Firstly, the Uantwerp Solarboat Team wishes you all a happy and healthy 2019.

This season we have planned to make large improvements on our existing boat. We are going to replace our solar cells, drivetrain and deck, our hydrofoils will be mounted, we will have a different propeller for each type of race. And finally, a new hull design will be made.

**Events 2019**

**Belgian Boat Show 2019**
As every year, you can find us on the Belgian Boat Show in Gent. The BBS will take place from 9-11 February and from 18-20 February.

More info: [www.belgianboatshow.be](http://www.belgianboatshow.be)

More info about the other events, like the partner event will follow in the next newsletter.

**Races**

Our first race will be the *Eco Race Challenge*, the organization is still hard working to organize everything, so more info will follow.

The second race that we will participate is the *Solar & Energy Boat Challenge in Monaco*. This race is from 2 to 6 July 2019.

**Upgrades 2019**

This year we will upgrade the UAntwerp Solar Boat to a next level. A lot of changes will be maximizing our specifications, giving us more power and decreasing the weight. Below you can find the most important upgrades of 2019.

This year our *solar cells* are getting an upgrade as we are now restricted in cell surface instead of total cell power. Therefore, we have chosen one of the most efficient silicon solar cells on the market. This means we now will have around 1400W of power, an increase of 40%.

The final drawings of our *new drivetrain* are finished, the fabrication process will start soon. The new drivetrain will allow us to use a wider range of RPMs and at the same time have less loss in power due to friction and a big weight reduction.
Meanwhile one of our new team members, Filip is devoting his bachelor’s thesis on improving the design of the drivetrain and gaining back some important Watts in power loss.

As weight is one of our concerns, we are putting our boat on a diet. Therefore, we will remove our deck and replace it with a lighter version that has the solar panels built in. The deck will be built in separate pieces as this makes inspection on our batteries and drivetrain a lot easier.

The hydrofoils we had designed and manufactured by two master students and a bachelor student last year, will soon be mounted and tested. With this improvement on drag we are set to break 30km/h this year. Knowing that in last year’s sprint race only the three best teams reached around 30km/h. Our goal is to compete for a podium place in the sprint race this year. dan

The propeller is the last piece of our drivetrain but is not an unimportant part. As every propeller has its specific characteristics, we will build a propeller suited for every type of race. This means that we will have a very efficient propeller for endurance, which is designed for lower speeds. For slalom races we will have a more versatile propeller that lets us sail at a wider range of speeds at a slightly lower efficiency. And for our sprint race we will have a propeller with the sole purpose of fast acceleration and high speeds, the consumed power is in this case less important.

As our hull is now about to enter its third race year it has collected some war wounds. This in combination with the fact that teams are now allowed to build a longer boat, 8m instead of 6m, we have decided to start a study on a brand-new hull. This hull is planned to be built in 2020.

**News**

We want to thank the sponsors of the UAntwerp Solar Boat

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With joy we present our new sponsors who support us in 2019.

And with regrets we say goodbye to a good partner who supported us a few years.