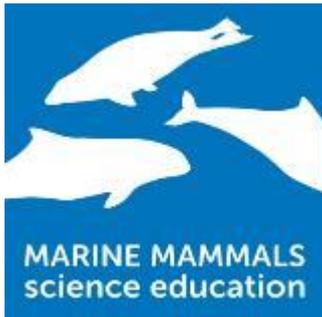


ASCOBANS, Kiel, 07.09.2020



# Marine Mammals Science Education

Using marine mammals for making science education and science careers attractive for young people

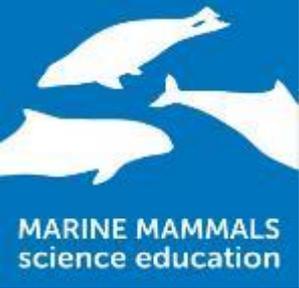
**Katrin Knickmeier & Dennis Brennecke,  
Kiel Science Factory, Germany**



This project is funded by the Horizon 2020 Framework Programme of the European Union under Grant Agreement no 710708.

# Marine Mammals – Project partners





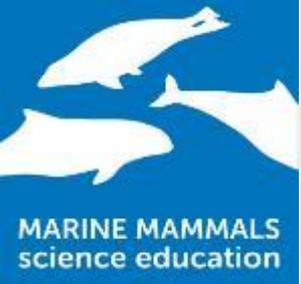
## Importance of our project

- Decline of interest in STEM - we want to enhance scientific literacy, in our case ocean literacy / marine mammals literacy
  - Marine mammals are great animals to arouse students' interest
  - Science is fun, interesting, challenging and engaging
  - Career paths for young people in science, research and environmental protection
- 
- Active participation, e.g. observations, experiments
  - More out-of-school science learning

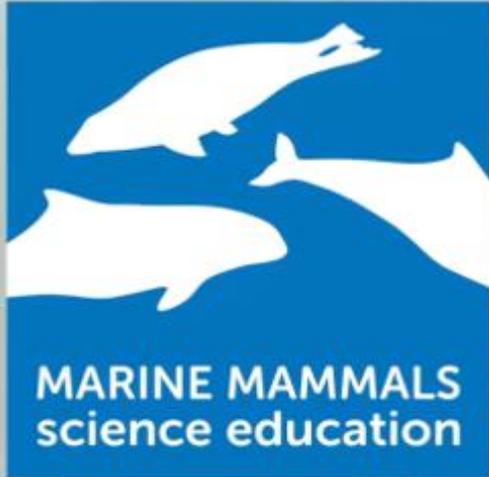
## Our project

- Learning materials
- Teacher trainings
- Summer schools
- Symposia
- Podcast series
- Interactive poster
- Expedition boxes, skeleton





## Marine Mammals – Project film



**Marine  
Mammals**



# Learning materials

## Learning materials

A1-Marine-mammals-An-overview-170728.pdf

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A2-Marine-mammals-Introduction-to-marine-mammals-170728.pdf

A2-Marine-mammals-Introduction-to-marine-mammals-170728.pptx.zip

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A3-Marine-mammals-Physiology-Worksheets-for-students-Primary-school-170728.pdf

A3-Marine-mammals-Physiology-Worksheets-for-students-Secondary-school-170728.pdf

A3-Marine-mammals-Physiology-170728.pptx.zip

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A4-Marine-mammals-Hot-topics-in-marine-mammal-science-170728.pdf

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B-Marine-mammals-Plastics-in-the-ocean-170728.pdf

B-Marine-mammals-Plastics-in-the-ocean-Mystery-Game-17072.pdf

B-Marine-mammals-Plastics-in-the-ocean-170728.pptx.zip

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C-Marine-mammals-Chemical-pollution-170728.pdf

C-Marine-mammals-Chemical-pollution-170728.pptx.zip

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D1-Marine-mammals-Acoustics-170728.pdf

D1-Marine-mammals-Acoustics-170728.pptx.zip

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D2-Marine-mammals-Bubble-curtain-experiment-170728.pdf



