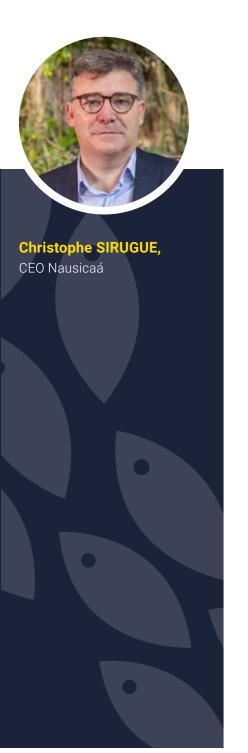


### WITH "GRAND LARGE", NAUSICAÁ INNOVATES TO HELP PRESERVE THE OCEANS



#### **"NO ONE CAN LEARN** OR UNDERSTAND ANYTHING IN THE ABSENCE OF SENSE"

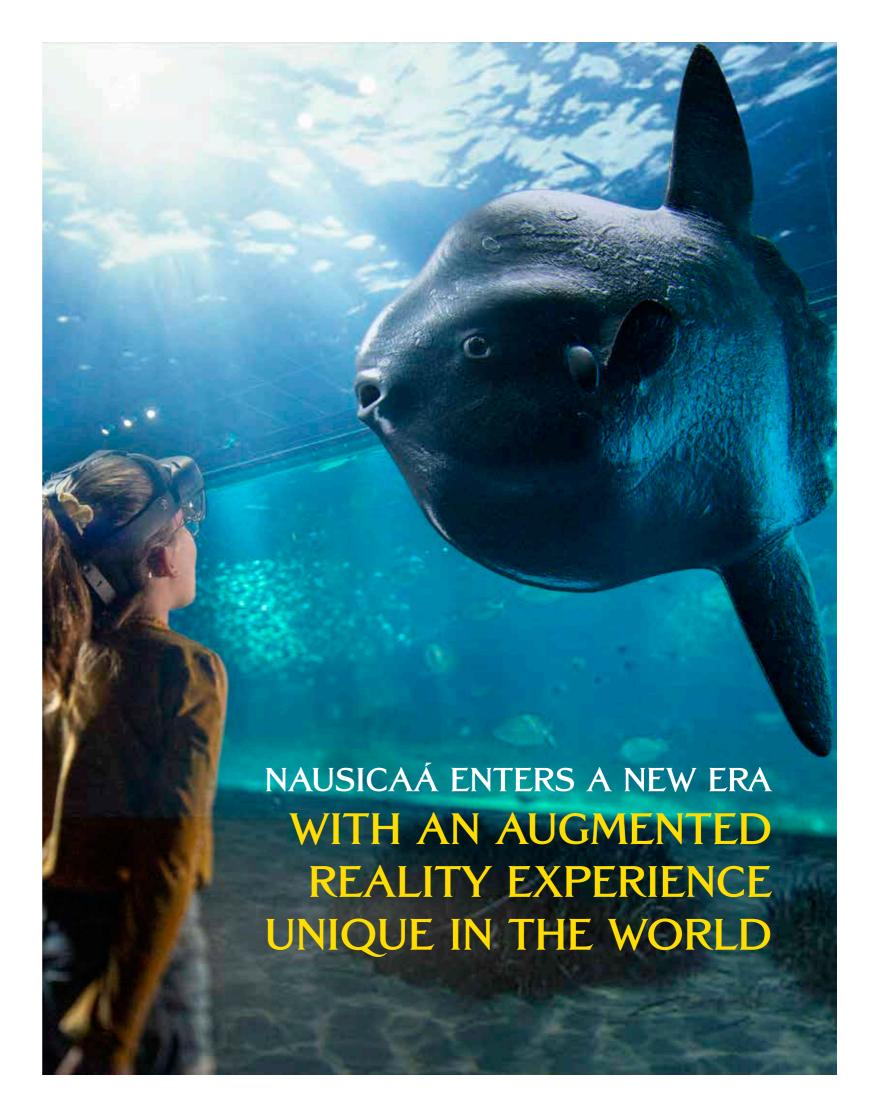
his quotation from the philosopher Aristotle illustrates the power of astonishment and awe in our understanding of the world around us. For 30 years, Nausicaá has been cultivating this astonishment with respect to the oceans by proposing to its visitors a unique encounter with the marine world and the species that inhabit it.

