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Welcome to the 10th A3PS Conference

„Eco-Mobility 2025^{plus}“

10th A3PS Conference: Eco-Mobility 2025^{plus}

- Motto of this year's conference is **technologies for 2025^{plus}**
- **A3PS roadmap** will be officially published today
- **International keynote speakers**
- 2 day **competence show** of A3PS members
- **Exchange of ideas** (initiating projects)
- **address funding requirements** to politics and funding authorities
- Develop and strengthen **common view** on future technology trends and
- **Inform public**



Conference as platform to exchange ideas and start initiatives and projects

10th A3PS Conference: Program

- **28 Presentations** in 6 Sessions
- **Exhibition** of Posters, Components and Vehicles
- Terminal with **Roadmap-Website**
- **Social Evening** tonight in Sky Stage
- **Plenary Discussion** on Tuesday
- **Farewell Event** on Tuesday evening



Enjoy the Conference!



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Welcome to the 10th A3PS Conference

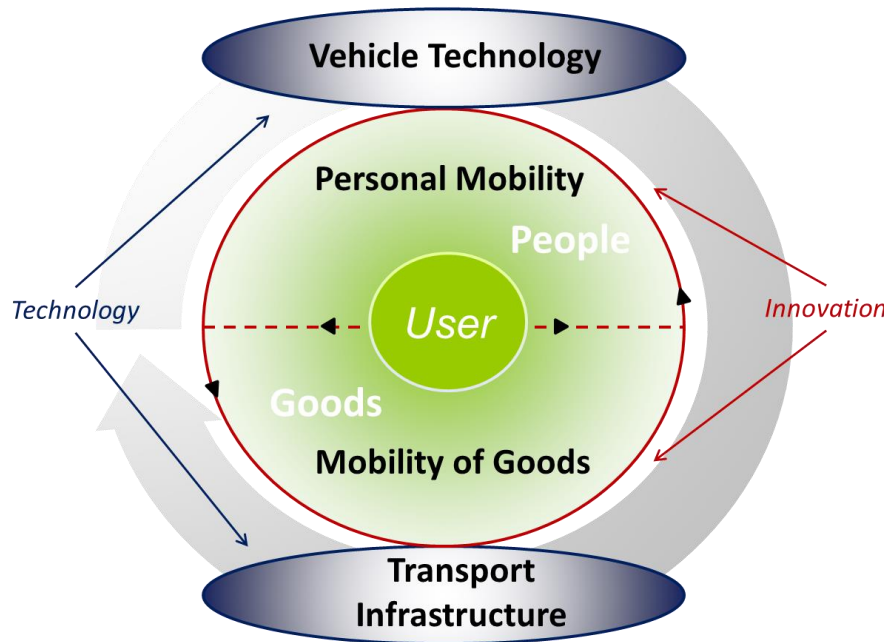
„Eco-Mobility 2025^{plus}“

Program:

Mobility of the Future

Domain:

Vehicle Technologies



- Development of Alternative Propulsion Systems & Fuels for all Vehicle Classes of Surface Transport
- Liquid & Gaseous Alternative Fuels
- Vehicle Electronics
- Lightweight components & vehicles

Call 2015/16:

- Fuel Cell & Hydrogen Technologies
- Battery & Hybrid - electric Mobility
- Autonomous Driving (incl. Infrastructure)

