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Glossary

ACEA	European Automobile Manufacturer's Association
BAU	Business As Usual
CARE	European database on road accidents
CBS	Central agency for statistics in the Netherlands
CH	Switzerland
CO_2	Carbon Dioxide
COPERT	Computer Programme to calculate Emissions from Road Transport
CREEA	Compiling and Refining Environmental and Economic Accounts
CSV	Comma-Separated Values
DG ECFIN	European Commission's Directorate-General for Economic and Financial Affairs
DG MOVE	European Commission's Directorate-General for Mobility & Transport
DG TREN	European Commission's Directorate-General for Transport and Energy; predecessor of DG MOVE
DIM	Dimension
EC	European Commission
EPC	Economic Policy Committee
ETISplus	European Transport Policy Information System
EU	European Union
EU27/EU28	27/28 Member States of the European Union
EU COMEXT	Eurostat's reference database for external trade
EUR	EUR
EUROPOP2010	Eurostat's Population Projections 2010-based
Eurostat	Statistical Office of the European Union
EXIOBASE	A global, detailed Multi-Regional Environmentally Extended Supply and Use/Input Output Database
FYROM	The former Yugoslav Republic of Macedonia
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GVA	Gross Value Added
HI	Historical Input Parameter
IenM	Dutch Ministry of Infrastructure and the Environment
IF	Input Factor
IM	Intermediate Parameter
IOT	Input Output Table
JRC-IPTS	Institute for Prospective Technological Studies of the European Commission's Joint Research Centre
MB	Megabyte
MOVEET	Analytical tool to address the policy problems related to transport and climate change.
MR EE IOT	Multi-Regional Environmentally Extended Input Output Table
MR EE SUT	Multi-Regional Environmentally Extended Supply and Use Table
NO	Norway
NO_x	Nitrogen Oxides

NST	Eurostat' Standard Goods Classification for Transport Statistics
NUTS	Nomenclature of Territorial Units for Statistics; A number assigned to it defines the level of granularity, such as 0 for the country level.
O/D	Origin/Destination; Used to describe a relation between two regions.
OECD	Organisation for Economic Co-operation and Development
OP	Output Parameter
P/A	Production/Attraction; Used to describe a relation between two regions.
PI	Projected Input Parameter
PAT	Parameter Type
pkm	Passenger-kilometre
PM	Particulate Matter
SCENES	European transport forecasting model and appended module
SO_2	Sulphur Dioxide
SQL	Structured Query Language
SUT	Supply and Use Table
SWOV NL	Survey on passenger mobility in the Netherlands
TEN-STAC	Scenarios, Traffic Forecasts and Analysis of Corridors on the Trans-European Network
TFR	Total Fertility Rate
tkm	Tonne-kilometre
TRACCS	Transport data collection supporting the quantitative analysis of measures relating to transport and climate change.
TRANS-TOOLS	Network-based European Transport Model
TREMOVE	Economic transport and emissions model
TRENDS	TRansport and ENvironment Database System
UN COMTRADE	United Nations Commodity Trade Statistics Database
VACLAV	European transport network model
vkm	Vehicle-kilometre
WP	Work Package

Executive Summary

HIGH-TOOL deals with the development of a strategic assessment tool to quantify economic, social, transport and environmental impacts of transport-related policy measures.

The present report documents the outcomes of *Work Package 3: Basic Input Data* and represents the work related to the development of the database for the pre-final and final versions of the HIGH-TOOL model. The report provides information on the compilation of data for the different HIGH-TOOL modules (including data parameters definition, sources and units) and the definition of the data exchange mechanism, which is used to download and upload data. In order to affiliate the reader with the model's features, the Deliverable presents a quick overview of the different modules of the HIGH-TOOL prototype version, which is the basis for developing the different modules, identifying the input and output parameters.

The main focus of the Data Stock is the identification of the necessary input and output data, their definition, dimensions and sources. For each module, data requirements have been identified, and the set of input and output variables have been elaborated, together with data dimensions.

1 Introduction

1.1 Objectives of HIGH-TOOL

The HIGH-TOOL project is developing a strategic assessment tool to quantify economic, social, transport and environmental impacts of transport-related policy measures. It should be a means to support policy-makers in assessing policy measures. In a first step, user requirements were identified. Based on the outcomes of this exercise, the HIGH-TOOL consortium started to develop the prototype, after elaborating the structure of the model as a whole and its modules, defining input and output data, as well as elasticities and equations in order to calculate the output data. The prototype Data Stock was implemented in Microsoft Access. Based on the experiences learned from using this database, the HIGH-TOOL consortium decided to implement the final Data Stock in Postgres, a free and open professional database system. The final Data Stock has been continuously developed during implementation of the pre-final version of the HIGH-TOOL model, and finally adapted based on results obtained from the validation of the pre-final model.

