

## Overcoming hurdles for innovation in industrial biotechnology in Europe

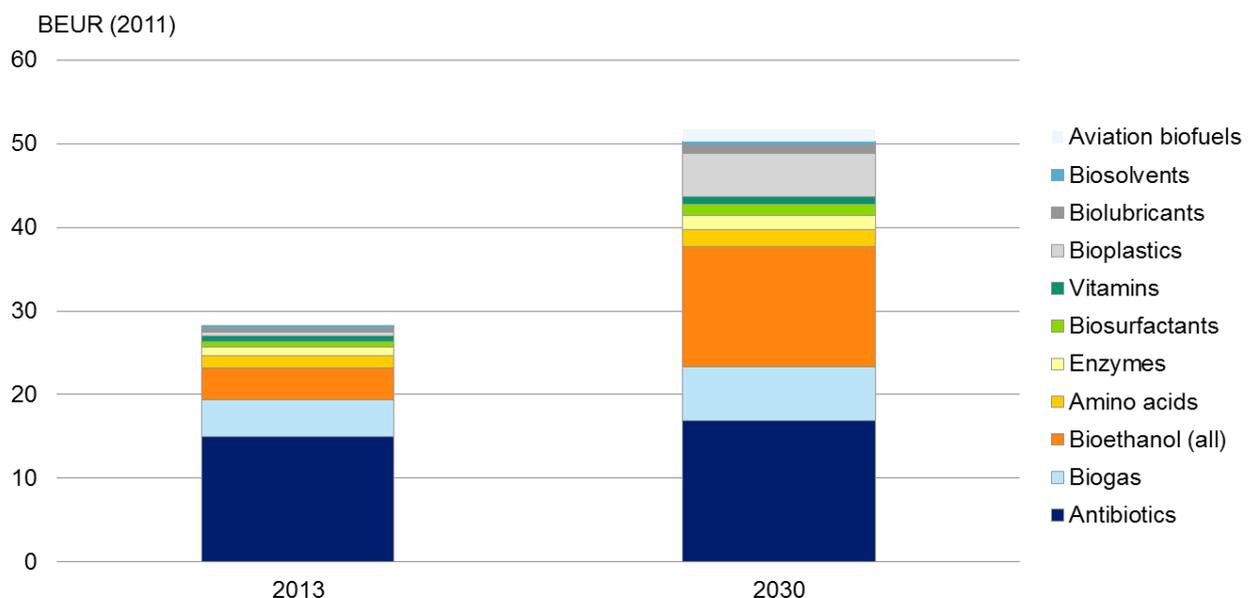
### BIO-TIC Market Roadmap Draft 2

#### Executive Summary

The BIO-TIC market roadmap aims at providing a comprehensive overview of the market potential for industrial biotechnology and of the value chain composition and stakeholders in various product segments. The market roadmap also contributes to the other two roadmaps by identifying R&D needs and policy or regulatory hurdles that need to be overcome in order to realise the market opportunities.

Based on a market analysis, the current (2013) EU market for the IB sector as a whole can be estimated at 28 billion EUR. By far the largest product segment is antibiotics, followed by biogas and bioethanol. In the future, the IB market is estimated to reach 41 billion EUR in 2020, and 52 billion EUR in 2030.

#### Estimated IB market demand in the EU up to 2030



The market-related hurdles of IB are related to cost competitiveness, image and functionality. The cost competitiveness of IB compared to current products/techniques is a market challenge, calling for e.g.

- the creation of fair competition for biomass with other sectors that currently benefit from subsidising schemes,
- measures to bring down biomass transport costs,
- efficient recycling systems enabling new types of feedstock,
- improved process efficiency,
- technologies for economically feasible small volume production,
- development of new and added value products to global markets, and
- support for commercialisation and investments and for the creation of early-stage demand.



In terms of image, the IB sector calls for an improved public perception, thus reducing the brand risk of IB. This would require new solutions to demonstrate the environmental benefits, to communicate with consumers (GMO and food/fuel debates), and ultimately, to enable a bio-premium. In the area of functionality, some areas are still dictated by need for "drop-in" products. This hinders opportunities for new products which may be more economically viable to produce.

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The BIO-TIC project aims to identify the hurdles and solutions for industrial biotechnology in Europe. In order to do so, three roadmaps focusing on market, non-technological and technological aspects are being developed. The following is the second draft of the technological roadmap.

The BIO-TIC roadmapping process revolves around stakeholder engagement, subsequently we encourage any comments and contributions to be sent by end of August 2014 to [bio-tic@europabio.org](mailto:bio-tic@europabio.org).

All BIO-TIC roadmaps can be downloaded via the web portal [www.industrial-biotechnology.eu](http://www.industrial-biotechnology.eu).

