



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

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

**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:**

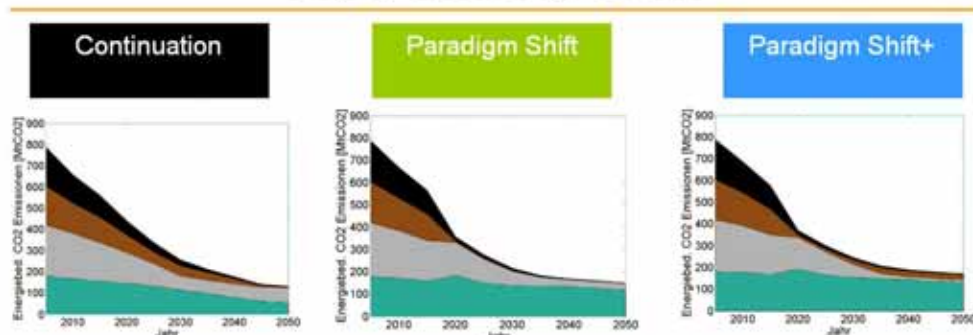
Freight transport: trucks, shift to trains and shorter distances.

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

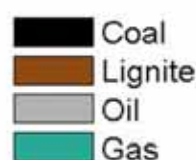
Transport fuel: petrol & diesel (stays or decreases and replaced by electricity from renewables and/or biofuel (raps yellow), hydrogen (H<sub>2</sub>)).

## Examples of the Scenario Consequences:

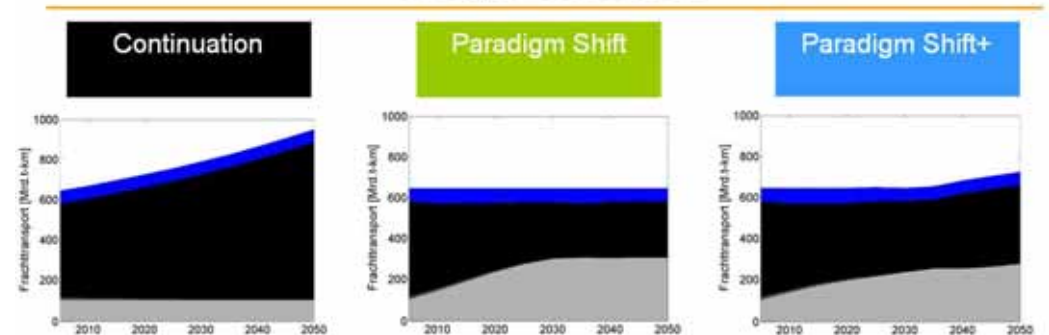
CO<sub>2</sub> Emissions by Source



- 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

