Consiglio Nazionale delle Ricerche

The contribution of the CNR to the IT-SusChem Platform

Launch of the IT-SusChem Platform

Aula Magna di Santa Lucia, Bologna 23 Ottobre, 2006

CNR Department "Molecular Design"

The CNR Department "Molecular design" drives and coordinates the research activity of 14 Institutes through the implementation and realization of projects aimed at supporting the Sustainable Development of the Country

Strong interaction with the Academy and Industry in a continuous effort to improve the competitiveness of the Country

DEPARTMENT "MOLECULAR DESIGN"

Istitutes of the Department

1. **ICCOM:** **Istituto di Chimica dei Composti Organometallici**
2. **ISTM:** **Istituto di Scienze e Tecnologie Molecolari**
3. **IMCB:** **Istituto per i Materiali Compositi e Biomedici**
4. **ICTP:** **Istituto di Chimica e Tecnologia dei Polimeri**
5. **ISOF:** **Istituto per la Sintesi Organica e la Fotoreattività**
6. **ISMAC:** **Istituto per lo Studio delle Macromolecole**
7. **ITM:** **Istituto per la Tecnologia delle Membrane**
8. **ICRM:** **Istituto di Chimica del Riconoscimento Molecolare**
9. **ICB:** **Istituto di Chimica Biomolecolare**
10. **ICIS:** **Istituto di Chimica Inorganica e delle Superfici**
11. **ISMN:** **Istituto per lo Studio dei Materiali Nanostrutturati**
12. **IC:** **Istituto di Cristallografia**
13. **IMC:** **Istituto di Metodologie Chimiche**
14. **IBB:** **Istituto di Biostrutture e Bioimmagini**

The research activity of the DPM comprehends 6 main strategic projects

1. Molecular design of biochemical properties
2. Molecular design of macromolecules
3. Nanostructured systems with catalytic properties
4. Nano-organized systems with eletrical and photonic properties
5. Functionalization of films and interfaces
6. Enabling technologies of drug discovery

5 priorities in the IAP 2006 of interest to the CNR

1) Bio-based economy: Improvement of biorefinery technologies. The biorefinery concept

2) Materials: Synthesis and processing

3) Sustainable product and process design:
Biomass based feedstocks;
New synthetic pathways;
Implementation and integration of intensified process technologies

Sustainable chemistry: Activity in progress

"Inter-departmental project "Sustainable Chemistry"

Based on the elaboration of a limited number of projects with well defined deliverables

Actors: CNR & Federchimica

Other Stakeholders:
Istituto Superiore della Sanità, CRUI, ONGs,Finance OG

Sustainable Chemistry: Activity in progress

Network di Excellence IDECAT

Integrated Design of Catalytic Nanomaterials for a Sustainable Production

VI° PQ European Community

Kick off 1 Aprile 2006, duration 5 anni

WP5 Creating and mastering nano-objects and nano-organisation

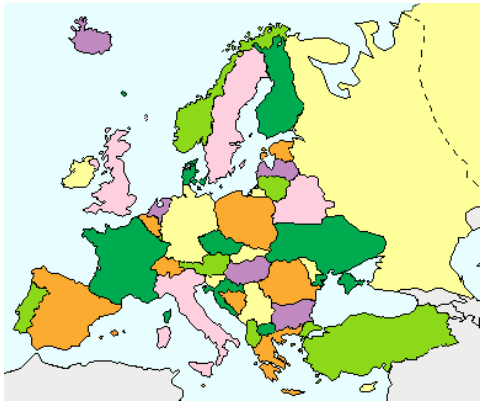
WP6 Creating and designing new multifunctional molecular, enzymatic and supported catalysts structured on the nanoscale

WP7 Bridging the gap in multi-disciplinary approaches

WP8 Eco-processes and sustainable energy and production

Contractors

Consorzio Interuniversitario per la Scienza e Tecnologia dei Materiali (INSTM)	Italy
Ghent University	Belgium
Katholieke University Leuven	Belgium
J. Heyrovsky Inst. of Physical Chemistry	Czech Rep.
Helsinki University of Technology	Finland
Centre Nat. de la Recherche Scientifique	France
Max-Planck-Gesellschaft	Germany
Leibniz Institute for Organic Catalysis	Germany
Technische University München	Germany
Consiglio Nazionale delle Ricerche	Italy
NRSC-Catalysis	The Netherlands
Institute of Catalysis and Surface Chemistry	Poland
Consejo Sup. de Investigaciones Científicas	Spain
Stockholm University	Sweden
University St. Andrews	U.K.
University of Southampton	U.K.
Ecole Polytechnique Féd. de Lausanne	Switzerland



ERIC

European Research Institute on Catalysis

VI° PQ European Community

Inizio 2007

Sustainable Chemistry: Activity in progress

COST Chemistry Action D29 Working Group 0009/03
"Green Chemistry through Aqueous Organometallic Catalysis" (2003 – 2007)

COST D24 Chemistry Action

Sustainable Chemical Processes:Stereoselective Transition Metal-Catalysed Reaction

MARIE CURIE RESEARCH TRAINING NETWORK
project MRTN-CT-2003-503864,
"Transition Metal Chemistry and Catalysis in Aqueous Media" (**AQUACHEM**)
(2003 – 2007) (6th RFP)

H_2O
AQUACHEM

Sustainable Chemistry: Activity in progress

Organization and management of symposia and workshops on Sustainable Chemistry:

ISHHC

"International Symposium on the relationships between homogeneous and heterogeneous catalysis" 2005 - 2007

IDECAT Conference Series

"Catalysis for sustainable Energy production" 2006

ISHC

"International Symposium on homogeneous catalysis" 2008

Sustainable Chemistry: Activity in progress

The project Firenze Hydrolab

FIRENZE HYDROLAB

H-STORAGE & PRODUCTION

Stakeholders:
CNR, University of Florence, LENS