Case Study 1: E-Carsharing for Residential Blocks

Knowledge Entrepreneurship as an Approach to Problem-Solving

Knowledge Entrepreneurship differs from traditional entrepreneurship in that it focuses on recognizing and using one's own abilities to make targeted contributions to society and to solve existing problems.

It serves as a "toolkit" for addressing a wide range of social, environmental, and digital challenges, while also helping individuals transform their knowledge and expertise into meaningful action.

Challenge

The task: identify a transformative problem from the areas of society, environment, or digitalization and develop a solution.

One group focused on passenger transport. Their key statement was:

"There is no adequate transport option for our mobile world – Germans have to rely on their cars because there are no or only poor alternatives."

Challenges identified:

- Environmental impact of passenger and freight transport
- Unreliability and lack of comfort in public transportation
- Lengthy expansion processes, limited financial resources, and shortage of skilled workers

The "affected market" includes everyone who depends on transport – as well as those affected by environmental damage.

Implementation

KSAOs (Knowledge, Skills, Abilities, Other Characteristics)

Definition: KSAOs describe knowledge, learned skills, innate abilities, and personal values (Other characteristics).

Application: Through exercises and personality tests, participants reflected on their KSAOs.

Teamwork: Different backgrounds (e.g., business, law, engineering) complemented each other. This made it possible to combine competencies in finance, law, funding, planning, and energy supply.

Networking

- Visualization of existing networks through mind maps
- Development of strategies: openness, authentic communication, shared interests, and actively maintaining contacts
- Goal: building partnerships and exchanging knowledge (*Crazy Quilt* principle)

Effectuation as a decision-making principle

A central element is Effectuation (Sarasvathy, 2001). In contrast to Causation (fixed goals, clear planning), Effectuation emphasizes flexibility: goals and means are continuously adapted to new circumstances.

Five principles:

- Bird in Hand – start with available means
- Affordable Loss – only take risks you can afford
- Crazy Quilt – build partnerships
- Lemonade – leverage surprises as opportunities
- Pilot in the Plane – focus on one's own actions

Application: The process was iterative; KSAOs and networks formed the starting point.

Design Thinking in Practice

Phases: *Understand (Empathize, Define) – Create (Ideate, Prototype) – Deliver (Test).*

Problem Identification (Empathize & Define)

The identified problem was insufficient public transportation, which causes a strong dependence on private cars.

Problem statement: *"Germans have to rely on their cars because there are no or only inadequate alternatives."*

Causes: long expansion periods, lack of financial resources, shortage of skilled workers → the problem is considered persistent.

Ideation (Ideate)

Possible solutions:

- Expansion of infrastructure
- Carsharing concepts
- Introduction of public mini-mobiles

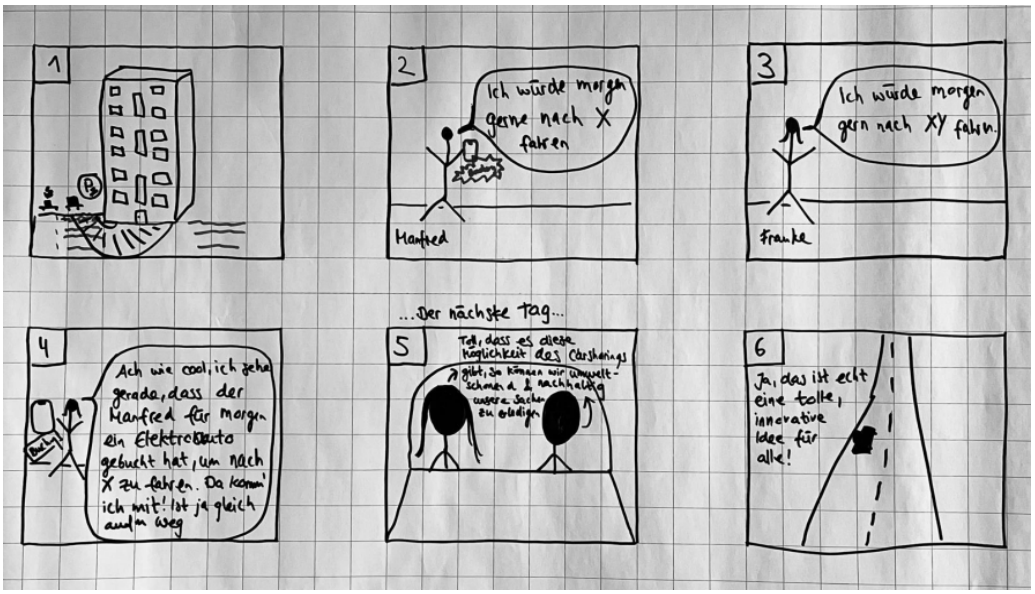
Thanks to the diverse KSAOs, different perspectives could be integrated and several approaches combined.

