

# ELOXIRAS

## LATEST NEWS PROJECT ELOXIRAS

### ELOXIRAS present in Aquaculture Europe 2017

ELOXIRAS® innovative water treatment system was promoted during Aquaculture Europe 2017 in Dubrovnik, Croatia. The fair was a great success for APRIA Systems, giving the opportunity to contact relevant stakeholders and potential customers. The visibility of ELOXIRAS® raised thanks to the novel virtual reality system to visit an ELOXIRAS® working plant.

#### 3D video

A 3D video for ELOXIRAS® has been launched. The video shows the operating process of an ELOXIRAS® working plant, describing all the steps and the major advantages. You can see the video [here](#).



### ELOXIRAS in the media

- ✓ Spanish digital magazine [Ipac acuicultura](#)
- ✓ Companies of the future in [Popular TV](#)

### Business Mission to Chile

APRIA Systems attended the reception and lunch offered by the Spanish Embassy in Chile, aiming to promote the international deployment of companies from Cantabria in Chile. Meetings with the most powerful RAS companies were arranged, achieving very fruitful contacts



### ELOXIRAS process patent published

The European Patent Office (EPO) has published on its webpage the patent applied by APRIA Systems for its innovative process ELOXIRAS® EP322597 (A1) "CONTINUOUS WATER REGENERATION PROCESS IN SEMI-CLOSED CIRCUITS FOR THE RECIRCULATING AQUACULTURE INDUSTRY AND SYSTEM FOR PERFORMING SAID PROCESS". You can visit the patent [here](#).

# ACTIVITIES

## Validation of ELOXIRAS® in IRTA

ELOXIRAS is being operated for months to validate the process performance. This ELOXIRAS plant is placed in IRTA in Catalonia, and operates in the efficient RAS operation of 30 Kg/m<sup>3</sup> of gilthead seabream and 21 kg/m<sup>3</sup> of seabass. The culture tanks are 10 m<sup>3</sup> each, with a recirculation rate of 13 m<sup>3</sup>/h and a water renewal rate of 0.35 m<sup>3</sup>/h. The target biomass density is 20 kg/m<sup>3</sup> and the daily feeding rate is 2.5% of total biomass.



The water quality meet the defined standards. Key pollutants, such as TAN and COD, are effectively removed. Also, the mean instantaneous growth rate in weight are ranged between 1,6 and 2.0 %/day, similar as the RAS growing with biofilters. You can download the full case study [here](#).

Parameter	Quality Criteria <sup>a</sup>	Average value		Water quality
		Seabream	Sea bass	
pH	6.5-8.5	7.1 ± 0.2	7.2 ± 0.4	OK
Salinity (g/L)	-	35.8 ± 1.2	35.9 ± 1.2	OK
Temperature (°C)	-	23.6 ± 2.1	23.7 ± 1.6	OK
Dissolved oxygen mg O <sub>2</sub> /L)	> 5	8.4 ± 2.4	9.9 ± 2.1	OK
TAN (mg N-NH <sub>3</sub> /L)	< 3	0.7 ± 0.5	0.7 ± 0.5	OK
Nitrite (mg NO <sub>2</sub> /L)	< 1	0.02 ± 0.01	0.01 ± 0.01	OK
Nitrate (mg N-NO <sub>3</sub> /L)	0-90	1.0 ± 1.8	0.4 ± 0.5	OK
COD (mg O <sub>2</sub> /L)	-	< 30	< 30	OK
TSS (mg/L)	10-80	24 ± 20	16 ± 3	OK
ORP (mV)	-	171.3 ± 90.0	171.5 ± 81.3	OK

<sup>a</sup> Quality criteria according to Timmons et al., 2009.

## Validation of ELOXIRAS® in RODECAN



The second ELOXIRAS® plant is placed in the facilities of the partner RODECAN, located in north coast of Spain. The system is being validated in a RAS operation of 15 Kg/m<sup>3</sup> for 7 m<sup>3</sup> culture tank of turbot. The system have been reengineered to improve initial water treatment and to promote energetic optimization. The picture shows operating ELOXIRAS® system installed.



Do you want to visit any of the pilot facilities? Do not hesitate to contact us!


## ELOXIRAS® Remote control and monitoring

Remote monitoring and operation of ELOXIRAS® is now available through the platform IDbox. IDbox is a set of software components which allows supervision of industrial, energetic and smart processes. It integrates all available information sources, processes the captured signals and offers the tools for monitoring and analysis which is extremely helpful in operational decision making.



## STAY UPDATED

✓ Visit all the project related info in our webpage: [www.eloxiras.com](http://www.eloxiras.com)

✓ Follow us and check our latest news in:  [Apria Systems](https://twitter.com/ApriaSystems)

 <https://www.linkedin.com/showcase/10807087/>

✓ For more information please contact the Project Coordinator: [pedro.gomez@apriasystems.es](mailto:pedro.gomez@apriasystems.es)

[www.eloxiras.com](http://www.eloxiras.com)