



NEN

The NATURALHY-project

Preparing for the hydrogen economy by using the existing natural gas system as a catalyst

REGULATIONS, CODES and STANDARDS

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NEN Energy Resources

Based on presentation
prepared by O. Florisson
(Gasunie)



The main objective:

Preparing for the hydrogen economy by identifying and removing the potential barriers regarding the introduction of hydrogen into the society, using the existing natural gas system as a catalyst



Adding H₂ to natural gas effects the physical and chemical properties and might have impact on:

- Safety aspects of transmission – distribution - end use
- Pipeline durability
- Pipeline integrity
- End user appliances performance

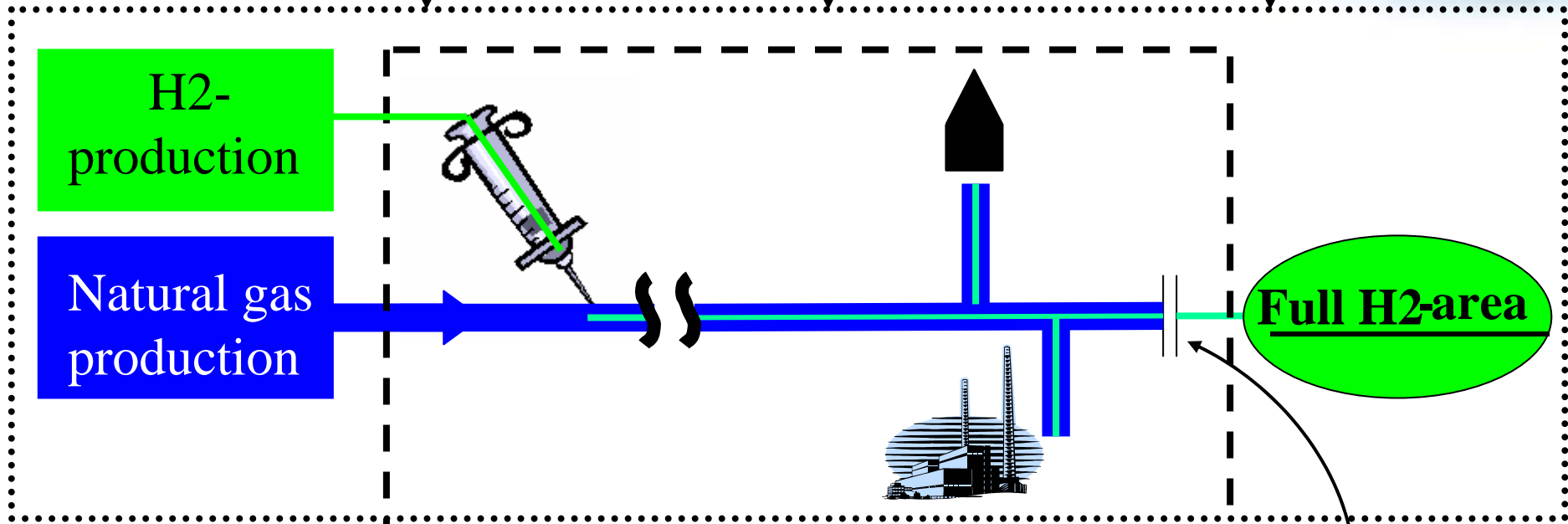


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Socio-economic & LCA

Dissemination (in cooperation with HYSAFE)

Collaboration with HYWAYS (roadmap development)



Durability

Safety

Performance

H2-Membranes

Integrity

Standards and norms



39 European partners

(15 from the gas-business)



Gas Companies and gas research Institutes

GERG, Gasunie, Gaz de France, Statoil, DEPA, Naturgas Midt-Nord, IGDAS, TRANSCO, DBI, Shell Hydrogen, IFP, Total, BP, ISQ, DGC

Manufacturers and consultants

CMI, TOG, GE, CETH, SAVIKO, Exergia, SQS

Universities and Institutes

Technical University Berlin, Nat. Techn. Univ. Athens, Leeds University, Loughborough University, Hogskolan/Boras, Tubitak, NTNU, UP Metz, Univ. of Warwick

NEN, COGEN, ECN, HSE, TNO, CEA, PLANET CSM



Workpackages

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<i>WORK PACKAGE</i>	<i>WP LEADER</i>
Life Cycle and Economic assessments	University of Warwick
Safety	Univ. of Loughborough
Durability	Gaz de France
Pipeline integrity	TNO
End user aspects	University of Warwick
Assessment tool	ISQ
Dissemination (WP 7)	Exergia
Project Coordination	Gasunie

