

---

# **BIOTECHNOLOGY IN FP7:**

## **Analysis of the first FP7 KBBE calls**

Lana Žutelija  
BIO National Contact Point  
Roundtable on “Industrial Biotechnology”  
Zagreb, 12.6.2008.

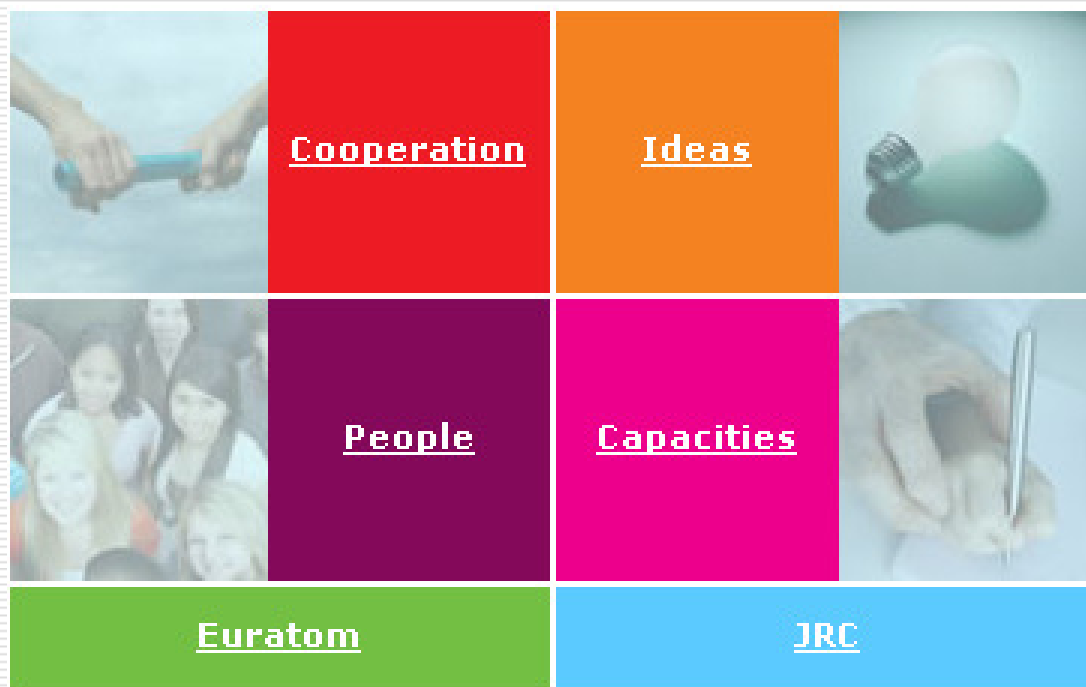
