# Towards Zero Logistics Emissions

Breakout sessions instructions

Session aims and approach

- Aim: to identify main steps towards zero emissions logistics with a focus on decarbonization

- Taking 1 out of 5 perspectives
  - Reduce transport intensity/restructure supply chains
  - Optimise the use of transport modes
  - Increase transport asset utilisation
  - Improve energy efficiency of transport
  - Switch to low carbon energy

- Approach: Backcasting
  1. Set interim objectives and milestones to achieve 2050 objective to scale efforts
  2. Trace back to R&D needs
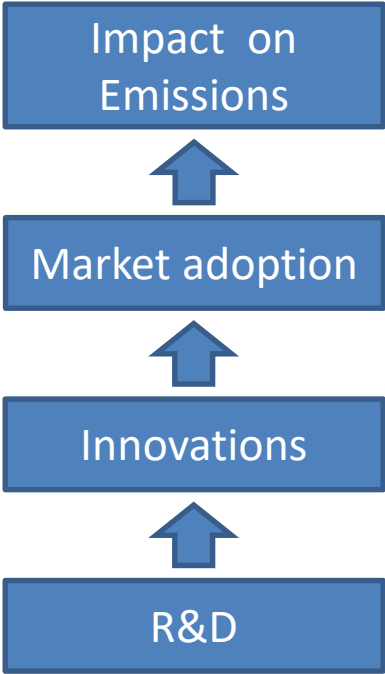 3. Check consistency
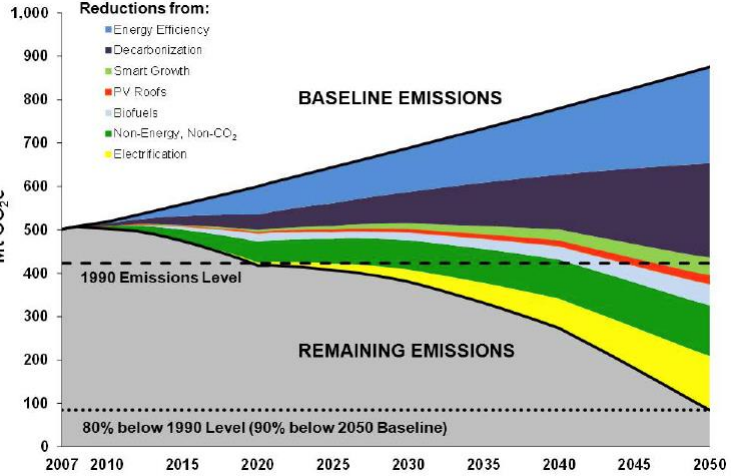
Berkeley Lab News Center - Lawrence Berkeley National Laboratory - http://newscenter.lbl.gov/2011/11/24/ca-emissions-2050 Accessed 1-3-2018
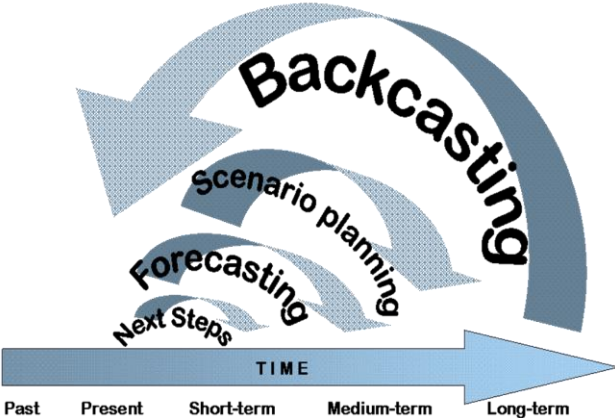
Source: Outhwaite A. 2009. Backcasting. [onlinr] Available at: https://wearearising.org/2009/01/13/backcasting/ [Accessed 10 Nov. 2017]

Roadmapping

|	
Impact on Emissions	Final and total impact materializes in smaller steps and interim targets and paths to contribute to "*Zero Emissions*" (i.e. Neutral CO_2 city logistics by 2030)
⬆	
Market adoption	Widespread implementation and use. What is needed? Under which conditions this will happen?
⬆	
Innovations	Products, Services, Policies deployed
⬆	
R&D	R&D needs & programs

