Newsletter Issue 12, August 2020



ENHANCE MICROALGAE

High-added value industrial opportunities for microalgae in the Atlantic Area







Edited by the EnhanceMicroAlgae team at The University of Manchester [WP2] – Communication



ALGAE FOR FUTURE Specialist in microalgae production

ALGAE FOR FUTURE, an associated partner of EnhanceMicroAlgae (EMA), is a biotechnology company, located in Portugal, with more than 20 years of accumulated experience in microalgae research & development and microalgae production (up to industrial scale). A4F is specialized in the design, build, operation and microalgae biomass transfer of industrial production plants worldwide.



A4F is dedicated to the research and development of bioengineering projects for the industrial production of microalgae, microalgae-based products, and applications. The company works with different species of microalgae, freshwater, saltwater and hypersaline water, autotrophic, heterotrophic and mixotrophic, and with different and the most advanced technological production solutions – tubular and flat-panel photobioreactors (PBR), open ponds, cascade raceways (CRW) and fermenters – harvesting and processing technologies.



A4F supports the design and implementation of marketing strategies for economic exploitation and commercialization of microalgae products and applications in the global market.



Within the framework of the EnhanceMicroAlgae project, A4F is contributing with their knowledge and experience in the field of microalgae biotechnologies. A4F involvement implies lending the consortium some materials for one/two case studies. A4F is also contributing with its participation in project meetings, workshops, brokerage events and polls and inquiry of the project.

Visit their official <u>website</u> to find out more about Algae for Future.



Behind the EnhanceMicroAlgae Comic

Following on from a successful presentation at the <u>EnhanceMicroAlgae Webinar</u>, which took place on July 16, 2020, we have asked comic book author Xulia Pisón a few questions to find out more about her. Read author's comments <u>here</u>.



Visit the EnhanceMicroAlgae <u>YouTube channel</u> to see Xulia's presentation.

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EnhanceMicroAlgae Publications

- LATEST: Models of microalgal cultivation for addedvalue products - A review, published in *Biotechnology Advances*. Read <u>here</u>.
- LATEST: Updated UPLC DAD MS/MS pigment composition of *Tisochrysis lutea* and purification of fucoxanthin using centrifugal partition chromatography for the chemosensitization of melanoma cells, published in *Algal Research*. Read <u>here</u>.
- 3D Printed functional cookies fortified with Arthorspira platensis: Evaluation of its antioxidant potential and physical-chemical characterization, published in *Food Hydrocolloids*. Read <u>here</u>.
- Printability, microstructure, and flow dynamics of phase-separated edible 3D inks, published in Food Hydrocolloids. Read <u>here</u>.
- Analysis of scientific research driving microalgae market opportunities in Europe, published in Marine Drugs. Read <u>here</u>.
- A Bibliometric Analysis of Microalgae Research in the World, Europe, and the European Atlantic Area, published in *Marine Drugs*. Read <u>here</u>.
- The Nagoya Protocol and Its Implications on the EU Atlantic Area Countries, published in the *Journal of Marine Science and Engineering*. Read <u>here</u>.
- Microalgae carotenoids induce apoptosis and chemosensitization of human melanoma cells to vemurafenib and dacarbazine, published in the Global Journal of Biology, Agriculture & Health Sciences. Read here.
- Enhancing the Food value of microalgae, by Teagasc. Read <u>here</u>.
- **Bibliometric report: Most studied microalgae in Europe** by University of La Rochelle. Read <u>here</u>.
- EnhanceMicroAlgae: An European Interregional Project Stimulating Research, Innovation, Industrial Development and Transnational Cooperation within the Atlantic Area Microalgae Sector, published in the Journal of Oceanography and Marine Research. Read here.

EnhanceMicroAlgae Virtual Tools

The **EMA database of stakeholders** is an easily accessible, visual, and open access

database bringing together all the European Atlantic Area players working in the microalgae sector. The database is part of EMA's <u>WP4</u>, led by <u>Université de</u> <u>La Rochelle</u>.





The **EMA virtual Marketplace** is an online platform for the exchange of interests, knowledge, and offers and demands on microalgae-related services. This platform is part of EMA's WP8, and is developed by the EMA coordinators, <u>ANFACO-CECOPESCA</u>.



The <u>Decision Support Tool (DST) Book</u> provides a means to help users better understand the factors that can affect microalgae growth through the use of a (free) simulation platform and regularly updated models.

The 2nd Edition of the <u>Microalgae Strain</u> <u>Catalogue</u>, compiled by the EMA team at <u>The University of Manchester</u> is now available. The catalogue compiles information about microalgae cultivation and biochemical characteristics.

Both the DST Book and the Strain Catalogue are part of the EMA's <u>WP7</u>, led by <u>Swansea University</u>.

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Upcoming Conferences & Workshops

A calendar of courses and conferences of interest to the microalgae community is now available in the <u>EnhanceMicroalgae</u> website.

- <u>Algae Biomass Summit 2020</u> |August 12 October 2, 2020 | Algae Biomass Association (Virtual)
- <u>3rd International Conference for Bioresource</u> <u>Technology for Bioenergy, Bioproducts &</u> <u>Environmental Sustainability</u> | 20-23 September, 2020 | Rive del Garda Congress Centre, near Lake Garda, Italy
- <u>14th World Congress on Biofuels and Bioenergy</u> | 21-22 September 2020 | Rome, Italy (Webinar)
- <u>SEAGRICULTURE 2020</u>, 9th International Seaweed Conference | 24-25 September, 2020 | Virtual
- <u>10th European Algae Industry Summit</u> | October 20-21, 2020 | Reykjavik, Iceland
- <u>Euglena International Network (EIN) Inaugural</u> <u>Meeting (Online)</u> | 9-10 November, 2020 | EIN (Virtual)
- <u>10th International Conference on Algal Biomass,</u> <u>Biofuels and Bioproducts</u> | *December 7-9, 2020* | Pittsburgh, USA
- <u>AlgaEurope 2020</u> | 1 3 December, 2020 | Rome, Italy
- AquaFarm 5th Edition (International Conference & Tradeshow on Aquaculture, Algaculture and Fishing Industry) | 17-18 February, 2021 | Venice Area, Italy
- <u>12th International Phycological Congress IPC2021</u> | 21-26 March, 2021 | Puerto Varas, Chile (Virtual)
- <u>7th Conference of the International Society for</u> <u>Applied Phycology (ISAP)</u> | *May 23-28, 2021* | Makuhari Messe, Chiba, Japan

Workshops

- <u>11th European Workshop on the Biology of</u> <u>Cyanobacteria</u> (online event) | 6-10 September 2020 | Porto, Portugal
- EU4Ocean workshop Designing Ocean Literacy action in Europe (online event) | 24-25 September 2020 | European Commission
- <u>EABA Workshops 2020</u> (Technical Webinars)
 Phycocyanin from Algae | 4 September
 - Fermentation for Algae Production | 17 September
 - Algae Biofertilizer and Biostimulants | 7 October
 - Atlantic Sargassum Belt | 4 November

Sign-up to this Newsletter on the EMA website, and remember to connect with us on social media to keep track of the latest project updates:



<u>Click this link</u> to read out past Newsletters.