It is from this desire to constantly renew the experience we propose to our visitors that "GRAND LARGE" was born. Several months' work in collaboration with the production studio SAOLA, mobilising artistic and scientific teams in equal measure, has arrived at a remarkable outcome combining technological and educational innovation.

This novel experience opens up a technological frontier that has never yet been explored by any aquarium in the world. Because, although technology sometimes tends to narrow our field of vision, it also has the power to greatly increase our capacity of the power to greatly out of the power to greatlto explore and our knowledge by freeing us from our physical and cognitive limits.

A feat that is technological as much as it is poetic, that enables us today to offer our thousands of visitors a rare opportunity: that of setting out to meet some incredible species impossible to approach in their natural habitat, and all this from Nausicaá's legendary great bay.

More than ever, 2022 is a year of challenges for the preservation of the High Seas which continue to be the victim of human activity. With "GRAND LARGE", Nausicaá is proposing an immersive experience which, by combining the best aspects of the virtual and the real, lifts the veil on a biodiversity that is as impressive as it is little-known, and that it is crucial to know better today... to protect it better tomorrow.





Committed since 1991 to raising the public's awareness of the importance of protecting the Oceans, Nausicaá is entering into a new era with "GRAND LARGE", an immersive augmented reality experience it is producing jointly with SAOLA studio. A world first mixing the living and the virtual for a realistic and interactive dive into the High Seas, one of our planet's last largely unknown regions. This stunning experience to be lived facing the 100 sq.m Great Bay offers an extraordinary encounter with the Giants of the High Seas, majestic, vulnerable and inaccessible animals: whale shark, Bryde's whale, sailfish, guided by a leatherback turtle.

GRAND LARGE contributes to a new form of mediation - more immersive, more attractive - at the service of a captivating educational content, drawing on the Giants of the High Seas and the incredible immersion created by Nausicaá's Great Bay.

It brings a new dimension to the ambition of the French National Sea Centre which is reinventing its practices to raise its visitors' awareness in an innovative way regarding the challenges for protecting and managing the High Seas, a major issue in the 21st century.



AN EXPERIENCE TO BE LIVED STARTING FROM 4<sup>TH</sup> JUNE 2022!

Recommended minimum age: 8. Length of the experience: 10 minutes. Booking on the spot and subject to availability.

Available in French and English. Accessible for people with reduced mobility.

Nausicaá full rate: €28.50 / adult in low season and €30 / adult in July and August. The GRAND LARGE Experience is included with the admission ticket.

The French National Sea Centre is open from 9.30am to 6.30pm every day.

## GRAND LARGE, AN IMMERSIVE AND EDUCATIONAL WORLD FIRST

lifts the veil on some exceptional species, and essential role to play for our planet. on an inaccessible, little-known biodiversity. Seated in front of the Great Bay, the visitors This sensorial, sensitive and enlightening some extraordinary but also challenges facing us. nd will have the possibility

For the first time in the world, GRAND LARGE of interacting with them. Each meeting with a offers its visitors an incredible augmented whale, shark or shoal of fish highlights the wealth **reality immersion in the heart of the High Seas** of the High Seas ecosystem, the consequences ecosystem. To be discovered at the end of the of human activities on biodiversity and the need "Journey on the High Seas", this new experience to preserve this natural habitat which has an

set out on a 10-minute voyage to discover underwater adventure takes them on a voyage the vast world of the High Seas. Their guide? from Malpelo Island to the Pacific and Indian A leatherback turtle, the biggest turtle in the Oceans. GRAND LARGE thus makes it possible world, which travels thousands of kilometres a to show the wealth and diversity of the marine year across the vast Oceans. Wearing Microsoft world thanks to technology and raise their glasses the spectators awareness regarding the environmental