1.2 Objectives of the Deliverable

In order to cover a wide spectrum of policy impacts, the model is comprised of several modules. Each module is defined by a set of input parameters, its equations and intermediate parameters and its output parameters. While the specifics of the calculation step are presented in *Work Package 4: Elasticities and Equations*, this Work Package is focussed on the input and output parameters, the data sources, the compatibility with other models and possibilities for a data exchange interface. More specifically, the WP3 tasks are summarised as follows:

Task 1: Identification and compilation of data sources (Data Stock): Based on the user requirements (Vanherle et al., 2014) concerning output indicators, as well as the structure of the HIGH-TOOL model itself (Mandel et al., 2016), data sources are identified, collected and processed, composing the Data Stock. This task is substantially facilitated by data sources such as Eurostat, ETISplus, TRACCS and other databases as indicated in the definition of the input variables.

Task 2: Development of the Data Exchange Mechanism: The Data Exchange Mechanism prepares an up- and download functionality of the basic dataset used in the HIGH-TOOL model, creating a communication channel with the user for downloading project results as well as feeding in their own data, always conforming with the HIGH-TOOL data definition.

1.3 Interdependencies with other Deliverables

Work Package (WP) 3 interacts continuously with the other HIGH-TOOL work packages; whereas WP3 functions as a data repository, WP1 and WP2 define the prerequisites of the model, i.e. what type of data are part of the model, WP4 identifies how these data are linked, WP5 presents how the data are modelled and so on. More specifically:

- WP2 defines the parameters, which are stored in the Data Stock (Mandel et al., 2016).
- WP4 depicts how the information stored in the Data Stock are used in the model (Van Grol et al., 2016).
- WP5 depicts – amongst others – the interaction of the modules with the Data Stock and the user interface (Biosca, 2015).
- WP3 is also indirectly linked to WP1, which presents the user requirements in terms of transport policies and impact indicators, which are fed into WP2 (Vanherle et al., 2014).

1.4 Content of this Deliverable

The present Deliverable is the documentation of the achievements of the aforementioned two tasks for the HIGH-TOOL pre-final version and is structured as follows:

Chapter 2 presents in short the different modules and their input and output requirements as well as the Data Exchange Mechanism, the means to interact with the input and output data in HIGH-TOOL. **Chapter 3** describes the methodology for the data collection and the setup of the HIGH-TOOL Data Stock. **Chapter 4** elaborates on the final data parameters, their definition and the sources they are retrieved from. **Chapter 5** presents the dimensions for the data parameters. The identified structure of the data parameters and their dimensions is used to store the data in the Data Stock. The detailed description of the dimensions used in the prototype is mentioned in the **Annex**.

This Deliverable refers to the final version of the Data Stock for HIGH-TOOL.

2 HIGH-TOOL Input and Output

2.1 Introduction to the Model

The HIGH-TOOL pre-final model is composed of seven different modules and the Data Stock (see Mandel et al., 2016). These seven modules (Demography, Economy & Resources, Freight Demand, Passenger Demand, Vehicle Stock, Environment, Safety), take as input exogenous or calculated data parameters from other modules and calculate their output data up to 2050. For example, historic data on serious injuries or fuel prices are exogenously fed into the Safety and Environment and Vehicle Stock modules respectively, whereas GDP is calculated within the Economy & Resources module and fed into the Freight Demand and Passenger Demand modules. In the following sections the main input and output data parameters of the different modules are shown in order to present the main elements of the modules.

Demography reflects the demographic development of the regions considered within HIGH-TOOL: the module estimates the projected regional (NUTS-2) population and labour force for the EU28 countries as well as Norway and Switzerland and provides the UN projected figures for the other countries worldwide, following the HIGH-TOOL zoning system.

Economy & Resources consists of the three components: 'Economy', 'Resource', and the combinatorial component 'GDP, Trade, Energy, Resources, Production/Distribution'. The 'Economy' component gives an estimate of total output, capital stock and labour use in the economy, in which the general drivers (i.e. GDP, household income per capita and population) are exogenously defined by the EU Reference Scenario 2013. The module disaggregates these drivers from NUTS-0 to NUTS-2 level, based on ETISplus data (i.e. regional GDP, regional population, and labour force). The combinatorial component provides an estimation and projection of employment, trade, (resource) consumption and purchase power under different transport policies. 'Resources' calculates several environmental indicators (without combustion) using the EXIOBASE database (CO_2, NO_x, SO_x, PM, biomass, fossil fuel use, metal use, mineral use, wood use, and water use).