Roadmapping
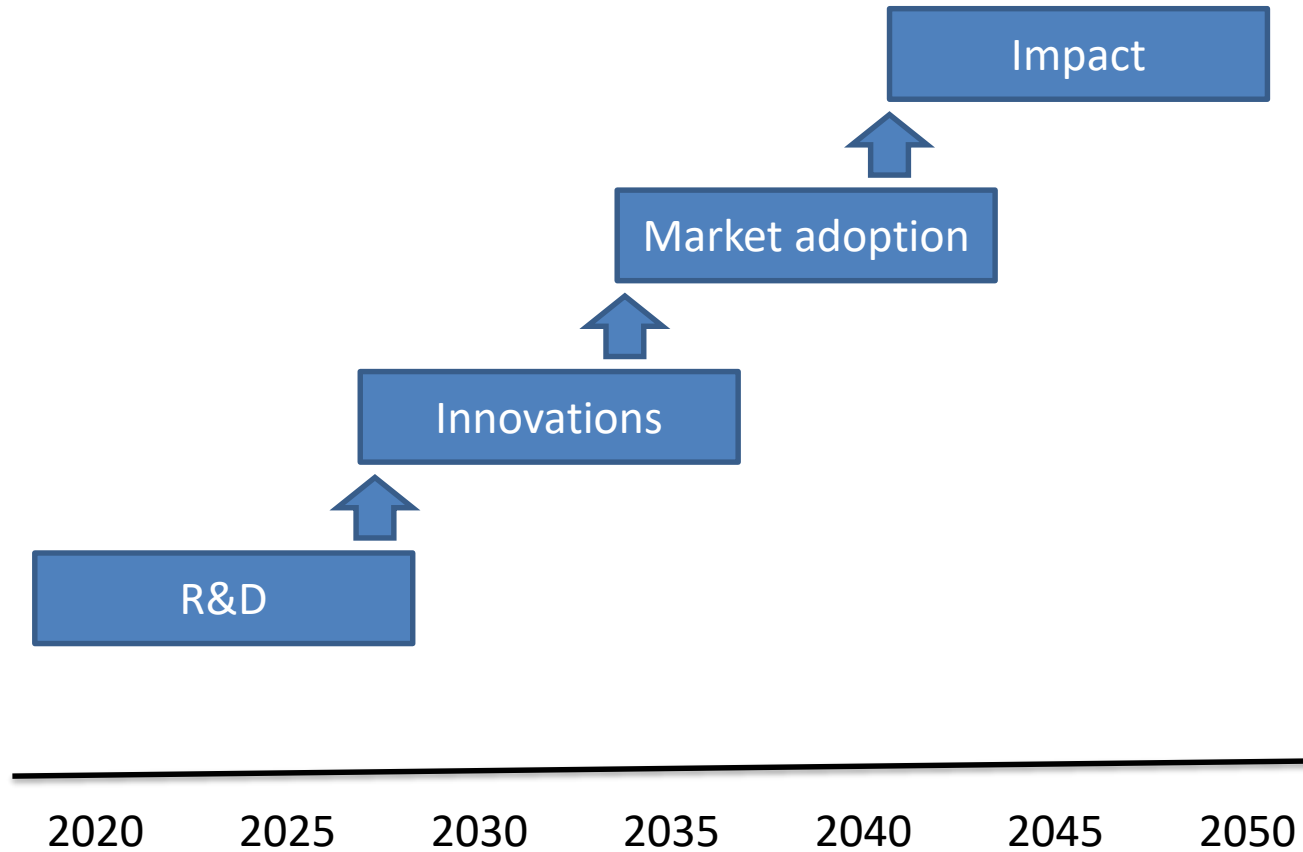
Roadmapping