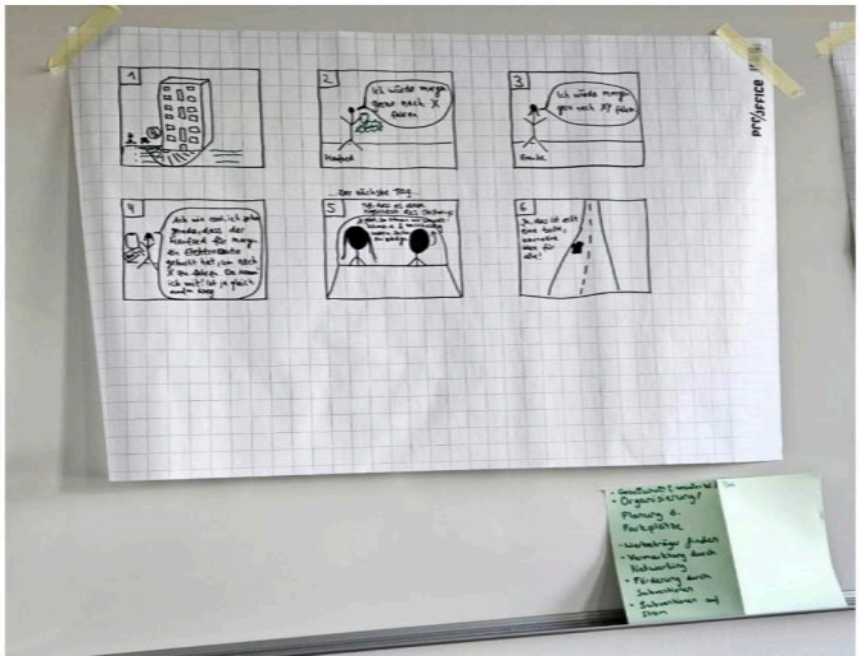
Prototyping (Prototype & Test)

The chosen solution: **E-car sharing for residential blocks.**

- Equipping high-rise buildings/residential complexes with electric vehicles
- Booking via an app
- Priority for shared rides

The prototype was presented as a comic to make the idea more tangible.





Financing options:

- Government subsidies
- Advertising on vehicles and charging stations
- Participation of property owners as a benefit for tenants

The first evaluation showed:

- **Feasibility:** realistic and scalable.
- **Innovation:** combination of sustainability and comfort.
- **Teamwork:** interdisciplinary competencies ensure implementation potential.

Recommendations and Learnings

- **KSAOs as a foundation:** Reflecting on one's own KSAOs highlighted individual potentials and helped to purposefully apply strengths. Awareness of personal strengths and weaknesses facilitated effectual action (*Bird in Hand*). The importance of teamwork was emphasized: individual gaps could be compensated through complementary skills.
- **Interdisciplinarity:** Different academic backgrounds (e.g., business/law, European studies, engineering) enabled a holistic solution. Diverse perspectives created synergies and fostered creative approaches.
- **Networking:** Visualizing existing contacts through mind maps supported a more conscious perception of networks. Authentic and established contacts provided access to knowledge and resources. Networking strategies (asking questions, finding common interests, openness) facilitated collaborative partnerships.
- **Effectuation & Design Thinking:** Effectuation demonstrated how viable solutions can be developed with existing means and manageable risks (*Affordable Loss*). Design Thinking structured the process and made the complex issue of mobility more tangible. Both methods offered practical tools to cope with uncertainty and promote innovation.
- **Entrepreneurial mindset:** Knowledge Entrepreneurship fosters a way of thinking and acting that goes beyond financial motives. The focus is placed on societal benefit and sustainable problem-solving.

References

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, *26*(2), 243–263. http://dx.doi.org/10.2307/259121

Zuffoletti, J. (2025). *Effectuation – Create a new future through entrepreneurship*. https://effectuation.org/