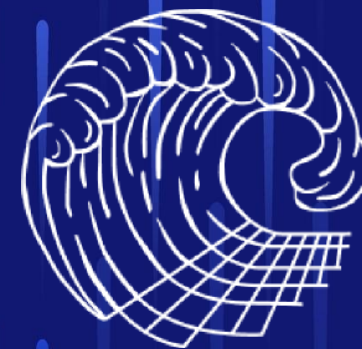


European Pavilion
**Digital
Ocean**
Nice | France
2 - 13 JUNE 2025

BigWaveTracker: Digitalising the World's Biggest Waves

4 June 2025



big wave
tracker

Funded by

fct Fundação
para a Ciência
e a Tecnologia

FCT 2022.08288.PTDC



Inspire

How to monitor the Ocean?



Inspire

How to monitor the Ocean?



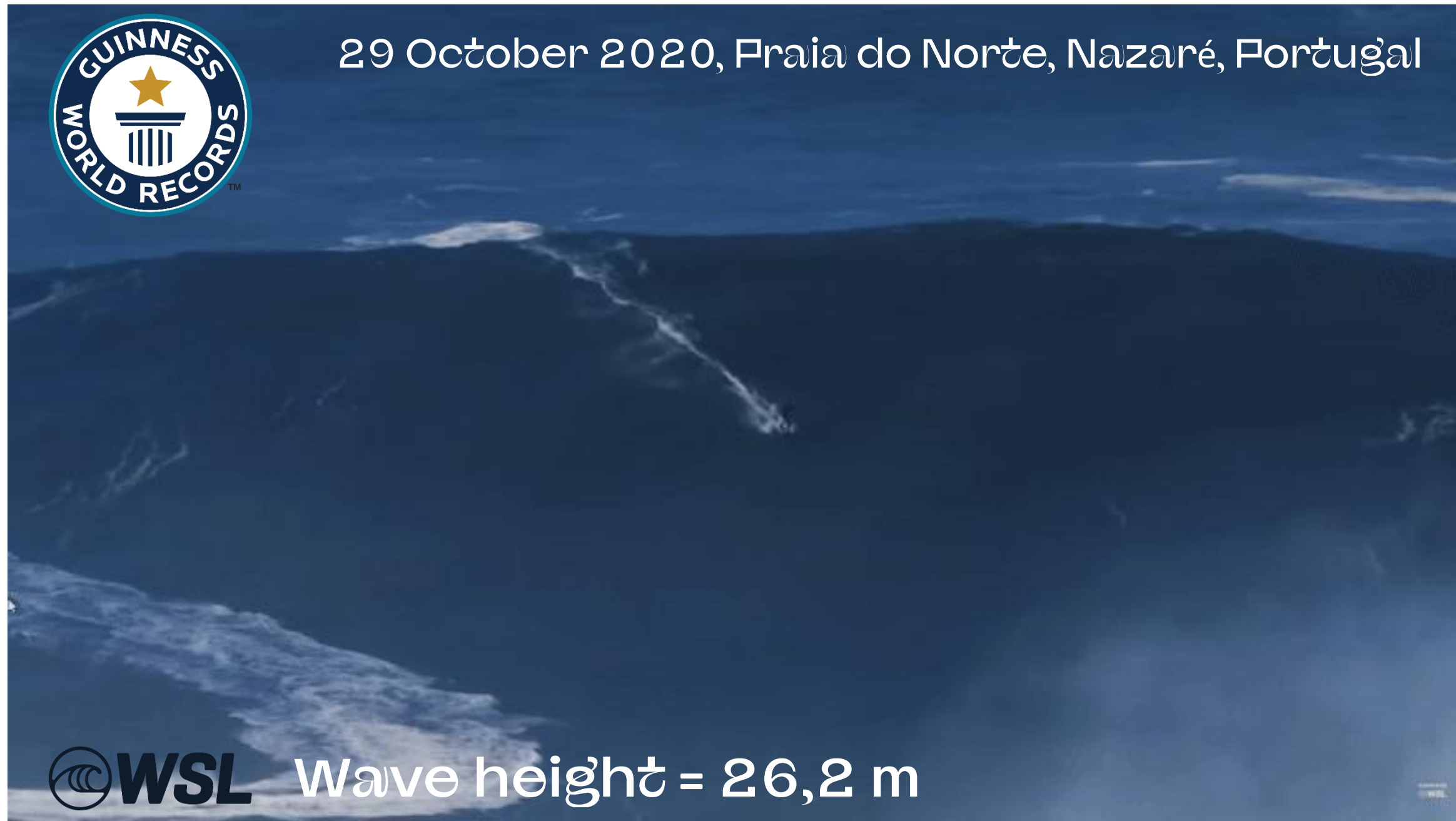
Luis Pedro Almeida







CoLAB
+ATLANTIC



The biggest waves in the planet



World record history

2011	2017	2020	2020
			
Garret McNamara 23,8 meters	Rodrigo Koxa 24,4 meters	Maya Gabeira 22,3 meters	Sebastian Steudtner 26,2 meters

Which wave was bigger?

