



THE ATLANTIC: **OUR SHARED RESOURCE**  
MAKING THE VISION REALITY

# **TRANSATLANTIC IMPLEMENTATION STRATEGY (TIS)**

Drafted by the Marine Working Group Ocean Literacy of the Atlantic Ocean  
Research Alliance

(with inputs from the Gothenburg and Copenhagen Workshops)

*Version: January 2016*

## Purpose

The Transatlantic Implementation Strategy (TIS) aims to consolidate existing efforts towards a proof of concept for Transatlantic Ocean Literacy (TOL) as stated in the Report on the 2014 Transatlantic Ocean Literacy Workshop held on 30 September in Gothenburg, Sweden, within the European Marine Science Educator Association (EMSEA) and more recently on 24 September 2015 in Copenhagen. The Gothenburg workshop was informed by and supports TOL as described in The Galway Statement on Atlantic Cooperation<sup>1</sup> and further supported by the Ostend Workshop, the 2013 TOL Plymouth Workshop<sup>2</sup>, and the Vision Statement on Ocean Literacy and Atlantic Cooperation between the European Union, United States of America & Canada<sup>3</sup>.

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<sup>1</sup> Galway Statement on Atlantic Cooperation, [http://europa.eu/rapid/press-release\\_IP-13-459\\_en.htm](http://europa.eu/rapid/press-release_IP-13-459_en.htm)

<sup>2</sup> TOL2013 Workshop Report <http://atlanticoceanliteracy.wp2.coexploration.org/2013/10/29/39/>

<sup>3</sup> Tuddenham, P., et al., 2014. Vision Statement on Ocean Literacy and Atlantic Ocean Cooperation between European Union, United States of America & Canada, drafted by participants of the European Commission Transatlantic Ocean Literacy Workshop, 5th-6th September 2013, Plymouth, UK. DOI: [10.5281/zenodo.11864](https://doi.org/10.5281/zenodo.11864)

## Priority Actions

The TIS establishes a series of short, medium and long term priority actions. Actions were informed by a TOL Vision Statement and two Objectives.

### TOL Vision Statement:

***A society in which citizens are ocean literate and adapt their everyday behavior to make informed and responsible decisions that promote ocean stewardship in a co-creation approach.***

### TOL Objectives:

**Objective 1.** Foster cooperation and exchange of best practices among EMSEA, NMEA, science centers, museums and aquariums, formal and informal educators, and encourage the scientific community from both sides of the Atlantic to promote TOL.

**Objective 2.** Seek and apply innovative ways to enhance and sustain TOL such that it can serve as a model for all citizens to understand environmental challenges and policies, and make informed, responsible decisions regarding ocean stewardship.

Each priority action is outlined below with an associated output and outcome. Outputs specify what will be done or produced as a result of the action. The outcomes indicate the resulting impact of the action and output. Short term actions are anticipated to be completed within **one year**, medium term actions within **two years**, and long term actions in **three to five years**. The actions will be updated on a case by case basis as they progress and are completed and submitted for update to AORA.

## 1. Short Term Actions (Timeline: within one year, ideally by September 2015)

Focus: Connect the key players in TOL and ensure our collective efforts have an impact on TOL

Action	Output	Outcome	Status
Identify the current key stakeholders in TOL	A list of stakeholders committed to fostering TOL	Potential collaborators in TOL actions, funding and activities	Task not included in Sea Change or ResponSEable projects. Can be part of an AORA deliverable.
Identify representatives from additional countries around the Atlantic Ocean basin to participate in TOL activities	Expanded TOL efforts to include more countries around the Atlantic Ocean basin	Participation in TOL from increasing number of countries surrounding the Atlantic Ocean basin	In progress by AORA and Sea Change.  Contacts with Brazil, Argentina and South Africa. No deliverable associated to this task in any OL H2020 funded project.
Provide a forum for communication among all key players in TOL	A TOL address book and/or TOL listserv	Improved communication/collaboration among TOL stakeholders	Currently achieved in the EMSEA and NMEA facebook pages and through the website <a href="http://www.oceanliteracy.net">www.oceanliteracy.net</a> , maintained by the College of Exploration in collaboration with the Lawrence Hall of Science.
Engage TOL stakeholders from EU Horizon 2020 Blue Growth Projects (e.g. BG-8 AtlantOS, BG-9 UTOFIA, BG-11 Columbus, BG-13 ResponSEable and BG-14 AORAC; SFS-9 DiscardLess and NSF and NIEHS4 initiatives (USA)	A model for involving TOL key players from Atlantic Ocean basin countries outside the EU	Collaboration involving Atlantic Ocean basin countries	Emails sent to project coordinators of projects AtlantOS, ResponSEable, Sea Change, Sea for Society and Green Bubbles, presenting the main goals of AORA and inviting them for the Lisbon TOL Workshop (June 2015).  Part of the AORA deliverable 8.1.  UTOFIA, Columbus, DiscardLess, NSF and NIEHS not contacted.

