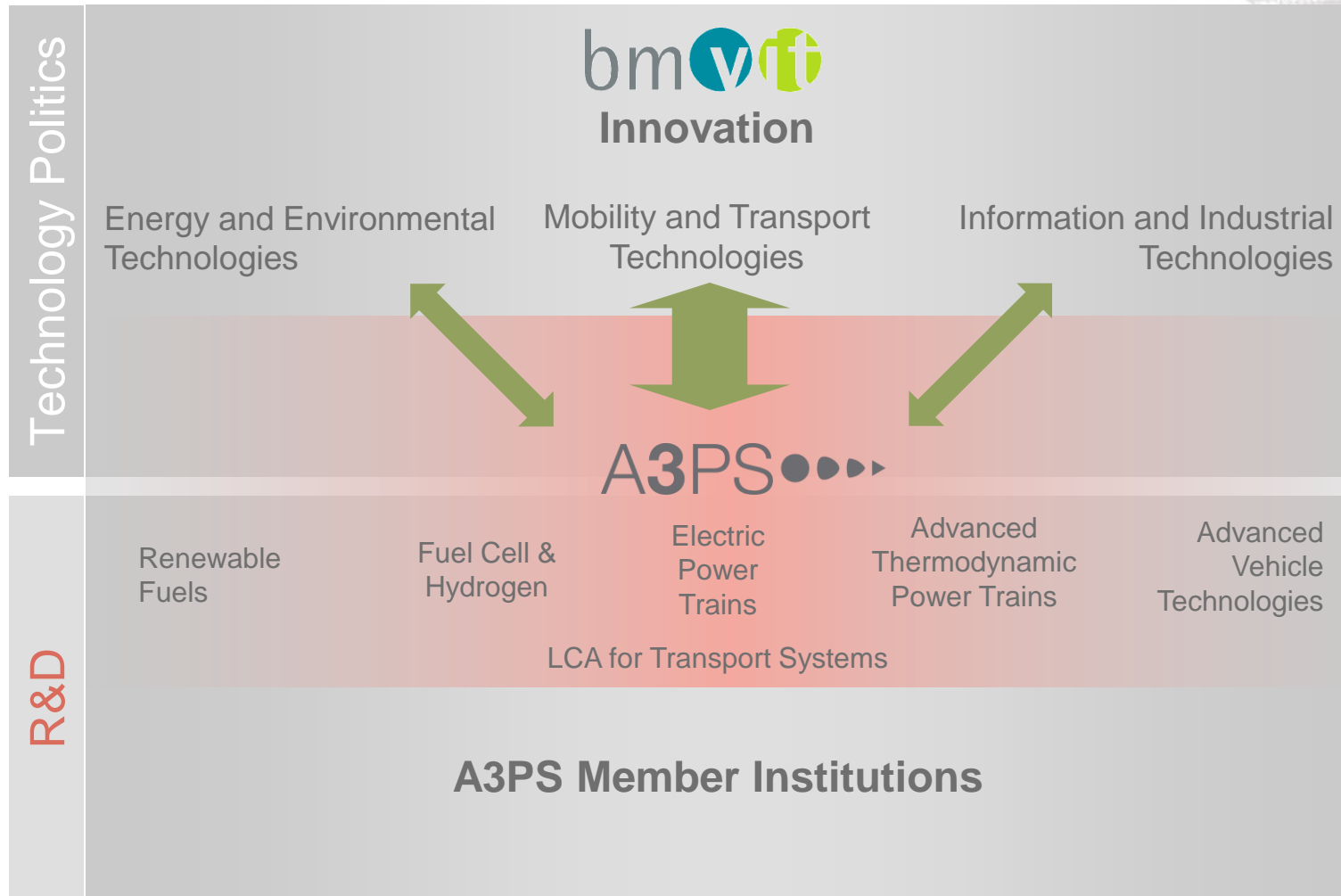




„Eco-Mobility 2025<sup>plus</sup>“  
Technologies for 75 g CO<sub>2</sub>/km in 2025

