

# Global Partners in Contaminated Land Management - GLOCOM

Elisa Giubilato<sup>1</sup>, Lisa Pizzol<sup>1</sup>, Daniele Brombal<sup>1,2</sup>, Andrea Critto<sup>1</sup>, Guanlin Guo<sup>3</sup>, Fasheng Li<sup>3</sup>, Chunye Lin<sup>4</sup>, Mats Tysklind<sup>5</sup>, and Antonio Marcomini<sup>1</sup>

<sup>1</sup> Department of Environmental Sciences, Informatics and Statistics, University Ca' Foscari of Venice  
Calle larga S. Marta 2137, 30123 Venice, Italy

<sup>2</sup> Department of Asian and North African Studies, University Ca' Foscari of Venice  
Dorsoduro 3462, 30123 Venice, Italy

<sup>3</sup> State Key Laboratory of Environmental Criteria and Risk Assessment, Chinese Research Academy of Environmental Sciences, Beijing, People's Republic of China

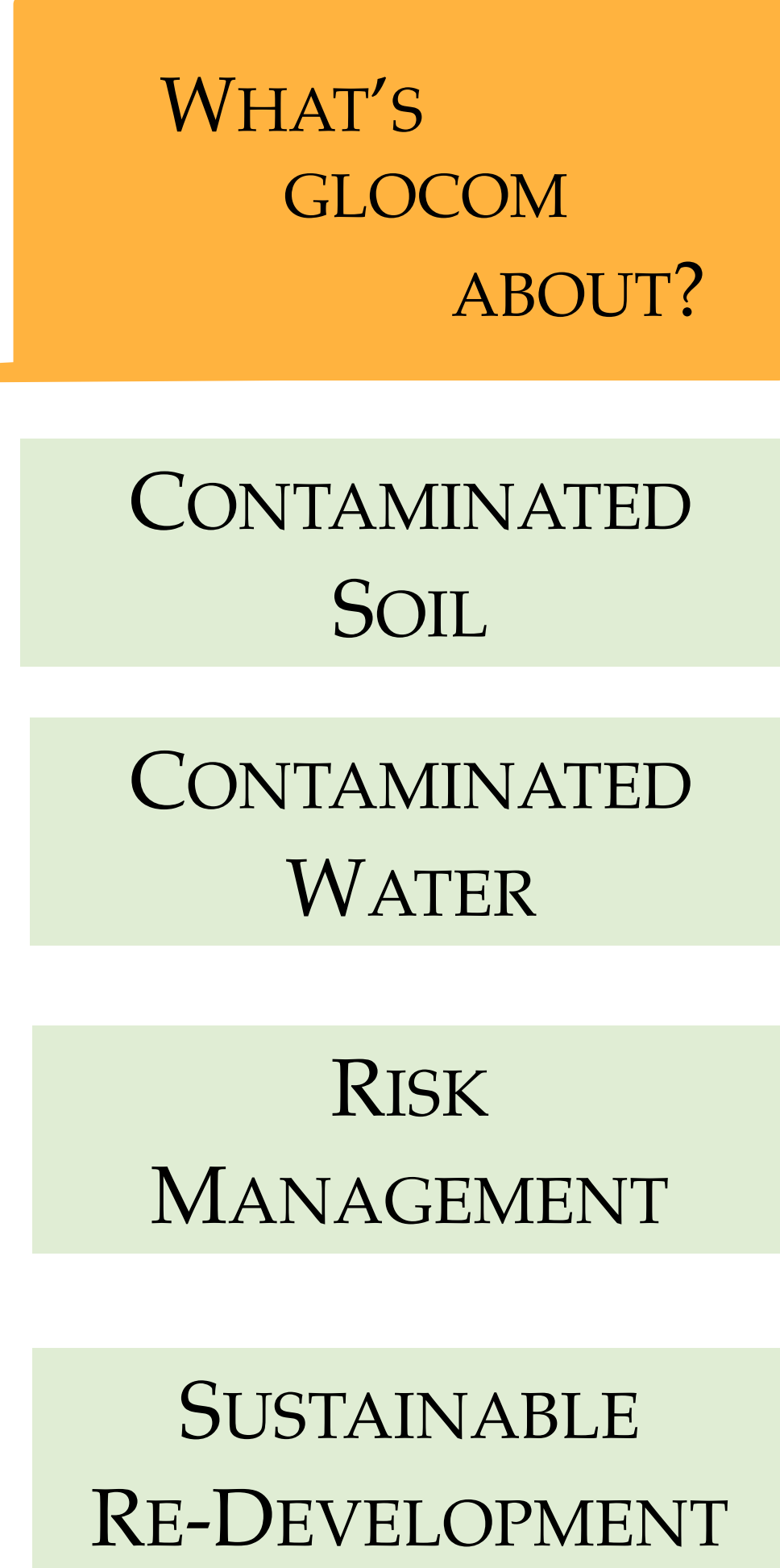
<sup>4</sup> School of Environment, Beijing Normal University  
Xin jie kou wai lu 19, 100875, Beijing, People's Republic of China