Standards, codes and regulations (WP 7) NEN

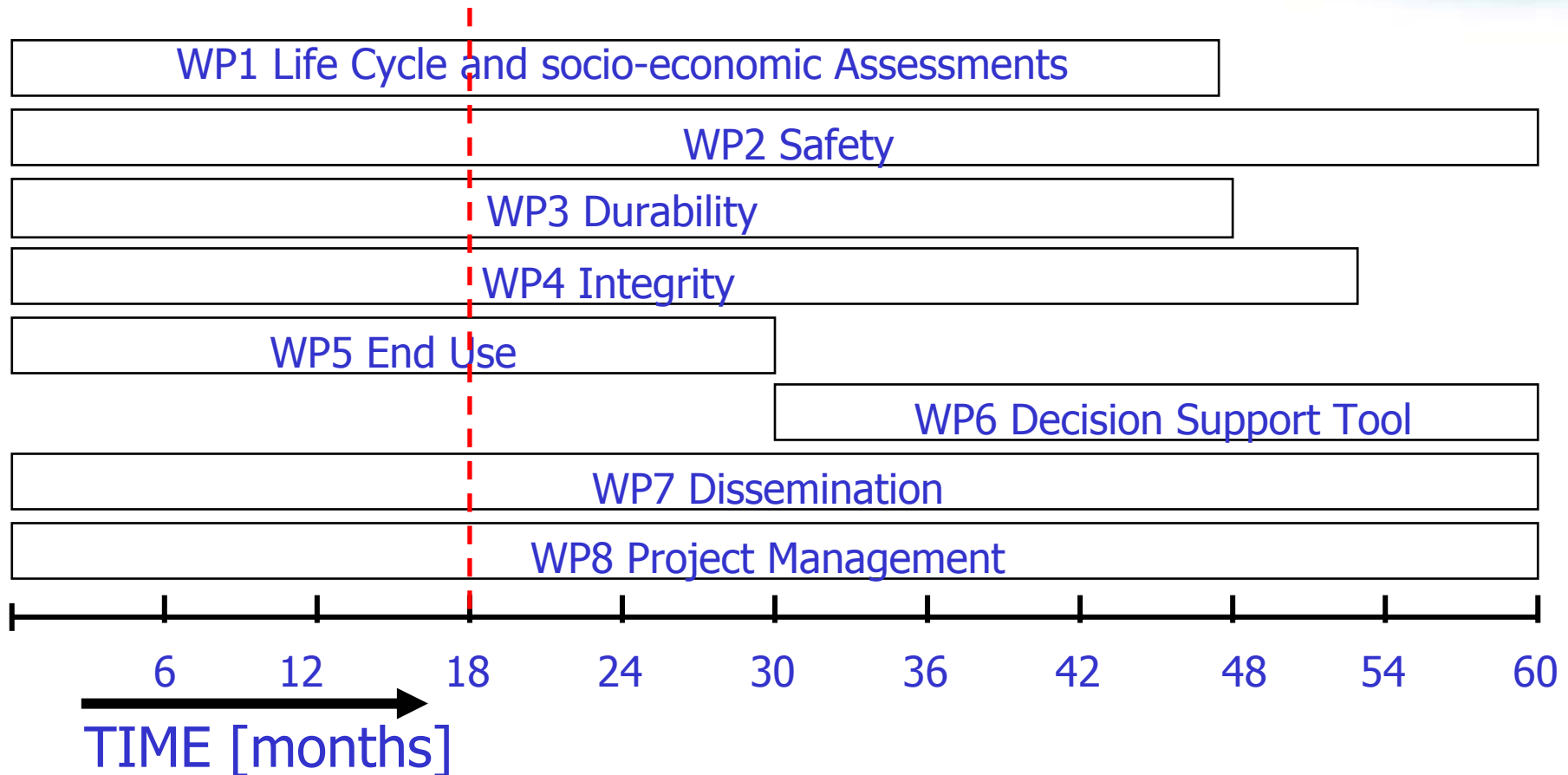


Timeframe

2004 till 2009



Start RCS in 2006





Actions/deliverables



- European standards review (Report)
- Development of CWA's to support quick dissemination of results
- Assessment study on the application of the project results
- Take the first steps to start CEN and ISO standardization
- RCS advice within the Strategic Advisory Committee



Actions	How
European standards review	Desk research written enquiries Interviews
CEN Workshop Agreements	Workshop
Assessment study on the application of the project results (proposals on RCS)	Study & Analysis
First steps to international standardization	Via ISO/CEN routes



Thank you for your attention!

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