<sup>4</sup> National Institute of Environmental Health Science, <http://www.niehs.nih.gov/> are now eligible participant in Horizon 2020 on equal funding terms

Action	Output	Outcome	Status
Coordinate TOL Community input to Horizon2020 Work Program 2016-2020 priorities and Scoping Papers	TOL integrated as a tool in future Blue Growth call, in Work Program 2016-2017	A diversity of calls, with TOL as an essential Knowledge Exchange platform	OL was introduced as a topic in the 2016-2017 scoping paper but not in the Call texts. “Communicate the project activities to different target audiences” included in the evaluation subcriteria.
Identify additional funding possibilities for TOL initiatives	A list of potential private funders and philanthropic organization matched with potential projects	Complimentary funding to support collective efforts and TOL promotion to industry	AORA to include a list of potential funding entities after consultation of the TOL stakeholders.
Support and consolidate established events and/or initiatives	Participation in large scale ocean science and education events to promote TOL	Successful TOL efforts on a transatlantic level; evidence of global application	Increased participation of TOL partners at annual conferences of EMSEA and NMEA and introduction of the topic of OL in conferences of science centres and museums like Ecsite, ASTC, RedPop and in conferences like WOD, WON and European Reseracher’s Night.  Is part of the Sea Change Task 6.1
Organize efforts to promote EU adoption of the 7 Essential Principles of Ocean Literacy	Draft a strategic rationale supporting adoption of the 7 Essential Principles of OL	A set of agreed upon principles to inform TOL actions, funding and activities	Reminded in major events of 2015. Need implementation through the projects Sea Change and ResponSEable.  Adoption not foreseen in the short term.

## 2. Medium Term Actions (Timeline: One to Two Years)

Focus: Inform TOL Actions, Funding and activities and Expand Our Collective Reach

Action	Output	Outcome	Status
Synthesis of key research, education, and policy documents from EU, US and Canada on Ocean Health and Human Health interactions.	A set of common themes relevant to TOL key stakeholders (research, education and policy)	A set of clear benefits of TOL initiatives to a range of stakeholders underpinning TOL funding options	Part of the Sea Change deliverables 3.1 and 5.1 and tasks 1.2, 1.4a, 1.4c. Part of the ResponSEABLE deliverables 1.1.
Promote 'Open Science' in Ocean Research by educating and encouraging researchers to lower all access barriers to ocean research	Open Science literate marine researchers, capitalizing on citizen science, crowd science and co-creation.	Stronger science society interactions, leading to concrete Champions of Change <sup>5</sup> in Ocean Health	Sea Change task 4.3
Engage citizen scientists and society	Template for meaningful contributions to Ocean Health research by citizens (based on best practices and funding options)	Stronger science-society interaction; citizens empowered in solution co-creation	Sea Change; several tasks
Use and transfer of mainstreamed best practice in OL activities or ripe OL activities to larger scale	Practical dissemination of defined OL activities at large scale	Economy of scale and larger impact of OL activities	Part of the Sea Change deliverable 3.4 and task 3.2. Example - Pilot case done (Lawrence Hall of Science – BluePrint for Environmental Literacy (September 2015)
Mainstreamed method for Impact assessment	Impact assessment to provide comparable data between countries and region	Ability to monitor OL development and consequently feed back to OL stakeholders for improving and maintaining actions	This action is not part of any deliverable of Sea Change or ResponSEABLE projects.

