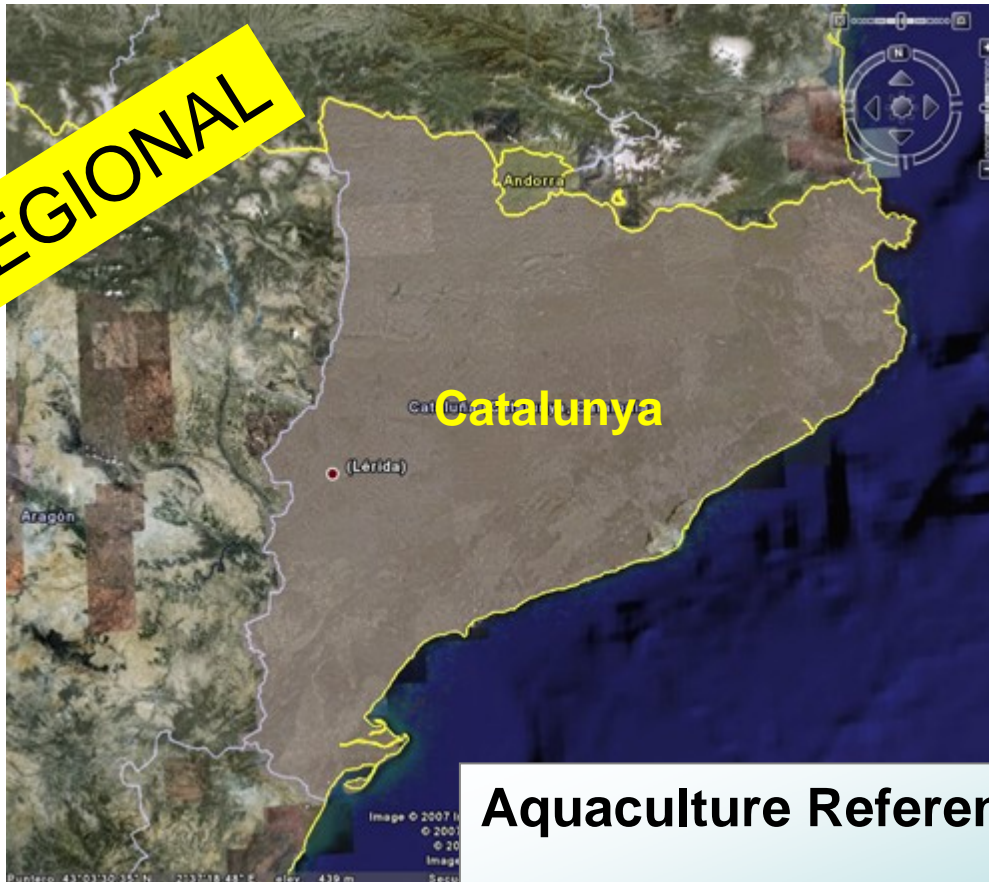
(5)

#### Vocational courses

(1,2,3,4,5)



**REGIONAL**



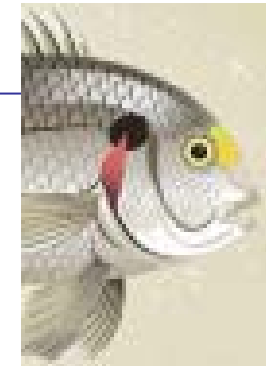
### Aquaculture Reference Network (XRAq)

#### Composition

- Aquaculture producers
- Research Laboratories
- Supported by the Regional administration



- Promote top level research, development and innovation in aquaculture,
- Transfer services and technology,
- Promote aquaculture R&D infrastructures, .
- Get external national or international funding resources.
- Invest in personnel formation
- Disseminate results of the XRAq research
- Advise the Catalan Government



- Associació Catalana d'Aqüicultura
- Organització de Productors Aqüicosta
- Associació de Productors de moluscs del Golf de Sant Jordi
- Unió Productos moluscs Delta Ebre
- Productors moluscs i cultius de la mar de la Bahía del fangar
- Truites del Segre
- Conei
- Grup Flamicell

- IRTA - Centre d'Aqüicultura
- UPC –Departament d'Enginyeria Agroalimentària i Biotecnologia
- UB – Departament de Fisiologia , Departament de Biologia Cel·lular
- UB – Departament de Biologia Animal
- UAB – Departament de Biologia Animal i Biologia Vegetal i Ecologia
- UAB – Departament de Biologia Cel·lular, Fisiologia i Immunologia
- CSIC- Institut de Ciències del Mar





