

## Media information

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### **Scotland's Top Innovator**

The work of a scientist and entrepreneur whose new materials technology offers both significant environmental and economic benefits is to be recognised by the presentation of the Nation's top award for innovation. John Harrison has been announced the winner of the Gannochy Trust Innovation Award of the Royal Society of Edinburgh for 2005,<sup>1</sup>. Mr. Harrison has developed a unique chemical technology and related processes that can effectively dissolve oil in water and vice versa. This means that pollution such as oil-contaminated wastes can be cleaned up and the detergents (Surfactants) may be recycled for re-use. This process recovers oil and produces clean waste water for safe disposal, rather than creating additional oil-contaminated hazardous wastes and emulsions as byproducts. John Harrison's patented products and processes using MicroEmulsions Technology therefore minimise waste and facilitate its treatment, reducing technical and environmental risk, reducing operating and production costs, and improving efficiency. The technology has succeeded in introducing a step change in terms of environmental and performance capabilities and of economics. Work over the last 3 years has demonstrated waste volume reductions of between 70 and 100% in key industrial applications through the implementation of this technology.

The Gannochy Trust Innovation Award of the Royal Society of Edinburgh (RSE) has been created to encourage and reward Scotland's young innovators for work which benefits Scotland's wellbeing. This coveted title, which also carries a cheque for fifty thousand pounds and a specially-commissioned gold medal, will be bestowed upon Mr. Harrison by the President of the Royal Society of Edinburgh (RSE), Lord Sutherland of Houndwood, at a prestigious awards ceremony to be held at The Royal Museum of Scotland on 7 October 2005. Following an open competition run by The Royal Society of Edinburgh, the Winner was selected by a distinguished judging panel, Chaired by Lord Ross, comprising: Sir Bruce Pattullo, Professor Andy Walker, Dr Ian Sword and Dr Russell Leather.

Based at KemFine Ltd, Grangemouth, John Harrison (32) founded and set up Surfactant Technologies Ltd with Mark Zwinderman, following on from an RSE/Scottish Enterprise Research Fellowship awarded to John Harrison in 1999. Specialist industrial cleaning applications are now facing increased levels of scrutiny due to the effect that chemical product efficiency and design has on technical performance and company economics. In addition, more stringent global Health & Safety and Environmental legislation (HSE) is driving the need for more specialised, more environmentally sound and more effective cleaning agents and solutions to be produced. Using surfactant chemistry with optimised molecular design and formulating techniques, John Harrison's technology has the potential to make a significant impact in many key areas of industrial and environmental application. It is hoped that the technology will be used to clean up oil contamination and waste management problems at the BP Grangemouth facility and beyond, both in the offshore and onshore oil and gas sectors and in the inks and printing sector.

John Harrison's innovation is expected to be of significant economic benefit to the Scottish chemical manufacturing industry and related supporting logistical engineering and service operations based in Grangemouth and Aberdeen. The specialist skill sets still remain in these regions to enable this technology to flourish. There is international demand for the technology and John Harrison's group already exports across the Eastern Hemisphere from Scotland to Singapore, including areas such as West Africa, Russia, the Middle East and Indonesia. In addition the group has set up sales lines in the Americas serving markets in Trinidad and the Gulf of Mexico, resulting in inward investment into the country.

It is anticipated that winning this award will help John Harrison to secure European certification for new product lines and to develop the manufacturing base in order to supply his technology from sites at Grangemouth. This would assist in both the social and economic development of a vitally important manufacturing sector within Scotland. It is also hoped that the Award will help this Scottish-based business model to develop worldwide, with blue-chip companies serving as strategic development partners to continuing growth.

Reacting to the announcement, Mr. Harrison said:

*I am honoured to have been chosen as the recipient of this year's highly prestigious Gannochy Trust Innovation Award of The Royal Society of Edinburgh. The Award gives recognition for almost a decade of work and will serve to bring considerable credibility to our MicroEmulsion cleaning technology. The Award will also help me to realise the true potentials of the technology in key industrial global markets within the Oil & Gas and Inks & Printing sectors. I am truly grateful to all those at the Gannochy Trust and The Royal Society of Edinburgh who have made this Award possible. Without doubt this is the highlight of my achievements to date. Winning the Gannochy Award will be my motivation for many years to come.*

RSE President, Lord Sutherland of Houndwood said:

*John Harrison is a very worthy winner of the Gannochy Trust Innovation Award of The Royal Society of Edinburgh. His innovation has the potential to make a significant contribution to the environment and to industry in Scotland and elsewhere. I am grateful to Lord Ross who has Chaired the distinguished selection panel and to its judges: Sir Bruce Pattullo, Professor Andy Walker, Dr Ian Sword and Chairman of Trustees of The Gannochy Trust, Dr Russell Leather. I congratulate Mr. Harrison and wish him every continued success.*

The Gannochy Trust's Chairman, Russell Leather said:

*I am delighted with the very high standard of work submitted for this important award. We share the view of the RSE that it is of great importance for our Nation's future that we encourage younger people to pursue careers in fields of research which promote Scotland's inventiveness internationally. Our joint award recognises outstanding individual achievement which contributes to the common good of Scotland. The experience of being a judge for this event has been inspiring. The winning Innovator, Mr. Harrison, has every reason to be proud of attaining an outstanding level of achievement.*

