1 Title

The Water Framework Directive implementation: is it possible to achieve good ecological status in European waters, from the lessons learnt?

2 Date, venue and hosting organisation

The summer school will be held from 6th to 8th June 2017 (coinciding with the week of the Oceans’ Day on 8th June), at Aquarium of San Sebastian (Spain). AZTI is the hosting organization, but also the school is included under the EEAcademy umbrella, from the European Environment Agency. This is the 14th AZTI’s Summer School.

3 Organizer

<table>
<thead>
<tr>
<th>Organization</th>
<th>Country</th>
<th>Scientist</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZTI</td>
<td>Spain</td>
<td>Angel Borja</td>
</tr>
<tr>
<td>EEA</td>
<td>Denmark</td>
<td>Ronan Uhel</td>
</tr>
</tbody>
</table>

Supporting organizations

- European Environment Agency
- AZTI
- Basque Water Agency
- Aquarium of San Sebastián
- EU MARS project

4 Contact person

Angel Borja (AZTI, Marine Research Division)
Address: Herrera Kaia, Portualdea s/n; 20100 Pasaia (Spain)
Tel: +34 667174430 E-mail: aborja@azti.es
5 Description of Topic, objectives, outcomes and expected impact

After the Water Framework Directive (WFD, 2000/60/EC), the European Member States should have achieved good ecological status in all surface waters (lakes, rivers, transitional waters and coasts) by 2015. However, a high percentage of the European water bodies remain still in an ecological status lower than good.

Since year 2000 European countries have worked in developing assessment tools, intercalibrating these methods, implementing programmes of measures to reduce pressures and achieve good ecological status. However, at some extent, these efforts have not been recompensed with a generalized increase in the quality. Taking into account that in coming years this directive is going to be updated and amended, we think that it is time to reflect on the issues that are going well and those that need to be reformulated and improved.

Hence, the topic for this summer school relates to the lessons learnt from the implementation of the WFD, in freshwaters and marine waters, and the determine which actions should be taken to improve methods, measures and approaches in order to achieve finally a good ecological status in all European waters.

The attendees will acquire new knowledge on recent trends in aquatic research, in relation to the management and governance of water bodies. This summer school will focus on the integration of different sciences (i.e. social, economic and ecological) as a means to enhance the potential of our aquatic systems through adequate management and governance. This course will explore this at different research and management scales (e.g. scientific, local and national governments and European scale). Hence, the main objective of the school is to give an overview on the lessons learnt from the WFD implementation and extract conclusions to adapt it in the near future and achieve good ecological status.

As an important outcome of this course (in addition to the presentations, which will be freely available after the school), the professors participating in the course will prepare an open access position paper on this topic, to be submitted to a broad scope scientific journal (e.g. PlosOne). This will be a cross-cutting review: Where are we now and where are we going in this topic?

6 Programme and timeline

The course is organized around talks, posters displayed by the attendees on the topic of the course (and discussed in an afternoon session) and an interactive session to discuss all topics with the attendees.

- Day 1 (5th June): 18:00-20:30 Registration and Ice-breaking (drinks and snacks, if the budget permits it, with a guided visit to the Aquarium)
- Day 2 (6th June): What has been learnt from Europe?
  o 9:00-9:15 Welcome by the Director of the Basque Water Agency (Spain)
  o 9:15-9:30 Welcome and introduction to the course (Angel Borja, AZTI, Spain).
  o 9:30-10:15 The current ecological status of European waters: what to do in coming years (Peter Kristensen, EEA, Denmark).
  o 10:15-11:00 The current chemical status of European waters (Peter Kristensen, EEA, Denmark)
  o 11:00-11:30 Coffee Break
- Day 3 (7th June): What has been learnt from the practitioners?
  o 9:00-10:00 The Spanish experience, especially focused on the governance and management of transitional and coastal waters (Sagrario Arrieta, Directorate General for the Sustainability of the Coast and the Sea. Ministry of Agriculture and Fisheries, Food and Environment, Spain)
  o 10:00-11:00 Implementation of the WFD in Hungary; problems and perspectives (Gábor Borics, Centre for Ecological Research, Hungarian Academy of Sciences, Hungary)
  o 11:00-11:30 Coffee Break
  o 11:30-12:30 The Swedish experience in water bodies assessment (Mats Lindegarth, Sweden)
  o Break for lunch
  o 15:00-16:30 Joint discussion between professors and attendees

- Day 4 (8th June): Introduction to the course: What has been learnt from the science?
  o 9:00-10:00 Advances in monitoring and assessment science for the WFD implementation and problems in achieving good ecological status: paradoxes of management (Angel Borja, AZTI, Spain).
  o 10:00-11:00 Managing multiple stress for multiple benefits: Scientific research to implement the Water Framework Directive (Sebastian Birk, University of Duisburg-Essen, Germany)
  o 11:00-11:30 Coffee Break
  o 11:30-12:30 Hydromorphological pressures and measures (Wouter van de Bund, Joint Research Center, Italy)
  o 12:30-13:30 Pressures in transitional and coastal waters: a challenge for effective integrated management in practice (Monika Peterlin, IWRS, Slovenia)
  o 13:30-13:45 Wrap-up of the course (Angel Borja, AZTI, Spain)
  o End of the course