

**Summary of the Roundtable on
Industrial Biotechnology in Croatia**

12 June 2008, Zagreb



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Introduction

The roundtable on industrial biotechnology in Croatia took place on 12 June 2008 in The Croatian Chamber of Economy (Zagreb). The event has been initiated by EuropaBio in the framework of the European Technology Platform "SusChem".

The roundtable has been locally organised by Prof. Đurđa Vasić-Rački from the Faculty of Chemistry and Engineering of the University of Zagreb.

Participants to the roundtable were representatives from academia, enterprises, development agencies and ministries/government bodies with an interest in the field of biotechnology (see Annexes).

Roundtable on industrial biotechnology in Croatia

- Prof. Đurđa Vasić-Rački (University of Zagreb) and Ms. Camille Burel (EuropaBio) introduced the roundtable and welcomed participants. Prof. Vasić-Rački briefly explained initiatives that had been taken in the past in the field of industrial biotechnology in Croatia. She stressed that Croatia has a very long tradition in chemistry and that potential for Industrial biotechnology development is important. She pointed out that humanities studies are still preferred by student and special attention should be paid to human resources. From her side, Camille Burel presented the objectives of the meeting for SusChem and how they will be reported to competent authorities.
- Dr. Dražen Topić-Vikić (MZOS) presented R&D programme in Croatia and more specifically, projects in the field of industrial biotechnology and future opportunities. He said that the governmental budget for R&D increased during last years and that the sector is under reorganisation. A new body (agency???) has been created to implement the new R&D action plan. This action plan has been decided to reach the objective of investing 3% of GDP into R&D. Currently, 55 biotech (out of 2200) projects are funded by the government. He noted that there is a need for more investment from industry into research. From his point of view, the new action plan shall help industry in investing into research. Finally, he noted that several funding opportunities can be found in the EU pre-accession financial instrument.
- Ms. Lana Zutelija (Croatian Institute of Technology) presented industrial biotechnology and the Knowledge-Based Bio-Economy (KBBE) in the 7th Framework Programme for Research and Development. More specifically, she presented
 - A general picture of FP7 as well as KBBE thematic that are covered by FP7.
 - The participation of Croatian actors in the first FP7 call: she pointed out that Croatian participation is decreasing in term of number of projects submitted and successful proposals. She said that more efforts need to be done by informing the Croatian researchers about the possibilities of cooperation in the Biotechnology field within FP7 and by connecting Croatian researchers with their EU colleagues.
 - A first draft of the 3rd round of call that will probably be presented officially on 3 September 2008 (cf. presentation of the European Commission).
- Prof. Đurđa Vasić-Rački (University of Zagreb) presented the European Research Area network for industrial biotechnology (ERA-net IB) of which Croatia is full member. This FP6 funded project aims at creating a true European Research Area in the field of Industrial Biotechnology by stimulating and supporting coordination, cooperation, effectiveness and joint activities of research bodies and programmes.
- Ms. Camille Burel (EuropaBio) presented the European Technology platform SusChem and its section on industrial biotechnology. SusChem objectives are to boost sustainable chemistry, industrial biotechnology and chemical engineering research, development and innovation in Europe. More specifically, the Industrial Biotechnology section ensures a coherent policy framework and the most effective use of R&D resources. It guarantees that biotechnology is properly integrated in the chemical industry.
- Dr. Ivo Friganović (Business Innovation Centre of Croatia - BICRO) presented the opportunities and the potential of industrial biotechnology. He called strongly for the establishment of a national biotechnology policy. From his point of view, the political commitment is the first step and there is a need for more political leadership, stimulating



legislation and regulation as well as collaboration between actors, public acceptance and a market.

- Prof. Srđan Novak (University of Zagreb) presented the potential of industrial biotechnology within the University of Zagreb and its future plans. He also presented the brand new technology transfer that has been established with the mission of promoting and facilitating the transfer of technology from the University of Zagreb to the commercial sector. During his presentation, he regretted the lack of biotech strategy at University and Governmental level as well as the lack of awareness of industrial biotech potential amongst industry managers.
- Dr. Gordana Pehnec (Croatian Chamber of Economy) presented the state of the chemistry industry in Croatia. She pointed out that the sector strongly suffered from the war and the privatisation. Companies are mostly investing to survive instead of investing into research and development. She also noted that even if exportations are growing, chemical industry still imports more than it exports.