# **ZOOM IN ON THE JOURNEY ON THE HIGH SEAS** Since 2018, Nausicaá has been inviting its visitors to experience a total immersion in the High Seas thanks to an exhibition of a type that is unique in the world, "Journey on the High Seas" combining amazement, sensations and interactivity. A sensitive dive around the largest tank in Europe to better discover and understand what the High Seas are, their geography and biodiversity not to mention their vulnerability. More than just a visit, the exhibition allows the visitors to understand the challenges raised by the need to preserve the High Seas, through educational activities, meetings with the keepers and an ultra-sensorial scenography.

### **TECHNOLOGY HELPING** TO PRESERVE THE OCEANS

#### **EIGHT MONTHS IN PRODUCTION FOR** A LARGER-THAN-LIFE EXPERIENCE

Co-produced by Nausicaá and SAOLA studio, GRAND LARGE is an unforgettable immersive experience thanks to a mix between the living, mediation and technology. Eight months were spent on its production, mobilising a multidisciplinary team consisting of scientific consultants, a director, a nature writer and a dedicated 3D team working full time. In order to model the nine species in an ultra-realistic way, two whole months were devoted to research and validation by scientific experts. The result? A larger-than-life experience tailor-made and produced exclusively for Nausicaá.

#### **AUGMENTED REALITY AT THE SERVICE** OF OUR RELATIONSHIP WITH THE LIVING

Based on the principles of overlaying and embedding virtual elements in a real environment, augmented reality appeared as the best-suited technological solution for materialising our ambitions for GRAND LARGE. The choice of Microsoft HoloLens 2 glasses made it possible to experiment with and validate an original immersion sensation: technology gives way to content leaving the spectator free to roam with their regained autonomy. These glasses – with their **high-precision sensors**, wide field of vision and embedded technology, as well as their soundtrack rendering the specific sounds of the seafloor - are the guarantee that the spectators will enjoy a perfect sense of immersion. They'll forget their glasses completely, allowing them to live their experience to the full, unhindered together.



#### SAQLA

#### SAOLA STUDIO, CREATOR OF IMMERSIVE EXPERIENCES

Set up in 2020 by Jeremy FREY and Florent GILARD, inspired by their first creation REVIVRE for the French Natural History Museum, SAOLA Studio has since then devoted its time to writing and producing immersive experiences in augmented reality (AR) intended for cultural settings. Combining complementary talents from the world of documentaries, cinema, fine arts, scenography and digital creation, SAOLA Studio has set itself the goal of showcasing collections and our heritage. The studio seeks to redefine the visitor experience by using AR technology whenever possible and proposing a new form of educational, imaginative and innovative narrative mediation. Conjuring up dreams while educating, entertaining while raising awareness, that is the ambitious mission that SAOLA wishes to accomplish.



