



Project no. 043338

Project acronym: EMERGENCE

Project title: A foundation for Synthetic Biology in Europe

Instrument: NEST Pathfinder

Thematic Priority: Synthetic Biology

### **Deliverable 6.3: Web-based resource center**

Due date of deliverable: Months 3

Actual submission date: 6

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Duration: 36 months

Organisation name of lead contractor for this deliverable: HZI, ETHZ

<b>Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)</b>		
<b>Dissemination Level</b>		
<b>PU</b>	Public	x
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

All minutes and presentations can be found at the EMERGENCE website under

The web-based resource center is part of the EMERGENCE web-site at [www.emergence.ethz.ch](http://www.emergence.ethz.ch). Two screenshots of the set-up are attached.

# Emergence

A Foundation for Synthetic Biology in Europe



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EMERGENCE is a coordination action within the EU-NEST-Activities, (FP6 Pathfinder) in the field of Synthetic Biology

## Introduction

Synthetic biology has emerged as a very recent but highly promising approach to re-organizing the scientific biological endeavor by integrating central elements of engineering design. By applying the tool box of engineering disciplines such as electrical, mechanical, or chemical engineering and computer sciences, including the vigorous application of modeling techniques and organizing the development of novel biological systems along a hierarchical systems architecture with defined and standardized interfaces, synthetic biology aims at no less than revolutionizing the way we do bioengineering today. If successful, synthetic biology will transform bioengineering into a highly successful and sustainable life science industry.

The objective of this coordination action (CA) EMERGENCE is to provide a communication and working platform for the emerging European synthetic biology community in order to strengthen the organizational and conceptual basis of the synthetic biology as a true engineering discipline in biological engineering.

These issues will be addressed in terms of

1. Integration, e.g., providing an organizational forum for the various ongoing activities in the field of synthetic biology (projects in the NEST calls under the synthetic biology initiative).
2. Common concepts and agenda, e.g., providing a common IT-infrastructure to include data sets relevant to synthetic biology as well as tools dedicated to biological design.

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EMERGENCE (FP6) cooperates intimately with TARPOOL (FP7) on all issues of Synthetic Biology. For more information on TARPOOL click [here](#)

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2. Common concepts and agenda, e.g., providing a common IT-infrastructure to include data sets relevant to synthetic biology as well as tools dedicated to biological design.
3. Standardization, e.g., implementing standards and gene regulations to define the meaning of a number of imprecise terms and concepts.
4. Education, e.g., analyzing the case for a European and world-wide community ('education focus groups' to coordinate initiatives as participating in the iGEM competition, establishing a 'European Master of Synthetic Biology').
5. Embedding industry, e.g., integrating representatives from industry into the synthetic biology community as the implementation of widely accepted standards will facilitate the development of novel industries.