**Marine Mammals**  
make science education & science careers  
attractive for young people



*Dive into the  
world of science*

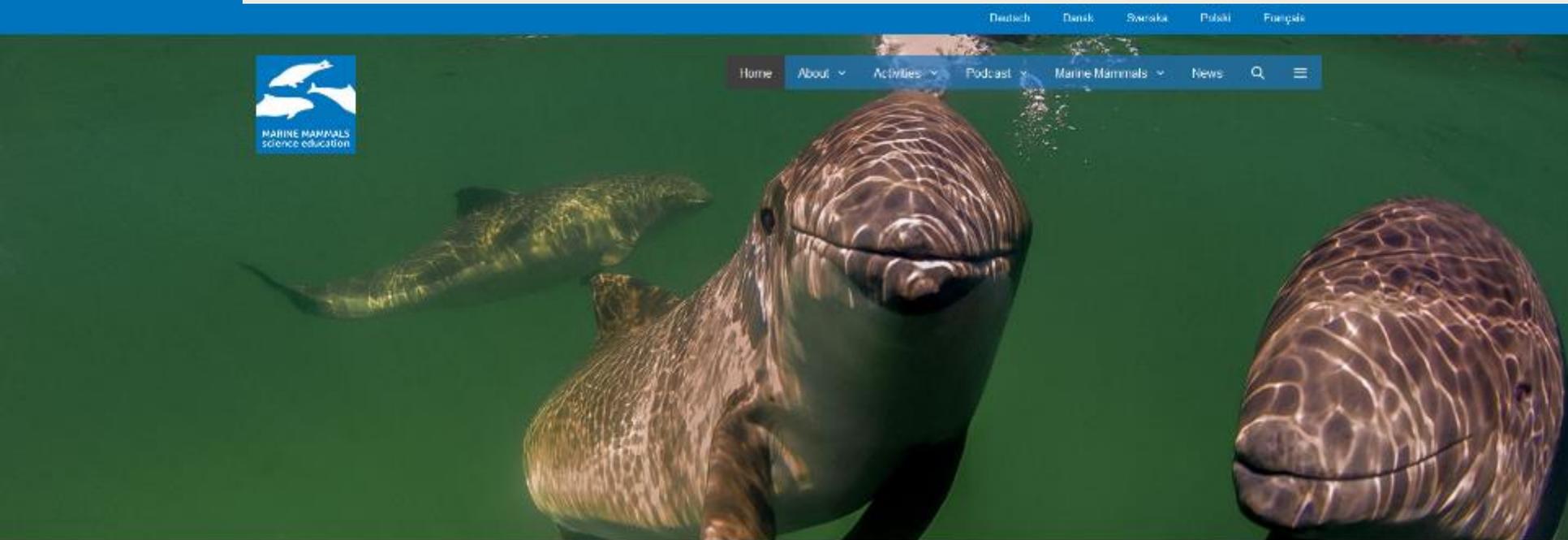
- Teaching materials
- Expedition boxes



All content created by the University of Loughborough for the development of the University of Loughborough (UL) Marine Mammals Science Education Project. The University of Loughborough is a member of the European Union's Horizon 2020 research and innovation programme. The project is funded by the Horizon 2020 Framework Programme of the European Union under Grant Agreement No 741728.