Wolfgang Kriegler (A3PS)  
November, 9<sup>th</sup> 2015

# A3PS – Topic Areas and Perspective of Collaborations



**A3PS supports bmvit and collaborates with surrounding organizations**

# A3PS Members



5 new members since 2014



# A3PS-Roadmap „Eco-Mobility 2025<sup>plus</sup>“

# Vehicle 2025plus – Major Challenges

## Zero Fatalities

- Fully assisted driver
- Accident avoidance assistant
- Totally connected vehicles (V2X)

## 95 to 75 g CO<sub>2</sub>/km & EU6

- Highly efficient
- Clean in RDE

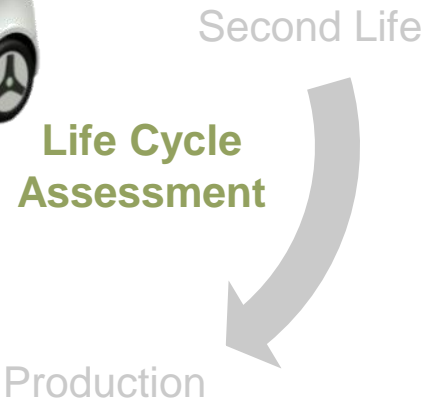
## Energy

- Sustainably produced
- Independent of fossil energy

## Vehicle body

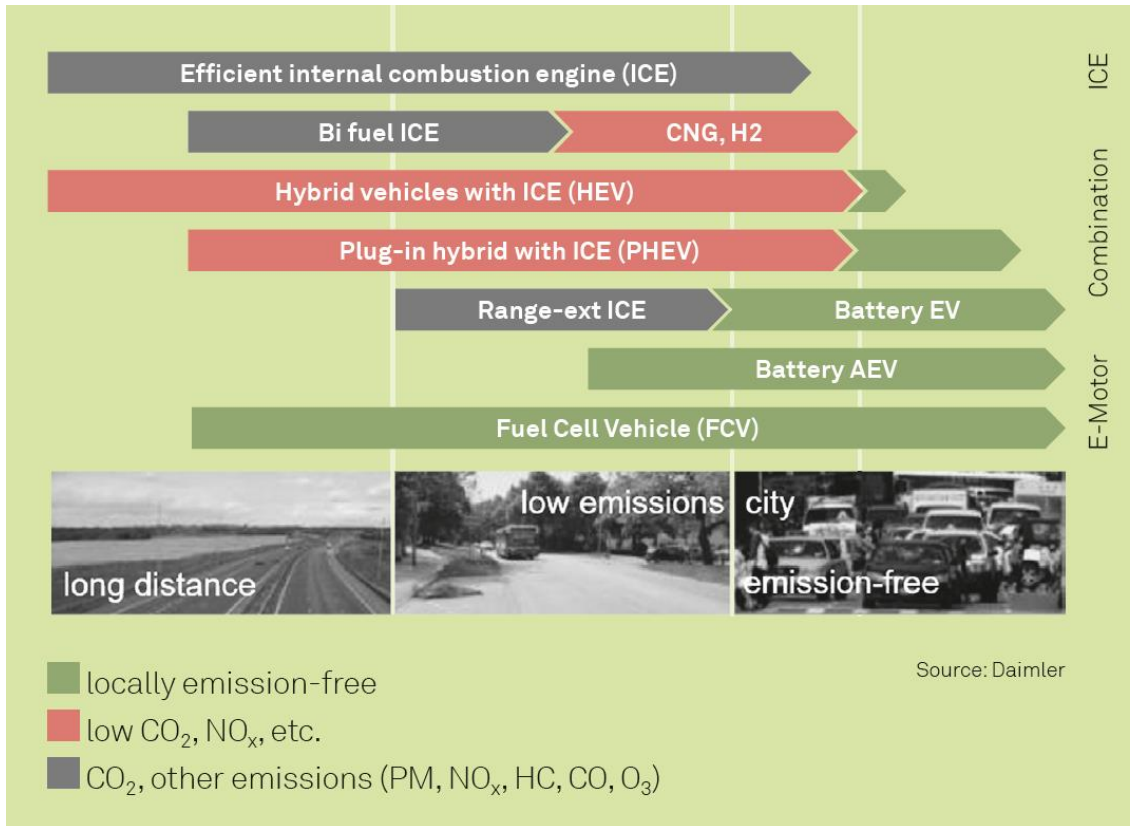
- Modularity
- Ultra-Lightweight design
- Sustainable materials
- Optimized rolling and air resistance
- Less passive safety necessary

