DRONIC
USV for Ultrasonic Water Treatment

INVITATION

DRONIC WORKSHOP

Application the Dronic unmanned surface vessel to control algal blooms in lakes and reservoirs

Project full name: Application of an unmanned surface vessel with ultrasonic, environmentally friendly system to (map and) control blue-green algae (Cyanobacteria)

Project Description: Through the DRONIC project, the consortium will showcase a new, innovative blue-green algae (cyanobacteria) monitoring and treatment robotic system, that can localize hotpots of blue-green algae blooms and only treats the part of the lake which is experiencing blue-green algae bloom. Because of the direct and localized treatment, the system is environmentally friendly, with a minimal impact on the ecology of the lake. The new water robot concerns the retrieval, prevention and abatement of harmful algae.

Location: VITO Offices in Antwerp (Berchem)

Roderveldlaan 5, 2600 BERCHEM, Belgium

Route description
Route description with Googlemaps

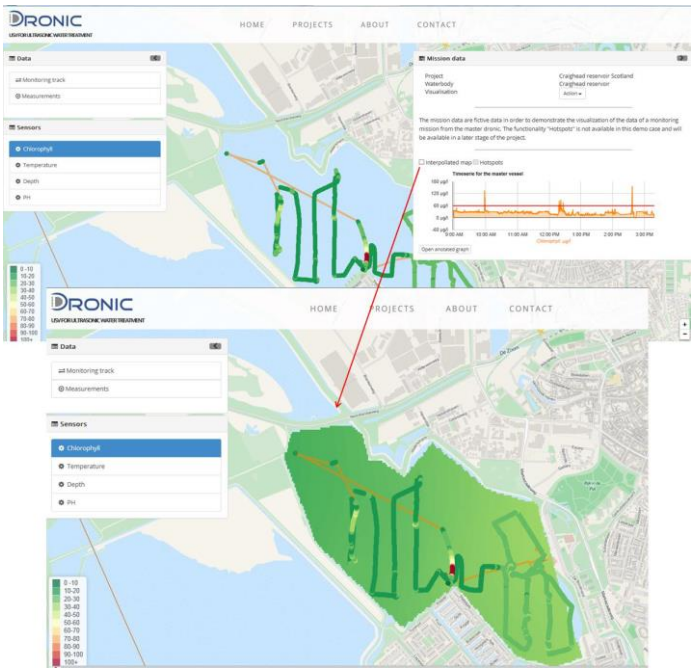
Time and Date: Thursday 4th of August 2016

9.00 – 15.00

About the Dronic Project

Blooming of blue-green algae in lakes, reservoirs, canals and rivers can cause severe problems with toxicity, taste and odor of the water. A blue-green algae bloom can cover the complete surface of a water body or occur only at localized spots where the conditions are favorable. Within the Dronic project a system has been created that maps and monitors the characteristics and quality of a water body, in order to localize a blue-green algae bloom and subsequently treat it (by precipitating the algae cells) and neutralize blue-green algae toxins environmentally friendly, using ultrasonic sound waves.

DRONIC will autonomously map and find the location of blue-green algae blooms within a lake and locally precipitate the blue-green algae and breakdown their produced toxins within a short interaction time. This is a very important feature because within larger lakes and reservoirs, treating the complete water surface will not always be possible or, when it is, it is not environmentally friendly and very expensive. Because the DRONIC system can directly intervene after detecting an algal hotspot, problems with the water quality in water treatment plants are prevented. For drinking water treatment, it will be possible to precipitate the algae before water enters the plant, preventing the intake of additional biomass.



Program 4th of August 2016

9.00	Arrival & coffee
9.30	Welcome & introduction
9.45	Workshop presentations on the Dronic project
10.30	Video demonstration of the Dronic vessels
11.00	Coffee
11.30	Demonstration of the Dronic DSS web-application
12.00	Discussion, Questions and Feedback
12.30	Lunch
13.30	Applications and perspectives
14.00	Workshop use cases: participants can introduce potential uses cases for discussion on applicability of the Dronic system (or components)
14.45	Conclusion

Registration

If you wish to attend the Dronic workshop on 4th of August 2016, please complete the registration form and send it to dronic@vito.be by Monday 1st of August 2106 at latest.

Name	
Organization	
Position in Organization	
Address	
Email	
Phone	