Maya Gabeira
22,3 m

Justine Dupont
21,5 m



youtube.com Para ver do modo de mais vídeos, prima Esc

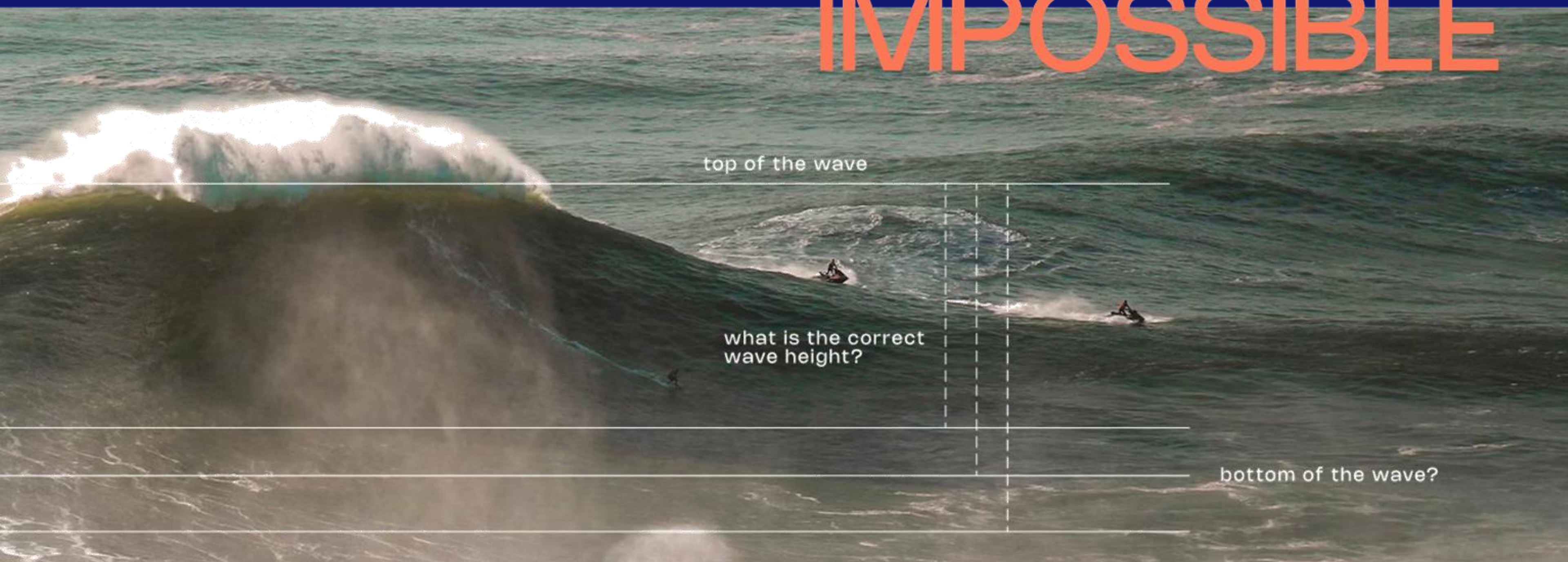
JUSTINE DUPONT

RAW FOOTAGE

**NAZARÉ, PORTUGAL
NOVEMBER 13, 2019
