

# IBISBA

## A brief introduction

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# INRAE



IBISBA is supported by funding from the European Union's Horizon 2020 research and innovation programme under grant agreements No 730976 and 871118

[www.ibisba.eu](http://www.ibisba.eu)

# Industrial Biotechnology Innovation and Synthetic biology Accelerator

A European distributed research infrastructure aiming to support the circular bioeconomy by improving the ability of industrial biotechnology to respond to market demands for sustainable products



IBISBA is currently an ESFRI (European Science Forum on Research Infrastructure) project in early preparation phase

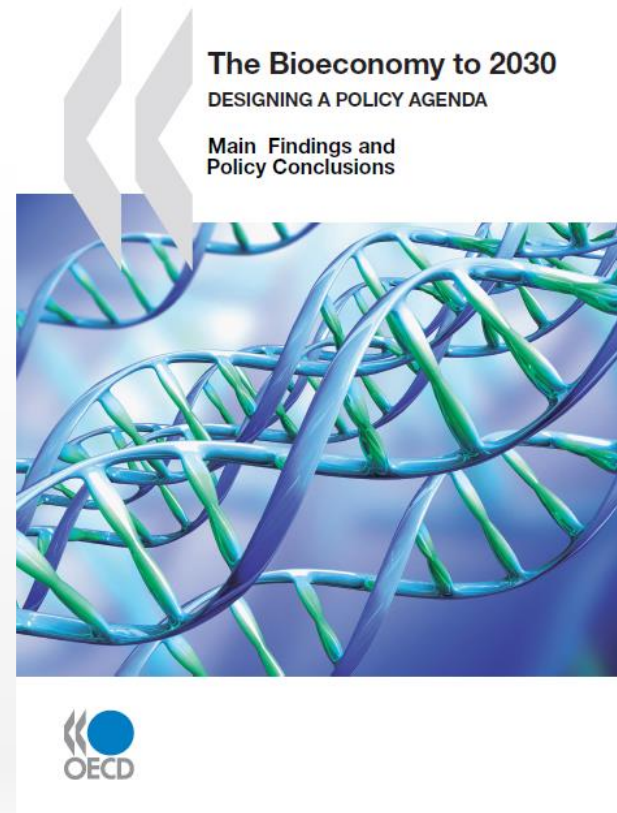
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# Our purpose: enable the circular bioeconomy by accelerating bioprocess development

The bioeconomy requires new technology, because most chemical processes are designed for fossil resources

« A world where biotechnology contributes to a significant share of economic output »



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# Europe and industrial biotechnology

## Strengths and opportunities

### Biotech in Europe: A strong foundation for growth and innovation

European companies have an opportunity to play a stronger role in the industry by focusing on three factors.

*by Franck Le Deu and Jorge Santos da Silva*



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MacKinsey report, August 2019 - what makes Europe attractive?

1. Hotspots in a fragmented landscape
2. World class science
3. Top innovators and talent

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# Europe and industrial biotechnology

## Room for improvement

### Industrial biotechnology

- delivers a wide range of manufactured goods
- figures among Europe's strengths (€31 billion in 2017, Europabio report)
- but comparatively speaking the sector is still small :

*chemical industry (€4 trillion worldwide)*



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# Industrial biotechnology

## The challenges

Industrial biotechnology needs to deliver cost-competitive, flexible, and efficient manufacturing processes

Only 3% of products are biobased

Bulk chemicals are still extremely difficult to make through biobased routes

Biotechnology encounters difficulties in head on competition with petrochemical industry

**BUT:**

*New knowledge and breakthroughs in biology have significantly altered the playing field in recent decades*