## Added Value in Austria



**Holistic approach will be the key to sustainable mobility!**

# Medium Term – Diversification of Power Train



Short & medium term:

- **Continued improvement** of gasoline and diesel engines
- **High diversification** of new propulsion systems:
  - Still high engineering demand for HEVs and EVs
  - New, cheaper components & systems
  - Cheaper battery systems with increased energy density
- **New energy carriers, (bio-)fuels and tank systems** (i.e. high-pressure tanks for methane and H<sub>2</sub>)

**Eco-Mobility 2025<sup>plus</sup> – different power trains for different applications**

# A3PS-Roadmap - Intention

- **Inform national technology policy and funding authorities** about latest R&D activities and strategies
- **Competence depiction** of A3PS members
- **Mutual exchange of information** between A3PS members
- **„Position determination“** of A3PS members

**Inform technology politics, position determination, advertising material**

# Content of the Roadmap

## The road map covers:

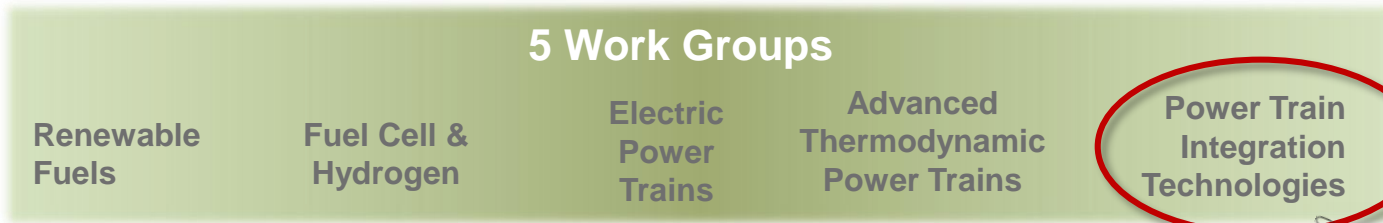
- Refinement of ICE concepts (Otto and Diesel will resemble each other more)
- Hybrids & EVs (cost reduction programs for e-mobility)
- H<sub>2</sub> und FC (funding of basic research, testing infrastructure and production)
- New vehicle technologies
  - ADAS & Connected vehicles (V2X)
  - Lightweight design (new materials, modularity of body construction)
  - New vehicle concepts (possible by active safety)
- Commercialization of alternative fuels (pilot → demo → production)
- Life Cycle Assessment (LCA)