**Other regions with relevant educational activities in Aquaculture**

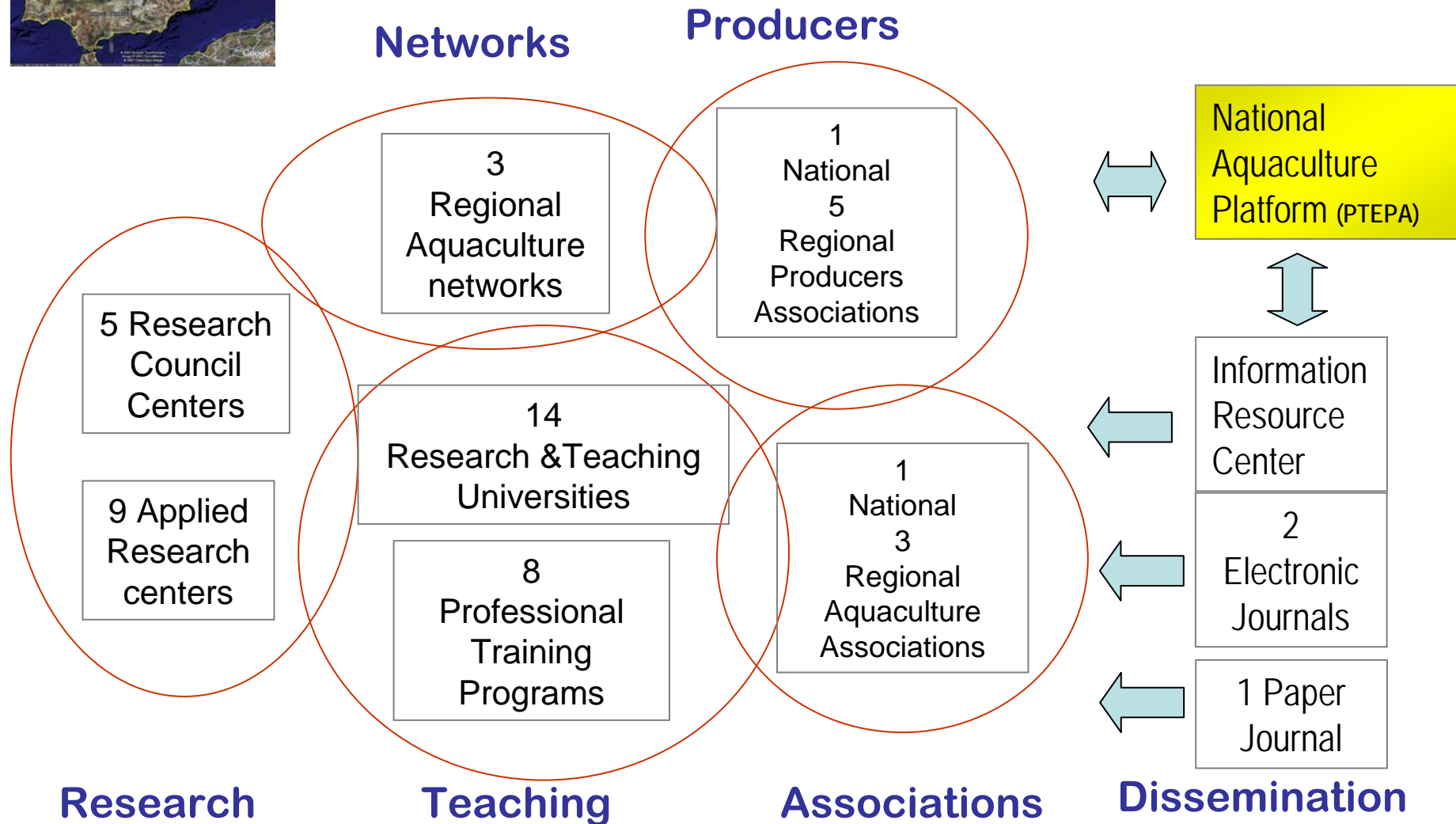
- 1- Catalunya
- 2- Valencia
- 3- Murcia
- 4- Andalucía
- 5- Canarias
- 6- Galicia



**Spain:** 3rd largest fish importer country  
High fish consumption (45 kg/capita compared with world average of 16,5)



# Science-Technology-Training-Dissemination Environment in Aquaculture. Spain





# NOVA University Network

TRANSNATIONAL

The **N**ordic **F**orestry, **V**eterinary and **A**gricultural University.