Budget: 6 M€

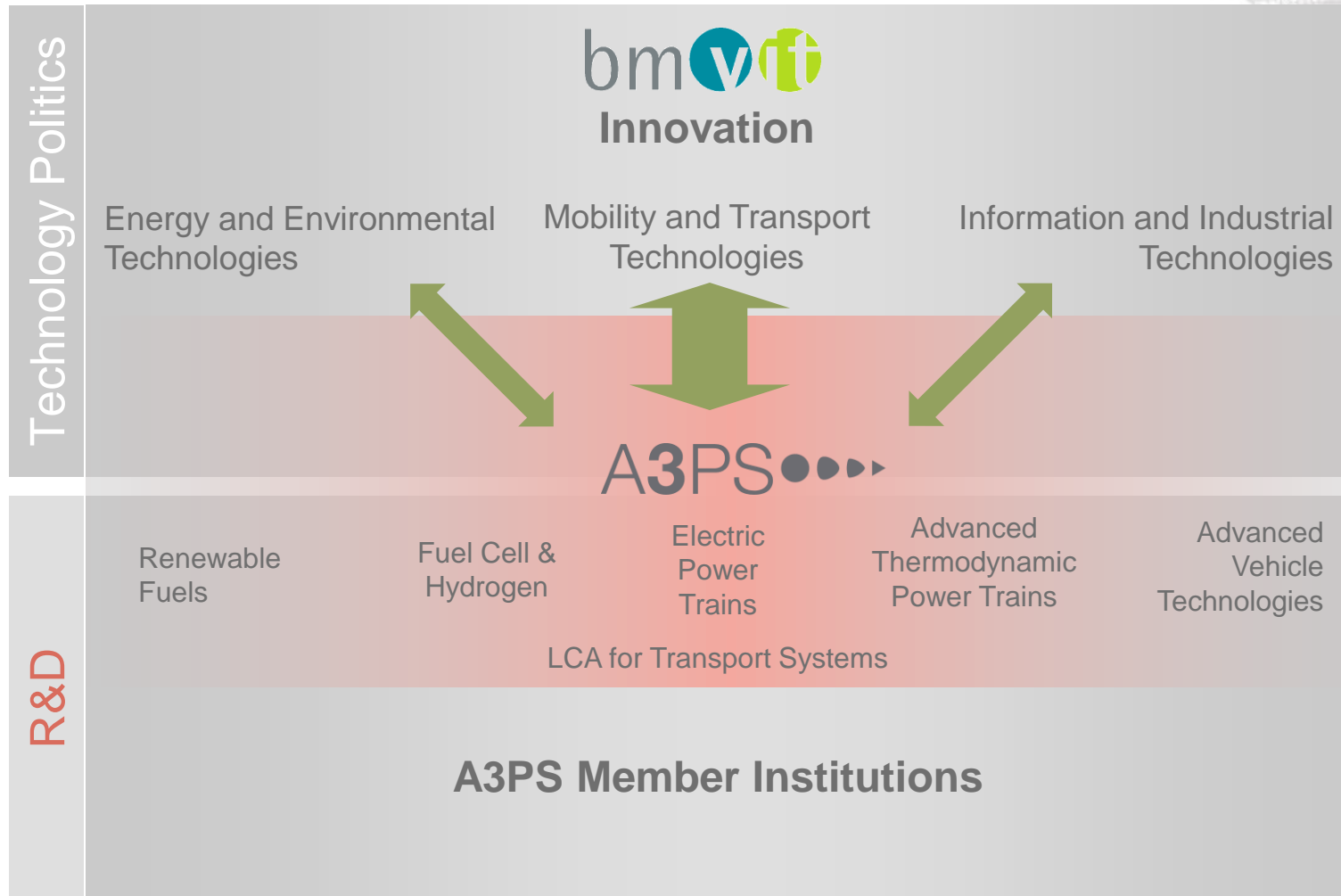
Budget: 2,5 M€



„Eco-Mobility 2025^{plus}“
Technologies for 75 g CO₂/km in 2025

Wolfgang Kriegler (A3PS)
November, 9th 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^{plus}“