Vehicle Stock converts passenger and freight demand into the vehicle fleet size. This fleet size is disaggregated by vehicle type and vehicle age cohort, which is crucial for emission and energy use calculations. The adopted classification of vehicle types is based on both propulsion and fuel type. In total, the Vehicle Stock module covers 61 road and 12 non-road vehicle types. The considered cohorts range from 0 to 29 year old vehicles. The results of the fleet stock calculations are provided at NUTS-0 and at NUTS-2 levels for each of EU28 countries and for each time period (in 5-years intervals) within the model time horizon.

Apart from fleet stock forecasts, the Vehicle Stock module also delivers forecasts of average fixed and variable generalized costs for each transport vehicle type as well as total tax revenues per country. The methodology underlying the Vehicle Stock modules is aligned with TRACCS (Papadimitrio et al. 2013) and TREMOVE (de Ceuster et al. 2007).

Freight Demand consists of four components: trade conversion, route choice, modal split and conversion. The trade conversion component converts trade values to volumes and extracts air-transport demand[1] from total trade between an origin and a destination. The route choice and modal-split components distribute demand across transport chains and perform modal-split on the legs of the transport chains, while applying the effects of measures. The conversion model derives other transport indicators like tonne-kilometres and vehicle-kilometres. A sub-component determines the transport indicators relating to full-freight aircraft[2] and feeds them to the conversion component.

Passenger Demand consists of four sub-models: generation, distribution, modal split and conversion. The generation model computes the trip demand for each origin. In the distribution model the origin-destination trip matrix is computed, which by the modal split model is further divided into transport modes. The conversion model derives transport performance indicators such as passenger-kilometres and vehicle-kilometres. The core Passenger Demand module is complemented by the urban demand and the intercontinental air passenger module.

Environment calculates wheel-to-tank (wtt) fuel consumption and emissions for each vehicle type. Fuel consumption or fuel intensity and emission factors or emission index are the key input variables in this calculation. These factors are distinguished into technologies which are represented in the model by the age-cohort or vintage. The module produces estimates for CO_2 emissions as well as five other pollutants, i.e. CO, VOC, NO_x, SO_2 and PM2.5. Fuel consumption and emissions are calculated per origin country (NUTS-0 level) and thereafter disaggregated to zones at NUTS-2 level. This disaggregation by NUTS-2 zones is based on the share of transport demand in each zone within a particular country. The Environment module receives input from the Passenger and Freight Demand modules and from the Vehicle Stock module (fleet size).

[1] The air freight trade volumes are extracted from the total trade volumes, which are used for the estimation of freight transport figures for all modes besides air. The air freight demand is estimated in a separate submodule as it uses different equations and elasticities from the other modes.

[2] As mentioned in footnote 1, the air freight demand is estimated, at origin-destination level, separately from the other modes and is added to the total demand after the modal split step for the other modes.

Safety can be divided into two submodules for each mode of transport. First, the Business-as-Usual (BAU) submodule calculates BAU safety risks and predictions based on risk trend lines (from historic mobility and safety data) and mobility predictions from the Passenger and Freight Demand modules. Subsequently, the scenario submodule adapts the BAU risks according to the anticipated effect of modelled safety measures. This effect is derived from changes to accident causal factors (which are the policy inputs) and the elasticities and equations relating these to changes in risk. Safety predictions for the scenario follow from these scenario risks and mobility predictions. While for road, fatalities, serious and slight injuries are predicted, for the other modes the model focuses on fatalities. For all modes the social costs are calculated.

Figure 1 depicts the HIGH-TOOL modules rationale, including their structural components and how these are interlinked (Mandel et al., 2016). This Deliverable elaborates only on the input and output data requirements for the modules described above.

