Behavior - Transport demand sector

**Previous:** The general TIMES was way of defining transport demands with one demand per transportation technology, e.g.
- by cars (long/short),
- by local buses,
- by regional buses
- ....

**New:** Introduce different user-categories that have different kinds of transportation needs, different “agents”, e.g.
- Single-person living in a big city, spending most time in the city
- Family, where one is commuting without access to public transportation, living an outdoor life with lots of equipment during the weekends.
- ....

Anna Krook-Riekkola (LTU)
Modelling the Transport Sector
Jonas Forsberg (LTU)

- Structural changes?
- Include new technologies?

Base-year calibration: statistics

Focus on insights, not hard numbers!

Transparency

Uncertainties:
- parametric
- structural

Reference Energy System (RES)

Scenario assumptions

Techno-economic-environmental parameters

Transport models
Travel/goods flow surveys: Behaviour

Proposed and planned policies/investments

Rest of the economy

Population growth
Employed
Income development
Cost of car
Cars/capita

GDP
Private consumption
Public consumption
Investments
Export
Import
Population composition
Employed
Hours worked
Productivity

Literature
Databases / real world experience
Expert judgement

Anna Krook-Riekkola (LTU)
Municipality Action Plans
How to improve knowledge sharing between Energy System Modellers and Civil Servants in regions and municipality. How can municipality get the knowledge that we gain from applying Energy system optimisation models

WS: Choosing between actions
WS: Discussing the different scenarios
WS: Understanding the challenges and opportunities
Modell based scenario analysis
Modell based scenarios
Generic scenario analysis
Developing Action plans

Anna Krook-Riekkola (LTU) Jonas Forsberg and Anna-Krook Riekkola (LTU)
Energy Transition hackathon – Energy Futures of Northern Sweden

Have hackathons to create stories
In each group have key participants within the ongoing green transition in Northern Sweden (citizens, industries, energy experts), a fiction writer and an artist.

Anna Krook-Riekkola (LTU)
Different ways to use models

“Socio-planner hat” and Explorative scenarios

→ The scenario analysis can highlight which kind of behaviour change that can have a big impact, and thereby motivate people to make a change.

Descriptive scenarios – Describing a potential transitions

→ Include more non-economic behaviour in the model analysis

Anna Krook-Riekkola (LTU)