**New technologies – New R&D priorities – New possibilities**



# A3PS Roadmap – Team Effort of A3PS Members

## Thanks to A3PS Members for...

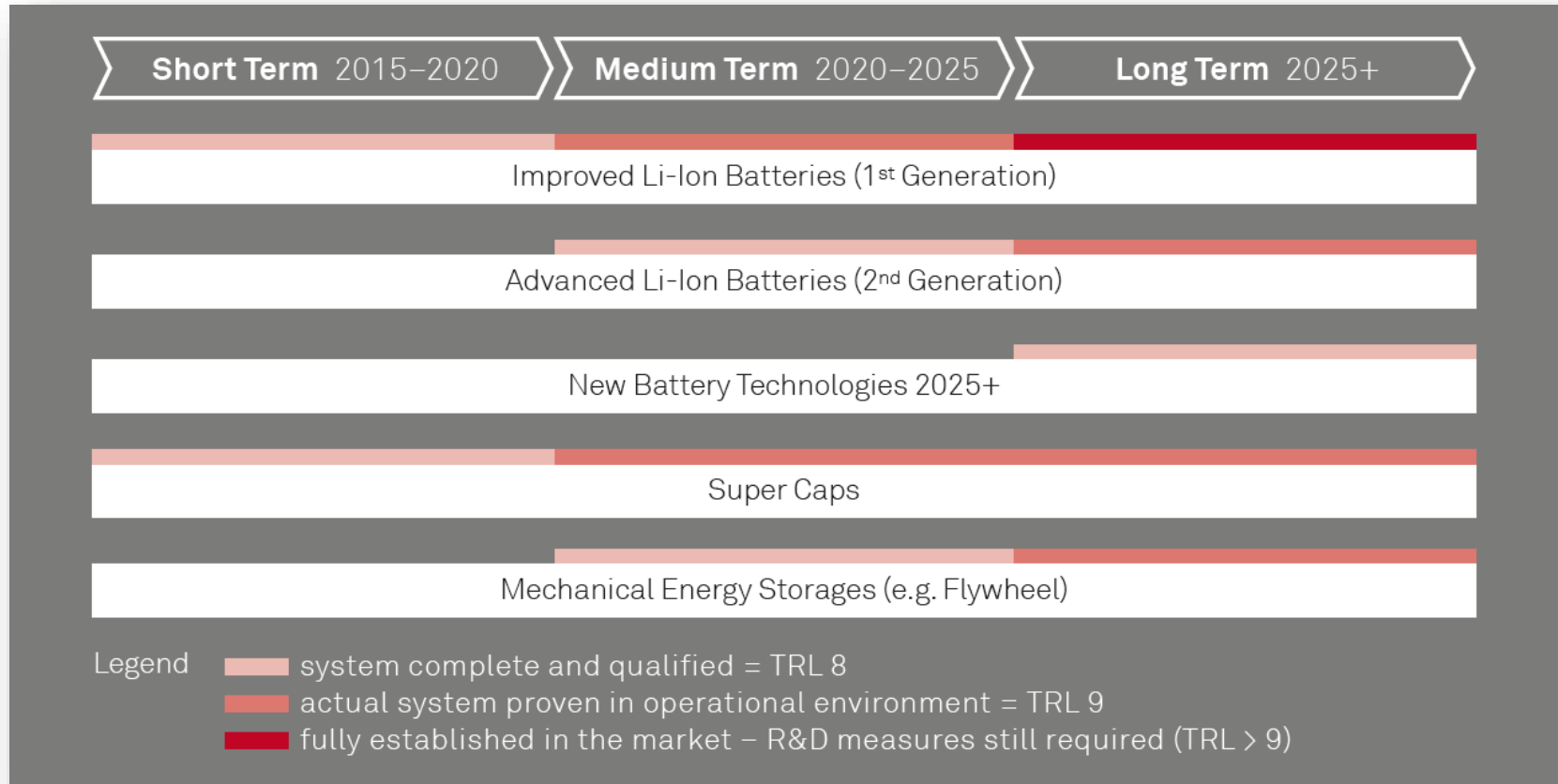


Plus: LCA for Transport Systems

- 85 identified Key Technologies
- ~ 400 R&D Measures incl. TRLs
- R&D Requirements as well as required Projects
- Time Horizon 2025+