<sup>5</sup> Department of Chemistry, Umeå University  
SE-901 87, Umeå, Sweden



## PROJECT BACKGROUND

Complex hazardous contamination of soil and water is obstructing sustainable re-development of previously industrialized urban land in Europe and in China. Although significant efforts have been put in place, a systematic and integrated approach for the sustainable management of contaminated sites is still lacking. In Europe, an increasing body of regulations (as the *Soil Thematic Strategy*, the *Water Framework Directive*, etc.) is aimed at establishing a common framework to protect human health and the environment from chemical hazards. Risk Based Land Management (RBLM) was introduced in EU member countries more than a decade ago, and has been increasingly integrated with ecosystem services (ES) to implement and communicate sustainability in RBLM. However, several key issues pertinent to ES used as a framework for sustainability still deserve careful evaluation. As a result of its rapid process of industrialization, also China is facing similar problems. Although the considerable efforts put in place by authorities, a systematic approach for the sustainable management of contaminated sites, integrating socio-economic analysis, risk assessment, and remediation technologies comparison, is still scarcely put into practice. Many remediation technologies have been poured into the Chinese market in recent years. However, improved competencies at grassroots level are needed for the adoption of the most appropriate ones. Finding proper financing approaches for contaminated sites management is also a challenging issue. Numerous regulations have been issued (e.g. *Controlling standards for pollutants in sludges from agricultural use*, *Standards for irrigation water quality*, *Environmental quality risk assessment criteria for soil at manufacturing facilities*). However, a sustainable management framework is yet to be defined.