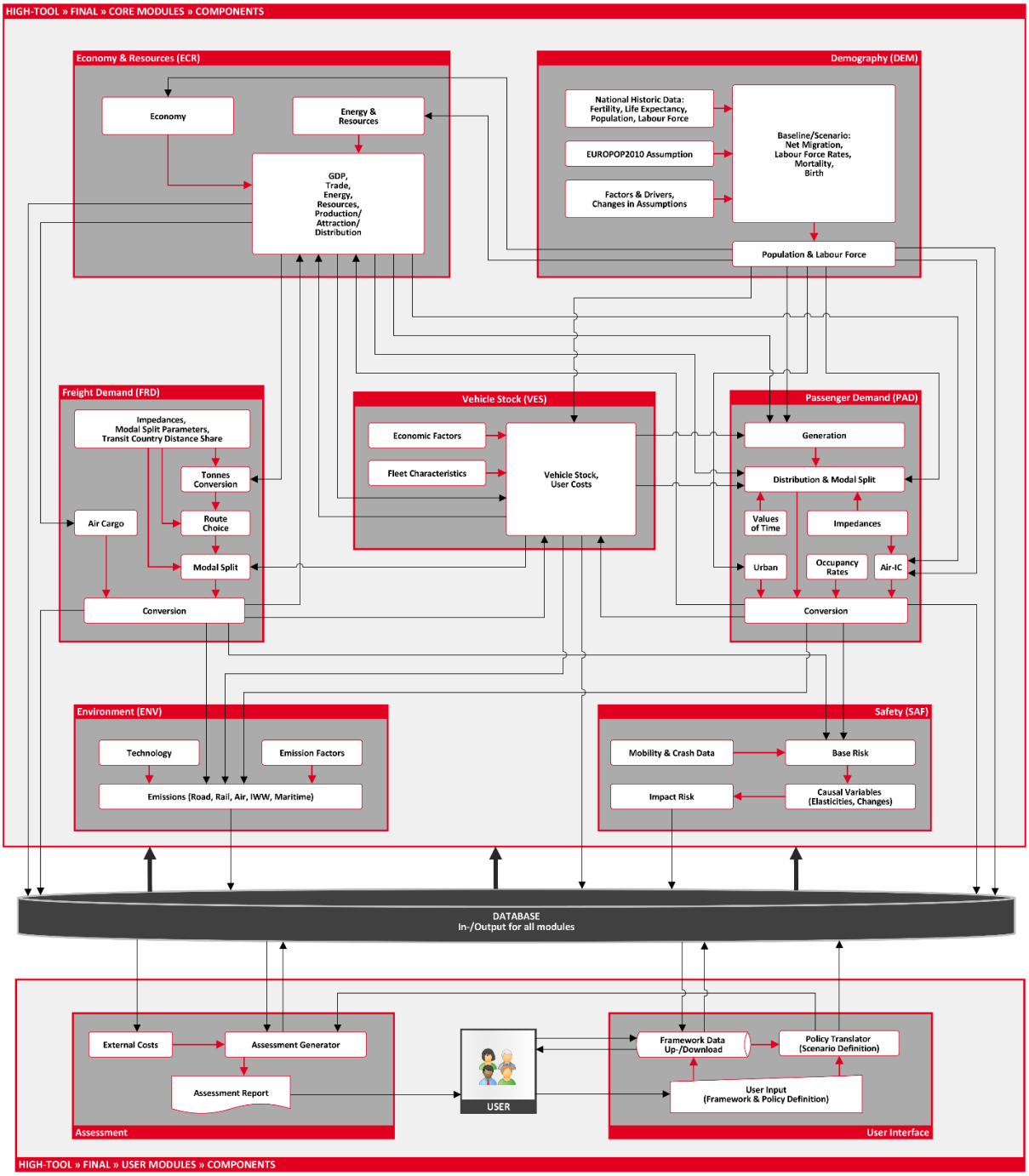


Figure 1: Structure of the HIGH-TOOL prototype model with its components

2.2 Data Stock Input and Output

The data parameters briefly introduced in the previous chapter are stored in the Data Stock. The Data Stock is a separate module of the HIGH-TOOL model, which provides access to the input and output parameters of each module.

2.2.1 External Input Sources for HIGH-TOOL

2.2.1.1 Types of input

The HIGH-TOOL model uses two types of input parameters. The first type describes historical data up to 2010 and the second type, projection inputs, describes assumptions up to 2050. For example, whereas the historical population figures are used to derive existing trends for the Demography module (first type of input), the EUROPOP2010 scenario assumptions are used to calibrate the population projections to the European Reference Scenario 2013 (second type of input).

2.2.1.2 Types of input sources

The Data Stock content is based on external sources, which come from either public sources (such as Eurostat or ETISplus) or private sources. A specific type of public source are the sources for projections, such as the EU Reference Scenario 2013 presenting the Energy, Transport and GHG trends to 2050 (EC, 2013a) or the population projections in the EUROPOP2010 scenario (Eurostat, 2011). The following external input sources are used in HIGH-TOOL[3].

