

# Fuel Cell Today Industry Review 2008

## “FUEL CELLS: COMMERCIALISATION”

The commercialisation of fuel cells started in 2007, according to Fuel Cell Today in its 2008 Industry Review, released on 30th January. The Review, titled “Fuel Cells: Commercialisation”, reports that in the last year the fuel cell industry has seen a growth of 75 per cent in new units delivered, with some 12,000 new fuel cell units shipped during 2007. Fuel Cell Today believes that the current global manufacturing capability for fuel cells is around 100,000 units per annum, with a quarter of this coming from companies whose business activity is exclusively the development of hydrogen and fuel cell technologies.

The Fuel Cell Industry Review aims to provide a concise and accurate summary of worldwide fuel cell activity. Alongside information on legislation, finance, applications and key fuel cell companies, the Review publishes, for the first time, the Fuel Cell Today analysts’ forecasts of fuel cell shipments for the next two years. The forecasts include data by geographical region, fuel cell technology type and end use application.

According to the Review, the last three years have seen the commercialisation of a number of fuel cell products at the luxury end of the market. Currently, fuel cells are relatively expensive and a number of issues are still outstanding in terms of research, development and demonstration (RD&D), codes and standards, and fuel infrastructure/distribution. However, price reductions are expected as manufacturing costs fall and subsidies for adoption become available.

The Review shows that worldwide government funding for RD&D topped £500 million (U.S.\$1000 million) during 2007, with seven countries making up £400 million (U.S.\$800 million) of this. Government funding has helped to support development of fuel cells for stationary and transport applications, while funding for portable fuel cells has come mainly from the private sector.

Fuel Cell Today believes that the current commercial opportunities for fuel cells favour the low-temperature electrolytes, direct methanol fuel cells (DMFCs) and proton exchange membranes (PEMs), with over 98 per cent of manufacturing today being low-temperature units. The cost of PEM products currently varies from £1500 (U.S.\$3000) per kW for a 5 kW unit up to £17,000 (U.S.\$34,000) per kW for a micro 100 W fuel cell. Annual cost reductions of between 10 and 20 per cent are currently being reported.

Dr Kerry-Ann Adamson, Principal Analyst at Fuel Cell Today, said: “Fuel cells are starting the process of becoming a mainstream market technology and although this will not be completed until well after the period under scrutiny in this report, commercialisation has finally begun”.

The Fuel Cell Today Industry Review (ISBN: 978-0-9557963-0-2; ISSN: 1756-3186), priced at £500 (U.S.\$1000), is available to order from <http://www.fuelcelltoday.com/events/industry-review>. For more information please contact Dr Kerry-Ann Adamson: [kerry-annadamson@fuelcelltoday.com](mailto:kerry-annadamson@fuelcelltoday.com).



*Horizon Fuel Cell Technologies' H-racer and refuelling set. Horizon came to the attention of the wider public in 2006 with the release of this toy-scale, six-inch long fuel cell car, which circumvents the need for an external refuelling infrastructure by coming complete with a miniature hydrogen production plant powered by a solar cell (Courtesy of Horizon Fuel Cell Technologies)*