VIDEO BY PEDRO MIRANDA**

The challenge: MISSION

IMPOSSIBLE



Technological and Logistical Hurdles

Subjectivity in Estimation

Lack of Scientific Validation

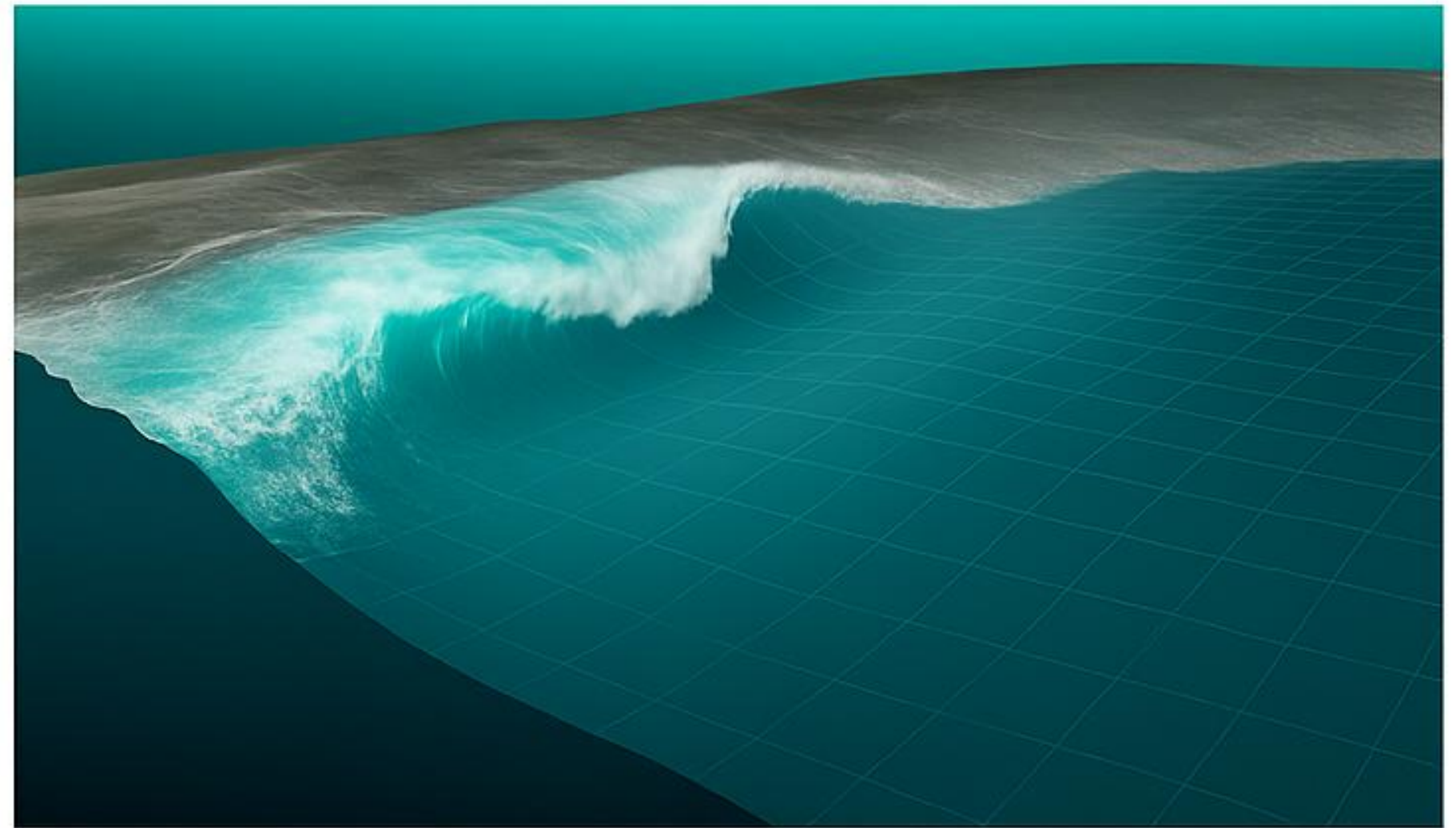