SWOT analysis of (industrial) biotechnology in Croatia

Strengths

- Very long tradition in chemistry, biotech and engineering
- Good level of scientists
- « competition between research bodies »

Weaknesses

- Lack of R&D from private sector
- Lack of scientific students (lots still choose humanities)
- No operative strategy for IB at government level
- Lack of awareness about IB potential (Gov. Level, industry, citizens)
- Budget for research is fragmented
- Very low level of funding in applied research
- Lack of up to date infrastructures

Opportunities

- New government action plan for R&D
- Funds are available in the EU accession instrument
- Technology transfer and Innovation Centre

Threats

- Competition between universities/institutes
- Lack of communication/cooperation between academia and industry
- Lack of political commitment

Recommendations

- **R&D**

- The evaluation of R&D projects could be improved. There should be a better evaluation of the concordance between research and industry needs. What academia is producing does not correspond obviously to industry needs.
- R&D funding is low and spread in many topics. Therefore, there is small grants per project. There is a need to prioritise research fields.
- Investment of private sector in R&D shall be encouraged.
- Stop thinking that « graduates » are the main and only objective/products of academia. More attention should be paid to research aspects.
- Qualified scientists and good student are there but there is a lack of high level infrastructures. Therefore, more funds should be invested into the renovation of old research infrastructures.
- Informing Croatian researchers about the possibilities of cooperation within the biotech field in FP7
- Connecting Croatian researchers with their EU colleagues (partnering)

- **Innovation**

- The key question is: “how to make industry and academia closer”. Therefore, is it important to further reinforce collaboration between academia and industry.
- The flow of information between industry and academia should also be improved and these two worlds shall meet more often.

- **Policy**

- Dissemination of benefits of industrial biotechnology should be broader. There is a need to increase citizens and industries awareness of benefits and advantages of industrial biotechnology to stimulate the market.
- To develop (industrial) biotechnology at market scale, a strong political commitment is needed. A national policy/strategy supporting biotechnology could strongly help in reaching this objective.
- Industrial biotechnology is a young technology and often unknown. Therefore, it is important to educate decision makers on biotech specificities (long term, etc.) and potential.



Follow-up

Participants agreed that further joint efforts and organization of all stakeholders in biotechnology are necessary. They agreed that a national biotech technology platform could help them in meeting more regularly.

Annexes

Programme

9:30-10:00	Arrival, registration and refreshment	
10:00-10:10	Welcome and opening / presentation of objectives	Local organiser & EuropaBio
10:10-10:30	Introductions of participants	All
10:30-10:50	Presentation of Biotech R&D in Croatia	Croatian representative-Dr.sc. Dražen Topić-Vikić, MZOS
10:50-11:05	Presentation of biotechnology in FP7	National Contact Point - Lana Žutelija-HIT
11:05-11:20	Presentation of Croatian participation in FP7 first call	National Contact Point - Lana Žutelija-HIT
11:20-11:40	Presentation of ERA-net IB	Dr. Louis B.J. Vertegaal, NWO - Chemical Sciences and ACTS
11:40-12:15	Presentation of new calls - biotechnology-biorefinery-General discussion & questions	National Contact Point - Lana Žutelija-HIT
Lunch		
13:30-13:50	Presentation of SusChem: <ul style="list-style-type: none"> Strategic Research Agenda Policy Agenda 	Camille Burel, EuropaBio
13:50-14:50	Presentation of policy in the field of biotechnology in Croatia <ul style="list-style-type: none"> Towards to National Biotech Policy Potential for Development of Industrial Biotechnology in Croatia The current situation in Croatian Chemical Industry" 	Ivo Friganović, BICRO Srđan Novak, University of Zagreb Gordana Pehnec, Croatian Chamber of Economy
Coffee		
15:35-16:45	<ul style="list-style-type: none"> Discussion on Croatian strategy and means to support IB and bio-products development General discussion on coordination of activities at European and national level" 	All
16:45-17:00	Conclusion	All



Participants

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