## Notes for Editors:

### **\*<sup>1</sup>About The Gannochy Trust Innovation Award of the Royal Society of Edinburgh**

The Gannochy Trust Innovation Award of the Royal Society of Edinburgh is Scotland's highest accolade for individual achievement in innovation and has been being created to encourage and reward Scotland's young innovators for work which benefits Scotland's wellbeing. The Award was presented for the first time in 2003 to Dr Barbara Spruce, Department of Surgery and Molecular Oncology, University of Dundee, for her innovative technology for the treatment of cancer. The 2004 Winner was Professor Ian Underwood, FRSE, whose research and innovation led to the creation in Scotland of a world record-breaking technology – an ultra-miniature television-quality display built on a silicon chip. The award is presented annually to a young innovator whose work has the potential to promote social and economic well-being. Established in partnership between The Gannochy Trust and The Royal Society of Edinburgh, the purpose of the new award is to encourage younger people to pursue careers in fields of research which promote Scotland's inventiveness internationally, and to recognise outstanding individual achievement which contributes to the common good of Scotland. The prestigious award also seeks to promote Scotland's research and development capability in new technologies and areas of social importance.

Targeted at a new generation of Scottish innovator, any individual aged 45 or under working in Scotland is eligible to compete for the award. Competition entries from fields of research and development which have demonstrable potential to benefit Scotland's social or economic wellbeing, have been sought. Funded by The Gannochy Trust, the Award is administered by The Royal Society of Edinburgh.

## **2. Biographical Information: Mr. John Harrison**

John Harrison graduated from Aberdeen University in 1996 with a BSc (Hons) degree in Environmental Sciences. John spent 2 years working as a Research Associate and Environmental Consultant first at East of Scotland Water (ESW) Industrial Pollution Control Unit and then at Napier University, Edinburgh. John completed contract research in the field of aquatic toxicology involving critical evaluations of rapid, portable toxicology test kits and presented data at the European SETAC conference in Edinburgh in 1998.

In 1999 he continued working at Napier University developing microemulsions technology for use in the remediation of oil-contaminated wastes in the Oil & Gas industry, winning a Royal Society of Edinburgh/Scottish Enterprise (RSE/SE) Research Fellowship in November 1999. He completed a PgC in

Business Development at Glasgow Caledonian University the following year. John is company co-founder of Surfactant Solutions Ltd (formed in 2000) and co-founder and Development Director for the Surfactant Technologies Ltd (STL) Group then set up in January 2003. The Surfactant Technologies Ltd Group (STL) is a Research & Development company that is currently commercialising its innovative MicroEmulsions Technology on a global basis. John has been responsible for many aspects of the company group development, including strategy and implementation, internationalisation, product development & certification, technical sales and marketing, advertising, recruitment, setting up of global premises and a fully ISO-registered international supply chain network.

John is a named inventor on a range of patent applications that form the STL IP portfolio in relation to surfactant designs, formulation techniques and blends, and the practical application of microemulsions technology in a variety of specialist precision cleaning industrial areas. John is a winner of DTI/SMART Scotland Awards I and II from the Scottish Executive, and winner of "Who wants to be an entrepreneur?" awarded by the Lanarkshire Development Agency (LDA - Scottish Enterprise). John has also been a finalist in the Ernst & Young Entrepreneur of the year awards for the last 3 consecutive years.

### 3. Photographs



**The Winner, Mr. John Harrison.  
Photo: Gary Doak**



**The Chairman of The Gannochy Trust, Dr Russell Leather, The Winner, Mr. John Harrison, The President of the RSE, Lord Sutherland of Houndwood. Photo: Gary Doak**

A number of other J.pgs of the Presentation Ceremony will be available from Photographer, Gary Doak from the evening of 7 October 2005 (mob: 07836 255 728).

### 4. Video Footage

Beta copies of video featuring the winner, John Harrison, explaining his work and its importance, are available from Stuart Brown at The Royal Society of Edinburgh (contacts below).

### 5. The Royal Society of Edinburgh

The Royal Society of Edinburgh (RSE) is Scotland's National Academy of Science & Letters. It is an independent body with charitable status that provides a broad range of public benefit activities. The Society organises conferences and lectures for the specialist and for the general public. It provides a forum for informed debate on issues of national and international importance. Its multidisciplinary fellowship of men

and women of international standing provides independent, expert advice to key decision-making bodies, including Government and Parliament.

The Society's Research Awards programme annually awards well over £1.7 million to exceptionally talented young academics and potential entrepreneurs to promote commercial exploitation of inventiveness and boost wealth-generation.

The RSE is active in classrooms from the Borders to the Northern Isles, with a successful programme of lectures and hands-on workshops for primary and secondary school pupils.

The Royal Society of Edinburgh, working as part of the UK and within a global context, is committed to the future of Scotland's social, economic and cultural well-being. The RSE is Scottish Charity No. SC000470

Further information about the RSE can be found on its website at: <http://www.royalsoced.org.uk>

## 6. The Gannochy Trust

The Gannochy Trust is a grant-making Trust based in Perth, which makes donations to charities in Scotland, with a preference for Perth and its environs. The Trust was founded in 1937 by Arthur Kinmond Bell, whisky distiller and philanthropist, who had previously built a model housing estate of 150 houses in Perth.

In recent years the Trustees have enlarged the estate with a further 63 sheltered houses, which they maintain and administer, in addition to farms, recreation grounds and other properties.

A number of civic, recreational and social projects in Perth bear witness to major charitable support from the Trust. In addition, many small charities in Perth receive regular donations.

Other charitable organisations, large and small throughout Scotland, have been the recipients of donations from the Trust.

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