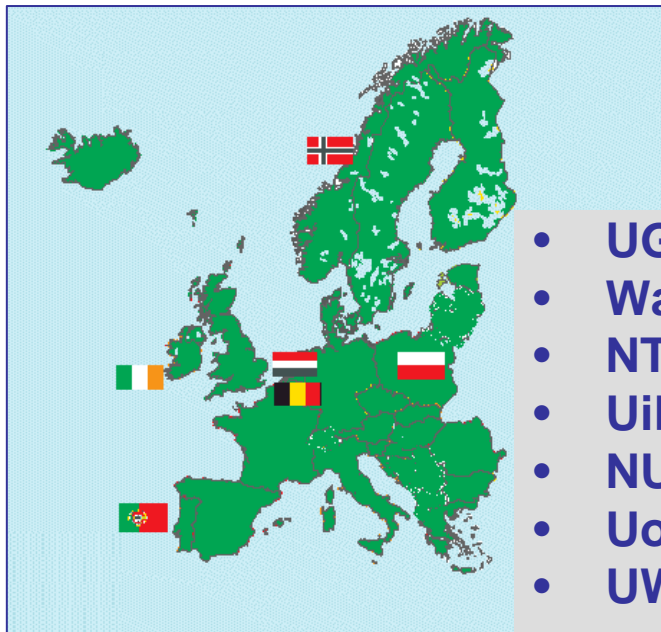
The Royal Veterinary and Agricultural University, KVL – **Denmark**  
University of Helsinki, Faculty of Agriculture and Forestry – **Finland**  
University of Helsinki, Faculty of Veterinary Medicine – **Finland**  
Norwegian University of Life Science, UMB – **Norway**  
The Norwegian School of Veterinary Science, NVH – **Norway**  
The Swedish University of Agricultural Sciences, SLU – **Sweden**  
Agricultural University of Iceland, LBHI - **Iceland**





# Learning Mobility across Europe or to Europe

## European Masters MAqFISH



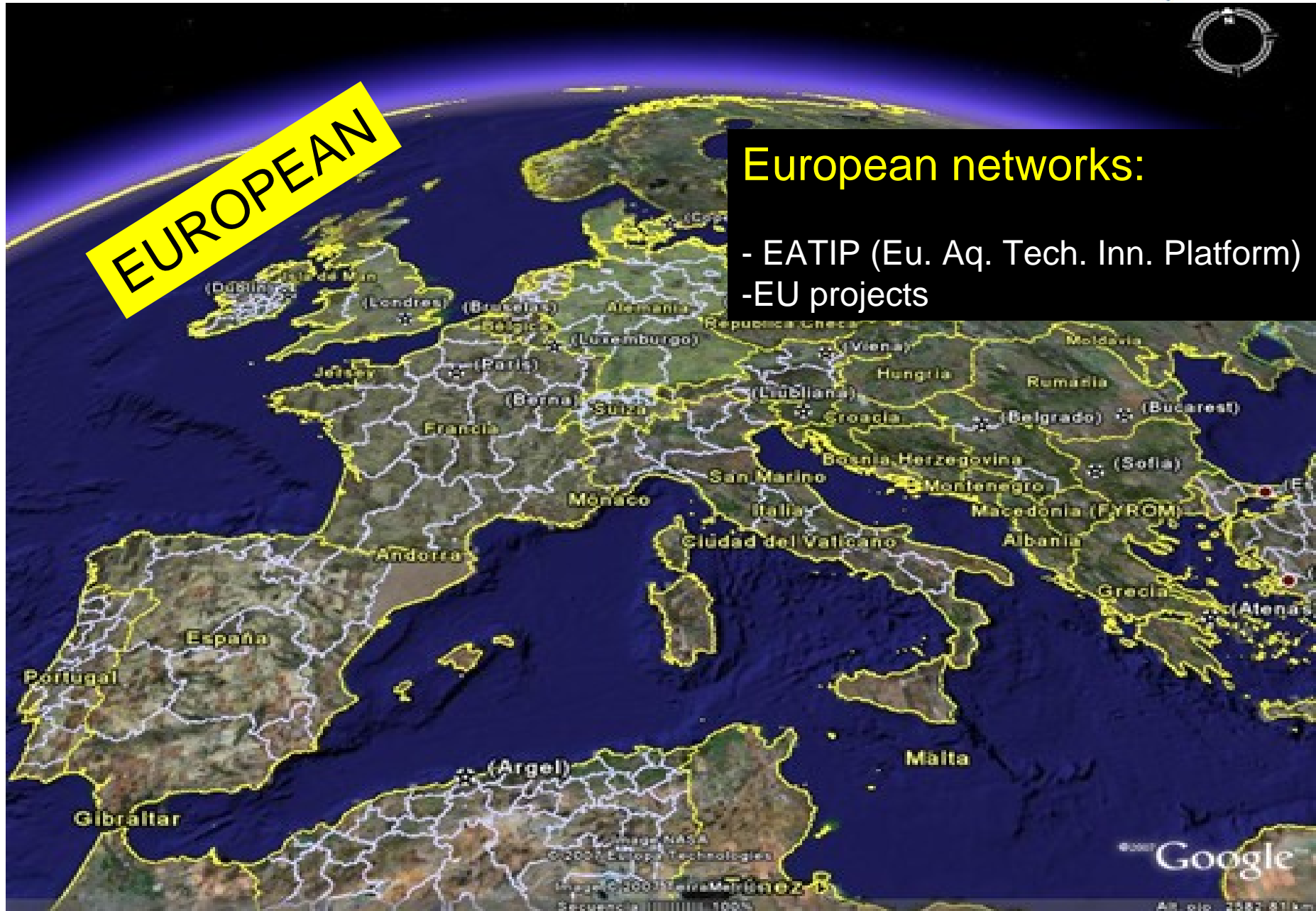
- **UGent:** Larviculture; Live Food
- **Wageningen:** Nutrition, Recirc; Eco Mgmt
- **NTNU-Trondheim:** Marine Farming; Coastal Z Mgmt
- **UiBergen:** Marine Fisheries; Fish Biology
- **NUI-Cork:** Shellfish farming
- **Uo Algarve:** Mediterrenean Fisheries;
- **UWM- Olztyn:** Freshwater Fisheries, Ponds



