Hydrogen TCP: born with IEA

Paul Lucchese

Current Chair of Executive Committee Representative, Hydrogen TCP IEA
CEA, France

Hydrogen TCP

From energy security… to Environment …and to energy security

INTERNATIONAL ENERGY AGENCY

Programme of Research and Development on the Production of Hydrogen from Water

STATUS REPORT

1. Introduction

The Working Party on Hydrogen Production from Water (WHYP) was established early in 1975 with the aim of assessing the possibility of setting-up a cooperative R&D programme in the field of production of hydrogen from water. A first status report on its activities was presented to the Committee on Energy Research and Development at its second meeting on 14 May, 1976 (IEA/CRD/M(76)14).

The activities of the Working Party have since then been concluded successfully by the signature on 6 October 1977 of the Implementing Agreement for a Programme of Research and Development on the Production of Hydrogen from Water.

The WHYP - and its sub-groups - having fulfilled their role, are thus disappearing, giving place to the Executive Committee, set-up in accordance with the provisions of Article 3 of the Implementing Agreement.

The Executive Committee has met for the first time on 8 November 1977; it reviewed the scope, technical content and schedule of the programme.

This status report is based on the outcome of its deliberations.

2. Scope of the programme

2.1. At the time of the signature on 6 October, 1977, the Implementing Agreement comprised two annexes corresponding to two separate tasks, Annex I on the Chemical Engineering Evaluations of Thermochemical Processes; Annex II on High Temperature Reactor - Thermochemical Plant Interface. A third Annex has been added to the Agreement by unanimous decision of the Executive Committee during its first meeting on 8 November, 1977; Annex III concerns the assessment of potential future markets for the production of hydrogen from water.

1. Further to the circulation of document IEA/CRD(76)23 on 16th August, 1976, it is now planned that signature of the Implementing Agreement will take place in Paris during the week commencing 13th December, 1976.

The WHYP meeting approved the proposal of the assessment panel to carry out a market study as described in appendix 3. Mr Mc Hugh stated that interest to participate was expressed by the US, Sweden, Switzerland, Belgium and the UK. The kind of participation, however, is still to be specified. Most delegates are in favour of a task-sharing activity (no common funding), in which each country makes its own survey, which at a later stage is to be integrated with the other surveys.

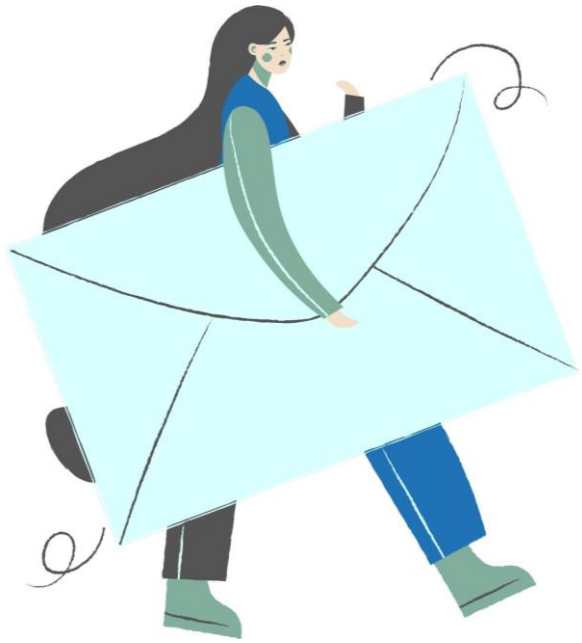
DNA of Hydrogen TCP: hydrogen production, Hydrogen value chain , system analysis and integration
close to 50 years, 50 tasks, 100 ExCo meetings

COMPLETED	
Task 1 Thermochemical Production	1977-1988
Task 2 High Temperature Reactors	1977-1979
Task 3 Assessment of Potential Future Markets	1977-1980
Task 4 Electrolytic Production	1979-1988
Task 5 Solid Oxide Water Electrolysis	1979-1983
Task 6 Photocatalytic Water Electrolysis	1979-1988
Task 7 Storage, Conversion, and Safety	1983-1992
Task 8 Technical and Economic Assessment of Hydrogen	1986-1990
Task 9 Hydrogen Production	1988-1993
Task 10 Photoproduction of Hydrogen	1995-1998
Task 11 Integrated Systems	1995-1996
Task 12 Metal Hydrides for Hydrogen Storage	1995-2000
Task 13 Design and Optimization	1999-2001
Task 14 Photoelectrolytic Production	1999-2004
Task 15 Photobiological Production	1999-2004
Task 16 Hydrogen from Carbon-Containing Materials	2002-2005
Task 17 Solid and Liquid State Storage	2001-2006
Task 18 Integrated Systems Evaluation	2004-2006
Task 19 Hydrogen Safety	2004-2010

Past Present Future

Task 20 Hydrogen From Waterphotolysis	2004-2007
Task 21 BioHydrogen	2005-2009
Task 21 BioInspired Hydrogen	2010-2014
Task 22 Fundamental and Applied Hydrogen Storage Materials Development	2006-2012
Task 23 Small Scale Reformers for OnSite Supply of Hydrogen (SSR for Hydrogen)	2006-2011
Task 24 Wind Energy and Hydrogen Integration	2006-2011
Task 25 High Temperature Hydrogen Production Processes	2007-2011
Task 26 WaterPhotolysis	2008-2011
Task 27 Near-Term Market Routes to Hydrogen by Co-Utilization of Biomass as a Renewable Energy Source with Fossil Fuels	2008-2011
Task 28 Large Scale Hydrogen Delivery Infrastructure	2010-2014
Task 29 Distributed and Community Hydrogen	2010-2014
Task 30 Global Hydrogen Systems Analysis	2010-2014
Task 31 Hydrogen Safety	2010-2013
Task 32 H2 Based Energy Storage	2013-2016
Task 33 Local H2 Supply for Energy Applications	2013-2016
Task 34 Biological Hydrogen for Energy and Environment	2014-2017
Task 35 Renewable Hydrogen Production	2014-2017
Task 36 Life Cyle Sustainability Assessment	2014-2017

Hydrogen TCP - Research and Innovation in Hydrogen Technology by IEA (ieahydrogen.org)



Thank You!

For more information, contact the Technical Secretariat:

technicalsecretariat@ieahydrogen.org