SEA CHANGE

OUR OCEAN | OUR HEALTH

PROJECT NEWS

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seachangeproject.eu

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NOTE FROM THE COORDINATOR

Jon Parr, **Sea Change** Project Coordinator (MBA)

Jon Parr, Deputy Director of the Marine Biological Association and Project Coordinator of Sea Change, elaborates on the importance of creating a more Ocean Literate society and how the project intends to tackle the issue.

Welcome to the third **Sea Change** Newsletter. I hope you will see the progress we have made and find out how you may get involved to help protect the ocean.

Sea Change is here to make a difference in our attitude to our ocean. We believe strongly that Ocean Literacy means understanding the ocean's influence on you and your influence on the ocean, and are trying to explain this relationship and encourage change in all that we do to help the ocean thrive. So please browse through the many activities which have taken place so far; access the increasing resources; get involved by making a pledge for **#OurOceanOurHealth**, taking part in citizen science or simply changing your behaviour and attitude to the sea. Thank you for taking the time to look through our newsletter and incorporating actions to make a **Sea Change** in your life.

WP3 (MOBILISATION: EDUCATION & LIFELONG LEARNING)

The Education & Lifelong Learning Work Package (WP) focuses on education and lifelong learning as a powerful vehicle for sustainable change. WP3 carries out actions to empower educators, students and educational communities to help address Ocean Literacy and advocate behaviour change for ocean health, to be sustained beyond the **Sea Change** project.

INTERVIEW WITH WP3 LEADERS DR SUSAN GOTENSPARRE AND GÉRALDINE FAUVILLE, UNIVERSITY OF GOTHENBURG

Géraldine Fauville

Géraldine Fauville has been managing marine education projects for nine years. She is a co-founder of the European Marine Science Educators Association (EMSEA, www.emsea.eu) and is currently finishing her PhD in education, investigating how various digital platforms are used to communicate marine environmental issues.

Dr Susan Gotensparre

Dr Susan Gotensparre has worked as a research officer at the University of Gothenburg, Sweden, since 2011. She currently manages marine outreach projects with educational elements and has an extensive background in science research and journalism, including communicating popular science.

1. What have the highlights of WP3 been so far?

Without a doubt the incredible collaboration and engagement of all the task partners and stakeholders. It's been a joint effort which has produced some amazing results, such as identifying barriers and solutions to teaching 12-19 year olds about the ocean in eight EU countries, something that people talked about but had never investigated properly. The development of the **Ocean EDGE directory,** an online inventory of educational resources and activities, and an e-learning book on Harmful Algal Blooms, which will be available for download from iTunes, were also great achievements. In addition, we have developed the first **Ocean Literacy Massive Open Online Course (MOOC)**, "From ABC to ABSeas: Ocean Literacy for all", which enables teachers to incorporate **Ocean Literacy into their educational programmes** and have held a game design challenge to develop **tech games** which raise awareness of ocean issues.

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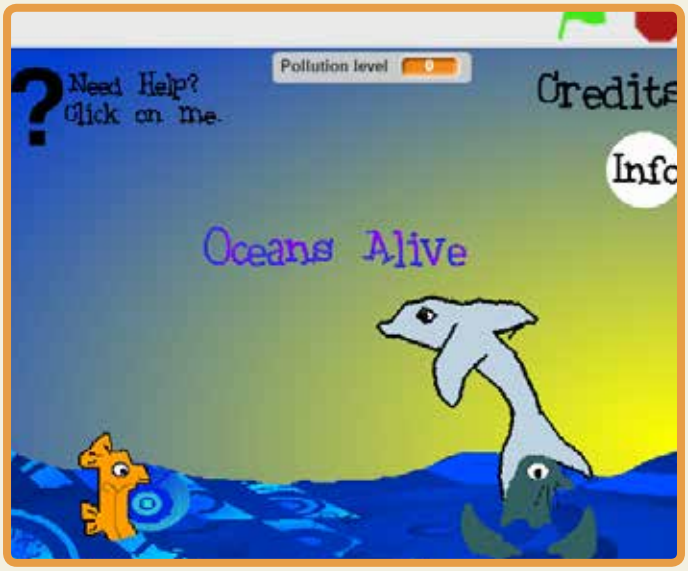


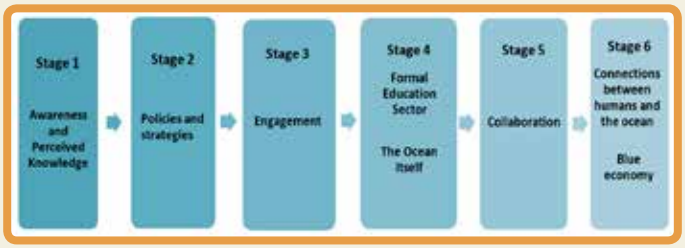
The winning game from the **Sea Change** game design challenge – "Wildlife Awareness", developed by Ciara Heanue (Jr Winner)

2. Why is it important for European citizens to know more about the sea?

The ocean is important in many aspects of our lives, such as economy, food and medicines. In fact, the well-being of our society and our survival depends on the health of the ocean, but human activities have been putting ocean health at risk for a long time. People are part of the problem and thus part of the solution concerning marine environmental issues. So, citizens need to take an active part in the debate around these issues. But how can you participate in a discussion if you know very little about or don't understand the topic at stake?