Digitalising the World's Biggest Waves

Real World



Filmed wave

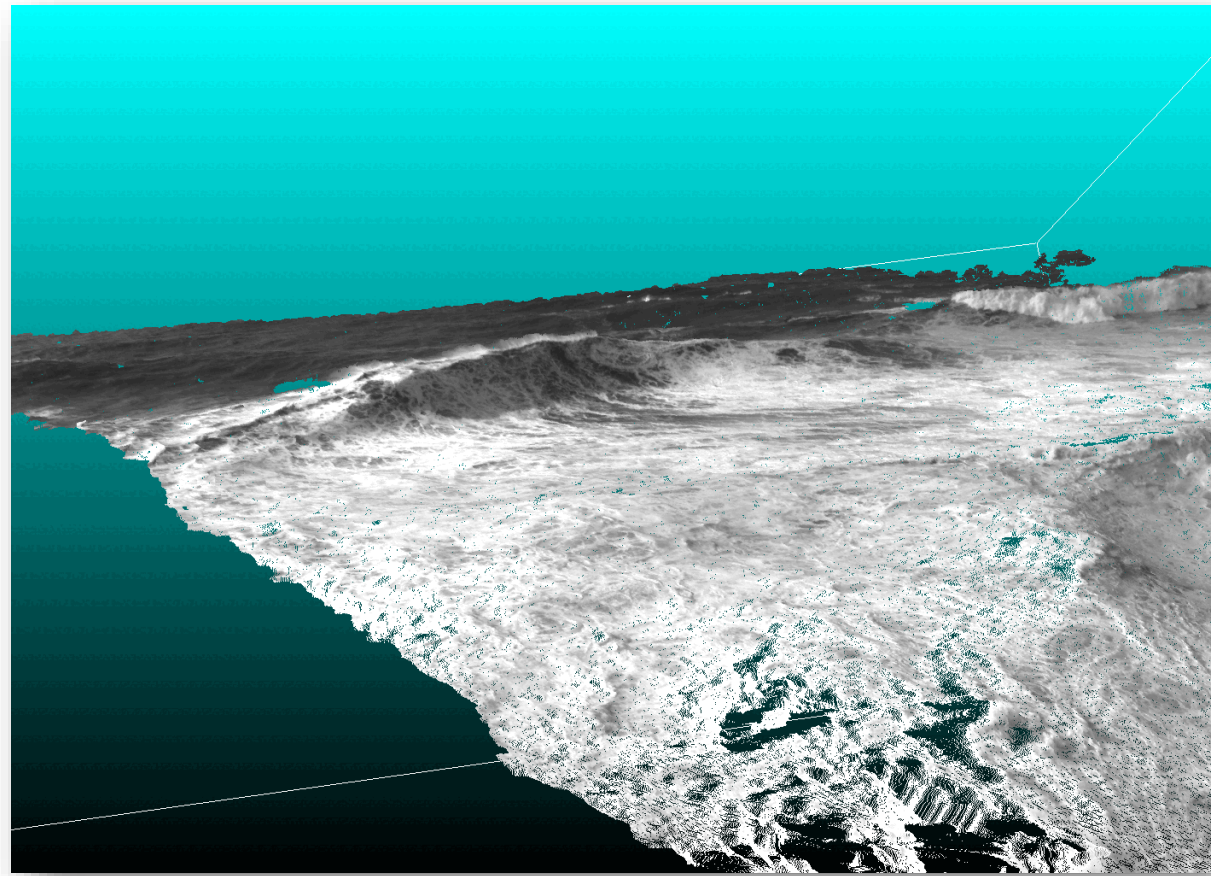
Digital World



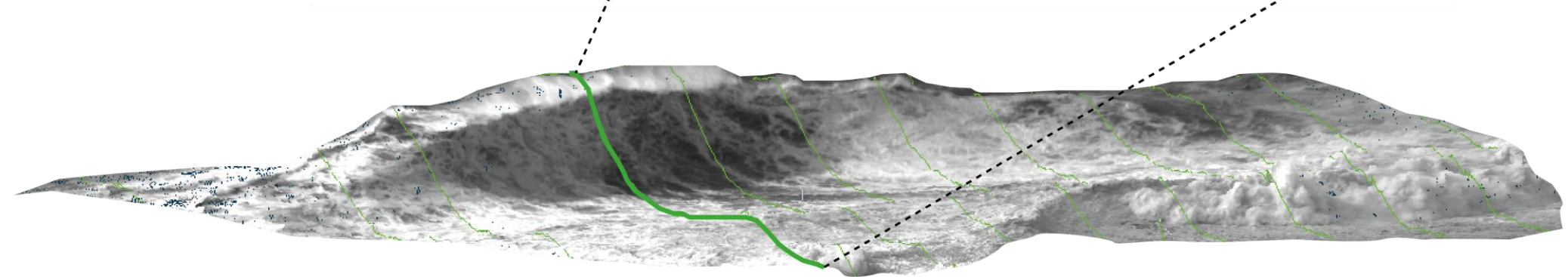
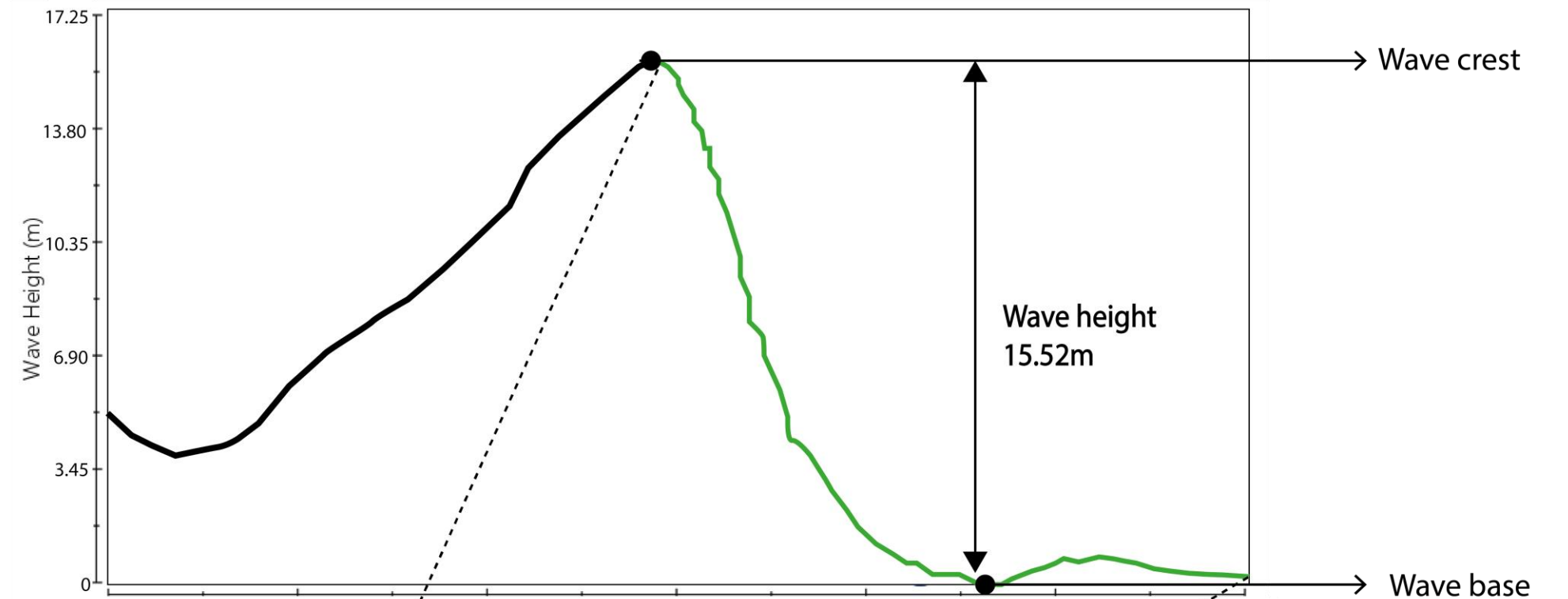
3D model of the wave