Vehicle 2025plus – Major Challenges

Zero Fatalities

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

95 to 75 g CO₂/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



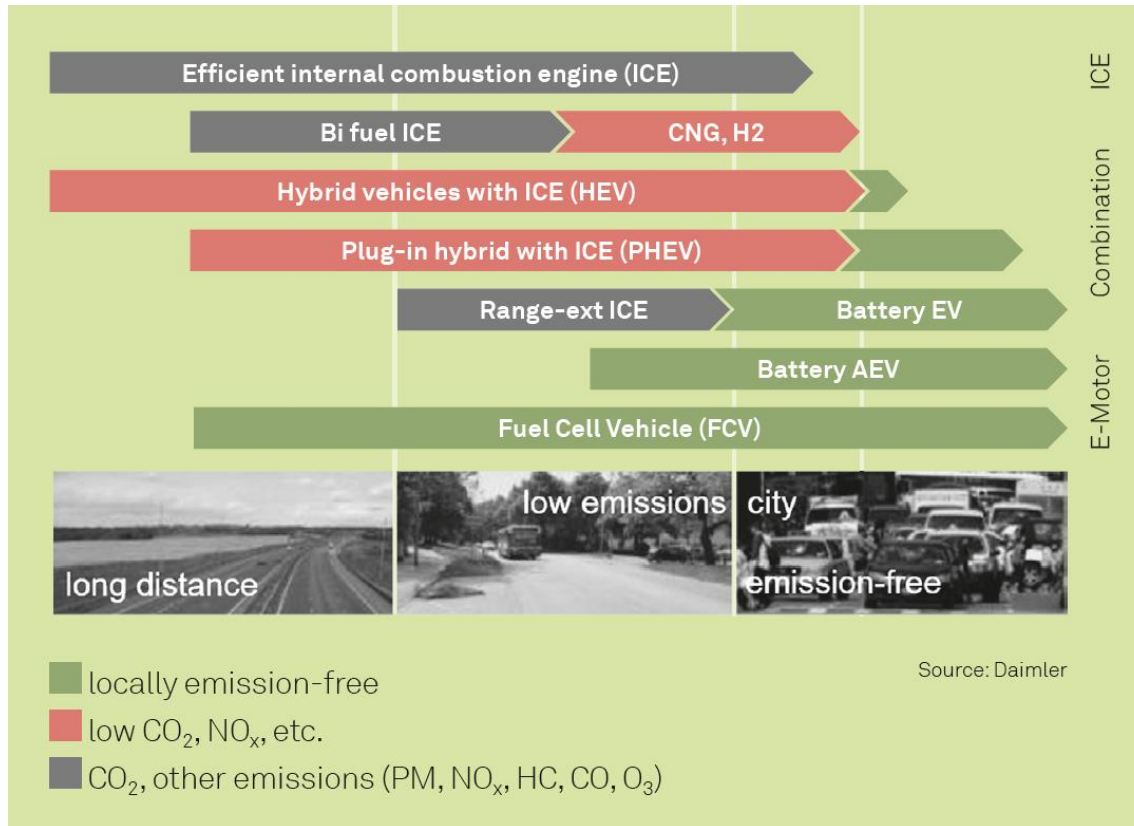
Life Cycle Assessment

Second Life

Production

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 H₂)

Eco-Mobility 2025^{plus} – 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

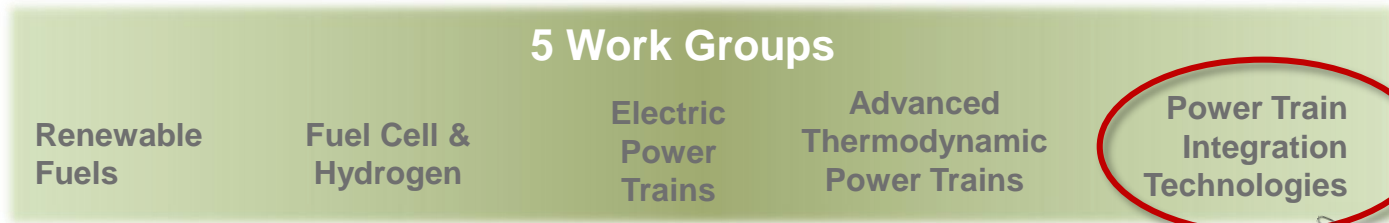
The road map covers:

- Refinement of ICE concepts (Otto and Diesel will resemble each other more)
- Hybrids & EVs (cost reduction programs for e-mobility)
- H₂ 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...



