


Synthetic biology in KBBE

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Food, Agriculture and Fisheries, and Biotechnology
Knowledge Based Bio Economy (KBBE)




International interest on the field

- EU-USA Synthetic Biology Workshop (April 2006) – DoE
- International meetings
- ESF Workshop (Nov. 2007)
- Royal Society
- OECD
- NGOs



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KBBE-2007-3-3-01: SYNTHETIC BIOLOGY FOR THE ENVIRONMENT - The use of Synthetic Biology for the solution of environmental problems Call: FP7-KBBE-2007-1

- Use of the Synthetic Biology approaches to engineer complex systems and redesigning biological components for the reduction of wastes and the elimination of industrial pollution. This effort should be based on databases containing all available information on microbial routes for total or partial catabolism of recalcitrant compounds, along with their corresponding regulation.



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- **Funding scheme:** Coordination and support action aiming at coordinating research activities
- **Expected impact:** Synthetic biology significantly expands the scope of metabolic engineering so that in theory just about any compound can be made from renewable resources through fermentation. With an enhanced knowledge of microbial metabolism, metabolic engineering and production systems, it will become possible to create completely new pathways to bio-produce new molecules that are not synthesized as such in nature.

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TARPOL Targeting environmental pollution with engineered microbial systems *à la carte*

- **General Objective:**
This Coordination Action aims at fostering synergies in the various interdisciplinary and emerging fields of Synthetic Biology (SB) and set a forum for discussion on its possibilities, on its needs and its boundaries with particular attention to clean production processes and bioremediation.
- **Specific Objective:**
 1. Stimulate forward-looking cross-disciplinary research and knowledge exchange in order to demonstrate key principles and to generate and distribute tools and building blocks for SB.
 2. Mobilise and coordinate a critical mass of researchers and experts in SB in Europe.

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