2.2.1.3 Historical data databases

The **CARE database** is the European centralised database on road accidents, which result in death or injury across the EU. Each country produces its own road accident statistics. CARE pulls together non-confidential data from across the EU Member States into one central database. The CARE database provides the most complete and detailed data on road safety statistics available for the EU. Disaggregated fatality and injury statistics are provided based on a large number of variables.

[3] References of databases are provided in chapter 7.

CBS/IenM embraces passenger mobility in the Netherlands measured by means of a continuous survey on travel behaviour among a representative part of the population. The SWOV NL database is a detailed source on disaggregated person-kilometres travelled for different modes, age- and gender-groups. The Safety module relates this data on mobility to the demographic data of Eurostat to obtain insight into the travel behaviour of different age-gender groups.

The **ETISplus database** is a European Transport policy Information System, combining data and analytical modelling with maps. It provides a bridge between official statistics and applications within the transport policy theme. ETISplus is used by the Freight Demand and Passenger Demand modules as it is the state of the art data set for transport related data.

The **EU COMEXT** database represents International Trade Historic Statistical Figures provided by Eurostat. EU COMEXT covers the values and volumes of exports and imports of products by type of product, reporting Member State as well as source and destination of the flow. The data is compiled according to EU guidelines and therefore offers a consistent dataset.

The **EU Statistical Pocketbook 2013**provides an overview of the most pertinent transport-related statistics in Europe (EC, 2013b). Its content is based on a range of sources including Eurostat, international organisations and national statistics. This source provides complete and recent annual statistics on transportation for the EU27. It is consistent with various sources, notably Eurostat and is used in the Safety module.

The **Eurostat database** provides the EU with statistics at European level that enable comparisons between countries and regions. This source provides a harmonised methodology for data collection among EU Member States (for historical data) giving a sound basis for the modules development. The Eurostat database is used in the Demography, Economy & Resources and Safety modules.

The **EXIOBASE database** 2.0 provides global, detailed MR EE SUT/IOT. They have been developed by harmonising and detailing SUTs for a large number of countries, estimating emissions and resource extractions by industry, linking the country EE SUT via trade to an MR EE SUT and producing an MR EE IOT from this.

The **international IOT** that can be used for the analysis of the environmental impacts associated with the final consumption of product groups. This database is used in HIGH-TOOL as it consists of SUTs for the 43 main economies including the EU28 countries. Moreover, from the SUTs we can derive various economic data at a detailed sectoral level. Also SUTs can be converted into IOTs from which we can obtain the input output coefficients or the Leontief Inverse. The projection for 2010 was done based on the version of 2007.

The **OECD database** includes data and metadata for OECD countries and selected non-member economies for main economic indicators at country level (i.e. GDP, household income, and population). This source is used supplementary to the EU Reference Scenario 2013 for the baseline scenario of Switzerland and Norway[4], since these countries are not covered by the EU Reference Scenario 2013.

The **TRACCS Database** includes transport data to support the quantitative analysis of measures relating to transport and climate change. Data is included for EU28 countries plus Iceland, Norway, Switzerland, FYROM and Turkey for the use of activity and emission modelling/projection tools.

2.2.1.4 Projected input databases

TREMOVE[5] is a policy assessment model and database to study the effects of different transport and environment policies on the emissions of the transport sector (De Ceuster et al., 2007). The model estimates the transport demand, modal shifts, vehicle stock renewal and scrappage decisions as well as the emissions of air pollutants and the welfare level, for policies as road pricing, public transport pricing, emission standards, subsidies for cleaner cars etc. The model covers passenger and freight transport in 31 countries and covers the period 1995–2030. The TREMOVE database (TREMOVE v3.1.1) is being used in HIGH-TOOL as it gathers country-specific data and parameters necessary to model in detail vehicle dynamics and emissions from transport up to 2030. It covers different modes: passenger cars, passenger vans, heavy and light duty vehicles, motorcycle and mopeds, freight and passenger rail modes, and inland navigation. Passenger air transport and freight maritime modes are covered by MOVEET.

[4] The detailed data sources for each module parameter are presented in Chapter 4.

