

## Institute of Catalysis and Surface Chemistry, PAS

The Institute addresses a field at the interface of chemistry, physics, biology, engineering and material sciences that enables chemical processes to be realized with cost-, energy- and eco-efficiency, thus making a key contribution to: (i) sustainable energy and mobility, (ii) the rational use of resources, (iii) quality of life, and (iv) health and environment protection.

## Research, education and promotion of science

- The Institute has a leading position in Poland and worldwide visibility. It is well positioned in the European Research Area. The high number of research contracts, as well as the participation in European projects and networks in the fields of expertise of the Institute is remarkable.
- The Institute holds multi-disciplinary competences, well balanced between fundamental and applied aspects, ranging from interface and colloid science, material synthesis via characterization up to catalysis. It combines theoretical and experimental expertises as requested by a modern approach to science. It provides a forum for sharing ideas and concepts.
- Publications and conference contributions, keynote and plenary lectures at national and international meetings, are well in line with international standards.
- The ratio of the number of PhD students over available supervisors is good, and the Institute achieves excellent integration of research and education.
- The effort towards public awareness on science remains outstanding.

Running an Institute with a strong fundamental research programme requires a good balance of institutional, national and international funding. The advisory Board feels strongly that an increase in institutional financial support is necessary to give continuity to the high level of science the Institute is known for. The support for new equipment from institutional funding at the present time is unacceptably low.

The Institute has the potential to increase the number of PhD students which is now limited by the funds available. The increase of the individual grant both for PhD students and post-doctoral fellows will attract the best researchers and improve mobility of the individuals.

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The fundamental research vision of the Institute requires continuity in human resources and knowledge transfer. The Board notes with satisfaction that a significant effort has been made towards promoting younger researchers to leadership positions. Cooperation and integration among different research groups on common research projects, though improving, needs to be further strengthened.

### **Scientific productivity**

The Board is satisfied with the scientific productivity, both with respect to quality and quantity. The Board also notes that its previous recommendation to increase the proportion of publications in top international journals has been taken seriously.

### **Relations with the industrial sector**

The Board appreciates the effort to improve the relations with industry as documented by the project co-funded by the Ministry.

### **Recommendations**

The leadership of ICSC should be congratulated for attracting a high level of external funds. Nevertheless, the Ministry must improve the institutional funding for the Institute, and especially for equipment.

An effective integration of all competences in the Institute under a common vision is necessary. The Board feels that a balanced combination between research independence, freedom and institutional leadership should be practiced. This might be a mechanism to foster synergies of competences in areas promising for the future of the Institute.

The creation of competences in the field of chemical engineering could complement the existing field of expertise. This could also be partly realized by strengthening collaboration with other institutes specialized in this area.

In the future the Board would appreciate to receive a summary report highlighting the major changes that occurred with respect to the last reviewed period. It should also address the recommendations of the previous report.

Signatures of the Members of the International Advisory Board of the  
Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences:

Ewa Bulska



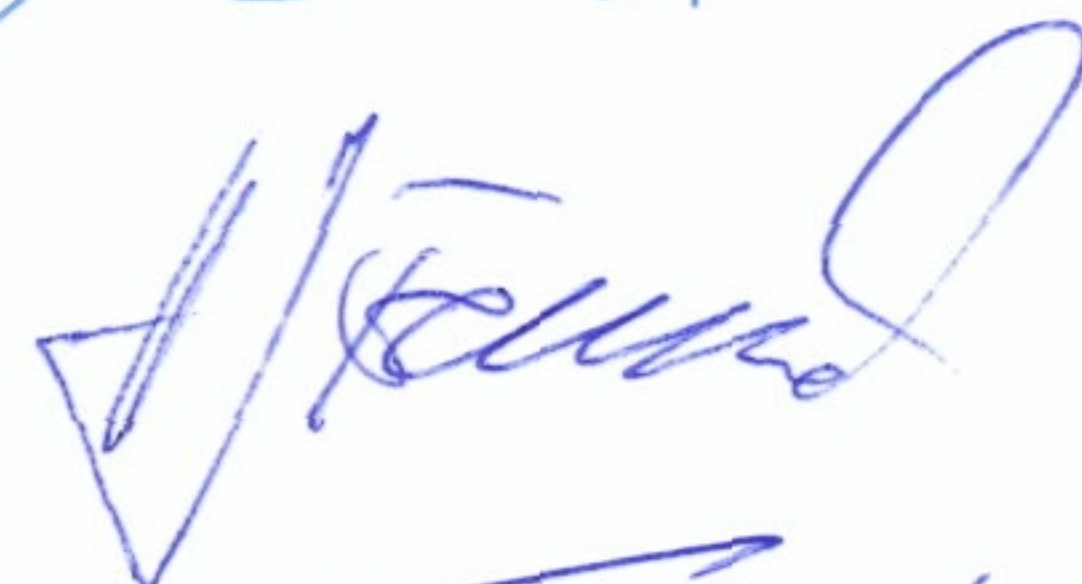
Gabriele Centi



Philippe Dejardin



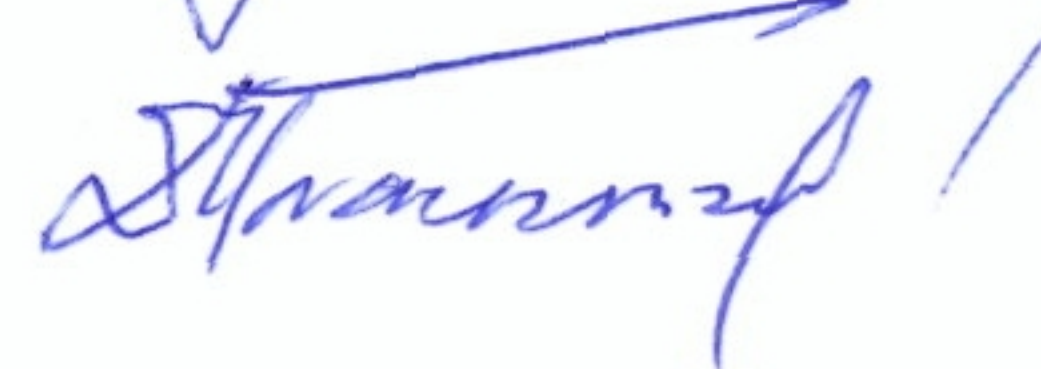
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Krakow, 5 February 2010