





The next Fuel Cell Bus project in Amsterdam

Ir. A.F. van Drunen

Company Profile

- **GVB is a public transport Company serving the Amsterdam region.**
- **Services with metro: 4 Lines**
 - tram: 16 Lines**
 - bus: 29 Lines + 8 nightlines**
 - ferry: 5 connections**
- **Employees: 4300**

City air quality

GVB contribution:

- ◉ **Metro and tram system on green electricity and vehicles equipped with recuperation.**
- ◉ **Since 2 years all new busses with EEV diesel.**
- ◉ **Ongoing studies on hybrid busses in general.**
- ◉ **Special attention to fuel cell hybrids.**

Statement

GVB and the municipality of Amsterdam intends to move from the best available diesel techniques, to hydrogen and fuel cells, without intermediate use of alternative fuels, as soon as this is technical and economic possible.

Phileas Hybrid Fuel Cell Bus

- **Project in close co-operation with Cologne, Germany.**
- **GVB and RVK ordered each 2 HFC Busses.**
- **The busses will be developed on the platform of the Phileas concept, build by Advanced Public Transport Systems based in the Netherlands.**
- **Main sub suppliers:**
 - Traction installation: Vossloh Kiepe, Germany.**
 - Fuel cell system: NedStack, the Netherlands.**
- **Energy storage: a combination of ultra capacitors and NiMeHydride batteries.**



Main objectives of the project

- Collect all relevant data during the 2 years demonstration phase.**
- Evaluate the collected data.**
- Issue a final report.**

The final report will be a major input for the strategy discussion about environmental friendly public transport



Thank you for your attention