Florence BLOND Nausicaá's Exhibitions Director

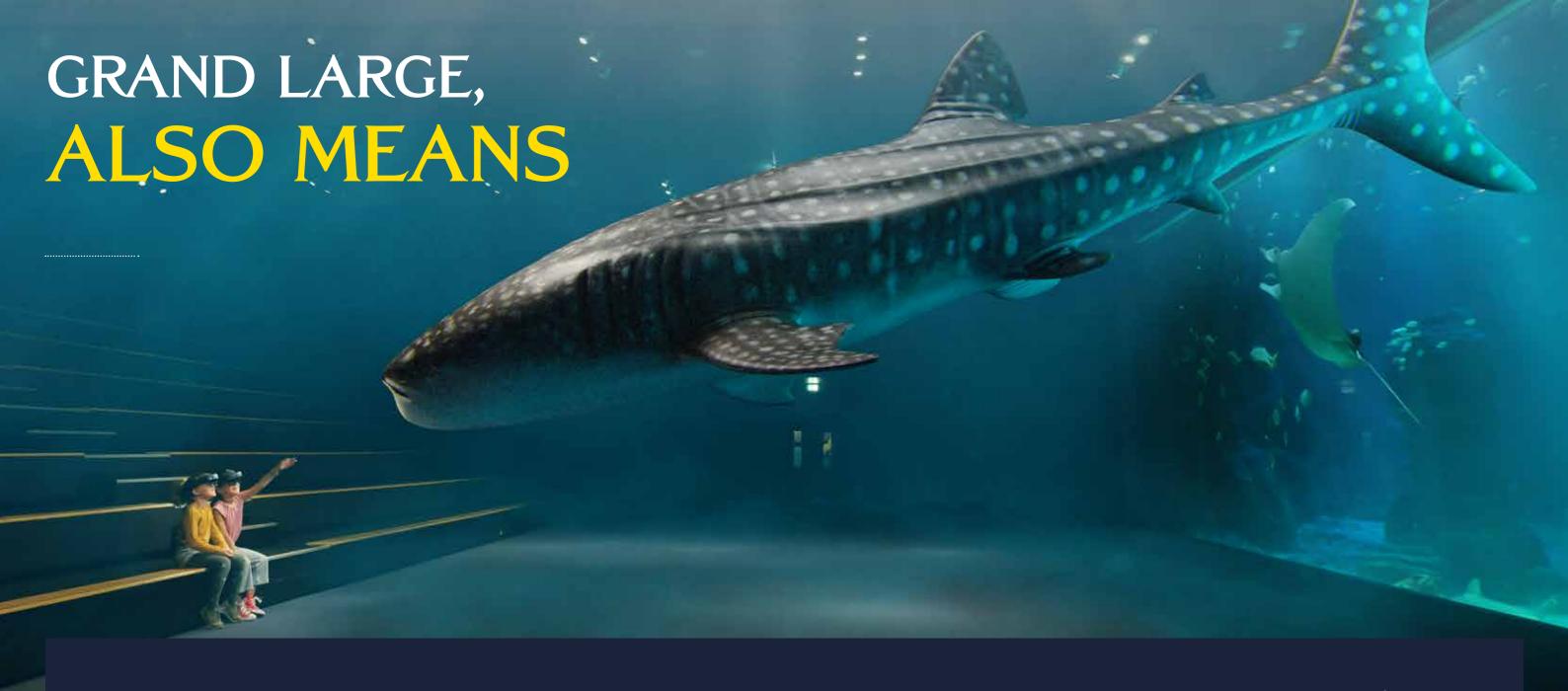
Nausicaá's Great Bay was the perfect place for implementing this augmented reality project with SAOLA, given its immense volume, and the ideal space for showing the gigantic animals of the open seas.

At the top of the panoramic great bay, and in front of the immense 10,000 cu.m tank, the visitors will have the opportunity to explore an unknown, mysterious universe that are the High Seas, setting out to meet the giants of the seas.

Neither a film, nor a documentary nor an exhibition in the conventional sense of the word, it is in fact a unique immersive experience, a world first in aquariums, and above all a tool for raising awareness regarding the challenges facing the High Seas. The Exhibitions and Aquariology Departments have worked with SAOLA on the choice of species, the realism of the animals and the messages that we want to get across to our visitors. Our intention was to stay as close as possible to the scientific reality, while delivering a poetic discourse in an optimistic scenario.

By making these little-known animals from distant places accessible, this immersive experience will enable our visitors to understand the challenges when it comes to preserving the High Seas and the wonderful species that live there.





