

Communicating electric mobility futures: towards a mobility school

Combining futures research and strategic implementation process

mobil.TUM 2014 Sustainable Mobility in Metropolitan Regions

Dipl.-Soz. I. Kollosche | TU Berlin: Integrierte Verkehrsplanung (IVP)

Agenda

- I. Context & Discourse
- II. Futures Research
- III. Electric Mobility Scenarios Berlin 2025
- IV. Communicating Futures: The Vision of a Mobility School

I. Context & Discourse

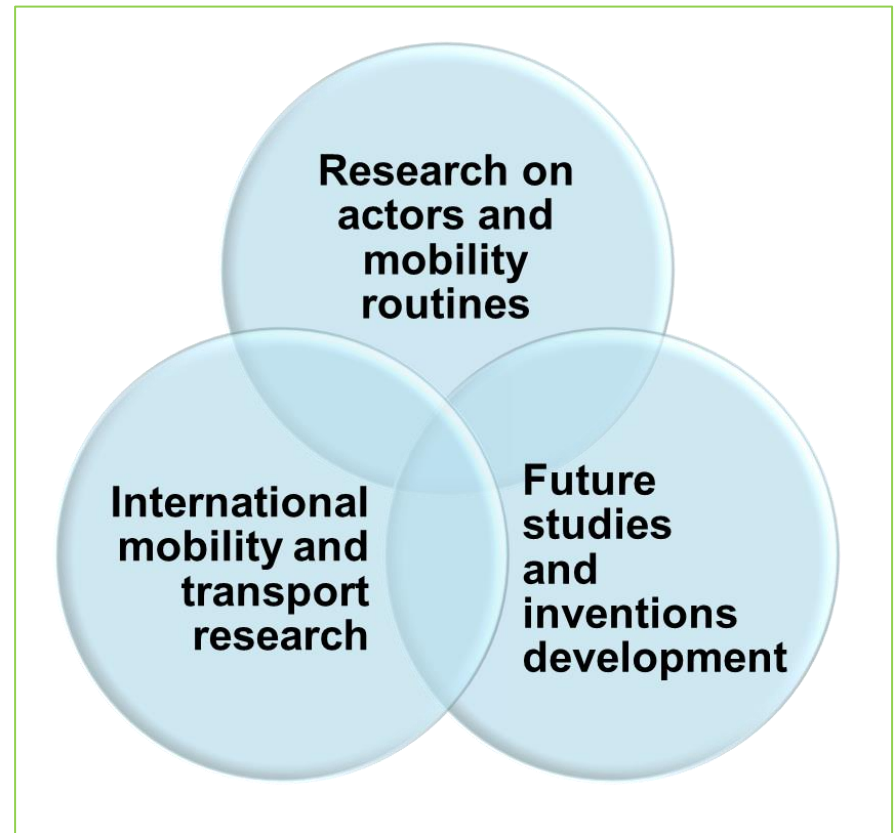
Chair of Integrated Transportation Planning (IVP)

- From modes of transport to modes of mobility
- Mobility:
 - multidimensional
 - intentional & real
 - systemic
- Inter-sectoral analysis: STEEP-Factors

I. Context & Discourse

The integrative perspective:

- Objective: devise plans that support sustainable mobility development
- Planning: mobility planning & futures research
- Research:
 - driven by a demand-oriented approach
 - integrative



Source: IVP

I. Context & Discourse

The discourse on electric mobility

- The elusive target electric mobility
- Electric mobility discourse but less action
- Discourse dominated by technological & economic issues
- Isolation from a broader mobility discourse

I. Context & Discourse

The discourse on electric mobility

Why?

- Specific actor structure
- Traditional mental models
- Shortages of motivation & action
- Inadequate communication design
- Lack of future images of electric mobility

II. Future Research

Future thinking and planning in the 21st century

The future ... :

- ... does not exist.
- ... is cognitive not accessible.
- ... is not predictable.
- ... is a horizon of possibilities.