# Overview

---

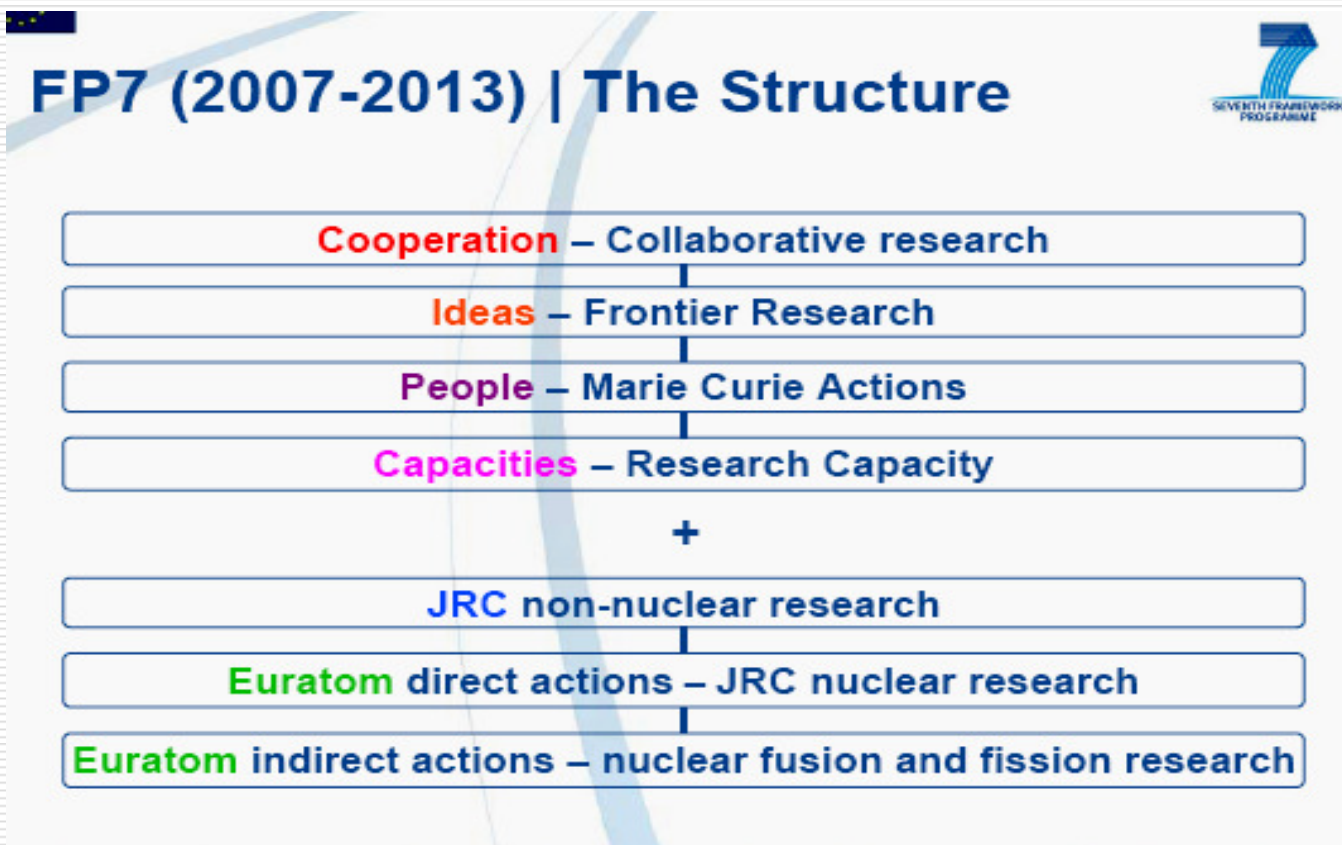
- FP7 - overview
  
- Food, Agriculture, and Fisheries, and Biotechnology - FAFB Theme in FP7 (KBBE - Knowledge Based Bio-Economy)
  
