**Ãè** To solve an industrial problem with an innovative solution

Industrial Mission ChemBiotech g ±à&

## Since 2014, ECPM and ESBS have been training trilingual research engineers in the ChemBiotech degree (chemistry & biotechnology) in 5 fields: biology, molecular chemistry, chemical and biotechnological process engineering and bioanalytical sciences (analysis and characterisation of biomolecules).

## This unique combination of skills is at your disposal in the framework of industrial missions to accompany you in your technical developments and technologies in the fields of the environment, health and cosmetics.

Under your guidance, a team of 5 to 7 student-engineers carries out a detailed analysis, deepens its technical knowledge, draws up functional specifications for the ideal solution to your problem, defines a work schedule, researches and/or designs solutions and recommends the most relevant ones during a final oral presentation.

**An educational exercise in technical problem solving, each industrial mission is supervised by three tutors to ensure the successful completion of your project:**

* technical by your teams
* by a teacher-researcher from the school
* by a professional

All of this work favours a multidisciplinary approach in close collaboration with your teams in the form of regular working meetings at the school, remotely, or on your premises.

***Examples of issues***

*Research into methods for recycling chemical compounds (plastics, solvents, metallurgical waste, etc.)*

*Selection of solutions for chemical and/or biological treatment of industrial process water*

*Preliminary design / specifications for a bioproduction facility*

*Definition of analytical process in production*

*Feasibility study of biosensor concepts*

*Study of the capability of a mixed synthesis route (chemistry and biotechnology)*

*Bibliographical study of the degradability of a material by bacteria*

*Feasibility study of a biomolecule production process*

**Implementation period**: 6 months between mid-September 2023 and mid-March 2023

**Total duration**: 400 hours with 8 group work sessions of 3.5 hours

**Deliverables**: written report and oral presentation

**Participation in costs**: a participation in costs (tutorials, on-site travel, telephony, use of software, reproduction, access to databases, etc.) totalling €2,850 excluding VAT will be invoiced to you on presentation of the results (amount exempt from VAT).

Any costs for supplies, handling, prototyping or subcontracting will be borne entirely by the company and will be subject to a specific quotation.

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| **YOUR SUBJECT for the 2024 edition** | | |
| **Topic title** | |  |
| **Context of the mission**  (Describe in a few lines the technical and economic environment of your project) | |  |
| **Description of the technical issue to be addressed in the industrial assignment** | |  |
| **Your objectives for this assignment** | |  |
| **Dominant**  **□** Concept research  **□** Feasibility  **□** Preliminary draft | | **□** Process/design optimization  **□** Improvement of existing solution  **□** Technical comparison |
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| **Your contact details** | | |
| **Company** |  | |
| **Address** |  | |
| **Last name / first name** |  | |
| **Function** |  | |
| **Tel** |  | |
| **Email** |  | |

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| --- | --- |
| **Date :**  **Signature** | **Company stamp** |

**Form to be returned to patrick.filizian@unistra.fr by 13 July 2023 at the latest.**