II. Future Research

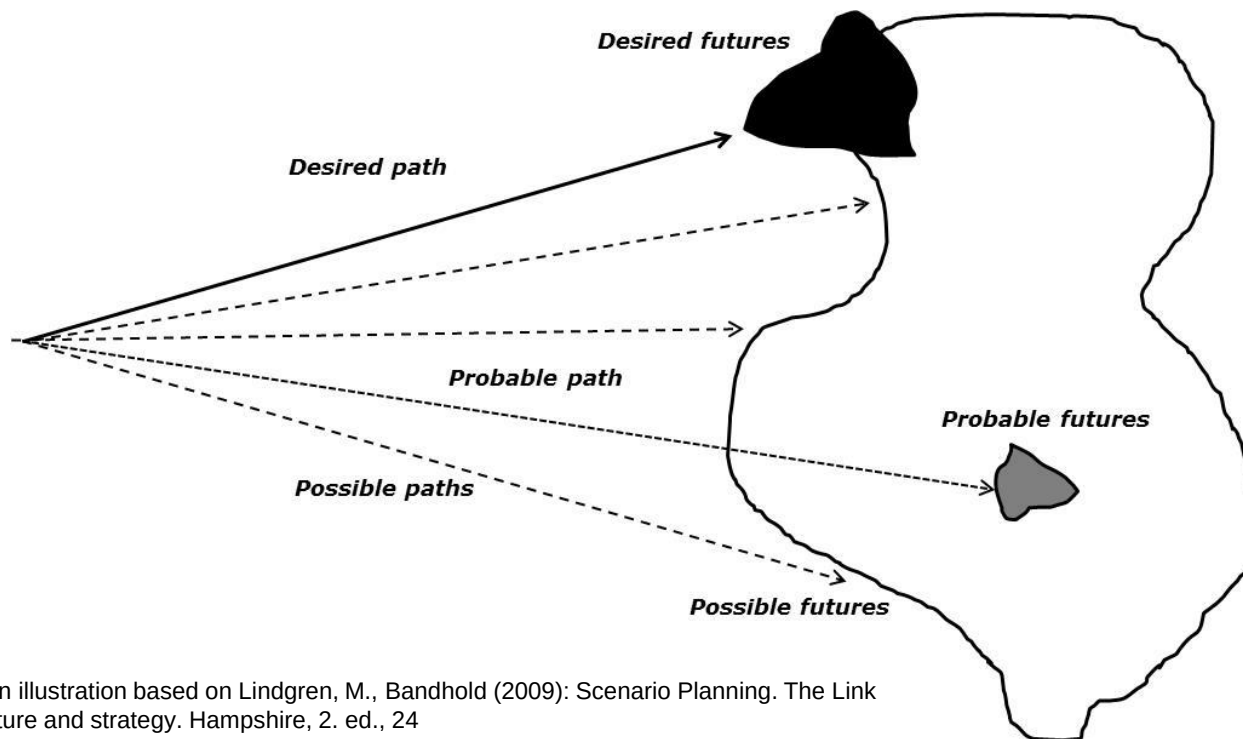
Future thinking and planning in the 21st century

Futures Research:

- Thinking in time
- Expectation management
- Future images: constructed artefacts
- Interdisciplinary field of research
- Focus on how things change