[5] For EU15 countries except for Belgium, market shares data in TREMOVE are based from the ACEA website, the CO_2 voluntary agreement monitoring report and Smokers et al. (2006). For Belgium, fleet statistics have been derived by TML using Belgian datasets in collaboration with the Belgian government and the Belgian car federation. For the rest of the countries, data has been derived from national and Eurostat statistics. Other data sources used in TREMOVE are: Data from TRENDS Project finalised in October 2002. The road transport module developed in the framework of the TRENDS Project produces both analytical and aggregated results for the EU15 countries and for a timespan of 50 years (1970–2020). More specifically, the road transport module calculates various transport-related parameters, such as the annual mileage, vehicle population, average age, vehicle emissions and fuel balance, for all vehicle categories considered by COPERT. Additionally, temporal and spatial disaggregation of the estimated vehicle emissions was conducted for the base year 1995. Another source is the SCENES Project (2000). All TREMOVE sources can be retrieved from De Ceuster et al. (2007).

The **EUROPOP2010 Scenario database** is developed by Eurostat and estimates the population growth for the EU27 up to 2060 (Eurostat, 2011). The projections of EUROPOP2010 are also used in the EU Reference Scenario 2013 (EC, 2013a). This database is used by the Demography module as the baseline scenario for the population growth.

The **VACLAV model** is a European transport network model which has been developed at KIT and which has been applied and further developed in several EU funded projects such as TEN-STAC, ETIS and ETISplus (Szimba and Kraft, 2011). VACLAV is used by the Passenger Demand module for the computation of impedances, ensuring consistency between the approach in HIGH-TOOL and ETISplus.

The **EU Reference Scenario 2013** provides projections on transport activity, energy and emissions up to 2050 for the EU28 based on current trends on population and economic development, taking into account the highly volatile energy import prices environment of recent years, in the framework of concrete national and EU policies and measures adopted until spring 2012 and which are or will be implemented over the next years (EC, 2013a). It is an integrated scenario, which is used as the Baseline scenario for HIGH-TOOL. It is used by the Economy & Resources module and indirectly by the Demography module.

MOVEET is a system dynamics-based analytical tool to address the policy problems related to transport and climate change (Purwanto, 2013). The tool is capable of estimating transport demand and emissions, as well as forecasting the impacts of policy and technological measures in transport related sectors, covering all transport modes from the different regions in the world up to 2050. The database of MOVEET is used especially in freight maritime transport modes and passenger air transport modes since these modes are not covered completely in the TREMOVE model/database. Transport fuel prices of the MOVEET database are especially used since the model covers not only data up to 2010 but also contains estimations up to 2050.

The **TRANS-TOOLS model** is a European transport network model for transport generation and assignment, economic activity, trade, logistics, regional development and environmental impacts, that has been developed in collaborative projects funded by JRC-IPTS and DG TREN (DG MOVE). The Passenger Demand Freight modules use TRANS-TOOLS as it is a validated data source and used in several related projects. With regard to the Freight Demand module, TRANS-TOOLS provides the modal split determinants[6].

Here, it should be mentioned, that several of the projected inputs are used also as historical inputs as they include historical data (for example 2010 data).

[6] The original source for the TRANS-TOOLS freight-related information is van der Leest (2005).

2.2.2 Output Data and Intermediate Results

The output data for the final version of the HIGH-TOOL model are the final products of the executed modules. In addition, intermediate outputs produced by HIGH-TOOL modules are stored in the database. These intermediate outputs form inputs for other modules.

2.3 HIGH-TOOL Data Exchange Mechanism

For the final version of the HIGH-TOOL model the Data Stock is implemented in a PostgreSQL database. This database contains all input data, and has reserved spaces for final and intermediate output data. To facilitate ease of use, the HIGH-TOOL model has various mechanisms for users to import and export data to and from the Data Stock.

The HIGH-TOOL interface allows users to manipulate modelling parameters by changing policy levers in the live system. These changes are applied to the data in the Data Stock directly. Furthermore the interface contains a functionality to import and export tables as .csv files using the expert mode (Biosca et al., 2016). Finally the HIGH-TOOL source code repository contains queries that allow an advanced user to import and export data from the Data Stock at the database level.

All methods of manipulating, importing and exporting data supplied with HIGH-TOOL ensure that the Data Stock stays in a consistent state.

3 HIGH-TOOL Data Stock

3.1 Data Structure

The HIGH-TOOL Data Stock stores the input and output data parameters of all modules of the HIGH-TOOL model and data related to policy levers. To decide on an appropriate medium to store this data, an initial indication of expected data size was made. This estimation pointed to a dataset, which would exceed 100 MB when implemented in Microsoft Excel, with some tables exceeding one million records. This ruled out Microsoft Excel as a viable software option. Due to the fact, that the dataset for the prototype would likely not exceed appropriate sizes for Microsoft Access, and the fact that Microsoft Access would not violate other requirements like requiring a separate license or requiring specialist knowledge, Microsoft Access was chosen as a vessel for the HIGH-TOOL Data Stock for the prototype version of the model.