*www.marine-mammals.com*

# Webpage



## Project & Partners



## Activities



## Marine Mammals

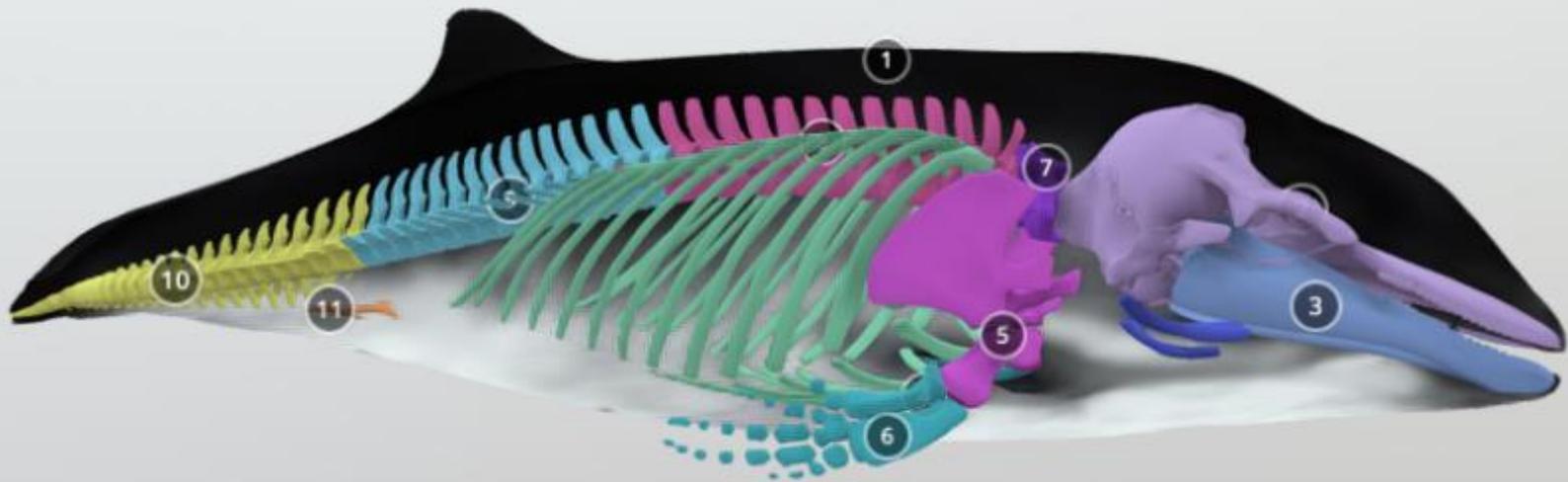


## News & Stories



[www.marine-mammals.com](http://www.marine-mammals.com)

## Webpage



<https://marine-mammals.com/marine-mammals/harbour-porpoise/>

*www.marine-mammals.com*

# Teacher trainings, > 400 teachers from 14 countries



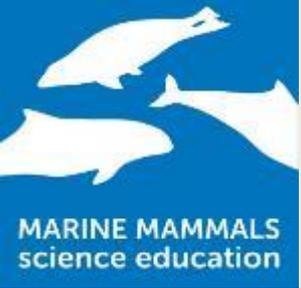
# Summer schools, >250 school children in 5 countries



# Symposia



> 1000 participants  
in 5 countries



## Podcast series

Scientists and their daily work

Scientists & their research topics

Expert interviews on the project

3D Animations



[www.marine-mammals.com](http://www.marine-mammals.com)

# Interactive poster

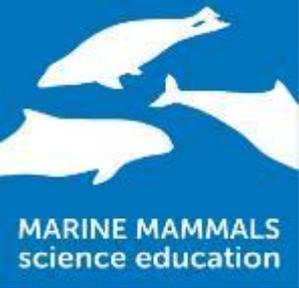


## Expedition boxes



# Harbour porpoise skeleton Somso





## Total impact of the project

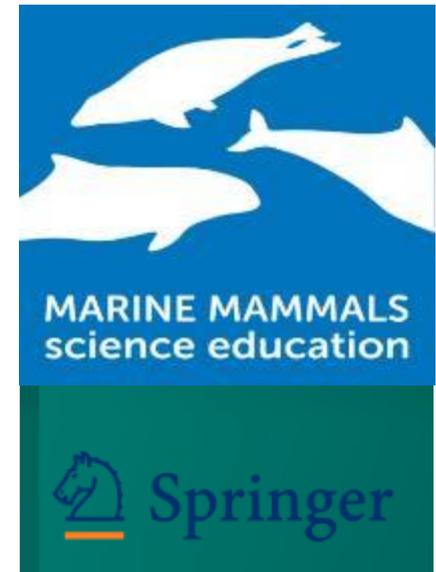
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National teacher trainings	367
International Teacher trainings	42
Summer schools	278
Edu-actions	6500
Symposia	1148
Kiel School class visitors	192
Kids university	600
ERN Germany	7600
Kiel week	8000
Blue school project, porpoise days	20620
Swedish teachers and educators	517
Swedish students	300
Swedish politicians	30
<b>Total direct contacts</b>	<b>&gt;45,000</b>
Total indirect contacts	>135,000
Digital/social media contacts	>100,000

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# Marine Mammals – a Deep Dive into the World of Science

1. Preface
2. Introduction to marine mammals
3. Acoustics of marine mammals
4. Fisheries, whaling and seal culling
5. Plastics in the ocean
6. Chemical pollution and diseases of marine mammals
7. How to become a marine mammal scientist



# Thank you for your attention!

Nine scientific and educational research institutes plus NGO's from Germany, Poland, Sweden, Belgium and Denmark joined forces for this project:

Project coordination: Kieler Forschungswerkstatt (ozean:labor)

Project partners:

Kiel University (CAU); Foundation for the Development of the University of Gdansk (FRUG/Poland); Havets Hus in Lysekil (Sweden); Institute for Terrestrial and Aquatic Wildlife Research (ITAW) at the University of Veterinary Medicine Hanover Foundation (TiHo); Leibniz Institute for Science and Mathematics Education (IPN); Meeresmedien Hamburg; University of Liège (ULg/Belgium); Marine Biology Research Center, University of Southern Denmark (SDU/Denmark); WWF Poland



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