3. This WP involved consulting with education stakeholders about incorporating Ocean Literacy into schools across Europe. Can you briefly outline the objectives of these consultations and some of the key findings?

The objective of the consultation workshops was to identify barriers and solutions to teaching 12-19-year-olds about the ocean in collaboration with education stakeholders across eight European countries (Belgium, Denmark, Greece, Ireland, Portugal, Spain, Sweden and the UK). A meta-analysis was performed and each of the identified 26 **Sea Change** meta barrier stakeholder categories were collectively grouped into eight higher-order barrier themes based on evidence-based reasoning for their grouping (barriers having similar meanings), according to education and science communication literature. The key outcome was the creation of an EU Influence Map of Stakeholder Barrier Themes, showing which themes have overall aggravating influence to teaching 12-19-year-olds about the ocean. The **Awareness and Perceived Knowledge** barrier theme was deemed to have the highest influence. Overall, the most important Barrier Category was **Governance**, as it scored highly in stakeholder importance and belonged to the second most influential barrier theme, **Policies and Strategies**, from the EU Influence Map. It is important to be aware that this influence map is not considered an action plan, since other factors may come into play when deciding on actions to be taken. In other words, it is not necessary to address **Awareness and Perceived Knowledge** first, if there is an immediate opportunity to address the Policies and Strategies theme, for example. The map does suggest, however, that the prospects for successful policies might be greater if Awareness and Perceived Knowledge actions could be simultaneously implemented. No matter where the initial action is taken, the map can inform us of the potential impact of mobilisation actions, as well as barriers that will impact their success. Therefore, this map is an invaluable planning tool.



EU Influence Map of Stakeholder Barrier Themes

SUBMON's Sea Change education consultations about teaching teenagers about the ocean, Barcelona, Spain

Education stakeholders discussing the barriers to teaching 12- to 19-year-olds about the ocean at the UGOT consultations in Gothenburg, Sweden

Continued on next page...

4. How will WP3 actions contribute to achieving a more Ocean Literate Europe?

WP3 contributions are both top-down and bottom-up. We provide training to teachers (MOOC) and teaching material (e-book) but we also make teachers' lives easier by providing a directory of Ocean Literacy related educational resources and activities (OceanEDGE). Moreover, EMSEA, through its conferences and its network, also contributes to promoting and sharing educational materials. It helps teachers to get to know like-minded colleagues across Europe and the world. These actions together can concretely empower teachers and give them the skills and tools to teach confidently about the ocean in their everyday practice. The identification of the barriers to teaching 12-19-year-olds about the ocean, is a powerful tool for policy makers. Thanks to our findings, they can act directly on the barriers that were highlighted by education stakeholders in eight European countries!

5. What long-term difference do you hope this Work Package will make?

We hope that this approach will help some teachers think "hell, yeah, I can teach about the ocean in my classroom now!". We hope that our activities will lead to teachers working as teams to save time and resources ("lack of time" is another barrier). If several teachers are involved (each using their allocated teaching time) it could mean that students can focus on learning about the ocean for a longer time. Since the school curriculum in many EU countries does not include the subject "ocean", we hope that teachers find ocean projects or activities in our resources that will fulfil their curricular needs. Another long-term difference would be teachers introducing more hands-on ocean activities and allowing time for students to reflect on their experiences. Through feeling and touching sciences the understanding will be more profound than reading and imagining it.

SEA CHANGE ACTIVITIES

CRAB WATCH!

Crab Watch is a citizen science initiative developed as part of the Sea Change Project. It will explore how citizen science can be used to increase Ocean Literacy, while collecting valuable scientific information. This information will enhance our knowledge of the changing distribution of native and non-native crabs, the results of which can inform environmental management.

Anyone finding a crab on the shore for the first time will experience a sense of excitement and wonder – and maybe a bit of fear if it is a particularly large one! Crab Watch intends to harness this enthusiasm to encourage participation in this citizen science scheme.

Crabs are charismatic and can be found around Europe in all marine and some freshwater habitats. They have great commercial and cultural significance in many countries, making them a popular subject for art and folklore. But crabs are also impacted by human activities, including warming seas, invasive species and overexploitation, making them an ideal subject to demonstrate how humans and the ocean are inextricably linked.