**EUROPEAN**

### European networks:

- EATIP (Eu. Aq. Tech. Inn. Platform)
- EU projects





European Aquaculture  
Technology and  
Innovation Platform

**EATIP Platform:  
producers+ research+  
education+consumers**

### **3 Key objectives**

- 1.** Establish a strong relationship between aquaculture and the consumer (including issues relating to human health, product quality, traceability...).
- 2.** Assure a sustainable aquaculture industry (covering social, environmental and economic issues).
- 3.** Consolidate the role of aquaculture in society (developing knowledge management, skill development, communications, networking...).



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

AQUAT-NET. <http://www.aquatnet.com/>

A) Core Work packages						B) Cross-Cutting Work packages
<b>WP1</b> MSc Core Group	<b>WP2</b> PhD Core Group	<b>WP3</b> Mobility	<b>WP4</b> New Generic skills and competences approaches	<b>WP5</b> Innovation in Teaching Methods	<b>WP6</b> Positioning Lifelong Learning	<b>WP7 - CC1</b> Multilingual Issues in International Cooperation & Lifelong Learning
						<b>WP8 - CC2</b> ICT Advisory Group
						<b>WP9 - CC3</b> Dissemination and Outreach
C) Stakeholder Representative Work packages						
<b>WP 10</b> Research Institutes	<b>WP 11</b> Industry Partners	<b>WP12</b> Consumer and Societal Issues	<b>WP13</b> Student Association			



## Wp3- Mobility Objectives



### **MOBILITY PORTAL**

Developing a Mobility portal for the easier selection, contact and information about possible mobility places.

Map with locations of Educational institutions, Research Institutions, vocational places and companies

### **BEST PRACTICES IN MOBILITY**

Recommendations for both movers and receiving institutions (from paper work and accreditation to accommodation or local information)



## BEST PRACTICES FOR STUDENT MOBILITY

### 1.- Before leaving

- Information about the place  
how to get there
- Information about the time  
when the courses are given,  
duration
- Information about the courses  
content  
credits given  
requirements
- Information about the conditions of living  
accommodation  
transport

### 2.- At the arrival

- Welcome procedure  
point of contact/welcome office at the institution
- Accommodation procedure  
payment conditions at arrival  
information on accommodation conditions  
and alternatives

### 3.- During the stage

- Reference person/point for information  
tutorship  
information desk
- Academic procedures  
information on registration  
information on accreditation/ validation  
procedures and times

### 4.- Documents

- European sanitary card
- Visa
- International student card
- Personal ID documents and copies
- Private insurance (companies)

### 5.- After the stage

- Recognition procedures
- Point of contact after stage



**Student's Personal Data**

Family name: ..... First name: .....

