

## Press Release

### MULTI-STR3AM, a Roadmap for Microalgae Industry Development in Europe unleashing a strong potential for food, feed and fragrance sectors

Lisbon, April 30<sup>th</sup>, 2025

The MULTI-STR3AM project has come to its end delivering a clear path towards the Blue Bioeconomy. This innovative European project, co-funded by Bio-Based Industries Joint Undertaking, has ended today, April 30<sup>th</sup> of 2025, compiling an impressive list of key results generated from the implementation of a demo-scale sustainable biorefinery for the processing of multi-strains of microalgae, utilising multi-methods for delivering algal ingredients to multi-products for 3 application sectors: food, feed and fragrance.

The project funded under the H2020-BBI-JTI-2019 call, with Grant Agreement ID 887227, has been coordinated by A4F – ALGAFUEL SA., during the last 5 years, counting with 7 other partners: Algatech Center, iBET, LNEG, Phycom, IFF, Flora Food Group, and ForFarmers. With a EU contribution of around 6M€ and a total overall budget of more than 9M€, the MULTI-STR3AM project was able to deliver key steps towards the development of new microalgae ingredients and product prototypes.

Within the MULTI-STR3AM project, A4F has led the implementation of a demo-scale biorefinery with a capacity of processing 10ton DW/yr of microalgae biomass, having delivered more than 40 samples to the end-user partners for product development. Within the project, the genomic sequencing of *Chlorella vulgaris*, *Chlorella sorokiniana* and *Parachlorella kessleri* has been achieved, as well as the optimization of the production of microalgae in both autotrophic and heterotrophic cultivation. The end-users of the project, Flora Food Group, ForFarmers and IFF have led to the generation of more than 10 prototypes for new microalgae products, in food, feed and fragrance, respectively, comprising:

- $\beta$ -carotene rich oil as food colorant & antioxidant for spreads (i.e., plant butter) & cheese;
- Protein-rich feed additives for broilers & piglets with successful in vivo trials;
- New protein-based encapsulation material.

The project has also led to the performance of 3 Market Analysis and preparation of different Business Cases for the future exploitation of new products created, based on the strong Life-Cycle Analysis and Techno-Economic Assessment.

To mark the conclusion of the project, a final seminar was held yesterday at A4F's facilities in Lisbon. The event featured the official inauguration of the MULTI-STR3AM biorefinery and brought together consortium partners along with key stakeholders from the Bioeconomy sector. Tiago Pitta e Cunha, Board Member of the Portuguese Blue Ocean Foundation, delivered an inspiring keynote address.





As the MULTI-STR3AM project concludes, its legacy will continue to encourage future endeavors. The knowledge and innovations generated will serve as a valuable foundation for further research and development in the EU algae sector. Realizing the full potential of algae requires ongoing investment and supportive policies that streamline the regulatory pathways. We believe that algae will play an increasingly vital role in building a more sustainable and resilient food system for Europe, contributing to a Blue Future.

*The Bio-based Industries Joint Undertaking's project MULTI-STR3AM addresses the challenges of scale of microalgae-based products by integrating sustainable multi-strain, multi-method and multi-product microalgae biorefinery in industrial side streams. This EU-funded project is designed to help close the gap between research and industrial scale on microalgae cultivation.*

*The MULTI-STR3AM project is coordinated by A4F – Algae for Future (PT), and brings together the companies ForFarmers (NL), International Flavors & Fragrances (IFF, NL), Phycom (NL), Flora Food Group (NL), and the R&D institutions IMIC CAS - Centre Algatech (CZ), Instituto de Biologia Experimental e Tecnológica (iBET, PT), and Laboratório Nacional de Energia e Geologia (LNEG, PT).*

More information: [www.multi-str3am.com](http://www.multi-str3am.com)

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