Several species of non-native crab, such as the Asian shore crab *(Hemigrapsus sanguineus)*, brush-clawed crab *(Hemigrapsus takanoi)*, sally light-foot crab *(Percnon gibbesi)* and Chinese mitten crab *(Eriochier sinensis)* are present in multiple European countries. There is even evidence to suggest that the Asian shore crab in particular is likely to negatively impact populations of the native European shore crab *(Carcinus maenas)*. Crab Watch will raise awareness of the impact of non-native species and

The Asian shore crab (*Hemigrapsus sanguineus*) is spreading rapidly around Europe and may impact native crab populations.

encourage people to think more about marine biosecurity.

"Crabbing" is a popular past-time in the UK and we hope that Crab Watch will encourage others to take up this hobby with the added incentive of contributing to science. Free resources will promote crab welfare and environmental

13 motivated young people participating in the Spanish Crab Watch, organised by SUBMON on 14 January in Sitges, Spain

good practice among "crabbers" old and new. This will encourage people to think positively about the marine environment and participants will be encouraged to explore and learn about the great diversity of life found in the ocean.

Ad-hoc recording of crabs using a specially developed app will form the core of the initiative, while more in-depth survey protocols have been developed for use in the intertidal zone and from the shore, in areas where intertidal surveys are not possible.

Crab Watch surveys have been taking place around Europe to test protocols and draft resources as well as to collect feedback from different audiences. The scheme will be more widely tested from March 2017 onwards with a full launch in June. The team is even exploring the idea of establishing an International Crab Day to promote this wonderful group of animals!

'Crabby' crafts at a Crab Watch event.

If you are interested in getting involved with Crab Watch – by promoting the project or running your own Crab Watch survey events – contact Jack Sewell (jase@mba.ac.uk).

SEA CHANGE ACTIVITIES

Innovative Public Engagement Activities to Increase Awareness of the Ocean across Europe

The **Sea Change** project will be conducting a series of innovative public engagement activities across Europe in 2017 to change the way European citizens view their relationship with the ocean. These outreach activities are being co-created with citizens based on the findings of public consultations.

Event co-creation workshop where stakeholders brainstormed to develop innovative Ocean Literacy outreach events at SUBMON, Spain

Early in 2016, citizens from across Europe produced videos on innovative concepts or events that would

Alexander Kirilov, a Bulgarian diver speaking at the Muzeiko's Adventure Kids Day diving workshop. Source: Julian Hristov

increase people's awareness and appreciation for the ocean. The winning ideas, including an educational activity box about coastal safety, a board game about ocean acidification and a contest to develop ocean-friendly clothes, have inspired further activities which will be organised in seven European countries over 2017.

Aquaria and science centres across Europe will hold events to bring people together to share experiences and broaden their minds about the ocean. In an inter-generational exchange, senior citizens will share their knowledge of living or working on the coast with young people. Other events will engage water users, such as water sports enthusiasts, who act as ambassadors for the ocean by spreading their passion for protecting this important resource.

Sea Change outreach at an ocean weekend event at the childrens museum Museiko in Bulgaria.

Dr Jan Seys, Head of Communication at the Flanders Marine Institute (VLIZ) and lead on this **Sea Change** mobilisation element, said: "By 'injecting' Ocean Literacy into science centres which have vast experience in science outreach and education, we hope to expand the levels of Ocean Literacy amongst the public. Science centres and aquaria are very strong ambassadors when it comes to sharing scientific knowledge with the public."

Nataly Petrova, director of Bansko Film Fest discusses her selection of films at Muzeiko's Adventure Kids Day movie workshop. Source: Julian Hristov

The public engagement events kicked off with an ocean weekend at the children's museum Muzeiko in Bulgaria from 7-9 October 2016. The festival featured activities designed to increase Ocean Literacy among children and their families, including: fun sports and activities related to water resources; movies dedicated to water sports and marine adventures; and meeting real ocean adventurers. Participants even had the opportunity to collect stamps from each activity and win an award as part of a **Sea Change** game.

All **Sea Change** outreach events seek to bring about real actions to increase Ocean Literacy using behavioural, systems and social change methodologies recommended by lead methodologists and social innovation experts Dr Christine Domegan and Dr Patricia McHugh from NUI Galway, Ireland. The activities will adhere to the five principles of behaviour change,

School students learning about Ocean Literacy from the Sea Change resources at a CIIMAR outreach event.

which state that in order to influence behaviour, it is important to: get to know your target group(s) (Client Principle); help individuals pay attention to alternative choices (Competition Principle); look at the system you want to influence as a whole (Collective Principle); seek imaginative and innovative solutions (Creative Principle); and identify any discrepancies between what people value and how they behave (Change Principle).