II. Future Research

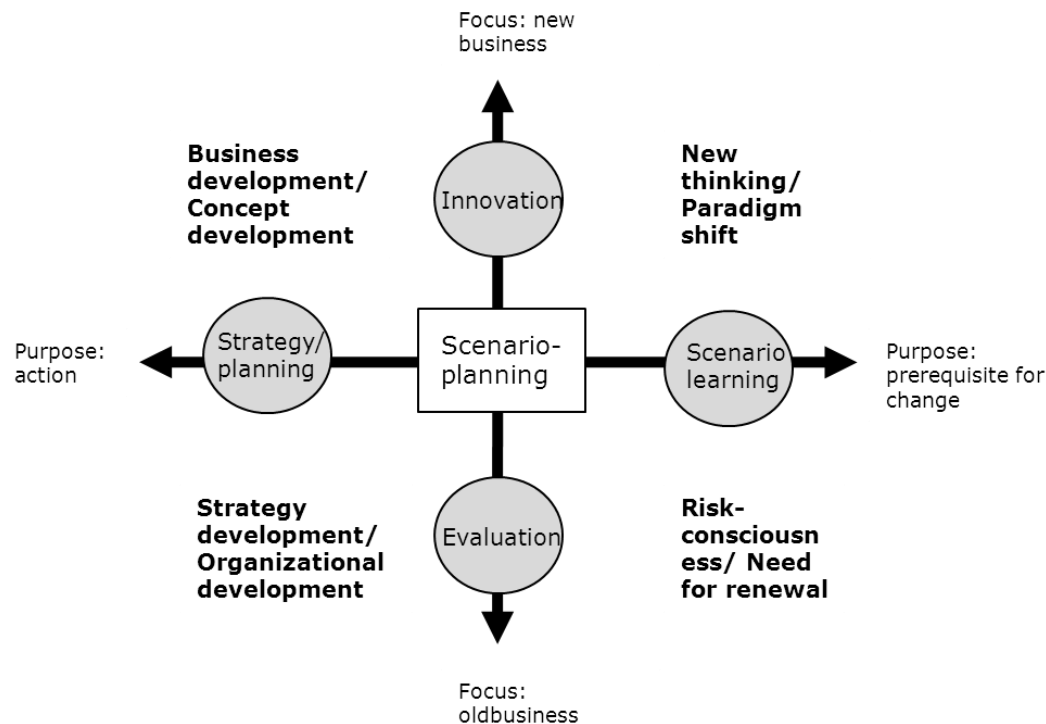
Future thinking & planning in the 21st century: Scenario planning as systemic future thinking



Source: own illustration based on Lindgren, M., Bandhold (2009): Scenario Planning. The Link between future and strategy. Hampshire, 2. ed., 24

