



CO-ORDINATION ACTION on Indoor Air Quality and Health Effects



EnVIE

Partner 5:



**Department of Occupational Health
“Clinica del Lavoro Luigi Devoto”
Hospital Luigi Sacco Unit
University of Milan, Italy
(UNIMI)**



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Department of Occupational Health University of Milan, Italy



- The Department of Occupational Health “Clinica del Lavoro Luigi Devoto” of the University of Milan is the oldest institution in the world specifically dedicated to occupational health.
- The Department comprises several units, of which the **Hospital Luigi Sacco Unit** (previously Environmental Toxicology Unit) is involved in this project.
- Activities of the Hospital Luigi Sacco Unit:
 - occupational health & occupational medicine
 - environmental and biological monitoring of exposure
 - toxicological and health risk evaluation
 - assessment of air quality in indoor and outdoor environments and related health effects
 - education & teaching



Department of Occupational Health - University of Milan

Hospital Luigi Sacco Unit



Team involved in EnVIE



Prof. Marco Maroni, MD, Professor of Occupational Health

Dr. Paolo Carrer, MD PhD, Researcher of Occupational Health

Dr. Francesca Metruccio, MD, specialist in Occupational Health

Dr. Patrizia Fabretto, MD, specialist in Occupational Health

Dr. Massimiliano Della Torre, MD, post-graduate student in OH

Dr. Stefano Colombo, MD, post-graduate student in OH



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Main activities in the field of Indoor Air Quality



National projects:

- Indoor Air Quality in Schools and in Office Buildings in Milan (1991-92), in Municipality Buildings (1993-94), in Subway stations (2000-03)
- Co-ordination of the Italian Health Ministry Commission for the elaboration of the "National Prevention Plan for Health Protection and Promotion in the Indoor Environments" (1998-1999)

Co-ordination of the NATO Pilot Study on Indoor Air Quality (1988-98)

European projects:

- EXPOLIS - Exposure Distributions of Adult Urban Populations (UE, 1994-1998)
- Risk in cleaning: prevention of health and safety risks (UE, 1996-1999)
- Indoor Air Quality in Schools (EFA, 1999-2000)
- HOPE - Performance criteria for healthy and energy efficient buildings (UE, 2002-2004)
- THADE – Towards Indoor Air Quality in Dwellings (EFA, 2002-2004)
- INDEX - Critical Appraisal of the Setting and Implementation of Indoor Exposure Limits in the European Union (UE, 2003-2004)



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Some publications of the team ¹



MARONI M., BERRY M.A. (Editors)

The implications of indoor air quality for modern society.

Pilot Study on Indoor Air Quality. Report on a Meeting in Erice, 13-17 February 1989.

MARONI M. (Editor)

Managing indoor air quality risks.

Pilot Study on Indoor Air Quality. Report on a Meeting in St. Michaels, Maryland,
25-27 October 1989.

MARONI M. (Editor)

Energy & building sciences in indoor air quality.

Pilot Study on Indoor Air Quality. Report on a Meeting in Sainte-Adele, Quebec,
6-8 August 1990.

LEVY F., **MARONI M.** (Editors)

Epidemiology and medical management of building-related complaints and illnesses.

Pilot Study on Indoor Air Quality. Report on a Meeting in Oslo, Norway, 19-21 August 1991.



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Some publications of the team 2



MARONI M., AXELRAD R. (Editors)

Final Report.

Pilot Study on Indoor Air Quality. CCMS Report 195, June 1994.

MORAWSKA L., BOFINGER N.D., **MARONI M.** (Editors)

Indoor air: an integrated approach.

Elsevier Science, 1995, 1-515.

MARONI M., SEIFERT B., LINDVALL T. (Editors)

Indoor air quality - A comprehensive reference book.

Air Quality Monographs, Elsevier Science, The Netherlands, 1995, 3: 1-1100.

MARONI M. (Editor)

Healthy Buildings '95 - An international conference on healthy buildings in mild climate.

Healthy Buildings '95, Milano (Italy), 1995, 1-1860.

MARONI M. (Editor)

Ventilation and indoor air quality in hospitals.

NATO Advanced Science Institute Series, 1996, 11: 1-341.



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Some publications of the team ³



MARONI M.

Toward an internationally harmonized, multiprofessional educational program in indoor air sciences: needs and strategies.

Education and Training in Indoor Air Sciences, N. Boschi (Ed.), NATO Science Series, 1999, 60: 21-26.

MARONI M., AXELRAD R., BACALONI A.

NATO's efforts to set IAQ guidelines and standards.

Journal of the American Industrial Hygiene Association, 1995, 56: 499-508.

MARONI M., LUNDGREN B.

Assessment of the health and comfort effects of chemical emissions from building materials: the state of the art in the European Union.

Indoor Air, 1998 (suppl.), 4: 26-31.

MARONI M.

Health effects of indoor air pollutants and their mitigation and control.

Radiation Protection Dosimetry, 1998, 78, 1: 27-32.

EUROPEAN CO-ORDINATION ACTION on INDOOR AIR QUALITY and HEALTH EFFECTS

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Kick-off meeting PARIS April 29-30 2004



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Some publications of the team 4



CARRER P., MARONI M., CAVALLO D.

Allergens in indoor air: environmental assessment and health effects.

International Journal of Immunopathology and Pharmacology, 1999, 12 , 2 (S): 31-32.

CARRER P., CAVALLO D., MARONI M., FOA' V.

Airborne particles and human health: state of knowledge and reaseach perspectives.

European Journal of Oncology, 1999, 4(5): 545-551.

CARRER P., MARONI M., ALCINI D., CAVALLO D., FUSTINONI S., LOVATO L.

Assessment through environmental and biological measurements of total daily exposure to Volatile Organic Compounds of office workers in Milan, Italy.

Indoor Air 2000, 10(4): 258-268.

CARRER P., MARONI M., ALCINI D., CAVALLO D.

Allergens in indoor air: environmental assessment and health effects.

The Science of the Total Environment 270 (2001): 33-42.



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Contribution to EnVIE



- **Leader of WP2 – Health effects**
- **Support to WP4: Integration and policy interface**