

H₂ MOBILITY Deutschland GmbH & Co.KG

LESSONS LEARNT FROM STARTING A NATIONWIDE HYDROGEN INFRASTRUCTURE IN GERMANY



8TH STAKEHOLDER FORUM
19 NOVEMBER 2015
CHARLEMAGNE BUILDING
RUE DE LA LOI 170, B-1000 BRUSSELS, BELGIUM

Shareholders | Associated Partners | Advisors

- H₂ MOBILITY Deutschland GmbH & Co.KG (H2M) is a cross-industry joint venture



DAIMLER



- Five associated Partners from the automotive industry and the National Organization of Hydrogen and Fuel Cell Technology (NOW) acting as an Industrial Advisory Board



HONDA
The Power of Dreams



TOYOTA

VOLKSWAGEN
AKTIENGESELLSCHAFT



The H2M joint venture...

- ... rose up from a initiative in 2009
- ... is a company (aiming for profit) since February 2015
- ... is responsible for identification of locations & defining the network of up to 400 hydrogen refuelling stations (HRS) in Germany mainly located in forecourts of conventional petrol stations
- ... plans, builds, owns and operates the HRS's
- ... purchases hydrogen, a growing part of it being green
- ... sells hydrogen directly to end customers



Our Masterplan...

- unconditional ramp up until operating 100 hydrogen refuelling stations by 2018/19
- extend to about 400 hydrogen refuelling stations by 2023ff (synchronized to FCEV's)
- more than 350 M€ planned investments

...to

- ▶ reach a basic national coverage of HRS's with redundancies in six metropole-regions
- ▶ allow a carefree FCEV-journey throughout Germany with access to bordering nations
- ▶ for a sustainable network which will be offered to the market



Hydrogen Mobility Europe

- co-funded with € 32 million
- H2M's contribution 20/29 HRS's for Germany
- deployment of 200 FCEVs and 125 fuel cell range-extended electric (FC RE-EVs) commercial vans





2016/~50 tH_2



2018/~100 tH_2



2023/~400 tH_2

Stand: Oktober 2015

ROADMAP



What are the challenges of an early bird?

What are the Lessons Learnt?

TQC

- realization in very early stage: no chance to prioritize between Time, Quality and Costs
- TQC need to be balanced in every second of decision making
- a phasing plan for the future should be indicated by ONE priority, only and agreed on

Standardization

- interfaces to customer (technology wise & operational)
- Authority approvals for building application and operation
- purchasing as early as possible addressing suppliers development roadmap

**All players investing in new technologies...
...may gain profit later on from
a SUSTAINABLE market, ONLY!**

Legal frame conditions

- be as open as possible to obtain Government approval
- early start of communication with Antitrust Executives
- sensitise and train all project participants in Legal and Compliance specialities

OEM's

- build up a very faithful relationship with each individual OEM
- propose, lead the negotiation and facilitate the signing of legally admissible frame work for a business process

*Finally: FCEV's are ENABLER,
HRS's are the RESULT!*

See the „C“...

Communication

- “open door” – “open book” – “open visor”
- leap of faith – start at 100%

Cooperation

- goals can be reached in such an early market with Joint Efforts, only

Compromises

- a compromise is the result of a flexible arrangement from an
- open minded communication
- step back to support FCEV's (H2ME2)

Competence

- share knowledge and empower newcomers thinking around the corner

Communication

C-Level...

..with Government!

2015 October, 13th
Alexander Dobrindt

(Federal Minister of
Transport and Digital
Infrastructure)



Thank you!

It's all about
COMMUNICATION

Any Questions?