

# BRIDGES BETWEEN SCHOOL AND BLUE SCIENCE

## A CHALLENGE FOR SCIENTISTS

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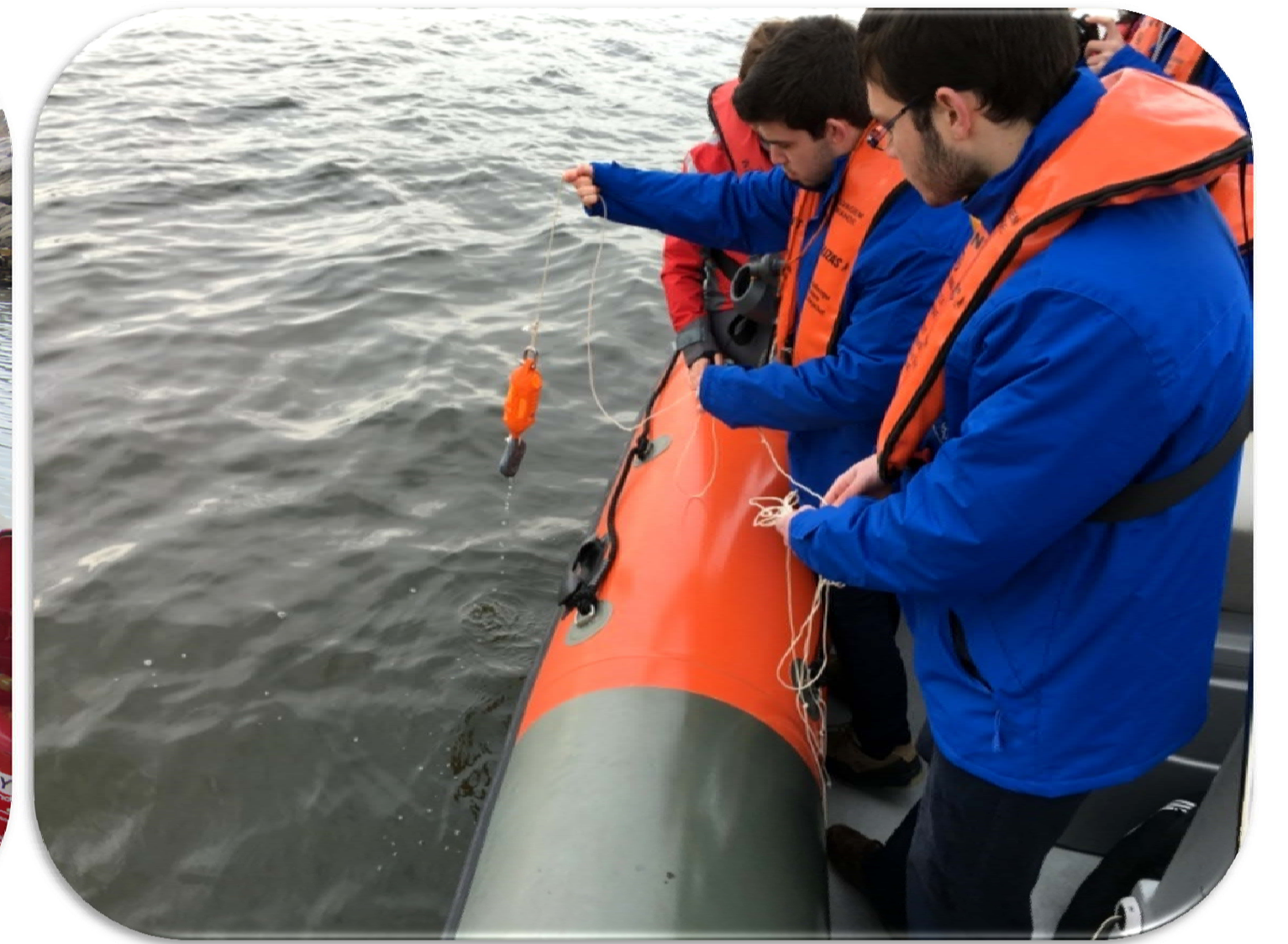
The educational project “Bridges Between School and Blue Science” has been developed by the Portuguese Task Group for the Extension of the Continental Shelf with the goal to engage high school students in authentic scientific settings related to the sea. Students work alongside marine scientists in different research centers of science and technology.

“Bridges Between School and Blue Science” represents a great opportunity for the students involved: being able to work in a professional and specialized environment allows them to be in actual contact with science just as it is practiced on a daily basis. In their classes, students are mostly used to look at scientific topics from an exceedingly theoretical point of view. In this project, marine science communication is made directly on the scientists’ working place, be it the lab or the sea.

But this communication is not one-sided. In this poster, we want to explore the scientists’ perspective:

- What do they benefit from the interaction with an audience that’s interested but inexperienced?
- How do they make their work reachable and understandable for high school students?

We talked with three investigators from Instituto Superior Técnico who took part in this project. Cláudia Viegas and Hilda de Pablo engaged students in a project about modelling applied to ocean currents, while Luís Sebastião involved students in the construction, launch and monitoring of a drifter.



### MOTIVATIONS

**Personal Challenge** - “How far can I go when explaining the specifics of my work?”, “Can I find a way to make my work appealing to teenagers?”

**Communication** - Opportunity to communicate their work outside of its research field.

**New Data** - The work with the students allowed the researchers to collect new data.

**Future Scientists** – To show their work as a captivating prospect for these youngsters’ professional future.



### NEW PERSPECTIVES

**New synergies** with different working groups.

Connection with a **younger ‘audience’**.