Tomas Rehacek, project manager from Ecsite who is leading the task on public engagement through innovation said: "We hope that these creative formats of public engagement will educate people about the indispensable role of the ocean and make them think about the changes they can make in their lives to help the ocean become healthier."

Discover more about past, current and upcoming Sea Change events and initiatives at: www.seachangeproject.eu, follow Sea Change on Twitter (@SeaChange_EU) or like us on Facebook (SeaChangeProjectEU).

SEA CHANGE ACTIVITIES

Sea Change Online Course Offers Educators Innovative Ways to Teach Ocean Literacy

A free online course entitled "From ABC to ABSeas: Ocean Literacy for all", led by **Sea Change** partner UNESCO and its Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), empowers second-level teachers and marine educators to give students a greater understanding of the importance of the ocean. The five-week course is available on the European Multiple MOOC Aggregator (EMMA), in the following languages: English, French, Spanish, Italian and Catalan.

Many European citizens are not aware of the ocean's influence on us and our influence on the ocean. In other words, many of us lack a sense of "Ocean Literacy". This clearly presents a barrier for citizens to engage in ocean-responsible behaviour or consider ocean-related careers. Experienced educators, tutors, professors and researchers from the **Sea Change** project have developed this novel Massive Open Online Course (MOOC) to create a deeper understanding amongst European citizens of how their health depends on the health of our ocean.

Course developer and instructor Dr Francesca Santoro from IOC-UNESCO said: "The ocean plays a fundamental role in the health of our planet and of human beings. We need to become aware of its importance to be able to act as responsible citizens. This Ocean Literacy MOOC will take you on a journey to understand the ocean and how we can behave responsibly to enjoy its full potential."

The course will provide support and advice for teachers and educators to incorporate Ocean Literacy into educational programmes, sharing activities and lesson plans developed by experts in the field of Marine Education. Upon successful completion of the course, participants will be able to take the Ocean Literacy principles and concepts into the classroom using a range of innovative educational approaches. They will be able to suggest engagement and exploratory learning to their students, as well as develop enquiry-based activities with an interdisciplinary context.

"This MOOC will allow you to be part of a dynamic group of teachers, marine scientists and educators from all around Europe, and beyond. You will have the chance to learn about Ocean Literacy and innovative teaching methods, and share your experiences and approaches with colleagues", said Dr Santoro.

The ultimate goal of this educational resource is to equip teachers with the tools to encourage their students to make informed and responsible decisions regarding the ocean and its resources. The course is available online, and can be taken at any time. A certificate of participation is issued to all those that complete at least 70% of the course activities.

Dr Francesca Santoro, From ABC to ABSEAS, MOOC developer and instructor

For more information on the MOOC see: **https://platform.europeanmoocs.eu/course_from_abc_to_abseas_ocean_liter**

SEA CHANGE ACTIVITIES

Miniboats Help Students Learn About the Atlantic: Our Shared Resource

In December 2016, **Sea Change** became involved in Educational Passages - a demonstration of life on the high seas which allowed students to send miniature sailing boats ('miniboats') out into the Atlantic and to track their progress online.

The Atlantic Miniboat Regatta "Around the Atlantic – Our Shared Resource" is a coordinated effort between Educational Passages, the **Atlantic Ocean Research Alliance (AORA)** and other professional marine organisations and institutions in support of 22 elementary, middle, and high schools from the eight countries where students took part. Students can track their miniboats, which are powered solely by wind and ocean currents, on their transatlantic course using the **Educational Passages** website. Educators can take advantage of the on-site teaching tools addressing Earth and ocean science, meteorology, naval architecture and other cultural topics. Most of the miniboats are expected to follow historic sailing routes, making landfall several times on their way. Boats launched from America will take the northern route "up and east" towards Europe. Boats launched from Europe will sail "south and west" into the Caribbean and (hopefully) continue on to South America.

Miniboat "the Shields Surfer" sponsored by the Shields Elementary School PTO set sail December 13, 2016, from Philadelphia after being launched from the cargo ship Frisia Bonn outside the Gulf Stream after leaving Delaware Bay. Follow its journey at http://educationalpassages.com/boats/00-160380751/ Images ©J. S. Griffin.

Using GPS position reports, participants are able to watch their boat's progress and coordinate recovery efforts by identifying partner schools as the miniboats approach coasts. Working closely with the **Sea Change** Project and AORA, rescued miniboats will be taken to local partner schools where learning ensues and international relations are established. Once recovered, arrangements will be made for miniboat repairs and re-launching, with messages and other items added to a watertight compartment to be discovered at the next site of recovery. Whether recovered or not, it is expected that most miniboats will eventually sail back home to their launching point. It is through this very practical connection between coastal countries that the programme promotes understanding of the Atlantic Ocean as a shared resource through the medium of Ocean Literacy.

