

Logbook

Bi-weekly newsletter on the construction of Boris Herrmann's IMOCA yacht



Newsletter #1

Start of the project

LET'S GO FOR THE FOLLOW-UP OF THE NEW IMOCA

Reminder

As soon as he arrived in Les Sables-d'Olonne, Boris and his Team Malizia redoubled their efforts to continue this great momentum. They have worked tirelessly to ensure the continuation of the adventures. Boris and his team are embarking on a five-year program building a new IMOCA to allow better passage through the waves and reach higher average speeds while remaining robust and reliable. The launch is scheduled for the summer of 2022.

For this new large-scale project, we want you to come on board with us. Why not share with schools the adventure of building a flying boat for ocean racing? It's a golden opportunity to discover the world of boat building, the different trades and the challenges etc.

We want to tell you about the build process of a boat by sharing with you authentic quality content (photos, videos, educational sheets, race program, associated scientific programs, etc.) as we did during the last Vendée Globe.

And it starts now!



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Benchmarks

Here is a list of acronyms that we will use throughout the year that will guide you in reading the content.



Information about the boat, the skipper Boris or his team.



Job interview: presentation of the job of a member of Team Malizia



Suggested activities to do in class with your students



Collective idea, games, contests



THE CONSTRUCTION OF THE NEW IMOCA HAS NOW BEGUN!

After the Vendée Globe, Boris and his team decided to sell the boat Seaexplorer - Yacht Club de Monaco to his Vendée Globe compatriot, Roman Attanasio. The focus is now on building a new Imoca 60 for Team Malizia, in order to have the most competitive and innovative boat possible, to participate in the Ocean Race 2022/23 and the Vendée Globe 2024.

We have a team of 5 people working in our offices in France to ensure this huge challenge of the launch in July 2022 is met.

The new IMOCA was designed by the French yacht design company VPLP, based in Vannes, and is being built by Multiplast Composites, also based in Vannes.

The construction process of the new boat is progressing very well as we are right on schedule! The hull mold was finalised at the end of August and two new boatbuilders have joined the team to start building the boat itself.



Chantier Multiplast à Vannes, France (c). Yann Riou

Right now ?

The boat is just starting to take shape because the hull mold is finished.

In parallel, we are producing all the bulkheads, which are the panels that separate the sections of the boat.

The next newsletter (in 2 weeks) will focus on the different steps to make the hull (mold, foam, transport ...). We'll get to the heart of the shipbuilding process.



What is an Imoca?

The Imoca is the Formula 1 of the one-hull boats, called in the jargon, a monohull. This name corresponds to a rule (= a regulation), which allows a boat to compete in this class. This rule was introduced in 1991, in order to regulate the growing Open 60 class.

Built in **composite materials**, the IMOCA monohulls are designed to be both as light as possible to gain speed and strong enough to withstand the worst conditions that can be imposed by sailing on the high seas, especially during the Vendée Globe.

Strict rules: the IMOCA class

The safety requirements that the IMOCA class imposes on both sailors and designers are a major factor in the success of this boat. Since 2000, these monohulls have had to be proved and before the start of a race, they must show they are capable of righting themselves without outside assistance and must include interior partitioning as well as significant buoyancy to be as safe as possible in the event of capsizing or ingress of water.

The IMOCA rule imposes technical characteristics on the boats. Recently modified, it imposes a standardised **keel**, two design masts, the number of appendages and a limited number of ballasts.

The hull of an Imoca must not exceed 60 feet in length, or 18 meters 28, but its length, with the bowsprit, the little thing that sticks out there, can reach 66 feet, or 20 meters.

In height, it cannot exceed 29 meters out of the water. This is called its **air draft**. Underwater, they must have at least one keel, two **rudders**, and it is possible to add two other elements, either a **foil** or a **centreboard**. The whole must not exceed 4.50 meters underwater, which is called the **draft**.

In the next newsletter, we will come back in detail on some parts of the boat (foils, hull, sails...)

Lexikon

Rudder

Submerged pivoting part that allows to change the direction of the boat by diverting the water flow under the hull

Draft

Height of the immersed part of the boat that varies according to the load carried.

Air draft

Height of the emerged part from the waterline to the highest point of the boat

Composite materials

Until relatively recently, boat hulls were made exclusively of wood. But thanks to the evolution of science and technology, they are now built with a wide variety of materials, each more or less adapted to a particular type of manufacturing. A composite material is, as its name indicates, a material that is made from several components.

Keel

It allows the boat to remain in balance thanks to the ballast. Since the boat has a keel, it is called a keelboat.

Centreboard

As opposed to the keel, the daggerboard is not weighted and can be raised.

Foil

A foil is a marine term for a submerged load-bearing surface that is horizontal or inclined to the hull. The movement of water around the foil creates a force similar to the lift produced by an aircraft wing. This force, which is mainly upward, is added to the buoyancy and lifts the ship, sometimes called a foiler or glider.