*Synthetic biology offers exciting prospects for bioprocess development*



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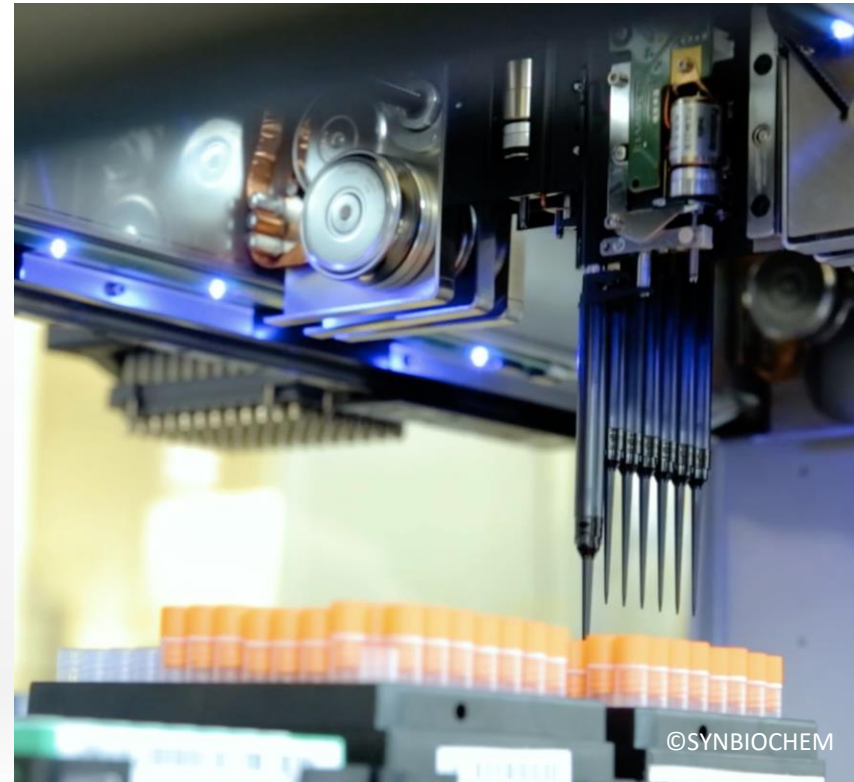
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# Accelerating industrial biotechnology

## What needs fixing?

- Draw biology and chemical engineering together, creating a domain-specific knowledge commons
- Diminish stop/start project lifecycles and research duplication. This is now facilitated by modern data science and cloud technology
- Improve success at scale-up. Develop new approaches and tools to design and construct robust processes from the outset



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# Industrial Biotechnology Innovation and Synthetic biology Accelerator

A world class, knowledge-rich European industrial biotechnology distributed research infrastructure

- Single broker access to a catalogue of best in class infrastructure
- A network of facilities linked by cloud technology and cutting edge data science (<https://hub.ibisba.eu/>)
- A program of subsidized transnational access
- Partners dedicated to reducing duplication and wastage of resources and knowledge
- An ambition to operate seamless end-to-end R&D&I pipelines
- Open for business , working with public researchers and companies



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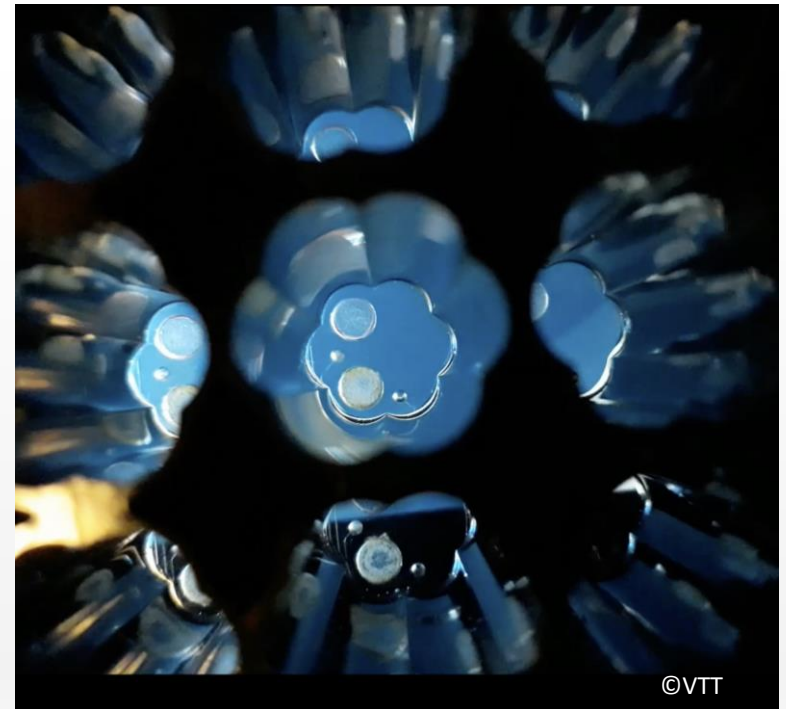


# IBISBA

## Our vision for tomorrow

A world class, knowledge-rich European industrial biotechnology hub that will

- Operate a RI network driven by cloud technology and cutting edge data science
- Provide single broker access to best in class infrastructure to public and private R&D&I players
- Facilitate access to R&D&I infrastructure across Europe
- Promote sharing of knowledge assets among IBISBA RI operators and with users
- Create the conditions for seamless end-to-end R&D&I pipelines
- Work with public and private stakeholders to add value and optimize use of resources



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## SHARING THE WAY TO INNOVATION

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