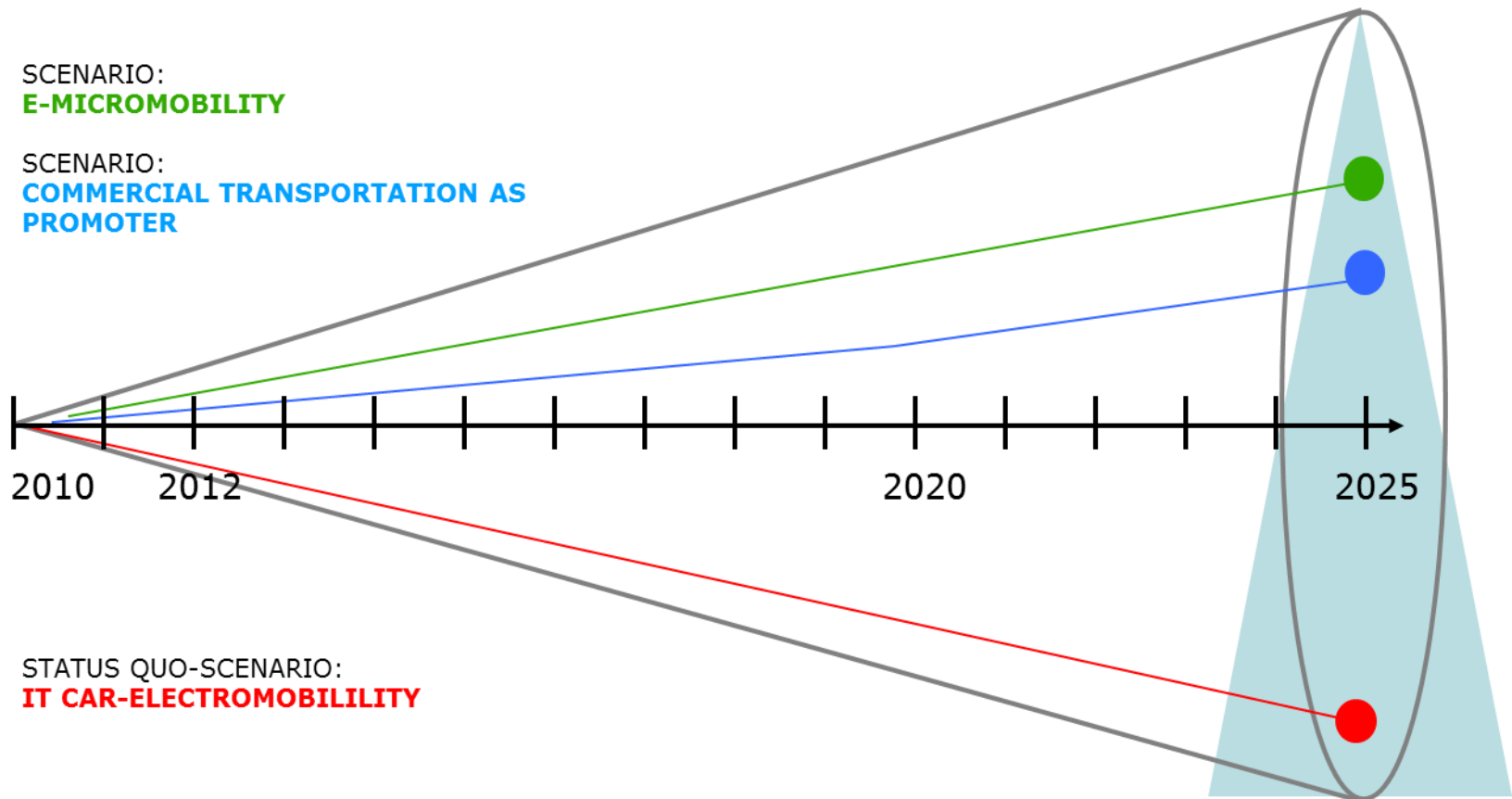
II. Future Research

Future thinking and planning in the 21st century Scenario planning as systemic future thinking



Source: own illustration based on Lindgren, M., Bandhold (2009): Scenario Planning. The Link between future and strategy. Hampshire, 2. ed., 26

III. Electric Mobility Scenarios Berlin 2025



Source: IVP

III. Electric Mobility Scenarios Berlin 2025

SCENARIO 01

IT-CAR- ELECTROMOBILITY



Source: IVP

III. Electric Mobility Scenarios Berlin 2025

Scenario 01: IT-CAR-ELECTROMOBILITY premises and features

essential changes compared to today's mobility...



... almost none: Individual motor car travel is still favored. Elektromobility is something for technic pioneers and the eco in-crowds.

characteristic electric vehicles are ...



... E-roadsters, E-ragtops und E-hardtops with range-extender, also small e-cars as second car.

traffic space and charging infrastructure are marked by ...



... only a small number of public charging points. Charging usually at home or at the company's car park.

government aid and regulation with regard to electromobility ...



... has not augmented. CO₂-free vehicles do not benefit from special privileges (e.g. parking space).

dominant stakeholders and business concepts are ...



... car manufacturers who play the role as market integrators. Focus on the premium segment.

III. Electric Mobility Scenarios Berlin 2025

SCENARIO 02 E-MICROMOBILITY



Source: IVP

III. Electric Mobility Scenarios Berlin 2025

Scenario 02: E- MICROMOBILITY premises and features

essential changes compared to
today's mobility...



... a distinct preference for inter- and multimodal mobility. The role of an own car declines.

characteristic electric vehicles
are ...



... small and very small vehicles, which are combined with public transport, supported by ICT.

traffic space and charging
infrastructure are marked by ...



... priority lanes for CO2 free slow traffic, charging areas in public space (e.g. park & ride & charge at stations).

government aid and regulation
with regard to electromobility ...



... is integrated und systemic: tightened environmental regulations, intense support and privileges for emission-free traffic.

dominant stakeholders
and business concepts are ...



... car manufacturers, energy providers and IT-suppliers, cooperating in networks. Value creation through „mobility on demand“.

III. Electric Mobility Scenarios Berlin 2025

SCENARIO 03 COMMERCIAL TRANSPORTATION AS PROMOTER



Source: IVP

III. Electric Mobility Scenarios Berlin 2025

Scenario 03: COMMERCIAL TRANSPORTATION AS PROMOTER premises and features

essential changes compared to today`s mobility...



... battery driven utility vehicles established in commercial transport (both freights and persons)

characteristic electric vehicles are ...



... small carriers, three wheelers, pedelecs with trailers, small cars – mostly owned by public authorities

traffic space and charging infrastructure are marked by ...



... charging points at depots (V2G), priority lanes for slow emission free traffic, traffic calming...

government aid and regulation with regard to electromobility ...



... based on a well-directed support for demand and supply (public fleet, incentives) and intensified environmental regulations.

dominant stakeholders and business concepts are ...