The Solution: THE SCIENCE

BREAKTHROUGH

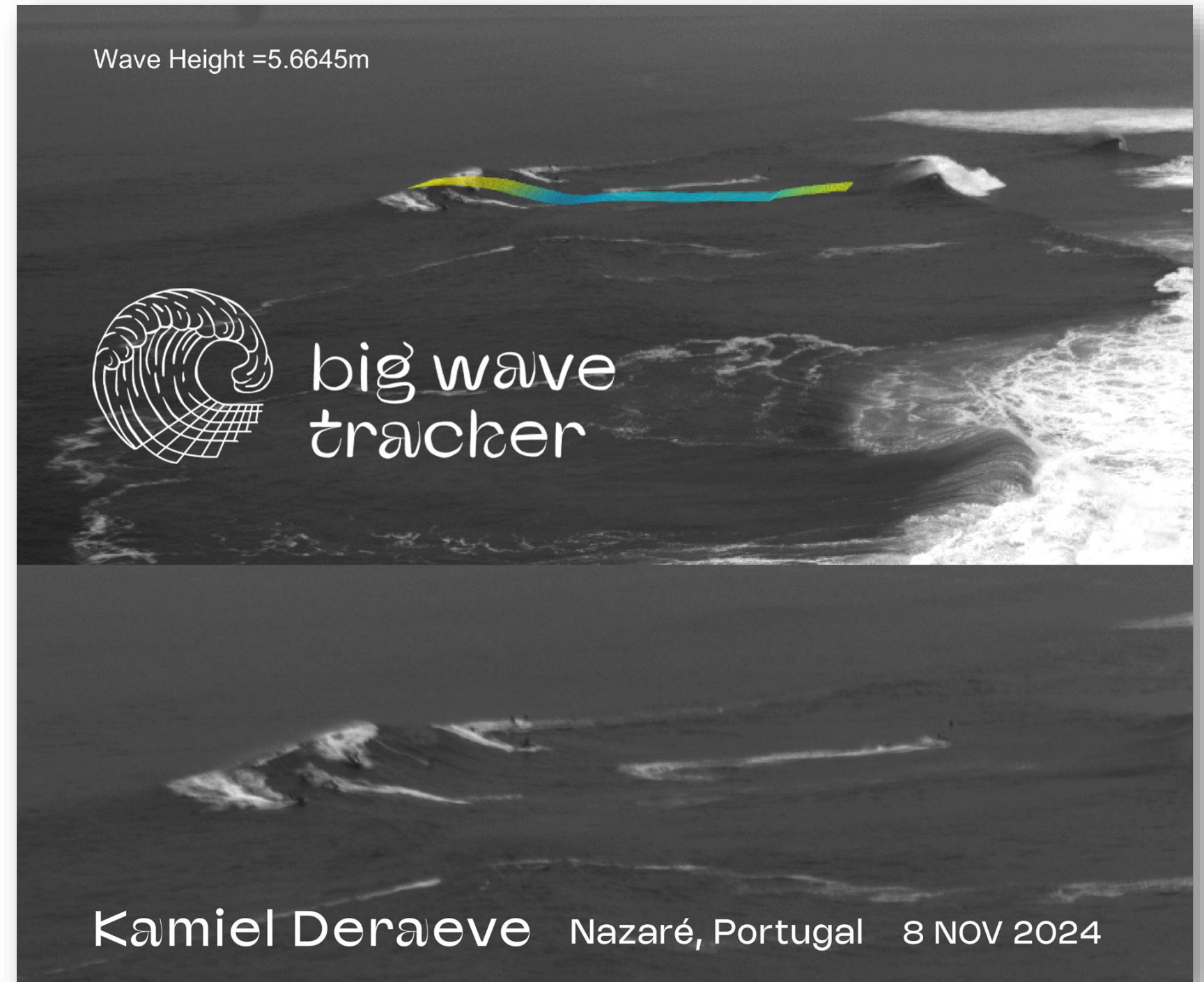
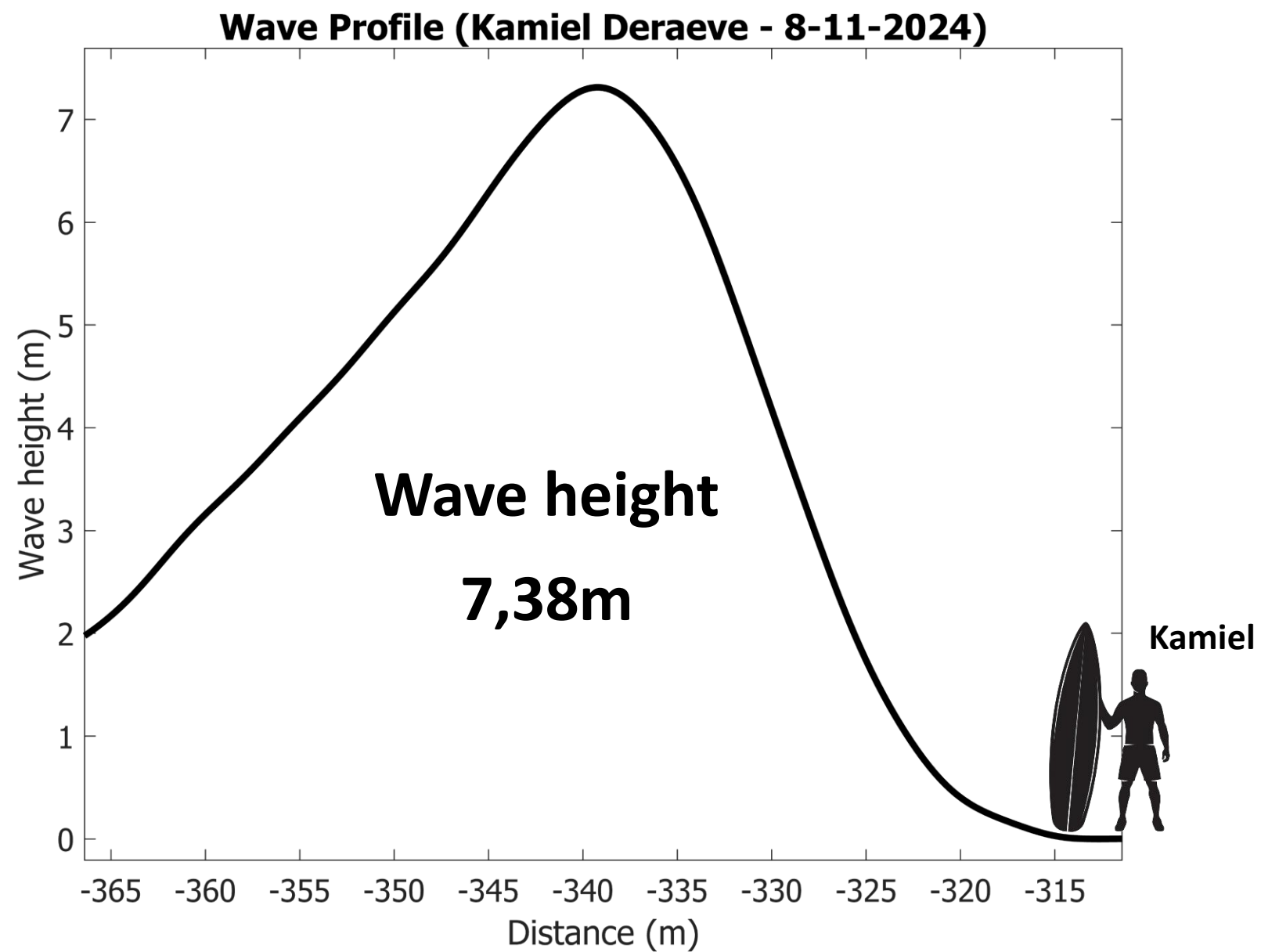