As the pre-final and final versions of the HIGH-TOOL model would require significantly larger input datasets and also produce larger output datasets, a proper database system was required. In addition to size constraints, the HIGH-TOOL interface has the requirement of being able to display maps that reflect the HIGH-TOOL zoning layer.

As HIGH-TOOL aims to be an open and IPR-free solution, Microsoft SQL Server and Oracle are out of scope as database platforms. From the free and open source database systems available, PostgreSQL has the most mature GIS capabilities through an extension called PostGIS.

In the ETISplus project a technical approach was developed that is able to generate GIS-capable multi-dimensional databases in Microsoft SQL Server and non-GIS databases in Microsoft Access. This approach has been adapted to also be able to generate GIS-enabled database structures in PostgreSQL.

This choice means that the Data Stock can be queried using standard SQL (a programming language for managing data held in relational database management systems), with only the GIS component setup depending on a database-specific extension.

The Data Stock contains 491 parameters expressed through 47 dimensions, spanning some 1200 MB of data. The Data Stock is defined for the input and output parameters of the different HIGH-TOOL modules, as well as tables dedicated to policy levers that form the vehicle for policy measure input. As the different parameters share parts of their dimensions, for example, the time and geography dimension, it is necessary to define a methodology for the Data Stock. The methodology followed for preparing the Data Stock is the methodology developed in the ETISplus project to build multidimensional models so that they are self-explanatory. This methodology identifies a set of rules for processing multidimensional data, as needed in HIGH-TOOL.

The first step is to identify all the dimensions needed: for each dimension a NAME and a DESCRIPTION field is defined. For example, for the dimension which describes the 5-year time steps for the projections, the name TIME and the range [2010, 2015, …, 2050] were indicated. The description of each dimension used in the HIGH-TOOL prototype is provided in Chapter 6, the dimensions are shown in the Annex. For each dimension, e.g., TIME, a table is defined (e.g., _TIME) to store the elements for that dimension. The definition of the dimensions are indicated either by the module developers (in case they provided the parameters), the data definition from publicly available data parameters (e.g., from the EU Reference Scenario 2013) or the model requirements, for example, measuring passenger demand performance in passenger-kilometres.

The second step is to define all parameters. The parameters are sets of numerical factors representing the input and output data of the modules. For example, the economic activity per country and per year is described using GDP. Together all the GDP values per year and country form the GDP PARAMETER[7]. The parameters are complemented by their unit and their source of information. As expected, they are also defined in terms of dimensions. For example, the GDP HIGH-TOOL output parameter is defined by time and region; hence it uses the TIME and HT2006_LEVEL_2 dimensions (to be found in the tables _TIME and _HT2006_LEVEL_2). The unit of the value is in million EUR and the source is the Economy & Resources module of HIGH-TOOL.

The third and final step comprises the assignment of parameters to database tables. Parameters that share the same set of dimensions and topically belong together are stored in the same table to reduce redundant dimension data. Table 1 shows exemplarily how the information for GDP is stored in the Data Stock.

Table 1: Example of GDP in the Data Stock

TIME	REGION	VALUE (m_EUR)
2010	1010101	7068.68304
2010	1010102	47031.79408
…	…	…

Notes: 1010101 is Burgenland and 1010102 is Niederösterreich, both in Austria; value in million EUR

The data parameters of each module are presented in Chapter 4 together with their sources, while their dimensions are presented in Chapter 5.

[7] The reasoning behind the parameters used in the HIGH-TOOL prototype is beyond the scope of this Deliverable. More information on modules and their description can be found in Mandel et al. (2013) or in Van Grol et al. (2016).

3.2 Data Stock Preparation Process

The Data Stock preparation process for the final version of the HIGH-TOOL model has been analogous to the process followed during the prototype phase. The first step is to define all necessary input and output parameters for the modules, together with their dimensions. Parameters already available in the prototype database generally require a finer level of detail for the final version of the model.

This process results in a "shell" database for the Data Stock. The second step is to "fill in" the database input parameter tables using various external sources. As a third step, the outcomes of the modules, i.e. the output parameters, are stored in the Data Stock by running the model. Due to changes to input and output parameters during the development of individual modules and interactions between them, this exercise was iterated several times.