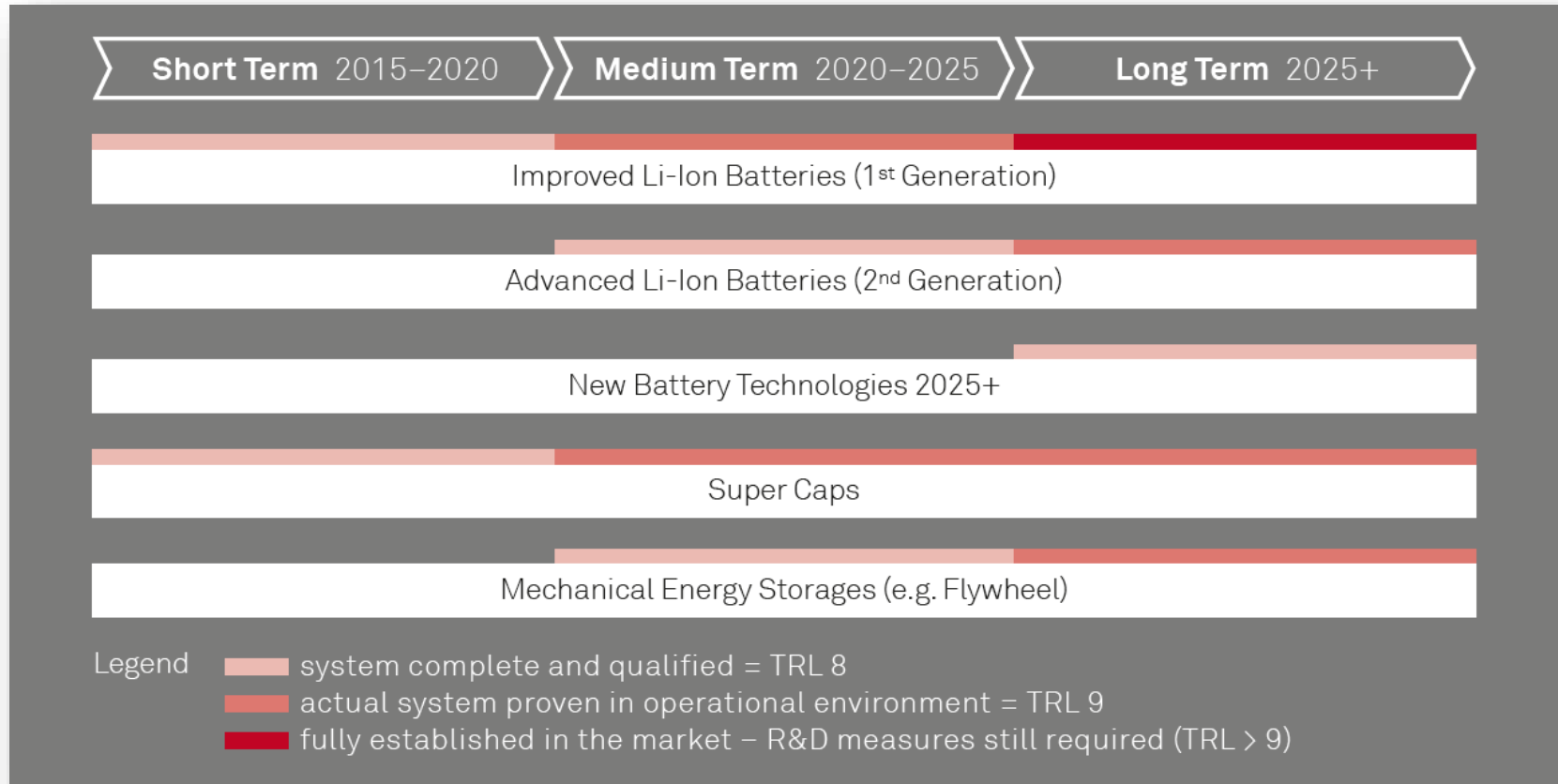
Plus: LCA for Transport Systems

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



