



Water Technology Market Expert

Paul O'Callaghan B.Sc. M.Sc.



Mr. O'Callaghan is a water technology market expert and works with innovative start-ups, investors and leading water technology companies to identify and evaluate emerging water technology market opportunities.

Mr. O'Callaghan is Principal of [O₂ Environmental](#), a consultancy which provides water technology market expertise. Paul is a water industry expert and works with start-up firms, the investment community and larger water corporations to provide strategic advice on technology development and commercialisation.

He holds a Masters Degree in Water Resource Management and has 15 years international experience in the water industry.

Paul is originator of the [BlueTech Tracker](#) database of Emerging Water Technology and author of the book '[Water Technology Markets – key opportunities and emerging trends](#)' published by [Global Water Intelligence](#).

Paul is on the expert review panel for [Sustainable Development Technology Canada](#) and BC [Innovative Clean Energy Fund](#).

Prior to establishing O₂ Environmental in 2004, Paul worked as a water technology consultant in, the Ireland, UK, Malaysia & Canada.

Paul has lectured on Sustainable Energy at the [BC Institute of Technology](#) (BCIT)

He is a former Chair of the [BCWWA](#) Decentralised Wastewater Management Committee, has authored numerous papers and articles and regularly presents at international conferences and writes for [Cleantechblog.com](#), [Ecopreneurist](#) and [Cleantechnica](#).

EDUCATION

M.Sc. (Water Resource Management)
[Napier University](#), 1997

B.Sc. (Biochemistry), [University College Cork](#), Ireland 1995

IEMA Lead EMS Auditor, September 2003

PROFESSIONAL AFFILIATIONS

Chair of the Decentralised Wastewater Management Committee, (BCWWA).

Water Environment Federation (WEF)

Member of WEF Biosolids Technical Committee

International Water Association (IWA)

American Water Works Association (AWWA)

Water Environment Research Foundation (WERF)



Highlights of Recent Projects:

- [MaxWest Environmental Solutions](#) : Detailed Market Analysis of the North American Biosolids Market, Review of the China & European Biosolids Markets
- [APT Water](#): Analysis of Advanced Oxidation markets for Water Re-use and industrial wastewater treatment
- [Oasys](#): Analysis of Forward Osmosis markets in Seawater RO Concentrate treatment.
- [Codexis](#): Analysis of Biotech Opportunities in the Water Industry
- **Leading UV Company**: Voice of the Customer analysis of a large water technology company.
- **Water Technology PLC**: Analysis of the Sequencing Batch Reactor Market in Europe, China & North America.
- **Large Water PLC**: Strategic review of technology portfolio and identification of opportunities for acquisition and internal R&D.
- [Aquacritox](#) : VC fundraising support, strategic partner identification, E-Business marketing & Market Analysis for Sludge to Energy Technology.
- [UV Sciences](#): Identification of strategic partners for commercial expansion of UV technologies.
- [Artemis Project Water Top 50](#): Expert evaluation panel
- [Envirogene](#) : Industry Mapping Report for company with molecular biology based water analysis tools.
- [Ionic Water Technologies](#) : Market Analysis Study for the Rotating Cylinder Treatment System. (January 2008).
- [Invest BC](#) : Development of profiles of BC based Clean Tech companies and presentation to US based venture capitalists.
- [BC Innovative Clean Energy Fund](#) : Review of Liquid Biofuels applications to the on behalf of the [BC Innovation Council](#)
- [Ostara Nutrient Recovery Technologies](#), provision of business development and marketing consultancy services and support on fund-raising.

Employment History

[BCIT](#), Sustainable Energy Lecturer,
May 2009 – June 2010

[Kwantlen University](#), Environmental Protection Technology, *May 2006 – May 2009*

[Ostara](#), Business Development Manager: *May 2007 – October 2008*

[Atkins](#): Senior Environmental Engineer: *Dec 2000 – May 2002 & May 2003-Jan 2005*

[Noram Engineering](#), Environmental Engineer: *Nov 2002 – May 2003*



[Dayton & Knight Engineering](#),
Environmental Engineer, May 2002 –
Nov 2002,

[Fehily Timoney & Company](#),
Environmental Scientist, April 1998 –
December 2000.

[The Body Shop International PLC](#)
May 1997 – April 1998

[The World Wildlife Fund, Malaysia](#)
(May 1996 – October 1996 & Sept 1999
– Dec 1999)

Publications

Books

[Water Technology Markets – key opportunities and emerging trends](#),
Global Water Intelligence, July 2009

Journal Articles

[Decentralised Wastewater Management – a solution to infrastructure bottlenecks?](#) *Engineers Ireland* (Sept 2008) & *Environmental Science & Engineering* (November 2007)

[UV Light – An Everlasting lamp?](#)
Environmental Science and Technology (October 2006)

Microwave Ultraviolet Disinfection
Watermark, (December 2006)

[Wastewater Treatment Goes Underground](#), *The Institute of Engineers of Ireland* (November 2003)

Conference Papers

Water re-use and energy saving through
Decentralised water management
[Saudi Water & Power Forum](#), Jeddah,
October 2009

Biosolids and Sludge Management

Authors: Fitzmorris, Kari
B.; Sarmiento,
Fernando; O'Callaghan, Paul

[Water Environment Research](#), 2009
Literature Review , pp. 1376-
1393(18)

**Always On Going Green, Water Panel
Moderator**, San Francisco, September
2009

Water Innovations Alliance, **Water &
Energy Panel**, Chicago, September
2009

BlueTech Investment Panel,
[Blue Green & Gold Conference](#), Zurich,
Switzerland, April 2009.

**Emerging Pathogens – detection
monitoring and control**, [National
Water Summit](#), Ireland, October 2007

**Alternative Strategies for Sewage
Treatment and Disposal**, *Water in the
City Conference*, Victoria, Sept 25th
2006

**Use of Biosolids to generate a
Renewable Energy Crop**, BCWWA
AGM Whistler, BC, May 1st 2006

**Ultraviolet Disinfection of Water – an
Everlasting lamp**, *BCWWA AGM
Whistler, BC*, May 2nd 2006

ENVIRONMENTAL SCIENTIST

PAUL O'CALLAGHAN B.SC., M.SC.



Vertad™ – Auto-
Thermophilic Aerobic
Digestion Using Sub-
Surface Vertical
Treatment
Proceedings of
CIWEM European
Biosolids Conference
23rd – 25th
November 03,
Wakefield,

Implementing the
Polluter Pays
Principle, *ESAI
Environmental
Researchers
Colloquium 2002*

Advanced Fluid
Composting for
Sludge Destruction,
*ESAI Environmental
Researchers
Colloquium 2001*