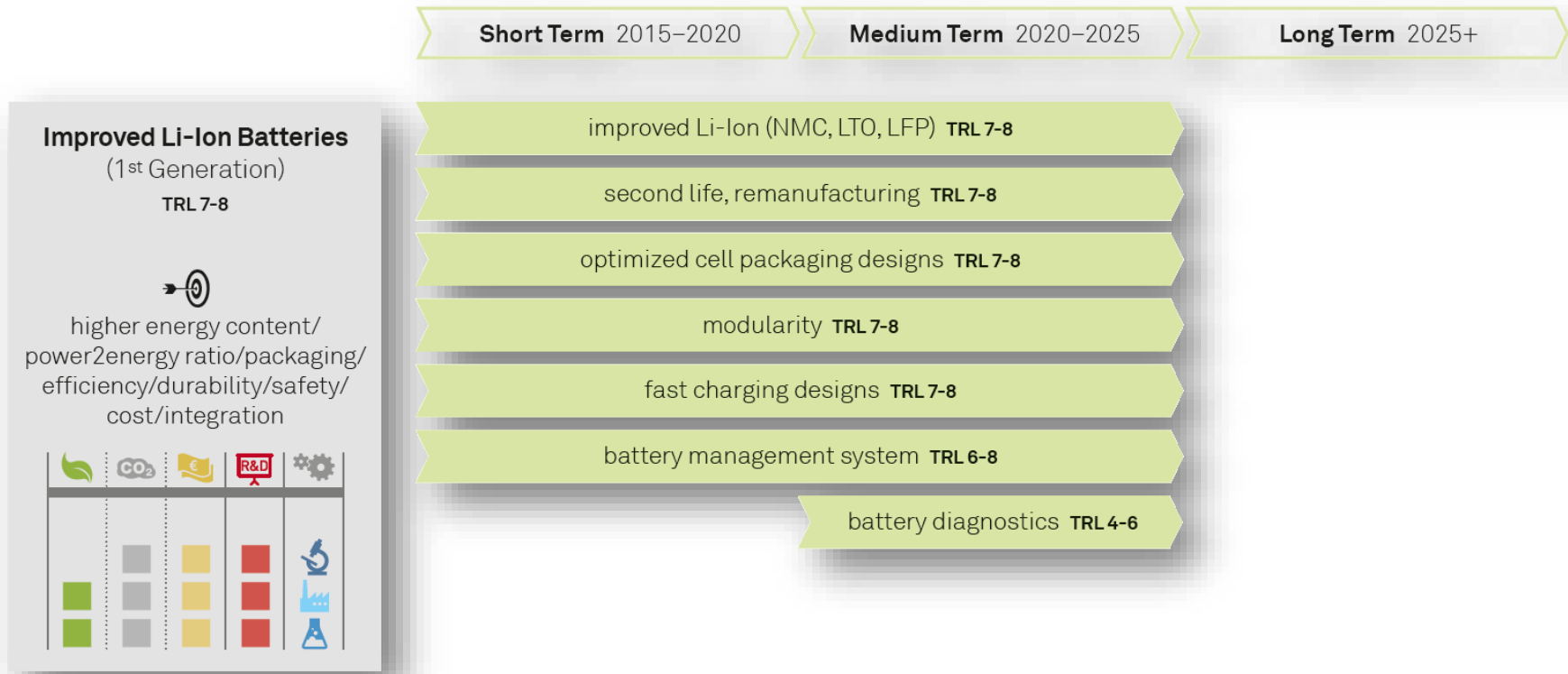
High engagement in workshops – THANKS to the contributors!