**Recollection of basic concepts** – In order to communicate with a younger audience, the scientists needed to go back to basics, finding fresh perspectives along the way.

**Outreach** – Scientists became more aware of the need to communicate their own work. Now, they always consider including some sort of outreach in their projects.

### OUTREACH

**Science needs to be more and better communicated** – Scientists acknowledge that there’s a gap between science and society and most people don’t really have a clue about what they do.

**Youngsters are great carriers of knowledge** – One of the reasons why this project was so rewarding for the scientists.

**Hands-on engagement is very important** – More than pretty presentations, the researchers realized that the best way to engage students was by directly and actively involving them in the investigations: asking them questions and giving them problems to solve.



### CHALLENGES

**Time constraints.**

To avoid being **boring**.

To find out how **detailed** they could be without losing the audience’s attention.

None of the researchers felt the need to simplify their language when talking to teenagers. Their main concern was not how to communicate, but to **select what** to communicate.

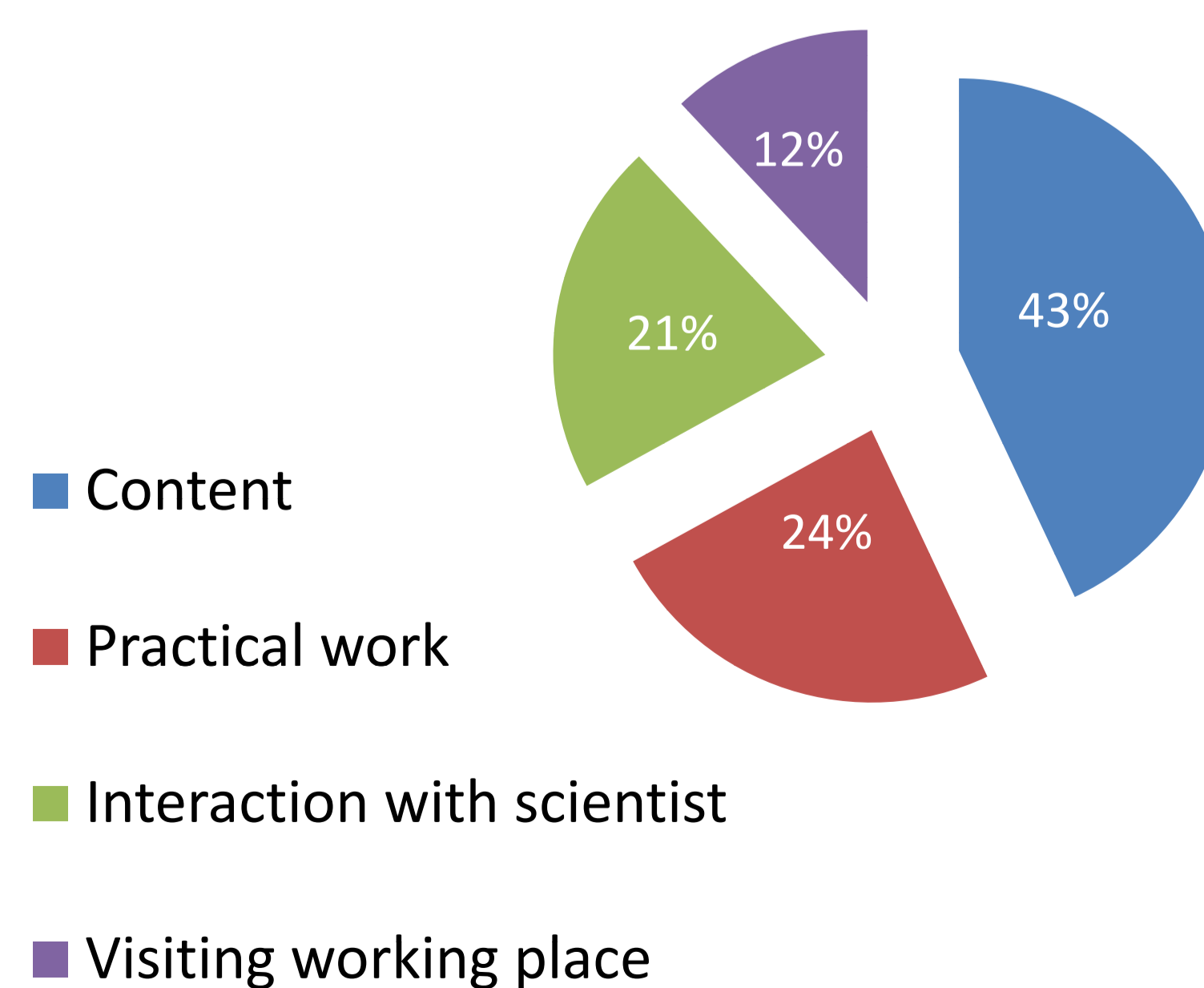
### STUDENTS ENGAGEMENT

**According to the scientists** - Students seemed motivated and **willing to learn**. They asked lots of questions and the researchers believe they were able to understand what they were doing.

**According to students** – They were very **motivated** throughout the project. The only setback was that some of them got sick during the field work in the sea.

We asked students what they valued more from their experience with Instituto Superior Técnico’s investigators.

What was more valuable for students?



More than the practical work, the students valued more than anything the content: **what they learned**.

It shows that the scientists were able to communicate their work to these students and demonstrate how important and relevant it really is.

The strategies used to communicate their investigations, with a direct and **hands-on engagement** of students, appear to have worked.