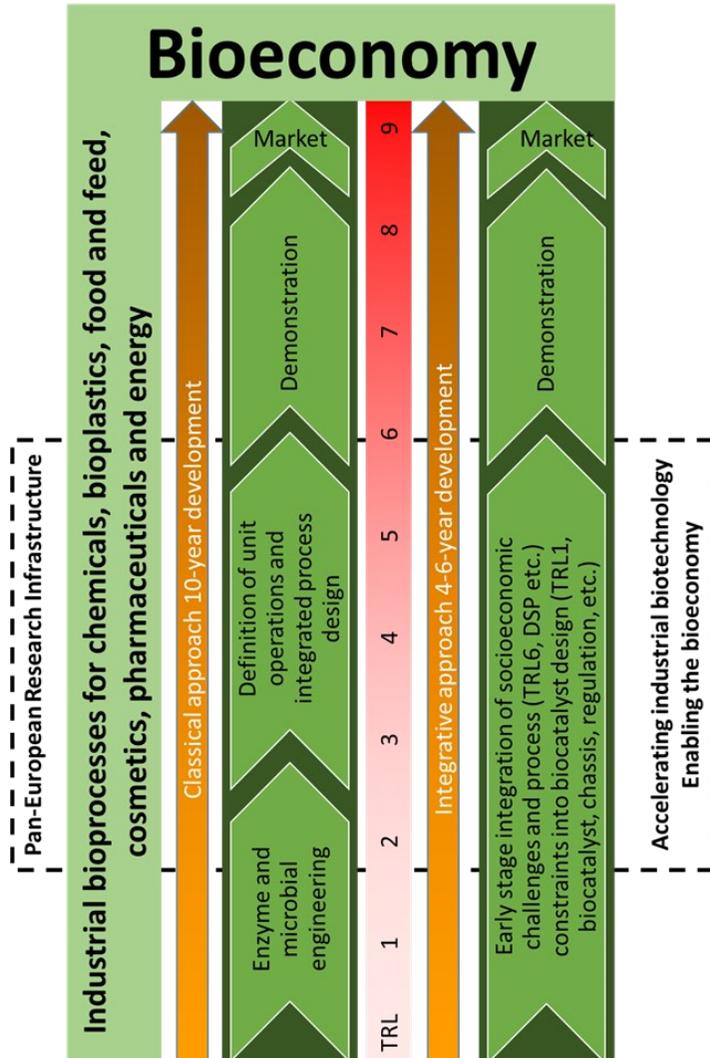


A European research infrastructure for integrative biotechnology

- Focus European efforts and pool financial resources
- Improve the innovation fitness of European biosciences and enhance R&D services to industry
- Reduce bioprocess development time by a factor of 2
- Reinforce European excellence, leadership and competitiveness



Workshop registration:

Attendance at the workshop is **free of charge**, but the number of places limited. For this reason and for logistics purposes, **registration is mandatory**.

To register, simply send an e-mail to Michael O'Donohue, providing the following information:

- Name
- Company name and address,
- Contact details (including mobile/cell phone number)

Participants are requested to register **before the 10th June 2015**.



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Accelerating R&D in Industrial Biotechnology

Time to move forward?

Invitation to a European workshop
 25th June 2015
 (from 12:00 to 17:00)

Offices of EU Regions Hessen, Emilia-Romagna, Aquitaine and Wielkopolska

21 rue Montoyer - 1000 Brussels

Industrial Biotechnology: a key enabling technology

The development of industrial biotechnology is a key element of the European Commission's strategy to reinforce the bioeconomy. This is because industrial biotechnology employs biobased catalysts, such as enzymes and microorganisms, which are exquisitely adapted for the conversion of biomolecules into products in reactions operating in aqueous, moderate conditions.

Synthetic biology: a game-changer

Over the last decades, industrial biotechnology has benefitted from advances in the biosciences, notably from molecular genetics. However, more recently research in biology has accelerated the process, giving birth to a new field of engineering known as synthetic biology. Synthetic biology uses the wealth of knowledge gained from systems biology, and engineering principles to design or redesign biological systems, such as enzymes, genetic circuits and whole microorganisms. The possibilities provided by synthetic biology are enormous, and it is expected that this technology profoundly impact the future of the biotech industry. Although industrial biotechnology has made impressive progress, most experts recognize that the R&D phase associated with bioprocesses is long and resource-intensive,

and the level of maturity of bioprocesses that finally reach industrial implementation is lower than that of chemical technologies used in the petrochemical industry.

The future challenge for industrial biotechnology

While synthetic biology is poised to supply a new generation of enzymes and tailored microorganisms, this technology will not solve the time to market challenge, unless process constraints are integrated at an early design stage, thus easing scale-up and facilitating industrial implementation.

Integrative industrial biotechnology

To better link biocatalyst design to bioprocess development, integrating industrial constraints at an early stage, a group of European scientists have proposed to create a pan-European research infrastructure for integrative industrial biotechnology. This research infrastructure will bridge the technology gap, covering the TRL range 2 to 6 and creating a technical basis for a continuum between laboratory and pilot scales. The missions of the research infrastructure will include the supply of world class interconnected facilities and technologies for the integrated design of a wide variety of process-ready biocatalysts (including enzymes, and a range microorganisms and microalgae)

and novel bioprocess unit operations, a platform for transnational collaboration and training, an open source of protocols and bioparts data, and a comprehensive ethics and public engagement service for the promotion of responsible science and technology.

Aims of the workshop

This workshop will bring together a knowledgeable group of representatives from academia and industry to fine tune a proposal for a pan European research infrastructure for industrial biotechnology. Working on a white paper that will be supplied upon registration, the group will be expected to express critical opinions, pinpoint the key challenges and identify ways to surmount foreseeable hurdles.

Workshop agenda

12:00 Welcome desk and lunch get-together

Upon arrival buffet lunch will be offered to participants

13:15 Industrial Biotechnology—a presentation of state of play by Jim Philp (OECD)

14:00 Toulouse White Biotechnology and Biobase Europe: current examples of European infrastructure capacity

14:20 Building a European industrial biotech research infrastructure

14:30 Round-table discussion

The discussion will focus on 5 questions that will be given to participants after registration.

16:30 Wrap-up

17:00 End of workshop