



DigitAlgaesation - A knowledge-based training network for digitalisation of photosynthetic bioprocesses

Microalgae and other photosynthetic microorganisms represent a highly promising source for food, feed, chemicals, and fuels. Europe has been leading world research and industrial deployment of microalgae based technologies. However, despite the enormous potential and the impressive R&D effort, industrial use of microalgae is still at its first developmental stage. A major step forward can derive by the development and implementation of digital technologies, capable of automatizing and optimising culture conditions at industrial scale. Europe has a tradition of leading researches in the field of automatic control for biotechnological processes. As envisaged by DigitAlgaesation, the widespread definition and adoption of effective tools for better design and operation urgently requires skilled multidisciplinary scientists and engineers, who can develop and implement the next generation of sustainable production process with enhanced productivity, reduced environmental impact and costs, despite climate fluctuations that may strongly affect microalgae productivity. All this demands a European commitment to concerted, inter- and transdisciplinary research and innovation.

DigitAlgaesation will train 15 early-stage researchers (ESRs) in all aspects of microalgae technological innovation to pave the way towards a knowledge-based breakthrough in monitoring methods and instrumentation, biological modelling and simulation, and automatic control. By training in scientific, technical and soft skills, they will become highly sought-after scientists and engineers for the rapidly emerging microalgae-based industry and broader bioprocessing industries of Europe.

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TMCI Padovan SpA (Italy)

Total EU Contribution: Euro 4.043.982,24

Call ID: H2020-MSCA-ITN-2020

Project Duration in months: 48

Start Date: 01/03/2021

End Date: 28/02/2025

Find out more: <https://cordis.europa.eu/project/id/955520>