... the state pushing demand and car manufacturers integrating the market (e.g. leasing-contracts with energy and service package).

III. Electric Mobility Scenarios Berlin 2025

SCENARIO 01 IT-CAR- ELECTROMOBILITY

- Electric mobility stays niche – and limited to the premium segment.
- Despite a variety of BEV – types, cars with combustion engine still are a lot cheaper.
- BEV are a status symbol for ecologically aware technic pioneers with high income.
- In the media electric mobility is depicted as „the future“ but in real life it plays a marginal role.

SCENARIO 02 E-MICROMOBILITY

- Electric mobility is established- mostly because of a change in travel behavior.
- Individual mobility is still highly valued – but is mostly performed as multi- und intermodal mobility.
- Small and very small electric cars play a prominent role.
- Smart grid between traffic carriers and means of transportation strengthens ecological and economical advantages.

SCENARIO 03 COMMERCIAL TRANSPORT AS PROMOTER

- Electric mobility established via commercial transportation.
- Rapid diffusion of the market with BEV is the result of a well-directed governmental support for demand and supply.
- Urban development politics: consistent repression of heavy goods vehicles from the city centre.
- Personal commercial transport is also a stimulus to electric driven private individual motor car traffic.

IV. Communicating Futures

Future processing: working with scenarios

- Enabling follow-up communications with scenarios
- Electric mobility requires visibility
- Instilling electric mobility in the public mind
- New modes of future communication

IV. Communicating Futures

The project: objectives and key aspects

- Scientifically-validated learning module for a driving school curriculum
- Motivate the diffusion of electric mobility as “mobility of the future” amongst young people
- Create the vision for a mobility school



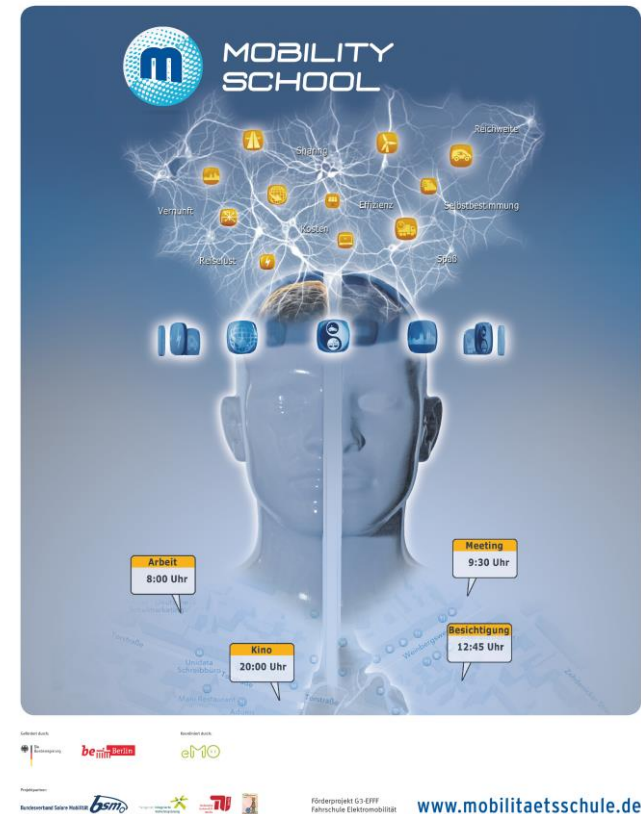
© Reihnhardt, BSM

IV. Communicating Futures

The Vision: Mobility School

- Transformation from the classical driving school to a mobility school
- The privately-owned car is no longer in the foreground
- Education for mobility: holistic and integrated approach

schauenster
elektromobilität
Eine Initiative der Bundesregierung



© Reihnhardt, BSM

contact

Dipl.- Soz. Ingo Kollösche
Fachgebiet Integrierte Verkehrsplanung

Technische Universität Berlin
Fakultät Verkehrs- und Maschinensysteme

Institut für Land- und Seeverkehr
Schr. SG 4, Salzuffer 17 – 19, 10587 Berlin

Telefon: +49 (0)30 314-78770
Sekretariat: +49 (0)30 314-25145
Telefax: +49 (0)30 314-27875

www.ivp.tu-berlin.de