service providers of using cars smart charging strategy future ways of charging low priority charging combine and align the national activities multifunctional corridors of infrastructure Europe wide strategy Audi's position fast charging for long trips readiness "to make the switch" reliable charging charging infrastructure online connection infrastructure infrastructuraltt economical and technical prerequisites smart charging full back-office fully scalable functionalities easy payment easy access easy to use and connected charging infrastructure

integration with autonomous vehicles

high priority charging

connection with automated driving

digitalization

car-/-ridesharing

naive charging strategy

connected car new value chain

insurance aspect connection with e-mobility

great challenge but a chance as well

direct distribution by OEM

aftersales with spare and ware parts

agency networks instead of dealer networks

effects on the workforce business model

change of current methods and ways

potential for future services

function on demand

modern thinking on after sales services territorial and location based aspects

impact on current distribution models

setting direction through governmental affairs

necessity to recast the legal framework...

... to facilitate – or rather enable – new business models and opportunities

policy needs

politics/governments

role of the regulator

EU wide agreement of rules, standards, regulations

is legislation keeping up with technology?

change of consumers perceptions – what can governments do?

public funding for e-mobility

national and international environmental objectives

benefit of e-mobility for customers

ownership of cars relatively low period

success depends on needs and whishes of the users

charging options at home

home battery

transition models

information about the customer

opportunities of a EV

introducing reality consumer friendly solutions in e-mobility

consumers perceptions

put the EV driver much more central

suggestions

and

impulses

charging infrastructure in urban areas

urbanisation

free space

electrification of mobility in city context

urban logistics

concerning

Li-ion battery technology

performance anticipated battery developments

safety reliability

exchange system for batteries

battery

lifetime

for improvement of batteries

challenges and opportunities

cost

battery evolution

development

maintaining production in Europe

battery research

aftermarket (2<sup>nd</sup> life, recycling)

**Europe's position** 

own manufacture

dependency on Asian technology

role and potential for the local stakeholders

common opportunities to build up

production

intelligent know-how

electric vehicles with fuel cell range extenders e-fuel-projects

synthetic fuels

decarbonization of the transport sector

alternative fuel cells

efficiency

driving concept

multimodal approach

flexible demand for electricity

hydrogen

hydrogen as a next step for sustainable mobility

an essential factor is the renewable energy

costs connected to the delivery of electricity

raw materials

necessary supply of renewable energy

implications on the power sector

life cylce assessments

interaction with the environment

sustainable mineral supply chain

supply chain

energy balance sustainability

energy analysis

E-mobility vs. alternatives

environmentally compatible battery technology

how to make the shift to e-mobility faster?

various players with varying interests

coordination

networked e-mobility on cross-industry value chains

co-operation

collaboration is needed to tackle the challenges for a more sustainable mobility

multi stakeholder processes

roles of the car-OEMs and the infrastructure Providers

proximity of charging points

changing parking situation within city centers

urban mobility