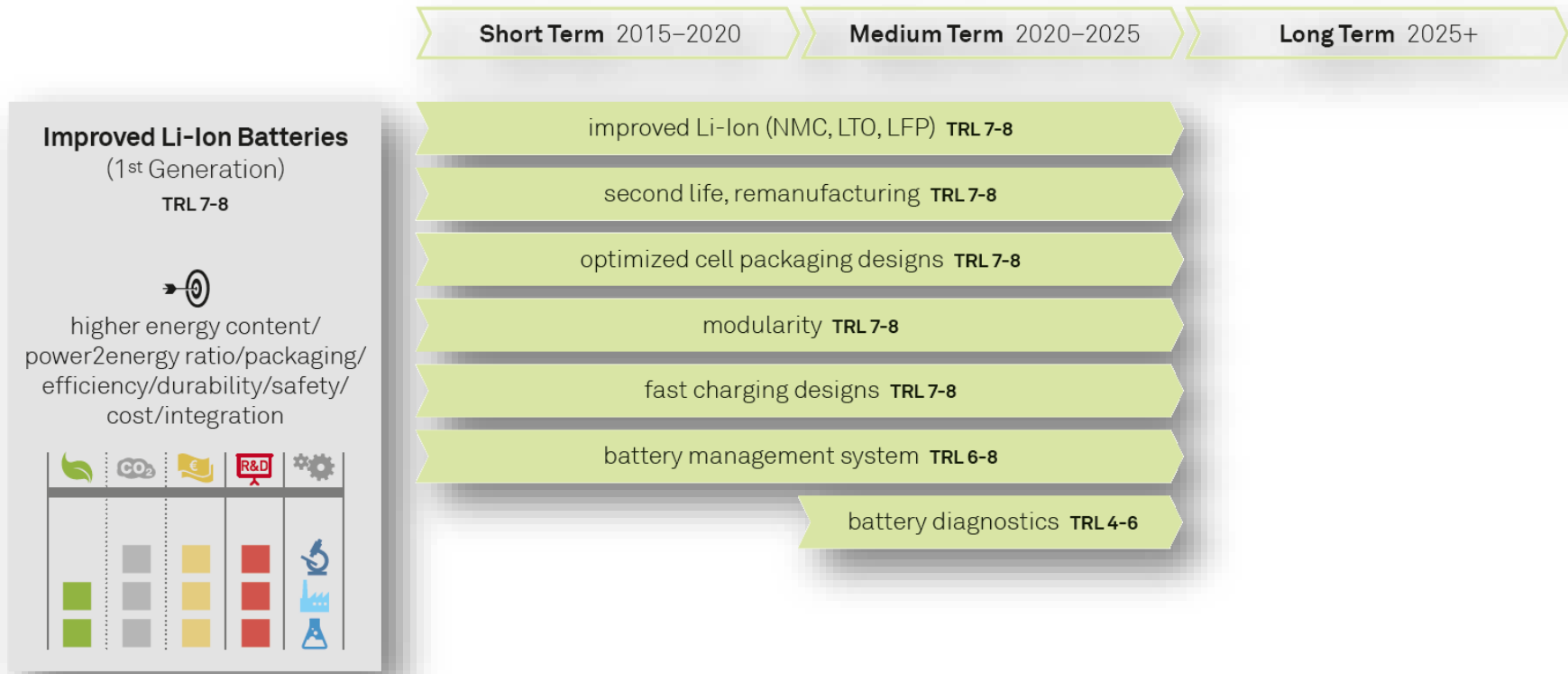
High engagement in workshops – THANKS to the contributors!