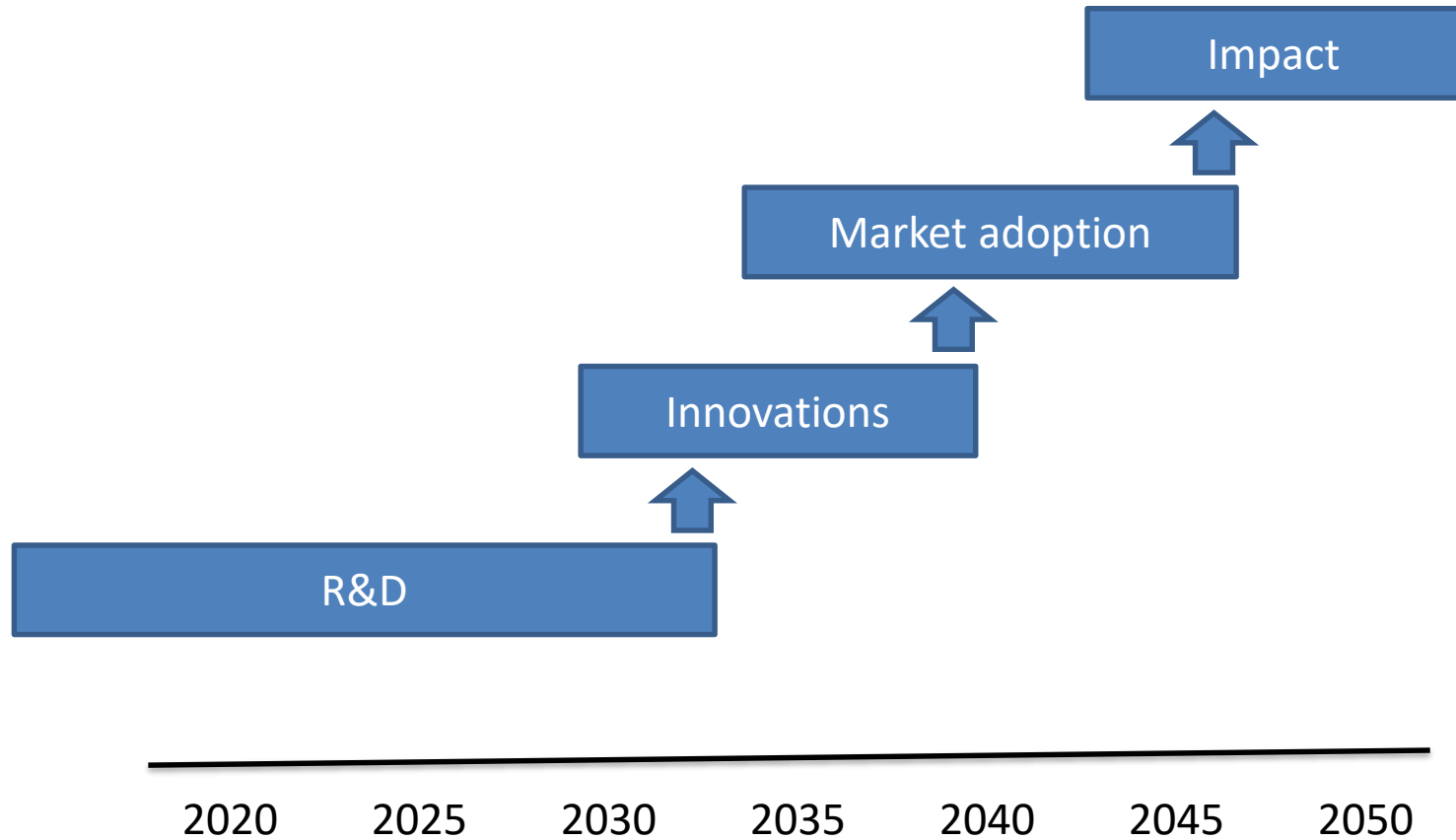
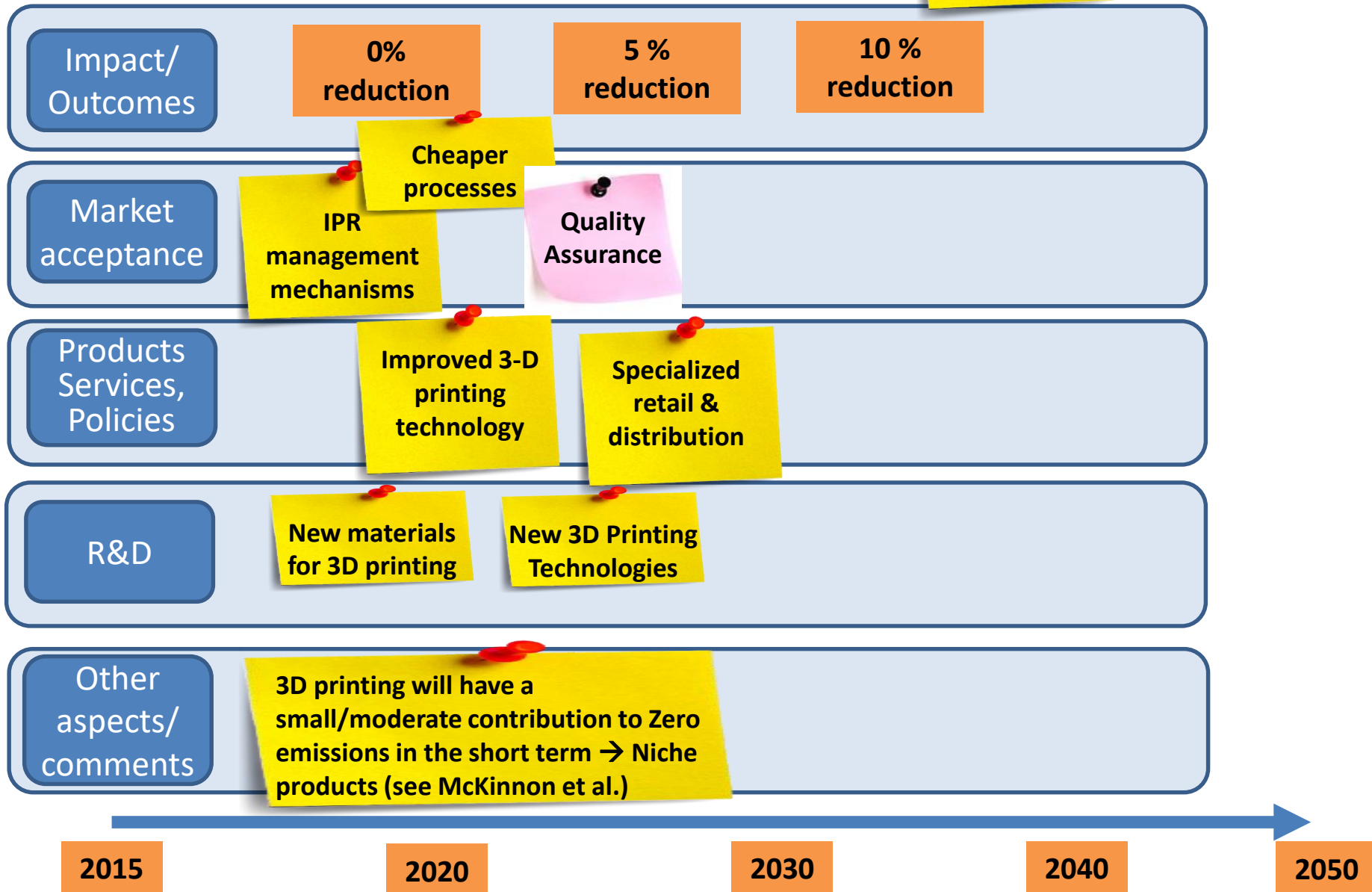# Roadmapping