# Market Readiness Tables – e.g. Energy Storages



## Technologies including estimated market readiness

# Technology Tables with Specific Measures



**Targets, challenges, measures including TRLs**

# A3PS-Roadmap – Print Version

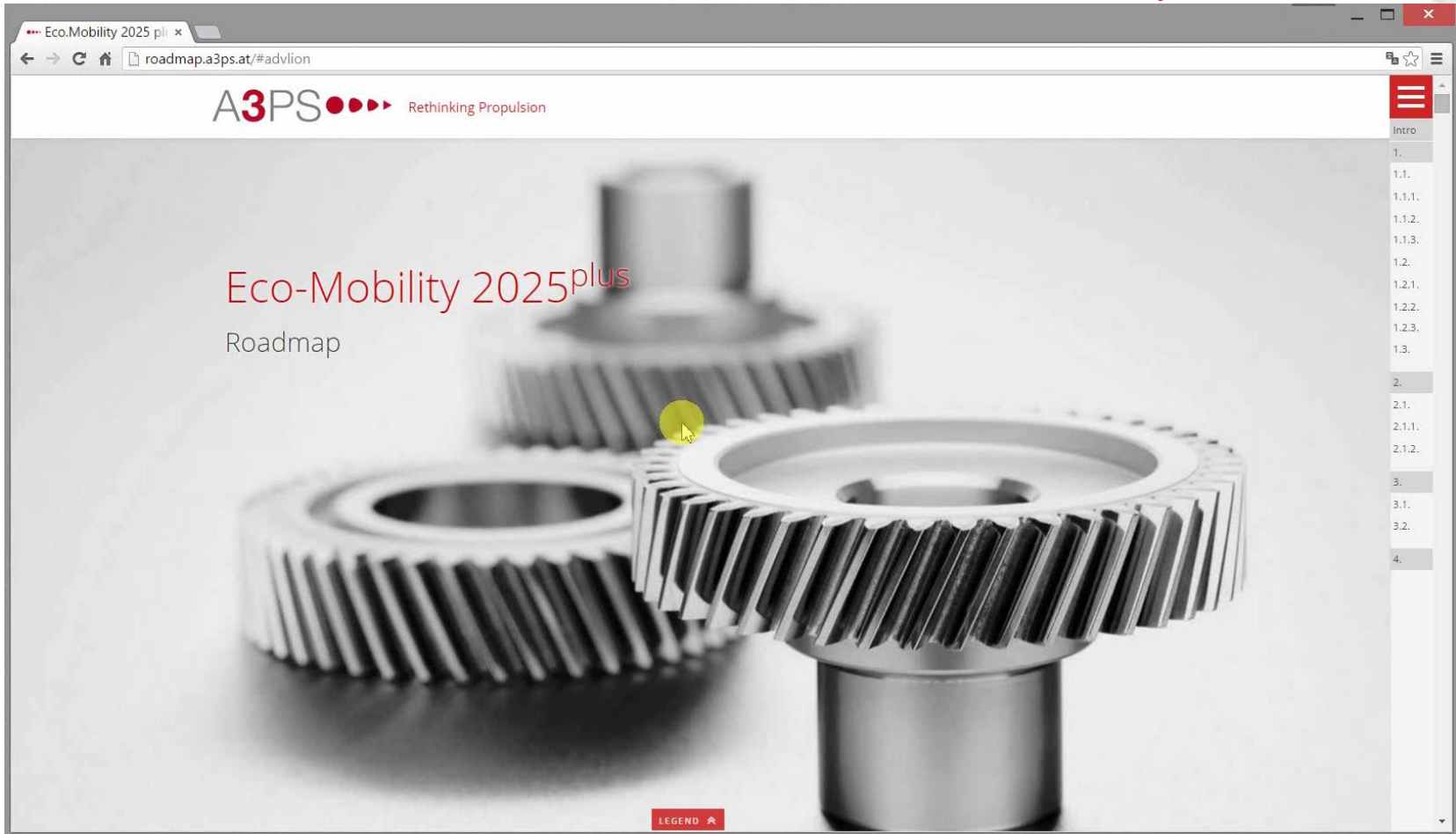
**Complete documentation of  
technology options for Eco-Mobility!**



**Complete, comprehensive, detailed!**

# A3PS-Roadmap – Website

You are welcome to test the website in the foyer!



<http://roadmap.a3ps.at/> - compact, clearly arranged, up-to-date

# Summary & Outlook



- Elaborative Effort resuming in 72 pages with 85 key technologies & 400 R&D measures
- Topics: from power train technologies, power train integration technologies and renewable fuels to life cycle assessment (LCA)
- Strong involvement of A3PS members in preparation and elaboration process
- Strongly support the exchange of information between A3PS members and ministry
- Roadmap website will be a living document, updated from time to time
- Presentations of this conference will be input for update on roadmap technologies

**Thanks in advance for the continued TEAM EFFORT**



**Enjoy the Conference!**