Here is SEAEXPLORER, Boris' former IMOCA boat that sailed in the Vendée Globe 2020-21 last year. With this IMOCA, Boris finished 5th! All the information is available in the My Ocean Challenge educational kit.

If you want to receive it for your class, please send an email to: myoceanchallenge@borisherrmannracing.com

Boris' former IMOCA

Name : SEAEXPLORER - Yacht Club de Monaco
 Length : 18,30 m (60 feet), that is to say approximately 5 cars
 Height of the mast : 27 meters, that is to say 6 double bus
 Weight: 8,000 kg, or 8 great white sharks
 Largest sail area: 400 m², about the size of a basketball court
 Maximum speed 35 knots (65 km/h), almost the speed of a leopard
 Keel weight: 3,000 kg, about 2 rhinoceroses



Activity

(see page 08 of the My Ocean Challenge Kit)

Find the correct answers!

Write the number in the right place on the boat:

- 1 = Foil
- 2 = Keel
- 3 = Bow
- 4 = Stern
- 5 = Mast
- 6 = foresail

Make up a row of students whose length is exactly the same length as the SEAEXPLORER





JOB #1 : SAILING TEAM MANAGER

Name : Louis

Surname : VIAT

Age : 35

What is your job for Malizia project?

I am in charge of coordinating activities in France for Team Malizia. The activities we have in France are mainly :

- managing the build of our new IMOCA alongside the designer VPLP and our internal design team, coordinating with the yard that builds the boats
- to coordinate a good technical team that will look after the boat once built and make all the maintenance, repairs and evolutions
- to recruit the best possible sailing team that will help Boris to sail the boat as fast as possible and race with Boris for non-single-handed races, such as The Ocean Race
- to organise all the activities around the training and participating in races, as well as running the administrative part of the company like the budget for example

Can you describe a typical day work?

I go every day to Multiplast, where we build the boat, as we have our office there with 4 other Malizia team members. Early morning we do a team briefing also with people that work remotely and Boris who is in Germany, to go through the important decisions we need to make, specific problems that we need to solve regarding the build, and to try to anticipate as much as possible the next steps of the build. After this, I often go and see the boat in the shed and speak with the boat builders. I usually have at least 2 meetings per day that are linked to the boat design. Even if I'm not a technician or designer, I like to have a good overview of everything that is happening to make sure we are going in a good direction and to foresee problems. I often catch up with Boris and the team in Germany to share information, have their input on decisions and prepare events. I spend a lot of time in front of my computer to answer emails and a lot of time on my phone to speak with suppliers, future team members or the IMOCA class to make sure that the boat complies with all the complex rules.

Is it a stressful job?

We have stressful moments in this job, when we need to make an important choice in the build that will impact the long term performance of the boat, for example, the foil shape, or when the boat is racing because when sailing, problems can happen very quickly and you need to be ready to solve them as quickly as possible so it is better to not be subject to stress to do that job.

When did you start this job for Malizia?

I started working for Malizia in spring 2021. I had a similar position in a different team before that, but I knew Boris and the team and I really wanted to join them to be part of this amazing project!

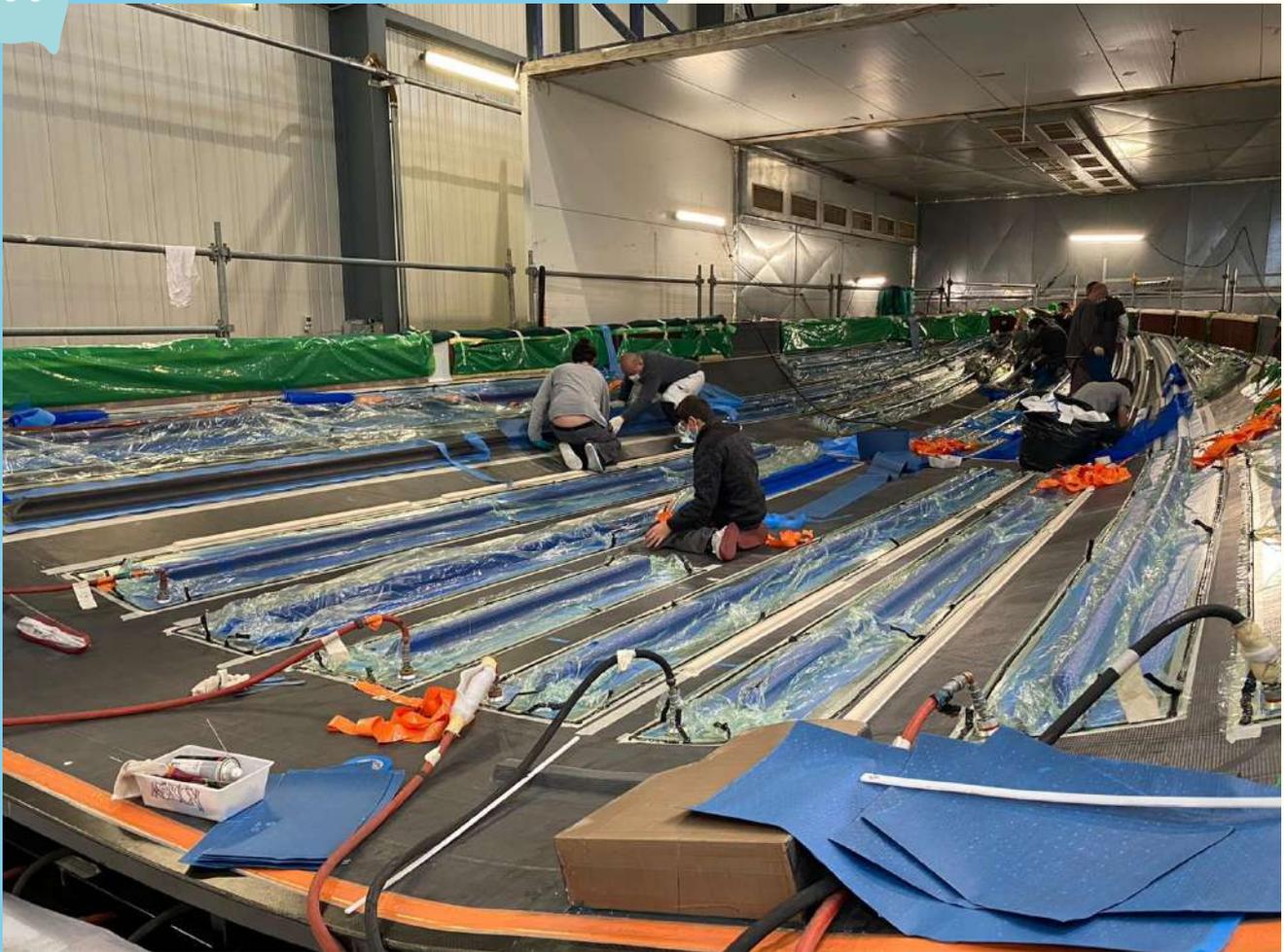
When your job will be finished?