The goals of the "Around the Atlantic – Our Shared Resource" Regatta are threefold: 1) to provide STEM learning opportunities to students of all ages as their miniboats circle the Atlantic Ocean, 2) to engage in collaborative learning through international cultural experiences and 3) to increase student and citizen understanding of the value of the Atlantic as a shared resource. Educational Passages partners include the School of Ocean Technology, Newfoundland; Flanders Marine Institute (VLIZ), Belgium; Maine Maritime Academy; University of Maine, Marine Science School; The College of Exploration, Virginia; PLOCAN Platform Ocean Research Center in the Canary Islands; Washington College, Maryland; Evolution Sails; and Ships of Opportunity.

You can see the list of boats on the Educational Passages website: http://educationalpassages.com/boats/ and even click on an individual boat to see its progress.

To learn how you can participate in Educational Passages and its regattas, contact Richard Baldwin (dick@educationalpassages.com).

SEA CHANGE ACTIVITIES

EMSEA16 - Titanic Belfast

Titanic Belfast was an impressive location for the fourth annual EMSEA conference, which took place from 4-7 October 2016. Proceedings were conducted on the top floor of the exhibit, with vistas across the slipway where the original RMS Titanic was built, to the city below and the mountains beyond.

Sea Change was well represented amongst the 96 delegates with International Advisory Group (IAG) Chair Paula Keener organising a workshop on aquaculture in collaboration with AORA and the coordinators presenting the educational elements of **Sea Change**.

Portuguese student presents her experiences working on the project 'Bridges between school and blue science' at EMSEA16, Titanic Belfast

The conference began with EMSEA President Fiona Crouch making a grand entrance down the replica Titanic staircase (not quite like Kate Winslet in the movie – but you get the picture) followed by keynote speakers Ivan Conesa-Acolea (Sea Change Project Officer) from the European Commission and David Cline from the US Aquaculture Society. A presentation from the Northern Ireland Space Office showed how new subject areas can be incorporated into a secondary curriculum and Rob Holland from the Oil Spill Response in the UK explained how their work engages with communities.

Manel Gazo (SUBMON) displaying his EMSEA plaque at Titanic Belfast during EMSEA16

The flash poster presentations and "Open Space" session are regular features of an EMSEA conference. The former gives delegates an opportunity to explain their work and encourage delegates to visit their poster to learn more. Open Space is when delegates suggest subjects they would like to discuss and others choose which discussion they would like to join. There were 17 very productive discussions and many more suggestions that we didn't have time to address.

EMSEA16 was an excellent conference thanks to contributions from the delegates and especially to IAG member Susan Heaney and the events team at Titanic for their efficient organisation of the event.

Two highlights were; the visit by 8-year-old Méabh Ní Ghionnáin and her family who found a miniboat (part of the Educational Passages project) washed up near their village on the west coast of Ireland, and the students from Portugal who presented their work on Ocean Literacy and on the fungicidal effects of seaweed extracts so eloquently!

Group photo of EMSEA 2016 participants at Titanic Belfast

SAVE THE DATE:
EMSEA17 will be held from the 7 – 10 October 2017 at the University of Malta in Valletta, Malta.
For more information, see: www.um.edu.mt/events/emsea2017

SEA CHANGE ACTIVITIES

CommOCEAN 2016, a Highly Successful Event

From 6 - 8 December 2016, Bruges/Ostend (Belgium) hosted the second International Marine Science Communication conference and training workshop, CommOCEAN 2016. This event was jointly organised by the **Sea Change** partners VLIZ and IOC-UNESCO, and by the European Marine Board and its communications panel (EMBCP).

Cartoonist live-scribing from the CommOCEAN event: capturing the essence of the event in a cartoon-like fashion

An inspiring programme, high-level keynote speakers and the charming historical scenery of Bruges were the ingredients to make it a major success with 200 registered participants from 29 countries worldwide. Several Ocean Literacy **Sea Change** and "ResponSEAble" partners actively contributed to CommOCEAN 2016, with plenary talks, workshops and/or posters by Patricia McHugh (NUIG), Luc Zwartjes (EUROGEO), Manuel Cira (Nausicaa), Martha Papathanassiou (HCMR), Mieke Sterken (VLIZ), Alexandre Nieuwendam (Ciencia Viva) and Pierre Strosser (Acteon). The CommOCEAN two-day conference was followed by a one-day training, held in Ostend at the InnovOcean site, and organised through IOC-UNESCO's Ocean Teacher Global Academy.

