

*Autoship: a new and durable way of freight transport*

Autoship is, as the name suggests, an acronym for autonomous ship. Just like with self-driving cars, the possibilities of an unmanned boat seem endless. It can create more efficient freight transport, around the clock deliveries and these are just a few of the examples. There are two societal challenges driving this project.

Firstly, as the triangle Gent-Brussels-Antwerp is about the most congested area in Europe, investments in non-road networks are a top priority and over the past decades, the inland waterways network in Belgium has been significantly expanded with the support of the European Commission. One of the notable examples is the Seine-Schelde project. A small vessel means 14 trucks less on the road and the largest ones cruising through our inland waterways can even replace up to 660 trucks. Another reason behind this initiative is the low popularity of the skipper profession. Especially on inland waterways, it is very difficult to find people willing and being able to do this job.

So now it is time to make more efficient use of this infrastructure with the help of self-steering boats. Ann-Sofie Pauwelyn of de Vlaamse Waterweg has been involved in the Autoship project for quite some time and thinks this is an unique opportunity for the Flemish Region but there is still a long way to go. She says: "with this project we want to build a fully functioning small autonomous boat. In the first phase, we want to write the software program which will be similar to self-driving cars but rivers and canals are not entirely the same environment as roads. Boats have to navigate through locks, dams, moveable bridges, .... These are particularities which have to be adequately simulated in the software.

The project was actually started by a Norwegian organization so in the first stage of the proposal, we were not very active. However, since the start of the second stage we have become more involved and now that the project is up and running, we are becoming one of the key partners in the project.

At first, we were a bit hesitant as our experience with FP7 or Horizon 2020 projects was limited and we had not been very successful up until then. The fact that we were already doing basic research on the topic of autonomous boats and the administrative help of the National Contact Point helped us to cross the line and get involved.

Nico Deblauwe who was NCP for Transport at the time was instrumental in guiding us through the administrative and legal issues like calculating the FTE's and the required documents. He also helped us to expand our network within the world of European projects.

We were actually over the moon when we found out the project for that Mobility for Growth-call was approved by the European Commission and we have recently started our activities together with the university of Strathclyde, Sintef Ocean and several partners from the private sector".

So what advice would Ann-Sofie give to organizations willing to participate in a Horizon 2020 project?

“I would definitely recommend doing it. Through the exchanges with your project partners, you get new views on research topics and you join forces to do projects that are just too big for the Flemish level and consequently would never happen without the help of the European Commission. However, do not underestimate the administrative workload and it takes quite a bit of time to form a good consortium. Also budgeting the costs is a challenge as you need to predict expenses you will make in a few years’ time. Our partners from the private sector were better in that area.

In short, preparation is the key to success so take your time and even then you need a bit of luck on your side. For some other calls we had great project proposals and good scores above the thresholds but we just lost out to an even better project. This can be a bit hard to swallow as you have put a lot of time and effort into it but at that moment you need to think of the successes”.

The Autoship project runs until 2022 by at which time we hope to see the first autonomous ship from the banks of our canals.