Stereo-video approach



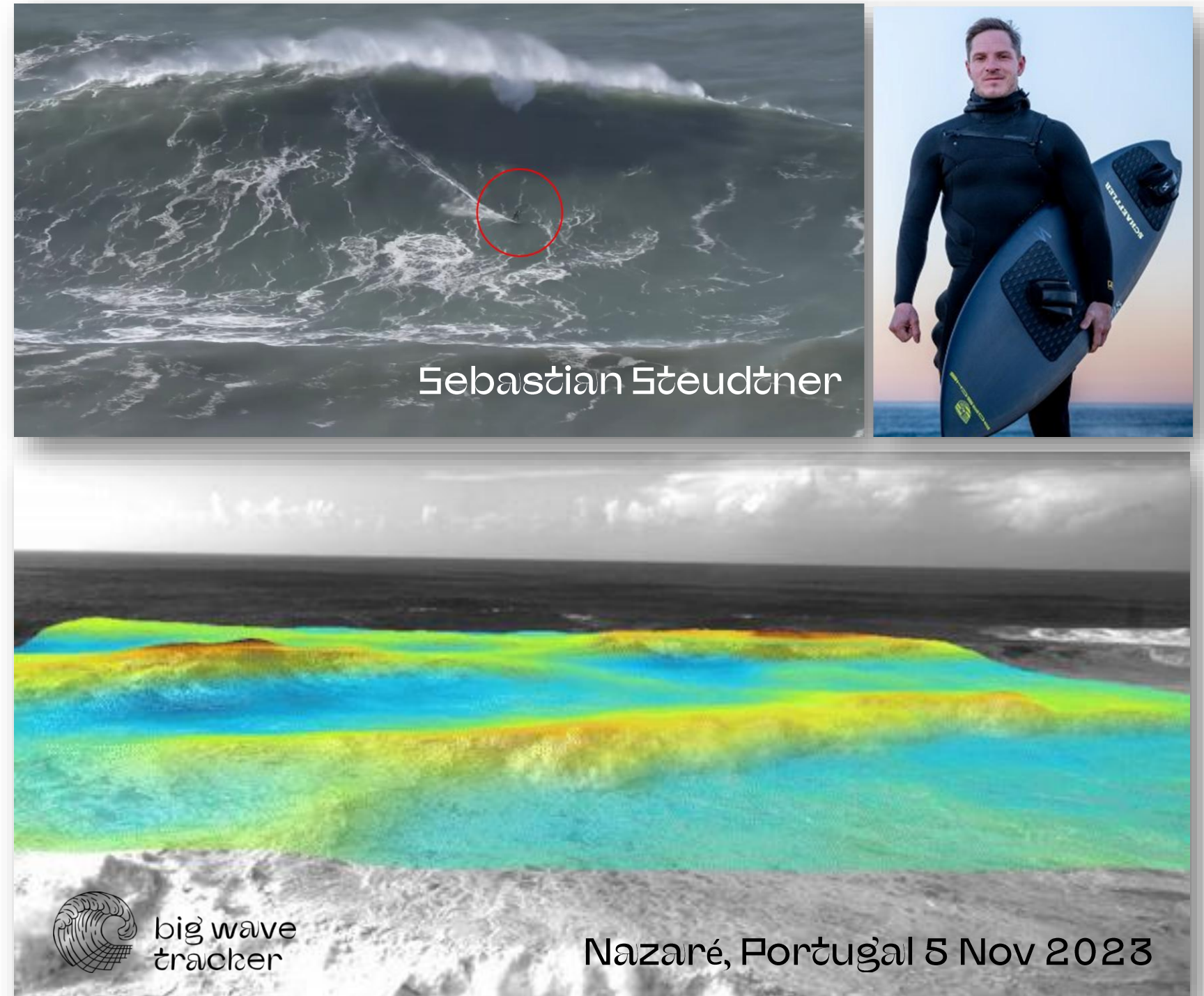
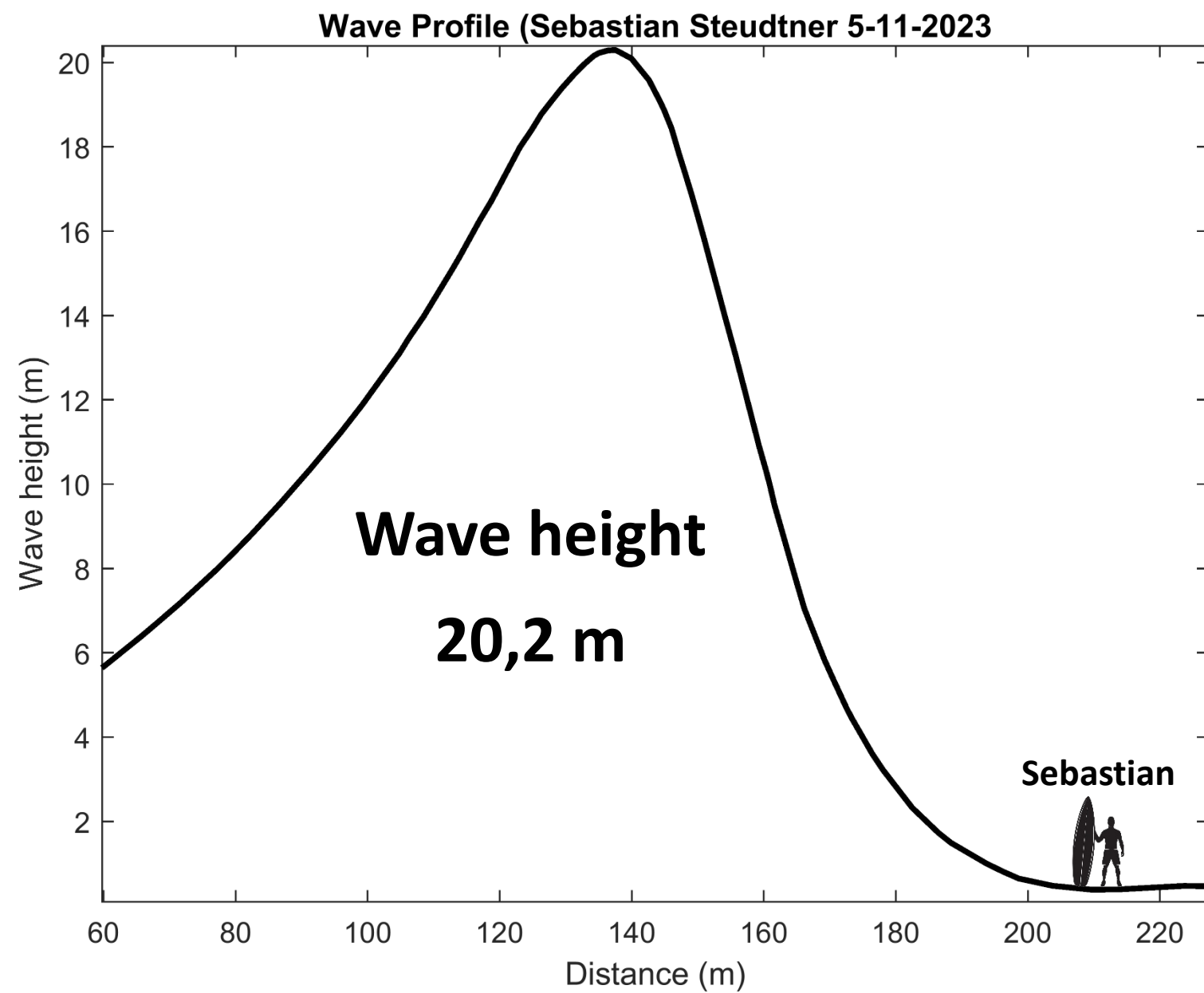
Examples of APPLICATIONS

WAVE REPORT



Examples of APPLICATIONS

WAVE REPORT



WHY THIS MATTERS?