Paul Rose (BBC/National Geographic) inspired the audience at CommOCEAN 2016 as a key-note speaker, sharing just a few of his most remarkable experiences as a internationally renowned explorer, diver and broadcaster.

Dr Patricia McHugh, **Sea Change** partner from NUI Galway speaking at the CommOCEAN event

Lisa Tossey from the University of Delaware and the National Marine Educators Association led several sessions focused on giving the 50 participants all the tools and tips to effectively communicate ocean science in the digital era. While using the most effective technology and digital channels is important, Ms. Tossey was clear that the real keys for success in ocean science communication are "creativity, passion, and a good deal of strategic planning".

CommOCEAN 2016 combined hands-on exercises in current science communication skills for disseminating ocean research and technology, with plenty of expertise-sharing, social interaction and fascinating marine science along the way. The event was coordinated by the European Marine Board and its communications panel EMBCP (photo: chair Jan Seys), the Flanders Marine Institute (VLIZ) and UNESCO IOC Project Office for IODE.

CommOCEAN participant at the poster session

Need caption

MAKE A SEA CHANGE

TOP TIPS FOR PROTECTING THE OCEAN
HOW TO PREVENT POLLUTION OF THE OCEAN BY CONTAMINANTS

Tip 1 Use eco-friendly cleaning products.

Remember!
OUR OCEAN OUR HEALTH

Tip 2 Dispose of chemicals properly.

Tip 3 Avoid foods treated with synthetically manufactured pesticides.

Tip 4 Do not discharge sewage from boats into coastal waters.

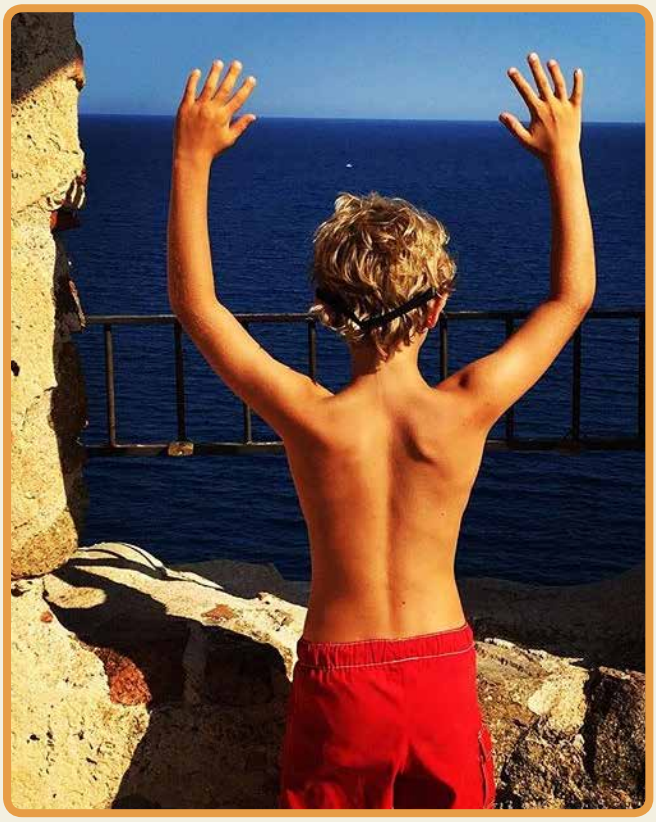
Tip 5 Dispose of unused medicines responsibly; don't flush them. Return them to your local pharmacy.

TAKE ACTION!
www.seachangeproject.eu

For more tips on how to prevent chemical contamination of the ocean, and to pledge to make a **Sea Change**, see:
http://seachangeproject.eu/takeaction

NEWS FROM THE RESPONSEABLE PROJECT

Greetings from the ResponSEAble project!



2016 was a year of diving deeper into our selected key stories – the six main ocean challenges that now are central to our project, around which we build our research on Ocean Literacy: what knowledge exists, ocean economy actors, to whom knowledge is communicated, and through which channels. We aim to identify where more efforts on Ocean Literacy are needed and which actors have "room to manoeuvre", so that in the coming years of the project we can develop and test new targeted Ocean Literacy products.

In 2016 a **ResponSEAble Ocean Literacy Think Tank (OLTT)** was established. It comprises 10 expert members who follow and support the work of ResponSEAble project, in particular on the selected key stories.

Also, the **ResponSEAble Ocean Literacy Blog** was launched last year: please visit us at https://responseable.exposure.co/. If you would like to be a guest contributor and share your thoughts about topics relating to Ocean Literacy, let us know by emailing info@responseable.eu.

The ResponSEAble project took part in some interesting events last year, among them was the Maritime Day in Turku; a side event at Micro 2016, the first international conference on microplastics in Lanzarote; a session at CommOCEAN in Bruges and participation at EMSEA 16 in Belfast.