- FAFB closed calls – focus on Biotechnology

# FP7

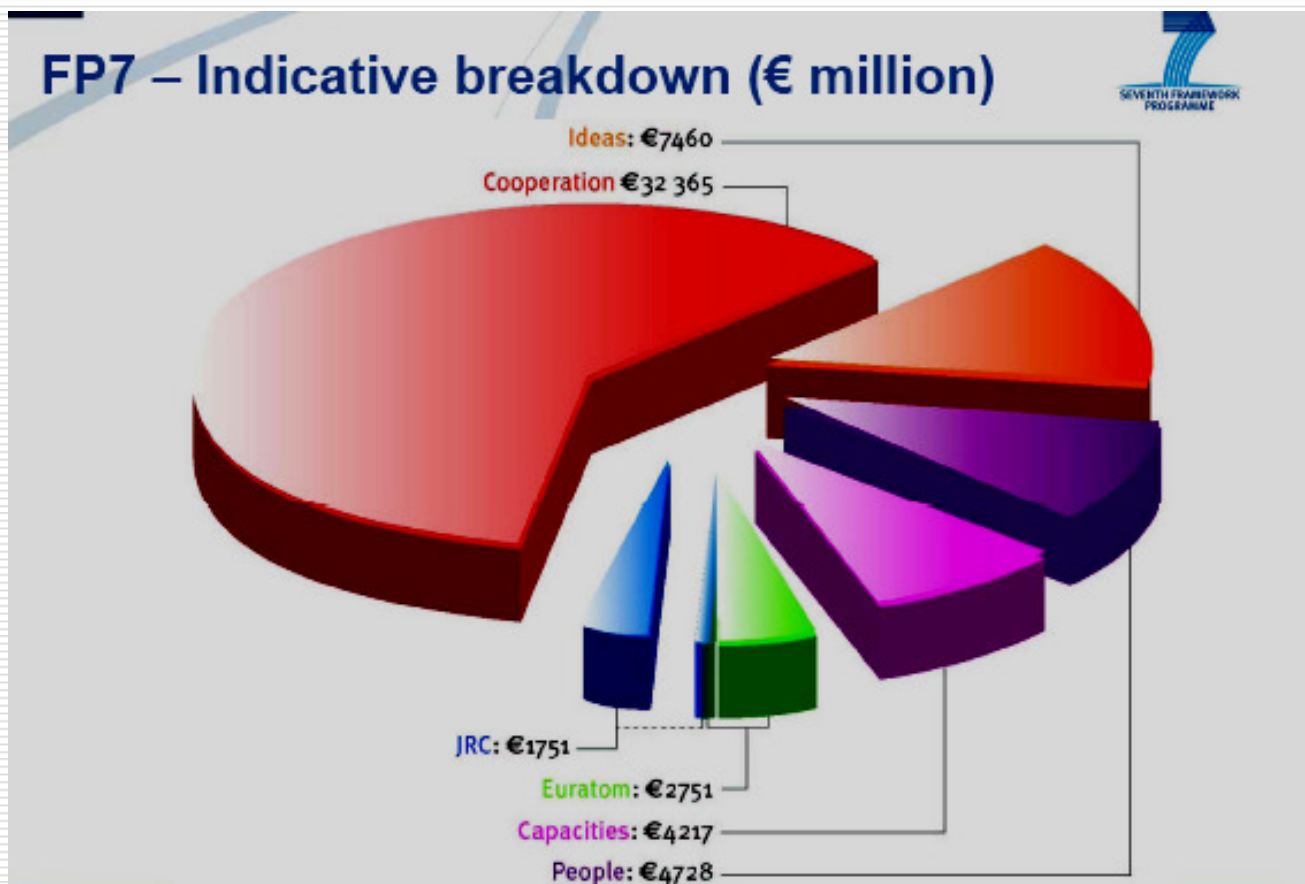
---



# FP7 structure



# FP7 budget



# Specific Programme “Cooperation”

---

## Themes:

M €

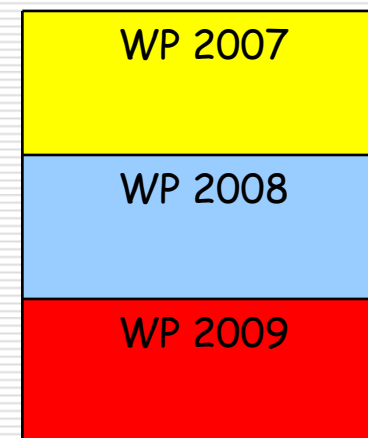
1) Health	6.050
2) Food, Agriculture, Fisheries & Biotechnology	1.935
3) Information & Communication Technologies	9.110
4) Nanosciences, Nanotechnologies, Materials & New Production Technologies	3.500
5) Energy	2.300
6) Environment (incl. Climate Change)	1.900
7) Transport (incl. Aeronautics)	4.180
8) Socio-Economic Sciences & the Humanities	610
9) Space	1.430
10) Security	1.350

# FAFB budget

**year 2007 2008 2009 2010 2011 2012 2013**

**m€ 192 210 233 262 299 333 371**

	Budget 2007	Budget 2008	Budget 2009
Large projects; NoEs (two stages - except 2007 !)	Call 1	Call 2A	Call 3
Small CPs/CSAs (one stage)	Call 1	Call 2B	Call 3



