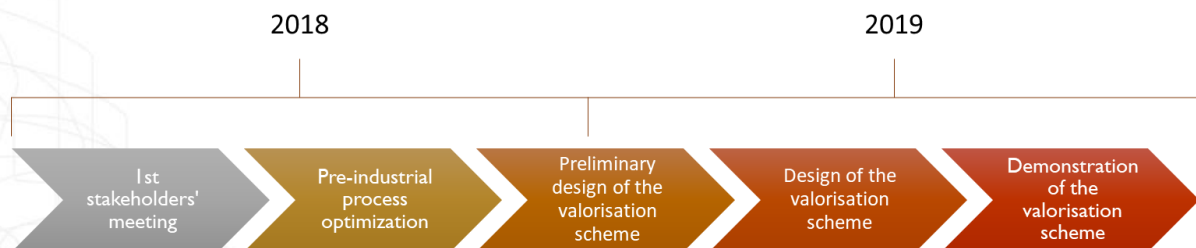


Welcome to the second **Life BREWERY** newsletter. Featuring key project events, research and dissemination activities and publications, our newsletter highlights the most important news about Life BREWERY project over this past year.

Up to date project's advances...



ACTION B2. Design of brewers' by-products valorization scheme

The design of the valorization includes the different process for brewers' by-products collection and transport and, hydrolysis and stabilization processes. To guarantee the final success of this design, the document also includes a protocol where the minimum collection requirements are addressed and, a contingency plan to define how rejection fraction should be managed.

ACTION B3. Demonstration of the valorization scheme in the case study region

Brewery by-products collection and transportation

- ✓ Different spent grain and yeast were collected and transported from different breweries located in the Mediterranean area.

Final production of feed prototypes

- ✓ A total of 30 tonnes of spent yeast and spent grain were collected and processed to produce 4 different ingredients: **hydrolysed** and **non- hydrolysed yeast** and **hydrolysed** and **non- hydrolysed spent grain**.



Extrusion process for feed prototypes production



New feed prototypes

Fish feeding trials

Ingredients' digestibility and growth trials with 3 different fish species: seabream, sole and trout (25 fishes per tank and 5 diet s in triplicate).



Experimental tanks at IRTA's facilities

Sensory analysis

- ✓ The sensorial analysis showed that there are not sensorial differences between control and fishes fed with the new feed prototypes.

Next technical actions...

- ✓ Transferability and replication actions of the valorization scheme in the case study region.
- ✓ Replicability and transferability of the valorisation scheme at European level.



DISSEMINATION EVENTS

International conferences and workshops

Since the beginning of the project Life Brewery consortium member has attended several national and international events and workshops:

- ✓ **8th International Symposium on fish nutrition and feeding** (Las Palmas de Gran Canaria, 3-7 June 2018)
- ✓ **12th EBC Brewing Science Group Technical Meeting** (Brussels, 5 June 2018)
- ✓ **6th International Conference on Sustainable Solid Waste Management** (Naxos, 3-16 June 2018)
- ✓ **Aqua 2018 International Conference** (Montpellier, 25-29 August 2018)
- ✓ **LIFE food waste platform meeting** (Budapest, 8-9 October 2018)
- ✓ **4th Iberoamerican Congress on Biorefineries** (Jaén, 22-24 October 2018)
- ✓ **Spanish National Environmental Congress (CONAMA 2018)** (Madrid, 28-30 November 2018)
- ✓ **8th International Conference on Sustainable Solid Waste Management** (Heraklion, 17-20 June 2019)
- ✓ **XVII Spanish Aquaculture Congress** (Cartagena, 7-10 May 2019)

In 2020...

- ✓ **9th International Conference on Sustainable Solid Waste Management** (Thessaloniki, 17-20 June 2019)

Publications in 2019



EAS Magazine (May 2018)



Tecnifood (July 2018)

Forthcoming actions...

- ✓ 1 scientific publication
- ✓ 1 technical article (Aquafeed magazine)
- ✓ Layman's report
- ✓ Final project brochure and video.

Networking events

We are continuously looking for collaborators! If you represent a company interested in recovering of animal and/or vegetable processing by-products for animal and aquaculture feed, LIFE Brewery invites you to participate as an observer in the different stages of the project. For this, you only have to contact us through our website:

<http://lifebrewery.azti.es>



Don't forget...

Life Brewery is a circular economy research project to identify scalable and commercially viable strategies to turn brewers' grain and yeast into supplement for fish feed in aquaculture. Through the re-use of brewers' spent grain and yeast, it is demonstrating how a bio-based product can contribute towards business efficiency and profitability.