



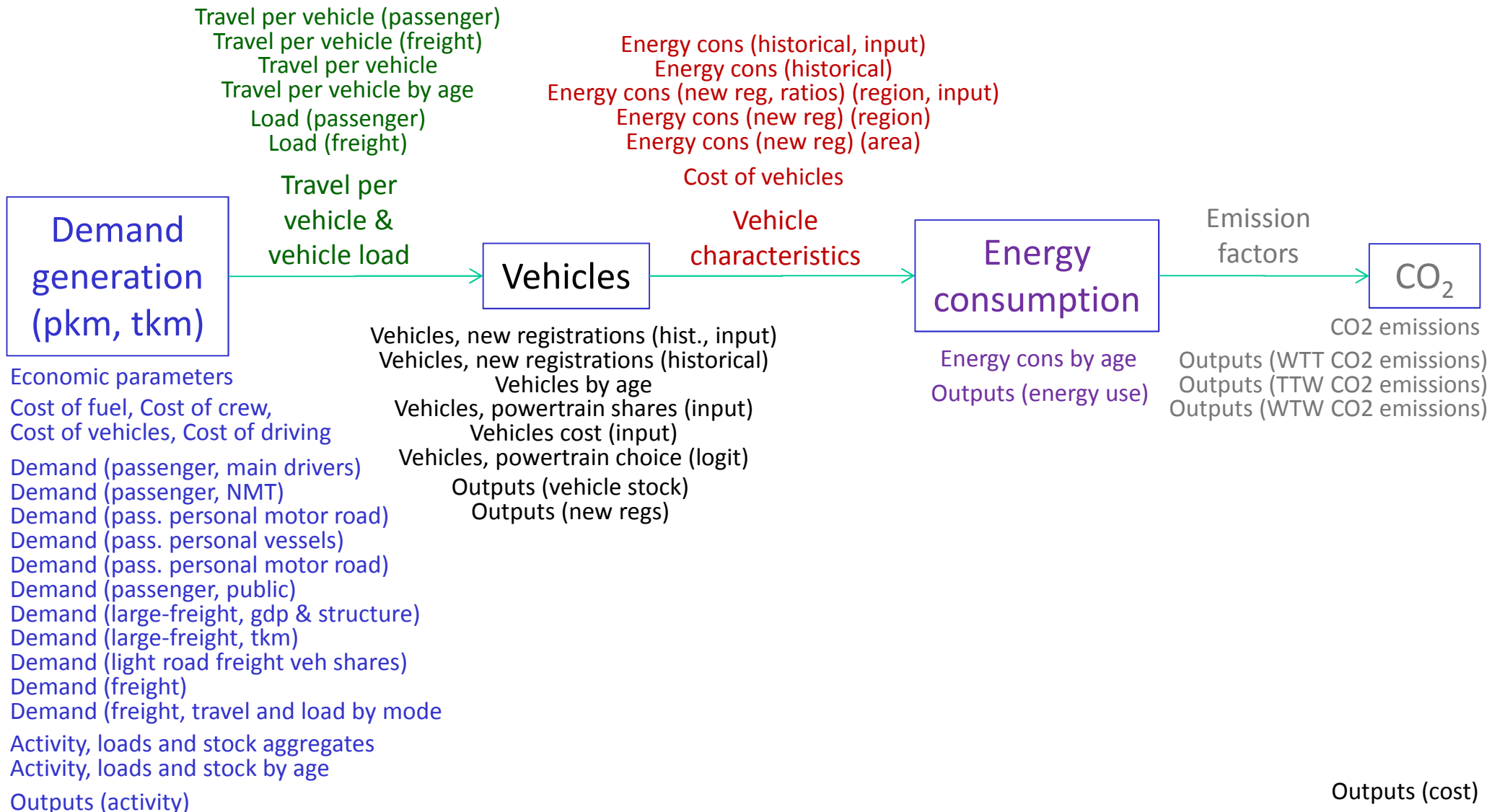
UNITED NATIONS
ECONOMIC COMMISSION
FOR EUROPE

ForFITS

Explanation of the Vensim model

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ForFITS structure and model "views"



Levels

- Area
- Service
- Mode
- Vehicle class
- Powertrain
- Age

Economic parameters

Target

Socio-economic data from the inputs excel file

Inputs

- GDP
- Population
- Time span

Outputs

- GDP per capita
main driver to determine passenger
transport demand

Target

S-Curves link the passenger demand with the GDP per capita taking into account several factors, such as the passenger transport characteristic index, the cost of driving and the environmental culture

Inputs for the calibration of the initial S-Curve

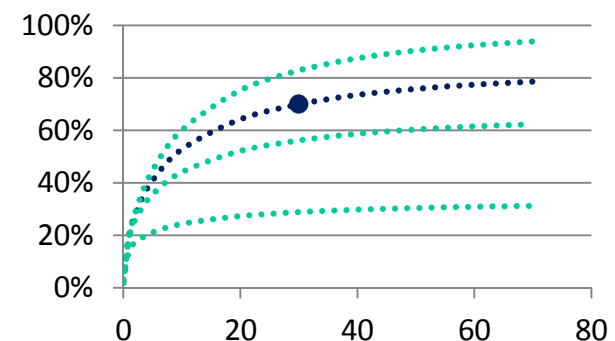
Parameters characterizing the passenger transport demand as function of the GDP/capita

- Ownership of personal passenger road vehicles
- Ownership of personal passenger LDVS
- Share of pkm on personal vehicles in total pkm of public transport and personal passenger vehicles
- Share of air transport in total pkm (personal passenger vehicles, air and public transport)
- People per active bike
- Ownership of personal passenger vessels

Reference value → Base year

S-CURVE FAMILY

THREE PATTERNS LOW, AVERAGE, HIGH



Factors affecting the shape of the initial S-Curve

- Passenger transport characteristic index
 - 0 Focus on personal vehicles, low density of population, significant presence of urban sprawl, horizontal urban development
 - 1 Very high density of population, very strong focus on public transport, geographical and other constraints leading to the vertical development of the urban area
- Environmental culture
 - Takes into account behavioural aspect
 - 0 Little relevance of environmentally conscious behaviour
 - 1 Higher relevance of environmentally friendly transport options
- Cost of driving (and moving goods)

Demand passenger (NMT)

Target

Projecting transport demand for NON-MOTORISED TRANSPORT (NMT)

Inputs

- S-Curve on people per active bike
- GDP per capita
- Population

- Share of people walking
- Annual travel per vehicle
- Load per vehicle

Outputs

Target number of bikes

Target number of walkers

Target vkm

Target pkm



Demand (pass. personal motor road)

km and pkm for passenger personal motorized road transport (cars)

Outputs

of personal

s

of personal

Target vehicle stock for LDVS (cars)

Target vehicle stock for total personal passenger road vehicles

es



Target vehicle stock by vehicle class for TWO WHEELERS, THREE WHEELERS and LDVS

le



Target vkm



Target pkm

https://www.yunbaogao.cn/report/index/report?reportId=5_6687

预览已结束，完整报告链接和二维码如下：