# FAFB funding schemes

---

- ❑ **Coordination and Support Actions (CSA)**  
→ up to 1 million €
- ❑ **Small Collaborative Project – SCP**  
(small or medium scale focused research actions)  
→ up to 3 million €
- ❑ **Large Collaborative Project – LCP**  
(large scale integrating projects)  
**Network of Excellence – NoE**  
→ up to 6 million €

**ELIGIBILITY CRITERIA!!!!**

**EXCEPTIONS → CHECK THE WP!!!**

# FAFB Theme - KBBE

---

## 2. Food, Agriculture, Fisheries and Biotechnology

2.1 Sustainable production&management of biological resources from land, forest & aquatic environments

2.2 "Fork to farm": Food (including sea-food), health & well being

2.3 Life sciences, biotechnology & biochemistry for sustainable non-food products and processes

# FAFB Theme: Activity 2.3

---

- ❑ **Improved crops, feed-stocks, marine products and biomass for energy, environment, and high added value industrial products; novel farming systems**
- ❑ **Bio-catalysis; new bio-refinery concepts and other bioprocesses**
- ❑ **Forestry and forest based products and processes**
- ❑ **Environmental remediation and cleaner processing**

# Overlaps with other Themes

---

- Systems biology/bioinformatics – Theme 1 Health and Theme 2 ICT**
- Biomass conversion – Theme 4 NMP (Nano) and Theme 5 Energy**
- Sustainable management of biodiversity – Theme 6 Environment (incl. Climate change)**
- Other themes: Transport, S&S**

**→ Check the calls from other Themes!!**

# FAFB (KBBE) closed calls

---

- **call FP7-KBBE-2007-1**  
**opened: 22/12/2006**  
**closed: 02/05/2007**
  
- **call FP7-KBBE-2007-2A**  
**opened: 15/06/2007**  
**closed: 11/09/2007 (1st stage)**  
**19/02/2008 (2nd stage)**
  
- **call FP7-KBBE-2008-2B**  
**opened: 30/11/2007**  
**closed: 26/02/2008**

# Call FP7-KBBE-2007-1 (1)

---

- **Large collaborative projects, Networks of Excellence**  
→ **35 million €**
  
- **Small collaborative projects, Coordination and Support Actions**  
→ **10.50 million €**
  
- **45.5 million €** (out of 192.09 million €)

# Call FP7-KBBE-2007-1 (2)

---

## Area 2.3.1 Improved biomass and plant based renewables

- ❑ PLANT CELL WALLS – Understanding Plant Cell Walls for optimising Biomass potential
- ❑ ENERGY PLANTS - Novel plants for energy production
- ❑ GREEN OIL - Plants providing oils of the future
- ❑ FOREST PRODUCTS - New forest based products and processes
- ❑ BIO-VET-PHARMING - Plant made recombinant pharmaceuticals for animals
- ❑ BIOPOLYMERS - Biological Polymers from plants
- ❑ FUTURE CROPS - Technical, socioeconomic, environmental and regulatory aspects of future nonfood crop systems
- ❑ BIOMASS SUPPLY AND IMPACT - Identification of optimal terrestrial and aquatic biomass and waste for Bioproducts

# Call FP7-KBBE-2007-1 (3)

---

## Area 2.3.2 Bioprocesses

- ❑ LIGNOCELLULOSIC ENZYMES - Development of cellulases for lignocellulosic biomass pretreatment
- ❑ LIPID ENZYMES - Development of enzymes for lipid modification and activation
- ❑ DESIGNER ENZYMES – Improved biocatalysts for bioprocesses
- ❑ MICROBIAL STRESS IN CONTAINMENT - Study of microbial stress for more robust industrial microorganisms
- ❑ IMPROVED MICROBES – Metabolic engineering and modelling