Date of birth: ..... Place of birth: .....

Sex:  Male -  Female Nationality: .....

Current Address (valid until: .../.../20...)

Street + No. : .....

Postal Code: ..... City: .....

Country: ..... Tel: .....

Permanent Address (if different)

Street + No. : .....

Postal Code: ..... City: .....

Country: ..... Tel: .....

E-mail 1 .....@.....

Mobile Telephone (GSM) .....

SIGNATURE.....

Mobility through sending institution:  Free mover:

**Sending Institution/Company**

Name of your current institution/company: .....

**Institutional Co-ordinator or Reference person**

Name: .....

Address: .....

Tel.: ..... Fax: .....

e-mail: .....@.....

SIGNATURE.....

Reference person (if necessary). Complete this section in case of free movers.

Name: .....

Address: .....

Tel.: ..... Fax: .....

e-mail: .....@.....

SIGNATURE.....

Field of study/training: .....

**Language Knowledge**

Mother tongue: .....

Other languages	I am currently studying language		I have sufficient knowledge to follow lectures		I would have sufficient knowledge this to follow lectures if I had some extra preparation	
	YES	NO	YES	NO	YES	NO
English.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The attached **Transcript of Records** includes full details of previous and current higher education study.

I hereby declare that the above-mentioned data are correct:

Date: .../.../..... Student's signature

**Receiving institution**

Institution	Country	Period of study		Months
		From	To	
.....	.....	.....	.....	.....

Briefly state the reasons why you wish to study at the host institution

**Acceptance of receiving institution**

The above-mentioned student is:  accepted at .....  
 not accepted at .....

	Institutional co-ordinator		
Name	.....	.....	.....
Signature	.....	.....	.....
Date	.....	.....	.....

Official address of the receiving institution:

Fax: .....

Mail: .....

Website: .....

Contact person (exchanges) of the host institution

# EXCHANGE PROTOCOLS



## Mobility Programs in Europe

**AEGEE** (Association des Etats Généraux des Etudiants de l'Europe)

One of the biggest interdisciplinary student associations <http://www.aegee.org/su>

**AIESEC** (Association Internationale des Etudiants en Sciences Economiques et Commerciales) <http://www.aiesec.org>

**IAESTE** (International Association for the Exchange of Students for Technical Experience) <http://www.iaeste.org>

**Marie Curie Actions** Research programme for both worldwide students and researchers <http://ec.europa.eu/mariecurieactions>

**TEMPUS Programme** EU program covers 27 countries

[http://ec.europa.eu/education/external-relation-programmes/doc70\\_en.htm](http://ec.europa.eu/education/external-relation-programmes/doc70_en.htm)

**Leonardo da Vinci** EU programme for vocational education and training

[http://ec.europa.eu/education/programmes/leonardo/leonardo\\_en.html](http://ec.europa.eu/education/programmes/leonardo/leonardo_en.html)

**ERASMUS MUNDUS** EU mobility programme. Provides EU-funded scholarships for third-country nationals, as well as for EU nationals studying at partner universities around the world.

[http://ec.europa.eu/education/external-relation-programmes/doc72\\_en.htm](http://ec.europa.eu/education/external-relation-programmes/doc72_en.htm)



## Erasmus Mundus

**Objectives:** *External Cooperation Window between the European Union and Third-Countries*

### Specific Objectives

- To enhance **international cooperation** capacity of universities in Third-countries
- To promote **cooperation between sending and hosting** institutions
- To enable students to **benefit** linguistically, culturally and educationally
- To improve the **transparency** and recognition of studies and **qualifications**
- To **provide good students** with further education and professional skills
- To **enhance the skills** and qualifications of **foreign** higher education **staff**
- To **build the capacity of the administration** of public and private sector
- To **enhance** in the medium term the political, cultural, educational and economical **links** between the European Union and **Third-countries**

Type of Mobility	time	time	time
Undergraduates	3-10 months	Not applicable	6-34 months
Masters students	EU: 3-10 months TC: 3-22 months	6-22 months	6-22 months
Doctorate students	6-34 months	6-34 months	6-34 months
Post-docs	6-10 months	6-10 months	6-10 months
Academic staff	1-3 months	Not applicable	Not applicable