A joint partner meeting with Sea Change in Athens in May 2016 allowed the two projects to have focused discussions and **organise three common workshops:** on the role of knowledge in Ocean Literacy, how to assess effectiveness of Ocean Literacy, and a transatlantic workshop with the members of the ResponSEAble OLTT and International Advisory Group of both projects.

In 2017 ResponSEAble will organise an **EU workshop on Ocean Literacy** (5-6 April in Jurmala, Latvia) as well as a **series of regional workshops** in the Baltic, Black, Mediterranean and North Atlantic Seas to identify cost effective Ocean Literacy regional strategies. **We would like to invite several Sea Change partners to join us**, so we can share and discuss our experiences of what worked and what didn't work in the practices of Ocean Literacy in the regional seas (and including transatlantic experiences). More information on the dates and locations will follow soon. We hope that these regional workshops will continue enhancing collaboration between the two Ocean Literacy projects and mobilize the strengths of both consortiums in our joint efforts towards better Ocean Literacy.

This year ResponSEAble is also planning to run a MOOC on "Being ResponSEAble" on the EMMA platform in April-May 2017, which will focus on use of our Knowledge Base and the key stories. Stay tuned for the announcements later this year and let us know if you are interested in taking part **(info@responseable.eu)**.

Wishing you a great 2017!

- Olga Mashkina, ResponSEAble project coordinator

ResponSEAble's six key stories:

Story 1 – The fate of microplastics – from plastic pellet producers to the sea

Story 2 – From food and water consumption to eutrophication

Story 3 – Sustainable and "clean" fishing/fisheries

Story 4 – From coastal development and engineering to morphological change of the sea

Story 5 – Integrating (marine) renewable energy development into sustainable "sea-land" territorial development

Story 6 – Changing homes: the issue of ballast water and invasive species

OCEAN LITERACY IN THE NEWS

$250,000 to Fund Canadian "Ocean School"

Just to show how seriously Ocean Literacy is taken on the other side of the Atlantic, a quarter of a million dollars was invested last summer in "Ocean School" – an immersive education project designed to inspire students between 11 and 15 years old to learn more about how the ocean works. This ground-breaking initiative, by Dalhousie University in Canada and their National Film Board, is aimed specifically at increasing Ocean Literacy among Canadian youth.

The project will be built around film-making, teacher resources, immersive virtual-reality learning experiences and a physical headquarters at the Dalhousie University where students can engage directly with marine experts in hands-on projects.

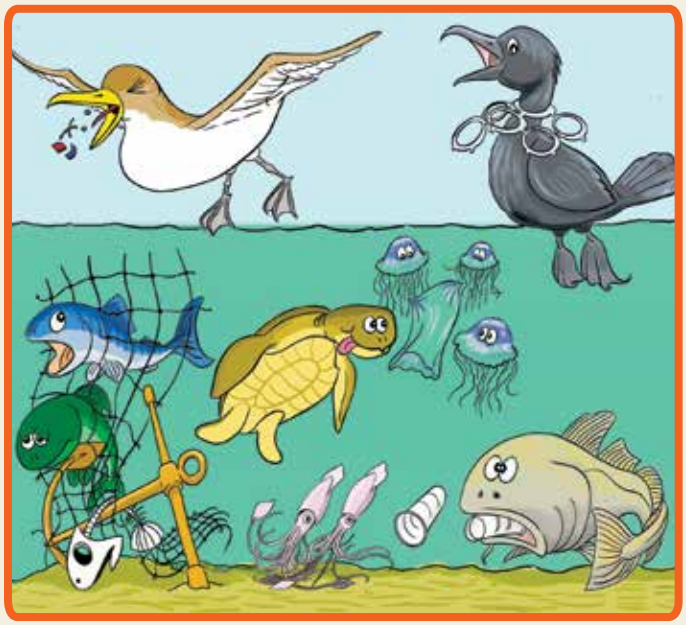
See: **http://bit.ly/2nrYwjb**

220,000 Ocean Literacy Lesson Plans Distributed in Ireland

Meanwhile, back in Europe, Ocean Literacy made the news with the entry of Ireland into the Vendée Globe round-the-world yacht race last year, when Irish master yachtsman and entrepreneur Enda O'Coineen became the first Irishman to take part in this incredible race. The

event was celebrated by the best-selling Irish newspaper *The Sunday Independent* distributing almost a quarter of a million copies of a special colour insert featuring not only a map of the race, but also a full-colour educational chart listing the "Seven Principles of Ocean Literacy".

