SCENES Model of Europe
SCENES European Transport Model: Background & Context

- Transport model for passengers and freight at the EU level
- Based on preceding STREAMS project
- All Funded by DGTREN of the CEC
SCENES European Transport Model: Model Basics

• Separate passenger and freight ‘demand modules’ - incorporates all travel
• Compatible ‘transport module’
• 4 stage model with feedback loop
• Uses 206 EU zones, plus external zones
• 1995 Validation, Four 2020 forecast scenarios
SCENES European Transport Model: Passenger Demand

Demand matrix based on:

• National Travel Survey (NTS) derived trip rates
• 20 socio-economic groups per zone
• 10 trip purpose groups
• costs of transport by mode and country
• calibration parameters

Passenger model includes 8 CEE Countries
SCENES European Transport Model: Freight Demand

Demand matrix based on:

- Uses 15 EU Input / Output tables in a Regional Economic Model (REM)
- Calculates zonal demand, using 24 sectors
- Demand is met by supplying zones
- Ratios then translate monetary trade into tonnes moved, for 13 Transport Flows
SCENES European Transport Model: Supply Representation

Model uses detailed transport networks:

• Multi-modal networks for road, rail, air, sea, inland waterway and pipeline
• uses a ‘dummy zone’ system to include all intra-zonal passenger trips
• network costs represented for all modes / countries
Passenger Validation: Car & Bus billion person-km, 1995
Passenger Validation:
Train & All billion person-km, 1995
Freight Validation: Tonnes and Tonne-km, 1995

Total National & International Tonnes ('000) per Annum

Observed
Modelled

National Tonne-km (million) per annum

Observed
Modelled