Ecologia™
experts on the ground

Dr Giacomo Maini BSc, PhD
Managing Director

Dr Giacomo Maini spent two years at the University of Bologna, Italy, studying for a degree in agricultural sciences before winning an Erasmus Scholarship and moving to England. At the University of Kent he obtained a first degree in Microbiology and then proceeded to complete a PhD in Environmental Microbiology, investigating the microbial degradation of pesticides in the aqueous environment. Dr Maini joined IBS Viridian Ltd in 1996 as the lead investigator of a LINK grant looking at the remediation of heavy metals in contaminated land using a novel electrokinetic technique. In 1998 he became responsible for technical project management of in-situ and ex-situ bioremediation projects for Viridian in England, Italy and Indonesia. Dr Maini initiated the formation of Ecologia Environmental Solutions Ltd in the UK in 2000, with the view of providing technical expertise and consultancy to companies operating in the contaminated land market. Ecologia is now a significant player in the contaminated land & groundwater market in the UK where Dr Maini is Managing Director. In the couple of years Ecologia has opened a new office in Stafford and set up a subsidiary company in Italy. Dr Maini latest work includes the following:

- Supervision of a large feasibility trial in Italy for a large property developer testing at an array of novel in-situ technologies such as steam injection, Permeable reactive barriers, microbial dehalogenation and chemical oxidation.
- Supervision of internal R&D development programme assessing the commercial viability of applying radiowave technology for in-situ soil heating
- Provision of technical and environmental assistance to a major petrochemical company following a major fire incident at a lubrication plant in Italy.
- Coordination of the emergency response and the environmental assessment following a major fuel oil spill in Douglas, Isle of Man.
- Coordination of several emergency responses after an accidental oil spills at domestic properties throughout the UK. Supervised phase I & II investigations and, where necessary, performed the required human health and groundwater risk assessments.
- Successfully undertaken one of the largest ex-situ bioremediation projects in the UK at the Askern Colliery nr Doncaster. Over 22,000m^3 of soil were remediated after six months treatment. This project has been selected as a case study by the UK government's sponsored initiative CL:AIRE.
- Award of a SMART Grant for the development of a novel integrated chemicophysical/biological system for the treatment of high COD waste effluent.

Publications

2001 Jackman S.A, Maini G., Sharman A.K, Sunderland G. and Knowles C.J. (2001) "Electrokinetic movement and biodegradation of 2,4-dichlorophenoxyacetic acid in silt soil" Biotechnology and Bioengineering Vol 74: 40-48.

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2000 Maini G., Sharman A.K, Sunderland G., Jackman S.A and Knowles C.J "An integrated method incorporating sulphur oxidizing bacteria and electrokinetics to enhance removal of copper from contaminated soil." Environmental Science and Technology Vol 34 No. 6: 1081-1087

1999 Jackman S.A., Maini G, Sharman A.K and Knowles C.J " The effect of direct electric current on the viability and metabolism of acidophilic bacteria". Enzyme and Microbial Technology 24: 316-324

1999 Maini G., Sharman A.K, Sunderland G., Jackman S.A and Knowles C.J "Enhanced removal of copper from contaminated silt soil using bioelectrokinesis" Proceedings from the fifth In situ On site Bioremediation International Symposium San Diego California 19-22 April, Battelle Press Columbus Ohio; 5 (4): 127-134