Training the next generation of marine experts

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Marine training ...
Training the next generation …

0-7 → 7-12 → 12-18 → 18-23 → 23-28 → 28- ...

Bsc / Msc → PhD → Life Long Learning

“Top research requires the best trained experts”
European Marine Board …

• Expert group on Marine Graduate Training
  • 11 nationalities
• Paper by September 2015
• Target: universities,
• Contents:
  • Scope
  • State of art marine graduate training
  • Challenges for the future
  • Strategic recommendations
  • Inspiring case studies
1. How to get a view on training availability in Europe
2. A state of art on EU Marine graduate Training
3. Challenges and suggestions
1. How to get a view on training availability in Europe
European Study Portals (?)

- Advertisement tool
- Sponsored by Content Providers

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For Students
You are searching for the right university but don’t know yet where to go? Search our comprehensive database to find the best Bachelor, Master, PhD, or short course from leading universities and Business Schools around the world. We cover online as well as on campus courses on our portals. On scholarshipportal you can search for the right grant to finance your dream study.

For Universities

Europe

- United Kingdom (97)
- Netherlands (11)
- Spain (7)
- Italy (5)
- Norway (16)
- France (9)
- Portugal (6)
- Germany (8)
- Denmark (5)

183 Master’s. Showing 1 to 10

Show all studies from:

- International Max Planck Research School of Marine Microbiology (IMPRS MarMic)
Marine training in Europe – a state of art

- EuroMarine (2011-2013)
- WP6 : Training and education (lead J. Olsen)
- UGent: Setup of a database listing the marine oriented training programmes (210 Records)
- Limited amount of fields – cfr. pure inventory purpose
  - Title / Country / Institute / Type of training / Period / Short description / URL / Credits
- No updating
Marine training in Europe – a state of art

- **Main objective:** develop a strategic delivery mechanism for the provision of excellent and large-scale marine science in Europe
- EMBRC will provide the adequate environment for training the next generation of students and professionals in marine sciences
- Belgian Contribution:
  - EMBRC training portal
  - Providing services for training and education
EMBRC Training Portal

- **Group and advertise Marine Training Initiatives** (EMBRC Training HUB)
- Attract and actively *capture new training initiatives*
- Offer **services** to training **organizers**:
  - Application / Registration / and Trainee Follow-up
- Offer a dedicated **E-Learning Platform**
- **Facilitate** E-trainings
- Offer **services to trainees**
- Allow **long-term follow-up** of both trainings and trainees.
Building of the EMBRC training portal

- Start November 2014
- Setup of an agreed methodology:
  - Check of all EU HEI’s (Moveonnet)
  - Check of all Marine Institutes (EuroMarine as a basis)
- Design of a data model:
  - Complimentary with similar initiatives in other ESFRI’s (EMTRAIN)
  - Designed for exchange of data (EXCRI-CAP – standard)
- Setup of an online interface (edit, consult, update)
- What is a marine training?
  - Programme is clearly marine from title point of view
  - Programme is clearly marine from content point of view
  - Programme has a large amount (at least 30%) of the courses with a marine orientation
http://training.embrc.be
http://training.embrc.be
2. EU Marine graduate Training: A state of art
Marine training in Europe – a state of art

- State of art: September 2014
- Complete countries: Belgium, France, Malta, Ireland, UK, Switzerland.
- Almost complete (all universities done, check on other HEI’s and institutes ongoing): The Netherlands, Germany, Spain, Portugal, Italy, Greece

<table>
<thead>
<tr>
<th></th>
<th>Euromarine (2011)</th>
<th>EMBRC (2014)</th>
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<tbody>
<tr>
<td>Bachelor</td>
<td>57</td>
<td>0</td>
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<tr>
<td>Master</td>
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<td>408</td>
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<tr>
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<td>35</td>
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<tr>
<td>Postdoc/staff</td>
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Topic coverage

- **Management and policy**: 181 master programmes, of which 98 results with the word ‘management’ in the title.

- **Marine Biotechnology**: keyword “biotechnology” gives 10 results for master programmes (5 pure marine biotechnology).

- **Aquaculture and fisheries**: small numbers when it comes to master training.
  - keyword “aquaculture” gives 44 results (15 pure about aquaculture)
  - keyword “fisheries” gives 27 results - only 5 based on purely the title.

- **Oceanography**: 34 results

- The “maritime” sector: well represented
  - law, engineering, technology, management, logistics etc
  - 83 master programmes, with 59 using the word on the title
Where to study?
Instruction languages of marine master programmes (with UK)

<table>
<thead>
<tr>
<th>Language</th>
<th>Count</th>
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<tbody>
<tr>
<td>English</td>
<td>275</td>
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<tr>
<td>French</td>
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<td>Italian</td>
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<td>Dutch</td>
<td>3</td>
</tr>
<tr>
<td>Greek</td>
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</table>
How Long...
Joint Marine Programmes

- Programmes delivered by at least 2 higher education institutions
“It is all about the money …”

Tuition fees for EU students

- United Kingdom
- Portugal
- Spain
- Ireland
- Greece
- Belgium

Not included: France (complex untransparent credit fees), Nordic countries, Germany, Austria
Conclusion – State of art …

• A lot of differences per country!
  • Duration / cost / thematic orientation

• Data about programmes is scattered + hard to find
  • No standardisation in terminology

• Branding – Names/descriptions do not reflect well the content

• Why do specific universities organize specific courses?
  • Competence need from Job Market?
  • Available skills/competence in University?

• Few CPD / LLL initiatives: hard to trace them

• Few PhD programmes: national rules differ a lot (definition of a PhD ?)
3. Training the next generation: challenges and suggestions
Harmonization

• Content:
  • Ensure that specific described skills / competences mean the same in different programmes
  • Marine chemist in country 1 = Marine chemist in country 2

• Descriptors:
  • Proper description of content - metadata
    • exchange with other programmes
    • attract students / trainees
Harmonization

• Offer versus needs:
  • Know the needs: academic / industries
  • Ensure trans-disciplinarity

• Involve the employer

Vinçx & Deprez 2011: Self-Evaluation report EMBC programme in the framework of a joint international accreditation
Join Forces

• Between universities
  • At current 403 MSc Programmes in marine sciences
    • Lots of overlap in content between programmes $\rightarrow$ decrease in quality
    • “No one is an expert in everything”
  • Make jointness the standard instead of the exception

• Between universities and marine institutions
  • Ensure recognition of training at marine institutions (summer schools, 1-1 training)
  • Internships
  • Thesis research
  • Involvement in blended learning

• Requires coordination
Investment

• Long-term
  • Education and training builds upon experience
  • Requires engagement for several year

• Content development
  • Online training (webinars / moocs / ...)
  • New needs from employers → New needs in training offer

• Combine resources ...
  • HOR 2020
  • Erasmus+
  • Private investments
  • Paied business models → quality has a cost

• Coordinated services ...
Open invitation for feedback / collaboration …

• A possible first step towards more harmonization:
  • Launch of the EMBRC training portal – http://training.embrc.be

• Invitation to join the initiative

• Invitation for suggestions to improve services to trainers and trainees
Marine training
Thank you for your attention

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