



Dr. Stephen P. Etheridge
Chief Technical Officer

Dr Stephen Etheridge leads the technical team at asiaBIOGAS which is responsible for project design and implementation, plant commissioning and monitoring. He has been involved in a wide range of environmental projects and specialises in anaerobic digestion (AD) and biological treatment.

Dr Stephen Etheridge received a Bachelors Degree in Environmental Chemical Engineering at Exeter University, UK, followed by a PhD in Anaerobic Digestion at the Department of Microbiology, University College, Cardiff where he managed an EU research programme on the anaerobic digestion of animal wastes and energy crops. University College Cardiff was a centre of excellence for AD at the time, and Professors David Hughes and Dr David Stafford organised the first International Symposium on Anaerobic Digestion in 1977. After his PhD, Dr Etheridge went to the US to undertake research into a range of anaerobic digestion and biotreatment technologies at Cornell University, USA, with Professor William Jewell, the developer of the Expanded Bed reactor. He was subsequently appointed a Visiting Professor at Cornell and taught courses on biological treatment and land application of waste at post graduate level, including aerobic and anaerobic treatment, composting and landfill design. He was awarded Outstanding Faculty Member of the Year in 1987.

He has published papers on anaerobic digestion and was awarded a patent for a novel bioreactor in 1984. In the same year he designed the UK's largest animal waste digester which operated successfully for more than 14 years on pig waste. He joined CLEAR Limited in the UK as Technical Director in 1987, and became Vice President of CLEAR Inc. in the US in the same year. The company installed a range of anaerobic digestion and aerobic treatment plants in the agro-industrial sector with activities in Europe, US and Australia. Dr Etheridge and Dr Leroff co-founded their own company in 1990, Environmental Biotechnology Limited, to further develop novel approaches in biotreatment systems (biogas plants, reed beds, aerobic treatment, composting plants) and in 1992, designed the UK's largest industrial anaerobic digestion plant on brewery effluent.

Dr Etheridge has published widely on anaerobic digestion and biological waste treatment and has consulted internationally on projects in the US, Europe and Asia. Between 1992 and 2005 he was a key advisor to the British Government and their Biotechnology Means Business and Biowise programmes, advising UK companies on biotreatment and AD

systems. He helped the same programme develop a user guide and training programme for anaerobic digestion systems. Between 2000 and 2006, he provided inputs to a United Nations renewable energy development programme based in Beijing, advising on China's National Biogas Action Plan. Dr Etheridge has provided advice to asiaBIOGAS companies, CleanTHAI and PhilBIO since 2000.

In addition to developing biogas systems, Dr Etheridge has worked throughout the environmental sector in the last 25 years. He has been a business development advisor and Director of a number of environmental companies including university spin-offs, company start-ups, technology based companies and consultancies. He was Managing Director of an international environmental consultancy in the UK (Babtie Environmental, now part of Jacobs) and co-founded PIE International Limited (Partners in the Environment). He was runner up for the BCCB Consultant of the Year Award 2000 for environmental work in China over 5 years.

He has consulted internationally on a wide range of environmental subjects. He ran a major UK DFID development programme in Jiangsu Province, China from 1996-2000 (JETS Project) and has worked in China every year since, on a range of projects from industrial efficiency, waste minimisation, pollution control, environmental improvement, eco-industrial parks, and waste management. He has advised the Ministry of Environment in Macedonia on establishing EU environmental legislation and regulatory systems, and the Ministry of Environment in Romania on developing their national Environment Agency and monitoring programme. He advised the Environmental Protection Bureau in Tianjin, China on the development of an internet based waste exchange programme and environmental information management system.

Dr Etheridge has been invited to give presentations at number of international venues and has been an active member of professional societies and institutions.

Positions held by Dr Etheridge:

1. Editor for Waste for Process Safety and Environmental Protection, Official Journal of the European Federation of Chemical Engineering: Part B
2. Chair of the Environmental Protection Subject Group of the Institution of Chemical Engineers
3. Chair of the Scientific Committee of the Chartered Institute for Water and Environmental Management
4. Chair, Treasurer and Secretary of the Environmental Biotechnology Committee of the Society for Chemical Industry