- A €1 million investment.
- Eight months in production including two months of research to model the species in an ultra-realistic way.
- Nine species fully modelled, animated and verified by experts and scientists: leatherback turtle, whale shark, ocean sunfish, lion's mane jellyfish, sailfish, common bottlenose dolphin, shoal of sardines, Cape gannets, Bryde's whale.
- A dedicated ten-person team working full time on the 3D, production, development and AR integration.

- Music composed by RONE, a composer who won the César award for the best original music in 2021.
- An augmented interactive game to while away the time before the experience begins.
- An application giving 30 people a synchronised AR view of an experience belonging to the permanent collection - a world first.

### THE GIANTS OF THE GRAND LARGE



**Dominique MALLEVOY** Nausicaá's Head of Aquariology

GRAND LARGE is an exceptional meeting with species that can only rarely be seen in the immensity of the Oceans. Emblematic of the High Seas they are nonetheless often endangered. Leatherback turtle, ocean sunfish, whale shark, sailfish and Bryde's whale... all symbolise a major challenge for the preservation of biodiversity.

These giants of the High Seas are victims of the hazards that exist in the Oceans such as macro-waste, bycatches and the sound pollution caused by passing ships. Measures can be taken at the international level to protect this vulnerable environment. And as far as fishing is concerned, each one of us can act by choosing the most sustainable produce of the sea and finding out about its origin.



is harmless and does not have many predators. The growth in the numbers of ocean sunfish is linked to declining populations of sharks, one of this fish's rare predators. The increase in the population is also linked to the phenomenon of ocean jellification, the term used to designate the proliferation of jellyfish that this species feeds on, a phenomenon that is doubtless promoted by climate change and the overfishing of the jellyfish's predator species.

#### **BRYDE'S WHALE.**

Balaenoptera edeni:

with its huge size (14 to 15 metres long for an average weight of 20 tonnes), Bryde's whale is nevertheless smaller than the world's largest mammal, the blue whale. These plankton-eating cetaceans play an important ecological role: they fertilise the Oceans with their faeces, thus promoting the production of plankton which absorb CO2. Bryde's whale eats about 660 kg of food a day, that is to say 4% of its own weight. It is in the habit of throwing itself mouth-wide-open on to shoals of fish, which is why it is sometimes called a "gobbler".

#### LEATHERBACK TURTLE.

Dermochelys coriacea:

a 2-metre-long giant weighing 500 kg, the leatherback turtle serves as guide for this discovery of the High Seas. It is the symbol of Open Sea's large migratory species. The population of leatherback turtles is declining in several regions of the world, particularly in the Pacific. They are under threat on their nesting beaches owing to the urbanisation of the coastline and rising sea levels. At sea, plastic pollution is a cause of mortality for the turtles which confuse plastic bags with jellyfish and choke on them. They are also affected by bycatch in fishing





#### WHALE SHARK,

Rhincodon typus.

the largest fish in the world. Its size varies between 5 and 12 metres and can even reach a length of 15 metres! The whale shark is an example of the vulnerability of species and of the need to preserve them through conservation measures. According to IUCN, it is probable that the global population of whale sharks has fallen by 50% over the last 75 years. The whale shark's high market value makes it a target for the Asian markets: their fins and flesh are eaten, and they are also used in Chinese medicine.

#### SARDINE,

Sardinops sagax.

swimming in shoals, sardines are a precious resource for the equilibrium of the marine ecosystem and a source of food for humans. The effects of global warming might lead to sardines migrating to cooler waters.

#### LION MANE'S JELLYFISH,

Cyanea capillata:

it regulates the plankton populations, a link in the food chain that is vital for the balance of the marine ecosystem. Jellyfish are also a gauge of climate change, indicative of the rise in the Oceans' temperature.

#### SAILFISH.

Istiophorus platypterus:

the fastest fish is a migrant, a formidable hunter attacking shoals of fish. Bycatch in fishing nets, it is also the target of game fishing.





