

The Daily Telegraph

WEDNESDAY, SEPTEMBER 24, 2008

BUSINESS TRUTH

THE DISRUPTERS MODERN WATER

Lower-energy, greener desalination in the pipeline

Neil McDougall

Executive chairman
Modern Water

OF ALL the industries that need massive change, Neil McDougall believes water requires the most disruption.

"Globally there is a crisis due to the lack of availability of fresh water," he says. "The United Nations estimates that by 2025, two-thirds of the world's population, or five and a half billion people, will be living in countries that have inadequate water resources."

A plethora of figures back up Mr McDougall's assertion. According to Credit Suisse, annual world water use has risen sixfold during the past century – more than double the rate of population growth. The World Health Organisation says that more than two million people a year are dying from diseases associated with poor water and sanitary conditions, while WaterAid says more than one billion people in



the world – one-sixth of the global population – don't have access to safe water.

"A shortage of safe water is a problem in North and South America, the Mediterranean, China and Asia," says Mr McDougall, 46.

There's plenty of water around but an estimated 97.5pc of it is in the world's oceans. WaterAid says that if all the world's water fitted

into a bucket, only one teaspoonful would be drinkable.

As sea water needs desalination to be drinkable there is a huge opportunity for the global desalination industry, which is projected to grow by 140pc between 2005 and 2015.

Enormous sums of money are being poured into the industry, with capital investment expected to total \$56bn by 2015 – half of which is being pumped in by the private sector.

However, desalination is a process hampered by the huge energy consumption and related high expense of traditional methods and their effect on the environment, due to the harmful brine emissions produced.

Modern Water, however, claims it has a solution in the form of manipulated osmosis technology developed over 14 years by Professor Adel Sharif, an Iraqi scientist working at the University of Surrey, whom Mr McDougall met in December 2006.

The process, says Mr McDougall, cuts energy use in

desalination by up to 30pc, cutting capital and operating costs. It also uses fewer hazardous chemicals while reducing, and potentially eliminating, salt brine emissions.

"This is a revolutionary product," he says. "There has been no advance in desalination since it was introduced as a mainstream product in the 1960s; this is undoubtedly the biggest step forward."

Modern Water now owns the technology and raised £29m in a June 2007 flotation on the Alternative Investment Market to help bring it to market.

The company has a pilot project in Gibraltar and has been awarded a project in the Gulf of Oman.

"We are rolling out the technology very successfully," says Mr McDougall, "and we will be earning revenues early next year."

Meanwhile, other applications for Modern Water's technology have the potential to disrupt other industries too, he says: "We're looking at using it for enhanced oil recovery and in cooling towers."