INNOVATION

Consistent and transparent measurements for the world's extreme surfers



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



17 PARTNERSHIPS FOR THE GOALS



SCIENCE

Advance our understanding of ocean extremes and their cascading impacts



14 LIFE BELOW WATER



13 CLIMATE ACTION



SOCIETY

Raise awareness and support preparedness for extreme marine events



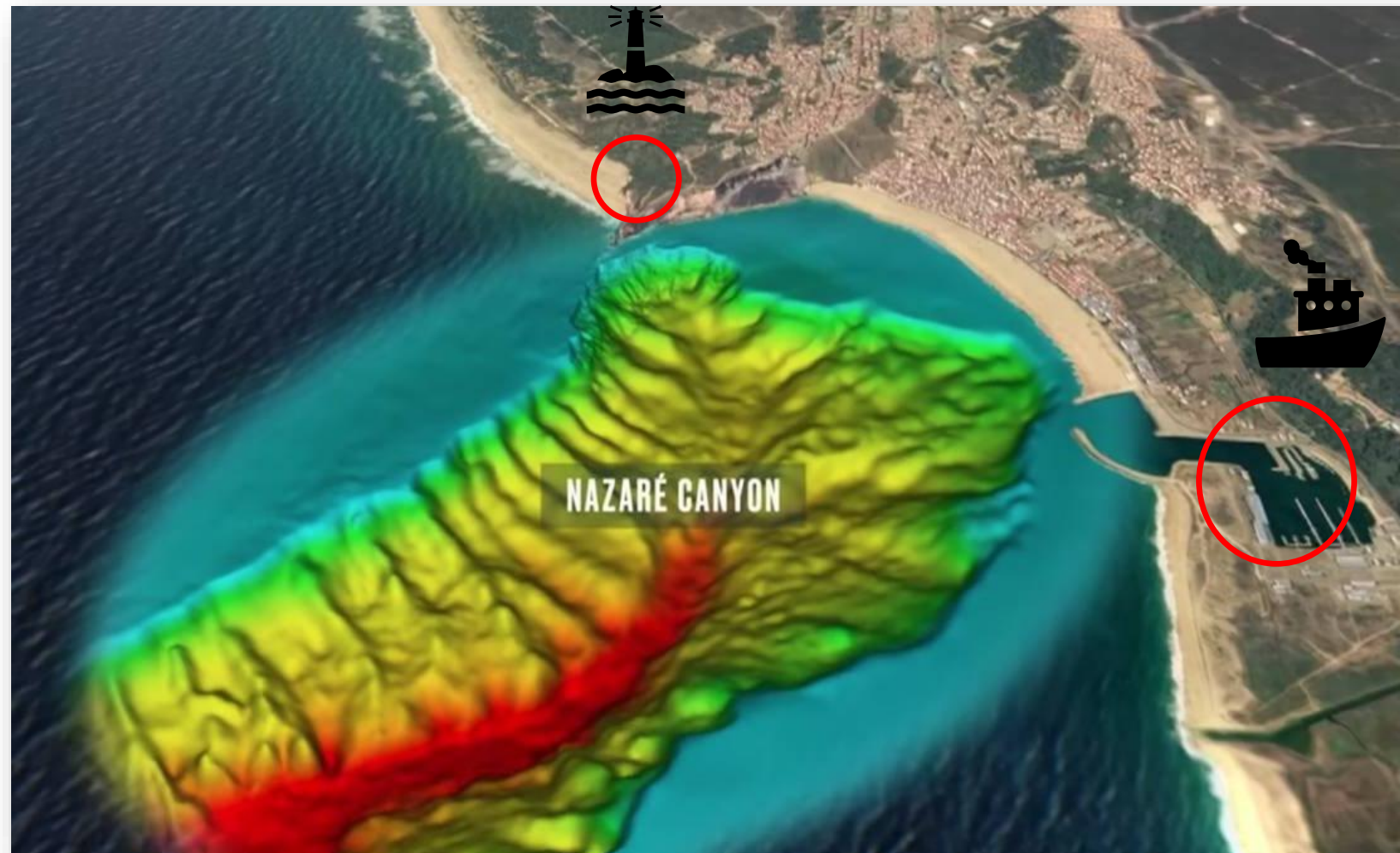
11 SUSTAINABLE CITIES AND COMMUNITIES



4 QUALITY EDUCATION



Nazaré, an amazing natural lab for extreme waves



Unique land-based location for coastal observations



Scientific and Industry relevance for ocean and climate extremes



big wave
tracker

Explore our website



THANK YOU !

Led by

pedro.almeida@colabatlantic.com



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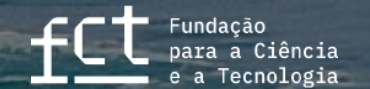


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