### IN 2022, THE PRESERVATION AND MANAGEMENT OF THE HIGH SEAS

### AT THE HEART OF GLOBAL **DISCUSSIONS**

#### THE HIGH SEAS, A GLOBAL COMMON GOOD

unknown species, animated by incredibly strong currents, where you can find sunken mountains, canyons several kilometres deep, submerged volcanoes or even rocky chimneys spewing out water at 400°C. This world is the High Seas! The High Seas covers nearly 60% of the globe's **surface**, and is less well mapped than the surface of the Moon! It is nonetheless vital for human societies. For a long time, we thought that this immense space was invulnerable,

Imagine a world inhabited by hundreds of thousands of that its resources were infinite, without seeing the impact that our activities have on its diversity and its fragile ecosystems. Better protecting and managing the High Seas is one of the 21st century's major challenges and the central subject of international discussions.



#### A YEAR OF CHALLENGES FOR THE HIGH SEAS

In 2022, the preservation and management of the High Seas is a major subject. Thus, in February 2022, the One Ocean Summit launched an in-depth discussion on the Oceans, their fragility and the burning issue of the preservation of their natural balances and resources, with particular attention being paid to the guestion of the "High Seas" and their protection. In March, it was the Intergovernmental Conference on Marine Biodiversity that was held in New York. Since 2018, negotiations have been ongoing between the representatives of States in order to draw up a legally binding international instrument on the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. These negotiations come within the framework of the United Nations Convention on the Law of the Sea signed in 1982 in Montego Bay, Jamaica.

Lastly. the UN Ocean Conference will be held from 27th June to 1st July 2022. It will be marked by the launch of innovative, science-based solutions. These solutions will be implemented in the framework of adequately funded partnerships, which will make it possible to meet the goal of sustainable development in the area of the conservation and sustainable use of the oceans' resources, SDG 14.

#### THIRTY YEARS' COMMITMENT IN FAVOUR OF THE PRESERVATION OF THE OCEANS.

The influence of the French National Sea Centre can be seen on the national and international levels in bodies such as the Climate & Ocean platform or at the time of international events such as the COP - conferences of the parties - organised by the United Nations or the negotiations on the Law of the Sea. By organising the High Seas International Conference with the French government and the French Biodiversity Agency or by hosting the Congress of the European Union of Aquarium Curators, Nausicaá is striving to ensure that the Oceans are at the heart of international discussions and that the role of aquariums as a tool for raising awareness is strengthened. In this sense, Nausicaá is pursuing the work that began with the creation of the World Ocean Network in 2002 or the official recognition of World Oceans Day by the United Nations in 2008. The Centre is also the partner of a number of European projects with an educational and scientific calling or for civic mobilisation on subjects as varied as water quality, seaweed consumption or the creation of youth forums. Next fixture: hosting the International Aquariums Congress in November 2022.



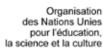
**Christine CAUSSE** Nausicaá's scientific adviser

Situated far from the coast, the High Seas are a marine space that does not depend on any state. They are home to species many of which are poorly known, and their seafloor is rich with mineral resources. The pressure of human activities is increasing there: shipping, cable laying, fishing, etc. Since 2018, negotiations have been ongoing at the United Nations in order to reach an agreement to preserve biodiversity in international waters.

The High Seas, which cover half of our planet, play an essential role in the natural balance and regulation of the climate. Their protection concerns all of the world's citizens, hence the importance of helping them to discover this world apart, its beauty, its riches and the challenges affecting its future.













#### PRACTICAL INFORMATION

Nausicaá full rate: €28.50 / adult in low season and €30 / adult in July and August.

The GRAND LARGE Experience is included with the admission ticket.

The French National Sea Centre is open from 9.30am to 6.30pm every day\*.

\*Nausicaa will be closed on 25th December 2022 and will be open from 2 to 6.30pm on 1st January 2023.

For any request for information, interviews or film shoots, you can contact the Communication/Media Department:

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