# Call FP7-KBBE-2007-1 (4)

---

## Area 2.3.3 Environmental biotechnologies; Use of waste and by-products

- ❑ SYNTHETIC BIOLOGY FOR THE ENVIRONMENT - The use of Synthetic Biology for the solution of environmental problems
- ❑ IMPROVED MICROBES FOR THE ENVIRONMENT - Microbial gene expression under condition of stress
- ❑ ANIMAL BY-PRODUCTS - Novel methods of treatment of animal by-products for the production of substances with biologically valuable functional properties

# Call FP7-KBBE-2007-2A (1)

---

- ❑ **Large collaborative projects**
- ❑ **2 stages**
- ❑ **30 million €** (out of 110 million €)

# Call FP7-KBBE-2007-2A (2)

---

## Area 2.3.1 Improved biomass and plant based renewables

- GREEN FACTORY – The expression and accumulation of valuable industrial compounds in plants

# Call FP7-KBBE-2007-2A (3)

---

## Area 2.3.2 Bioprocesses

- BIOETHANOL AND BEYOND - Novel enzymes and microorganisms for biomass conversion to bioethanol
- NOVEL ENZYMES – The search for novel enzymes and microorganisms for different bioprocesses
- BIO-INFORMATICS - Microbial genomics and bio-informatics
- BIOREFINERY - Biotechnology for the conversion of biomass and waste into value-added products

# Call FP7-KBBE-2007-2A (4)

---

## Area 2.3.3 Environmental biotechnologies; Use of waste and by-products

- USEFUL WASTE - Novel biotechnology approaches for utilizing wastes, including aquaculture wastes, to make high added value products
- ACTIVITY MININING IN METAGENOMES – Exploring molecular microbial diversity in aquatic environment or the soil

# Call FP7-KBBE-2007-2B (1)

---

- **Small collaborative projects & CSAs** excluding the topics: KBBE-2008-3-1-04 and KBBE-2008-3-2-01  
→ **17.56 million €**
  
- **Coordinated co-funded Small collaborative projects** with Russian participants for the topics KBBE-2008-3-1-04 and KBBE-2008-3-2-01  
→ **4 million €**
  
- **21.56 million €** (out of 96.85 million €)

# Call FP7-KBBE-2007-2B (2)

---

## Area 2.3.1 Improved biomass and plant based renewables

- Plant natural products - Alternative sources for the synthesis of bioactive or industrial added value products
- Sweet sorghum – An alternative energy crop for biofuel production in semi-arid and temperate regions – SICA (Latin America, South Africa, India)
- European non-food crops and their industrial application
- Plant-produced vaccines - SICA (Russia) Coordinated co-funded project with Russia
- Development of fermentor-like applications and other plant-based containment systems for molecular farming

# Call FP7-KBBE-2007-2B (3)

---

## Area 2.3.2 Bioprocesses

- ❑ Molecular modelling for rational design of industrial enzymes – SICA (Russia) Coordinated co-funded project with Russia
- ❑ Industrial bioprocesses for fine and speciality chemicals
- ❑ Nanobiotechnology based biosensors for optimised bioprocesses
- ❑ Novel nanobiotechnology (bio to nano) processes and products
- ❑ Life cycle analysis and socioeconomic assessment of integrated biorefineries
- ❑ Development of high performance composites based on flax and hemp
- ❑ Industrially relevant products and processes from marine biotechnology

# Call FP7-KBBE-2007-2B (4)

---

## Area 2.3.3 Environmental biotechnologies; Use of waste and by-products

- Upgrading of wood, wood-related residues and humic-origin substances to value-added chemicals and materials: from biological understanding to innovative applications – SICA (Russia)
- Aquatic anaerobic bioremediation

# Contact

---

**Lana Žutelija**

**FP7 National Contact Point**

**Food, Agriculture, and Fisheries, and Biotechnology**

Joint Research Centre

Euratom

Croatian Institute of Technology - HIT

Tel: + 385 1 5494 031

Mob: + 385 99 313 4151

Mail: [lana.zutelija@hit.hr](mailto: lana.zutelija@hit.hr)



---

# Thank you for your attention!

