



By ENCI-LowCarb Project (2009-12) supported by the EU 7th Framework Program.



# REMIND-D: German Scenario Matrix for 85% CO<sub>2</sub> Reduction by 2050

<b>Electricity</b>  <b>Transport</b>					
			<del>CCS</del>	<del>CCS</del>	<b>CCS</b>
			<b>Continuation</b>		
			<b>Paradigm Shift +</b>		

**Electricity Sources:** existing coal-power plants (continue or shut down); energy efficiency, solar, wind; carbon capture and storage (CCS).

The 3 Scenarios were presented at the stakeholder dialog creating differentiated discussions, and new inputs.

**Transport Choices:**

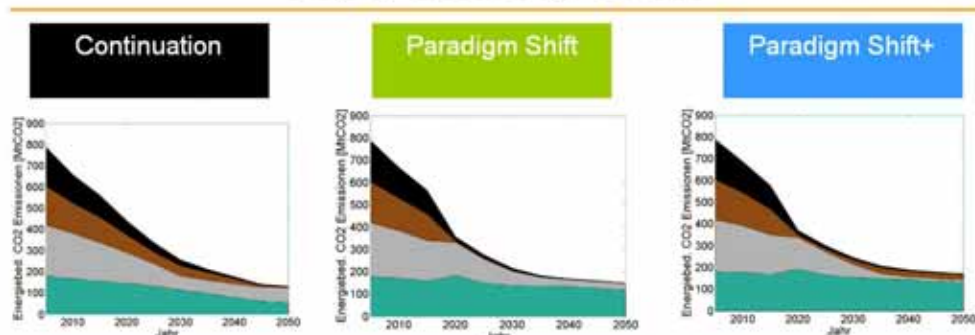
*Freight transport: trucks, shift to trains and shorter distances.*

*Personal transport: shift to more electric cars from fuel driven cars, shift to more public transport with trains & buses, bicycles.*

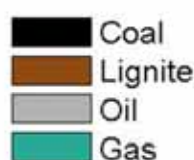
*Transport fuel: petrol & diesel (stays or decreases and replaced by electricity from renewables and/or biofuel (raps yellow), hydrogen (H<sub>2</sub>)).*

## Examples of the Scenario Consequences:

CO<sub>2</sub> Emissions by Source



- Gas plays an important role (for balancing fluctuations)
- Fast decrease in use of coal (when coal power plants are allowed to be switched off)
- Decrease in oil use (when freight transport is not forced to increase)



Freight Transport



- Strong decrease in truck mileage
- Strong increase in freight train mileage
- ... when not constrained by political framework conditions