Never I hope! Unless we can't sail anymore, that is also why we need to protect our planet and our oceans

Is it a team or individual job?

This is obviously a team job. Even if I do a lot of things on my own, you can't deliver such a complex project without a strong team that works together





Which studies have you done to do this job today ?

I studied material engineering and project management in France while doing also a lot of sail racing in the meantime

Why do you like this job ?

sailing as always been my passion and when you can work for your passion, then you don't consider it as a job ! You need to deal with many different subjects in a single day which is very interesting, but the thing I like the most is when we start to go sailing and improving the boat, it only works well if you have a good team spirit and cohesion. I also like this new period of boat building where we need to think of new ways to build a boat in a sustainable way, considering the impact on our planet.

When you were a kid, what job you wanted to do?

many things.. but mainly either a jet pilot or a sailor..

Would you like to share something with the kids following the project ...

Today we are finalising the installation of the stringers, which are small sticks made of foam and carbon fibers, glued into the hull to make the boat strong and stiff. It represents 256 meters of sticks to glue at specific positions ! It is a very precise job for the boat builders, as if one of them is not glued properly, it could brake while sailing and can have a domino effects, where it will affect the stringer next to it, etc... ending up damaging the boat. It is amazing to go and see the boat builders being so focused in their process, and aware that if they do a small mistake it can have big consequences... these people are much more than just boatbuilders...



BUILDING AN ADVENTURE WITH YOUR CLASS

Activity

As with many classroom activities and projects, you can use stories and other content to fuel the adventure.

In the context of a project to follow up on the construction of an ocean racing boat, it is obviously important to choose stories related to boats: the history of ocean racing, maritime civilisation, comics, tales and legends at sea are all great resources.

Here are some ideas, to be adapted of course:

- the great navigators of the past: Christopher Columbus, Magellan, Marco Polo
- the great sailors of the races: Tabarly, Autissier, MacArthur
- 20 000 leagues under the sea, Jules Verne

To succeed in the adventure, you must succeed in combining activities related to sailing and the follow-up of the construction of Boris' sailboat.

Of course, the My Ocean Challenge educational kit (which can be sent to your class) as well as all activities linked with sailing and the ocean are welcome.

Crafts and games are very important to make the project fun. Think also about class visits, cultural and sports activities...

For example :

- sailing courses for the class
- visit a shipyard, a port, a sailing club
- Manual work: create a fresco on the evolution of ocean racing, make a model of an IMOCA boat, make a flag for the boat, etc.
- Sailor's songs
 - activities around the colour blue, like water
 - activities around the force of the wind: making a weathervane
- A Play - make a representation of a story about ocean racing with songs, dance, puppet, etc.
- making decorations for the boats



**Activity proposed during the year:
A real paper logbook
= 1 per class**

One of the links between the class and Boris the skipper may be the logbook. This element will allow the students to express themselves in an illustrated journal (text, photo, drawing, pop-up, etc.), to show what they learn, question and experiment with during this year.



Next Newsletter #2

FOCUS ON THE
CONSTRUCTION OF THE HULL

MID-NOVEMBER