<sup>5</sup> White House Champions of Change <http://www.whitehouse.gov/champions/open-science>

<b>Action</b>	<b>Output</b>	<b>Outcome</b>	<b>Status</b>
Coordinate TOL Community input to Horizon2020 Work Program 2016-2020 priorities and Scoping Papers	TOL integrated as a tool in future Blue Growth call, in Work Program 2018-2019	A diversity of calls, with TOL as an essential Knowledge Exchange platform to deepen efforts and disseminate best practices	OL should be included in the scoping document 2018-2019 for H2020 BG Calls, presently under discussion and in the forthcoming calls.

**3. Long Term Actions (Timeline: Three to Five years)**

Focus: Build upon the collective TOL actions to expand our collective reach to new audiences and nations

<b>Action</b>	<b>Output</b>	<b>Outcome</b>	<b>Status</b>
Formulate best practices pertinent to TOL stakeholders	A comprehensive inventory of TOL best practices and services to all stakeholders	A directory of best practices to inform TOL actions, possible funding options and relevance	This action is not part of any deliverable of Sea Change or ResponSEAbLe projects.
Synthesis of key research, education, and policy documents from EU, US and Canada on Ocean Health and Human Health interactions.	A set of common themes relevant to TOL key stakeholders (research, education and policy)	A set of clear benefits of TOL initiatives to a range of stakeholders underpinning TOL funding options	Part of the Sea Change deliverables 5.3 and 5.4. Part of the ResponSEAbLe task 1.3

## Updating Procedures

The TIS is reviewed once a year and recommendations for updates may be made at TOL Workshop Meetings held as part of European Marine Science Educator Association Conference (EMSEA), National Marine Educator Association Conference (NMEA) and/or as part of partnerships in Horizon2020 funded initiatives, such as SeaChange and ResponSEAbLe. To ensure coordination and centralization of contributions, the Atlantic Ocean Research Alliance (AORA) Coordination and Support Action is in charge of drafting the updated TIS with reviews and recommendations. The draft will be presented for review and approval by the Marine Working Group Ocean Literacy Co-Leads for the European Union, United States and Canada.



## Annex

### Conferences and Events on OL (2016)

11 May	Sea Change and ResponSEAbly General Assembly
June 25-July 01	NMEA annual conference "Making Waves: Current Connections in Marine Science"
07 - 09 June	TOL Side event at H2O Home to Overseas conference (Nova Scotia)
04 - 07 October	EMSEA Annual conference (Belfast)

### Opportunities for OL Dissemination (2016)

21 February	Ocean Sciences Meeting
22-26 February	Aquaculture 2016 Meeting
15-17 March	Oceanology International
17 April	European Geosciences Union General Assembly
9 May	Living Planet Symposium
20 May	European Maritime Day
19 May	1 <sup>st</sup> ECSA Conference "Citizen Science. Innovation in Open Science, Society and Policy"
26 May	ECsafeSEAFOOD Seminar
9-11 June	Ecsite Conference
08 June	World Ocean Day
09-11 June	ECSITE Annual Conference
21 June	Ocean Sampling Day
27 June	International Marine Microbiome Conference
25 July	Africa Day of Seas and Oceans
19-23 September	ICES Annual Science Conference
20 September	Aquaculture Europe 2016

24-27 September	The Association of Science-Technology Centers (ASTC) Annual Conference
26 September	International Aquarium Congress 2016
30 September	European Researchers' Night
26-28 October	The North Africa and Middle East Science centers network (NAMES) Conference
21 November	2 <sup>nd</sup> International Marine Science Communication Conference
2-16 December	American Geophysical Union (AGU) Fall Meeting
2017	RedPop Conference (Red de Popularización de la Ciencia y la Tecnología en América Latina e y el Caribe)

### **Opportunities for Funding (2016)**

January 2016	<a href="#">COST-Action</a> - Support EU OL Community
April 2015 to 28 April 2016	Marie Curie RISE - Int. Staff Exchange EU to USA
March-November 2016	<a href="#">Fulbright Specialist Program</a> - Int. Staff Exchange US to EU