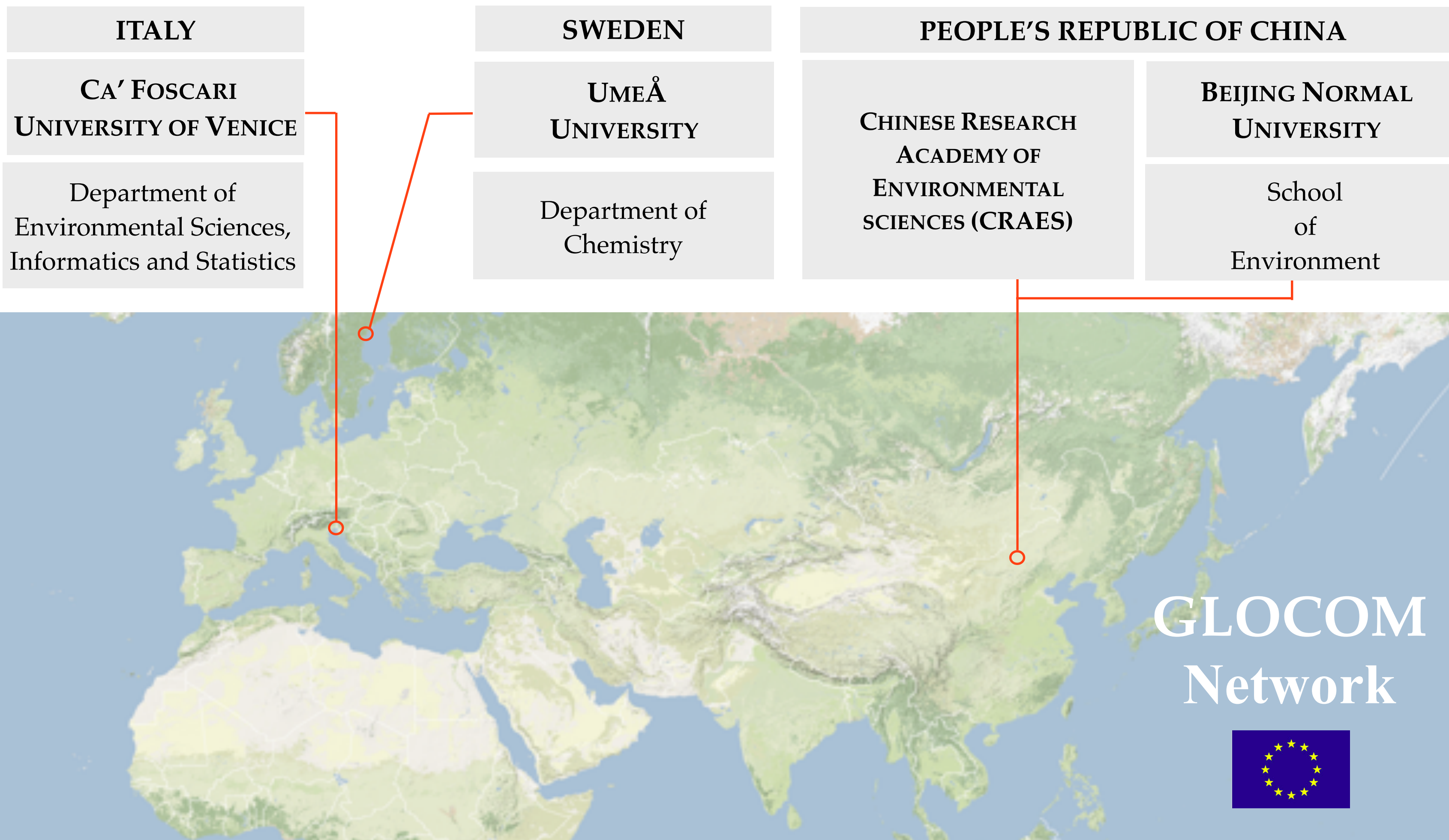


## GLOCOM PROJECT RATIONALE

SHARING INTERNATIONAL PRACTICES FACILITATES EFFECTIVE REGULATORY AND MANAGEMENT APPROACHES FOR ENVIRONMENTAL HAZARDS

## GLOCOM PROJECT OBJECTIVES

- (1) Support definition and implementation of regulatory and operational frameworks for the management of chemical substances and contaminated land in China.
- (2) Stimulate a regulatory and scientific harmonization process at international level.
- (3) Strengthen the quality of research by developing international collaborations.
- (4) Advance the decision making on complex issues in contaminated land management.
- (5) Facilitate strategic collaborations in future research projects.



## GLOCOM SCIENTIFIC FRAMEWORK

WORKING PACKAGE NO. 1  
FATE OF CONTAMINANTS

- (1) Exposure Characterization:  
Multimedia fate and exposure modeling and parametrization
- (2) Effect Characterization:  
Toxicity and ecotoxicity methods and tests

WORKING PACKAGE NO. 2  
HUMAN & ECOLOGICAL RISK ASSESSMENT

Risk assessment approaches and guidelines  
Risk models and parametrization

WORKING PACKAGE NO. 3  
RISK MANAGEMENT OF CONTAMINATED LAND

Decision analysis methodologies/approaches  
Decision support systems

## PROJECT ACTIVITIES (NOV 2011 - NOV 2015)

### (A) Exchange of personnel among partner institutions

Visiting periods up to 6 months of duration.  
Exchanges between Europe and China initiated in November 2011.

OPEN TO EXTERNAL COLLABORATION ?

**X** No

### (B) Training Sessions

Training activities held by visiting researchers in partner institutes.  
Case studies selected to apply methods and tools introduced during the training activities. Activities initiated in June 2012.

**✓** Yes

### (C) Publications

Individual and joint journal publications. Edited volume concerning practices, methods and tools for risk-based management of contaminated sites. Activities initiated in April 2012.

**✓** Yes

### (D) Workshops

At least three workshops, one for each working package, held before project conclusion. First international workshop scheduled for Summer 2013.

**✓** Yes

Project contact:  
Daniele Brombal, Project Manager  
[daniele.brombal@unive.it](mailto:daniele.brombal@unive.it)

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**GLOCOM**  
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