



# PT02\_2ºRPS\_0008 | A onda da Nazaré: um estímulo para a aprendizagem

## MOTIVAÇÃO:

No âmbito das atividades de *outreach* promovidas pela Faculdade de Ciências da Universidade de Lisboa, a apresentação “**A Onda da Nazaré**” destacou-se pela capacidade de despertar a curiosidade científica entre o público.



*“[A apresentação sobre “A Onda da Nazaré”] permitiu-me ter mais conhecimento sobre a formação das ondas e o porque da onda da Nazaré existir, o que foi bastante bom! Gostei bastante da apresentação e espero ter mais coisas do género na minha escola, porém acho que seria engraçado arranjar maneira dos alunos participarem um pouco mais neste tipo de apresentações. Obrigada”*

*Aluna do ensino secundário da Escola de Gama Barros (Cacém)*

## O PROJETO:

Elaboração do filme “**A Onda da Nazaré**”, suportado na produção de várias curtas-metragens de animação científica, participadas e narradas por alunos do ensino secundário.

Pretende-se com este projeto contribuir para a literacia sobre os Oceanos e cativar, em particular, a atenção do público em idade escolar para a importância do conhecimento científico sobre os processos físicos associados às ondas e na gestão sustentável dos recursos e ecossistemas marinhos.



**CURTA-METRAGEM:** Geração das ondas (*em fase de desenvolvimento*)



## PRODUTOS FINAIS:

Os produtos finais do presente projeto são constituídos por três elementos de natureza bilíngue (português e inglês):

- ❖ curtas-metragens de animação científica sobre processos físicos associados à geração, propagação e rebentação das ondas;
- ❖ filme "A Onda da Nazaré": baseado nas curtas-metragens, narrado e participado pelos alunos;
- ❖ sítio eletrónico sobre o projeto a onda da Nazaré



<http://nazarewave.fc.ul.pt>

# THE NAZARÉ WAVE

THE ROLE OF COMMUNICATION TRIGGERS IN MARINE SCIENCE



**Communicate science: a challenging task**

MAFALDA MARQUES CARAPUÇO\* | JOSÉ PAULO PINTO\*\*  
JOÃO DUARTE\*\* | ANA NOBRE SILVA\* | RUI TABORDA\*

Science is part of almost every aspect of our lives. Consciously, or not, the understanding of science enables people to make informed decisions regarding numerous issues that affect their professional and personal agendas. However, communicate science to the public can be a challenging task: science communication demands rigorous reporting while, simultaneously, scientific knowledge should be expressed in a language comprehensible to the target audience. Additionally, it is often necessary to assure the receptivity of the audience, which may not be tuned to scientific contents.

**The Nazaré wave as a communication trigger**

The Nazaré wave (Praia da Nazaré, Portugal), the biggest wave ever surfed, was used as a communication trigger between the research community and high-school students. This is a very popular subject in the media and social networks that has drawn the interest of society in general. The Nazaré wave reveals to be an excellent trigger for the transfer of scientific knowledge in marine science, on basic wave dynamics to the students.



HAZARÉ WAVE: Has this image caught your attention? Perhaps it will also catch student's attention and make them curious to know the physics behind

**Communication triggers and communication channels: the perfect match**

The use of the Nazaré wave reveals to be an excellent trigger in the transference of scientific knowledge in marine science. Additionally to the theme itself, it was found that the communication channel is also particularly important. Short scientific animation videos were used in transfer scientific knowledge from researchers to high-school students. It was found that, when supported with the proper means, communication can go beyond the spectacularity of the theme and can constitute an additional motivation to enlarge the scientific curiosity of the audience. Results of the use of Nazaré wave as a communication trigger have been extremely positive and resulted in follow-up requests to perform additional talks on other scientific themes. Short scientific animation videos on wave generation, wave refraction and wave energy, and further about the Nazaré wave are available at the Beach to Canyon project webpage (<http://beachtocanyon.fc.ul.pt>).



WAVE REFRACTION: short animation video.

Experts in marine science communication will discuss this issue in the 1st International Marine Science Communication Conference – New tools and practices ([http://www.cimsc.up.pt/IMSC2014/starting\\_today.html](http://www.cimsc.up.pt/IMSC2014/starting_today.html)) 08-10 September, in Porto, Portugal.

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# PT02\_2ºRPS\_0008 | The Nazaré Wave: a trigger for learning

## THE MOTIVATION:

In the scope of the outreach activities conducted by the *Faculdade de Ciências da Universidade de Lisboa*, the “**Nazaré Wave**” presentation stands out by the capacity to trigger the attention of the audience to scientific contents.



*“[The presentation of the “Nazaré Wave”] allow me to detain more knowledge about waves generation, and the reason why the Nazaré wave exists, which I like it! I also really like the presentation and hope to have more initiatives as this one in my school. However it would be interesting to find a way that allows the participation of the students. Thank you!*”

*High school student from Escola de Gama Barros (Cacém)*

## THE PROJECT:

Production of the movie “**The Nazaré wave**”, supported on scientific animation videos, with the participation and voiced-over by high school students.

The aim of this project is to raise Oceans literacy and to capture the attention of high school student, in particular, to the importance of scientific knowledge about the physical processes associated with the waves and in the sustainable management of resources and marine ecosystems.



## SCIENTIFIC ANIMATION VIDEO: Wave generation (*in progress*)



## FINAL OUTPUTS:

The final outputs of this project correspond to three main elements:

- ❖ short scientific animation videos on basic wave dynamics
- ❖ the movie: “The Nazaré wave”: supported on the scientific animation videos, with the participation and voiced-over by high school students
- ❖ the “nazaré wave” website



<http://nazarewave.fc.ul.pt>

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