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

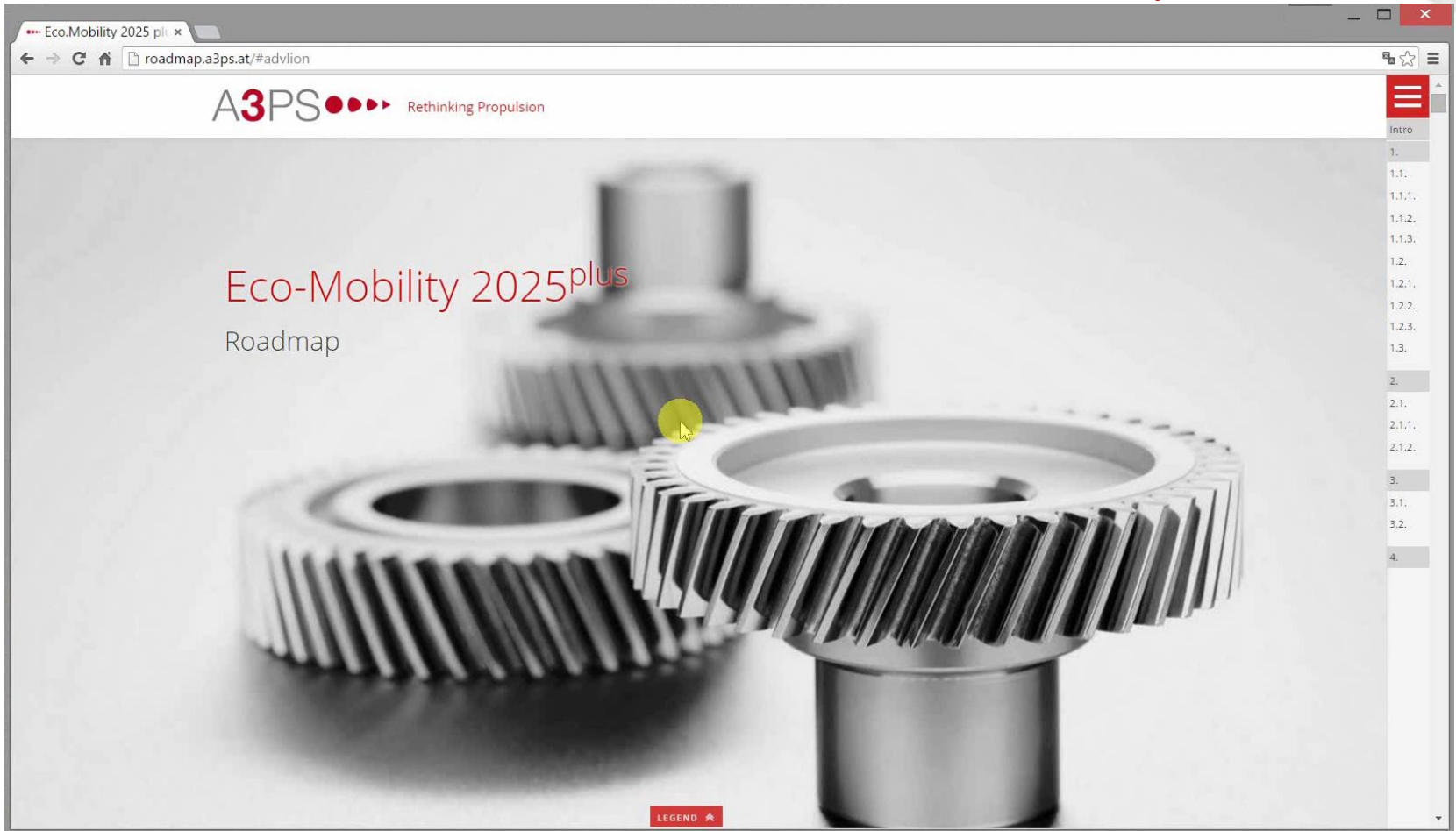
**Complete documentation of
technology options for Eco-Mobility!**



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!