



Non-thermal production of pure hydrogen from biomass

Fact Sheet

Project Information

HYVOLUTION

Grant agreement ID: 19825

[Project website](#) 

Start date

1 January 2006

End date

31 December 2010

Funded under
FP6-SUSTDEV

Overall budget
€ 14 216 992

EU contribution
€ 9 894 082

Coordinated by
**STICHTING DIENST
LANDBOUWKUNDIG
ONDERZOEK**
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Objective

The aim of HYVOLUTION: "Development of a blue-print for an industrial bioprocess for decentral hydrogen production from locally produced biomass" adds to the number and diversity of H₂ production routes giving greater security of supply at the local and regional level. Moreover, this IP contributes a complementary strategy to fulfil the increased demand for renewable hydrogen expected in the transition to the Hydrogen Economy. The novel approach in HYVOLUTION is based on a combined bioprocess employing thermophilic and phototrophic bacteria, to provide the highest hydrogen production efficiency in small-scale, cost effective industries. The process starts with the conversion of biomass to make a suitable feedstock for the bioprocess. The subsequent bioprocess is optimized in terms of yield and rate of hydrogen production through integrating fundamental and technological approaches. Dedicated gas upgrading is developed for efficiency at small-scale production units. Production costs will be reduced by system integration combining mass and energy

balances. The impact of small-scale hydrogen production plants is addressed in socio-economic analyses. In HYVOLUTION, 11 EU countries, Turkey and Russia are represented to assemble the critical mass needed to make a breakthrough in cost-effectiveness. This multinational and multidisciplinary consortium reinforces the European Research Area in sustainable energy issues. The participation of prominent specialists from academia and industries and the 7 SME's warrants high quality and commercial exploitation of project results. The participants in this IP have a complementary value in being biomass suppliers, end-users or stakeholders for developing specialistic enterprises and stimulating new agro-industrial development, which will be needed to make the objectives of HYVOLUTION: small-scale sustainable hydrogen production from locally produced biomass, come true.

Programme(s)

Topic(s)

Call for proposal

FP6-2004-ENERGY-3

Funding Scheme

IP - Integrated Project

Coordinator



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