This chart, which was donated by **Sea Change** partner Dr John Joyce of AquaTT, included seven easy-to-follow lesson plans with his signature cartoon illustrations – each demonstrating one of the "Seven Principles" of Ocean



Literacy and how to bring them alive in the classroom within the parameters of the Primary School Curriculum.

This initiative was supported by Mercedes Benz and the Atlantic Youth Trust – a charitable initiative for youth development, cultural integration and maritime education which plans to use a tall ship to bring together young people from Northern Ireland and the Republic for life-changing adventures.

See: **http://bit.ly/2ms2MOr**

One Planet, One Ocean

Sea Change partner, the IOC of UNESCO recently published a brochure entitled One Planet, One Ocean which includes a feature on the Ocean Literacy work of the **Sea Change** project. It includes an interview with the project coordinator Jon Parr (MBA) and a member of the International Advisory Board, Paula Keener (NOAA).

See: **http://bit.ly/2mXb3uw**

The New Plastics Economy: Catalysing action

New research presents three strategies to increase reuse and recycling of plastic packaging to 70%, from today's recycling rate of just 14%.

See: **http://bit.ly/2jV00zY**

DATES FOR YOUR DIARY

8 June 2017
World Oceans Day

World Oceans Day will be Huge in 2017!

Celebrated across the globe, this is an ideal day to promote Ocean Literacy through local, national and international initiatives promoted by **Sea Change** and its partners. While 2016 was a great year for our shared ocean, the plans afoot for 2017 are even more exciting, including a major push with World Oceans Day as a rallying point for the world!

In 2016, countries made real commitments and progress towards improving our connection with the ocean. The world celebrated the establishment of the largest marine protected areas ever created, including waters off Antarctica, a common heritage for everyone. Cities and countries worldwide have banned disposable plastic bags, the world better addressed fisheries issues, and nations agreed on further reducing carbon pollution, for healthier communities, countries and a healthier ocean. Celebrations were held across the globe for World Oceans Day 2016, with events in over 100 countries.

World Oceans Day 2017 is shaping up to be the biggest and most impactful yet, with many exciting events already planned. IOC-UNESCO and United Nations Division for Ocean Affairs and the Law of the Sea (UN DOALOS), in collaboration with The Ocean Project and the World Ocean Network, are coordinating the development of a new United Nations web portal for World Oceans Day, **www.UNOceansDay.org.** The UN site and **www.WorldOceansDay.org** will complement and enhance each other. WorldOceansDay.org, which was created in 2004 and completely redone for 2016, is being updated continually at this busy time of the year for event planners, with many free tools and resources to help with planning. The UN web portal, to be launched in time for World Oceans Day 2017, will include among other things, scientific and educational resources, a shared database with WorldOceansDay.org of events worldwide, and opportunities for involvement, in English, French, and Spanish.

How will YOU celebrate World Oceans Day?

See more at: **www.youtube.com/watch?v=2p3nNOWMy9A**

DATES FOR YOUR DIARY

23-25 May 2017
Global Ocean Science Educators workshop

The 2017 GOSE Workshop will focus on forging new connections within the global marine community. The GOSE Workshop is the only platform of its kind, bringing together the ocean science, education, policy, and business sectors to improve ocean science education across the globe.
www.coexploration.org/gose/index.html

5-9 June 2017
The Ocean Conference

The Ocean Conference aims to be the game changer that will reverse the decline in the health of our ocean for people, planet and prosperity. It will be solutions-focused with engagements from all.
https://oceanconference.un.org/

13 June 2017
Ecsite Pre-conference Workshop Sea in the City

This workshop will use a mix of theory and practice including hands-on, interactive sessions to emphasise the latest advancements in the field of Responsible Marine Research and Innovation and Ocean Literacy.
www.ecsite.eu/annual-conference/programme/sea-city

30 June – 2 July 2017
SeaFest 2017

This Irish celebration of the Sea will be held on the west coast of Ireland in Galway this year and will feature the annual "Our Ocean Wealth" Conference, including discussions on the promotion of Ocean Literacy.
www.ouroceanwealth.ie

5-6 October 2017
Our Ocean 2017

The Our Ocean 2017 Conference will be held in Valletta, Malta and will build on the issues of the ocean and climate change, marine pollution and sustainable fishing. It will also discuss how the ocean can contribute to sustainable blue growth through new energy sources such as tidal and wave technology.
www.atlanticresource.org/aora/site-area/news-events/events/our-ocean-2017

7 – 10 October 2017
EMSEA17

EMSEA17 will provide a forum for discussing key issues associated with ocean education and promoting Ocean Literacy within Europe. The conference will be held at the University of Malta in Valletta.
http://emseanet.eu/

WATCH THE LATEST SEA CHANGE VIDEO

Watch: Our Ocean Our Oxygen - vimeo.com/173739456

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