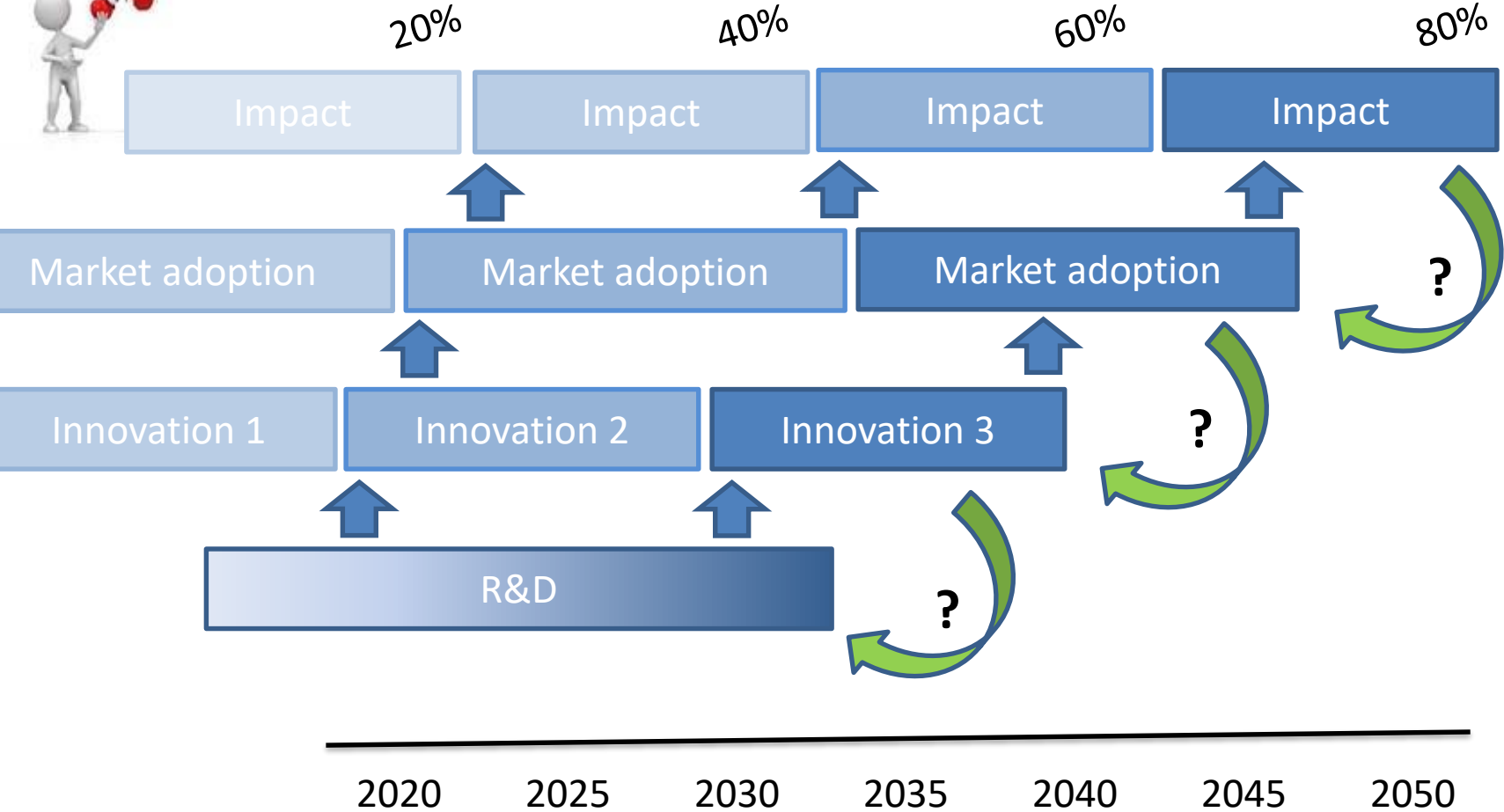
Template and example:

Reduce transport intensity/restructure supply chains

Dematerialization and 3D printing

Alliance for Logistics Innovation through Collaboration in Europe

| Impact/ Outcomes | 0% reduction | 5 % reduction | 10 % reduction |

Cheaper processes

IPR management mechanisms

Quality Assurance

Market acceptance

Products Services, Policies

Improved 3-D printing technology

Specialized retail & distribution

R&D

New materials for 3D printing

New 3D Printing Technologies

Other aspects/ comments

3D printing will have a small/moderate contribution to Zero emissions in the short term → Niche products (see McKinnon et al.)

| 2015 | 2020 | 2030 | 2040 | 2050 |

Template and example:

Reduce transport intensity/restructure supply chains

Reverse Logistics for Circular Economy

Impact/ Outcomes		0% reduction	5 % reduction	20 % reduction

Market acceptance
- Cheaper processes
- Quality Assurance
- Reverse logistics industry emerges

Products Services, Policies
- Reverse distribution services
- Regulation for re-manufacturing and sourcing

R&D
- Design reverse supply chains
- Develop ICT for circularity

Other aspects/ comments
- Circular economy requires support from logistics systems in order to support harvesting, selection and re-channeling of commodities.

2015   2020   2030   2040   2050

Time Split

- Each Participant thinks on **specific output/impact** to be achieved within the scope of the session and a suitable time frame… based on that, proposes actions for market acceptance, which products, services and policies may support that development and which R&D is needed *(Post-it provided)*

  5-10 minutes

- Participants start sharing their thoughts and grouping ideas. For the 2nd and following participant (s) sharing the thoughts, the different ideas may be grouped if possible so some consensus is built… but still ***no evaluation or selection of ideas***

  40-50 minutes

- Review of backcasting of the different paths identified, what else is missing, what is not part of the consensus, which paths may have higher contribution and which aspects may be more critical? …..
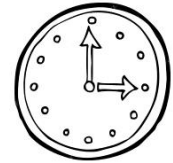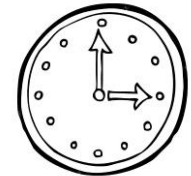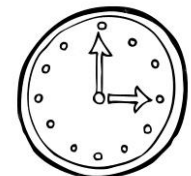
  30-50 minutes

Breakout sessions

Amphitheater Side A - Optimise the Use of Transport Mode	Eszter Toth-Weedon
Amphitheater Side B - Optimise the Use of Transport Mode	Lori Tavasszy
Room M106-107 Table A: Transport energy efficiency	Sophie Punte
Room M106-107 Table B: Low carbon energy tech.	Hans Quak
Room M106-107 Table C: Low carbon energy tech.	Fernando Liesa
Room M16 - Increase Transport Asset Utilization	Alain Baeyens
Room M17 - Increase Transport Asset Utilization	Dirk `t Hooft
Room M18 - Reduce Transport Intensity/Restructure Supply Chains	Alan McKinnon