As a final step of the Data Stock preparation, tables have been designed to store policy lever data to be able to represent policy measures and user input. This step is necessary in order to integrate the modules and present the results in the most efficient way. It also allows running different scenarios and comparing the outcomes to the HIGH-TOOL baseline scenario, by copying and modifying a new version of the Data Stock (Biosca et al., 2016). This way a Data Stock copy contains all input, output and user inputs belonging to a specific scenario run of HIGH-TOOL Allowing for direct comparison with the baseline scenario.

3.3 Software Solution for Data Stock

To create the database structure required for the HIGH-TOOL Data Stock, the approach used during the ETISplus project is applied (ETISplus, 2012). This means that definitions of data parameters and dimensions are collected from module developers and used to feed a custom-built software solution that generates a database in PostgreSQL. This solution conforms with the HIGH-TOOL Data Stock requirements and is specified according to the format set out in ETISplus.

4 Identification of Data Parameters

Each module identifies its necessary input data parameters, which together with the elasticities and equations, intermediate data parameters and indices, estimate the output data parameters. For example, emission factor parameters, transport performance, and fleet information the Environment module estimates – among others – the emissions per pollutant by 2050. This section presents the input and output parameters for the seven modules.

HIGH-TOOL prototype database (i.e. the Data Stock) counts in total 491 unique parameters; 198 are input data parameters, 145 are modelling parameters and 148 are output parameters. Demography counts in total thirteen parameters of which eleven are input parameters and two are output parameters. Economy & Resources has 64 parameters of which 11 are input, 19 are modelling parameters and 34 are output parameters. Freight Demand and Passenger Demand modules have respectively five and 45 input parameters, 26 and 81 modelling parameters and 10 and 36 output parameters. Vehicle Stock and Environment have respectively 34 and four input parameters, eight and eleven modelling parameters and 21 and 18 output parameters. Finally, Safety has 88 input parameters and 27 output parameters.

The following table classifies the HIGH-TOOL parameters per module and parameter type.

Table 2: Number of parameters per module and parameter type

Module	I	P	O	Total
Demography	11		2	13
Economy & Resources	11	19	34	64
Passenger Demand	45	81	36	162
Freight Demand	5	26	10	41
Safety	88		27	115
Vehicle Stock	34	8	21	63
Environment	4	11	18	33
Total	**198**	**145**	**148**	**491**

The distinction between input, modelling parameter and output parameter is as follows. Parameters starting with “i_” are input data parameters. Parameters starting with “p_” are modelling parameters. Finally, parameters starting with “o_” are output parameters.

All data parameters indicate the module they come from in the second prefix to their name as follows:

- "de_": for Demography
- "er_": for Economy & Resources
- "pd_": for Passenger Demand
- "fd_": for Freight Demand
- "sa_": for Safety
- "vs_": for Vehicle Stock
- "ev_":for Environment.

For example, "o_de_pop" is the population data parameter being an output of the Demography module. The following sections present the exogenously defined input and output data parameters per module. The external input data sources are presented in detail in paragraph 2.2. Next to the parameter, the unit is indicated, as well as a short description and the data source.

4.1 Demography

The Demography module comprises of thirteen parameters (eleven input parameters, two output parameters). The main source for input information is Eurostat for historical data. EUROPOP2010 projections (Eurostat, 2011) are used as assumptions for the EU Reference scenario. Table 3 summarises the data parameters used in the Demography module.

Table 3: Demography data parameters

Abbreviation	Unit	Description	Data Source
i_de_death	count[8]	Historical number of deaths per country, age and gender cohort	Eurostat, Deaths by age at last birthday and sex (demo_magec)
i_de_eu_ref	count	Calibration coefficients for EUROPOP2010 by year (5-year time steps), country (EU28 countries + CH + NO), age groups and gender	HIGH-TOOL Demography module
i_de_labour_hist	count	Historical labour force (1995–2010) by region if available per age and gender cohort	HIGH-TOOL Demography module
i_de_labour_perc	percentage	Labour force assumptions in percent by region per age and gender cohort	Labour force assumptions

[8] *count* represents a discrete number; in the case of i_de_death, *count* is the number of deaths; for i_de_life_men, *count* is the projected life expectancy.

Abbreviation	Unit	Description	Data Source
i_de_life_men	count	Projected life expectancy for men for EU27 countries + CH + NO	Assumptions of EUROPOP2010 on men life expectancy (at birth) from 2010–2050 (proj_10c2150a)
i_de_life_women	count	Projected life expectancy for women for EU27 countries + CH + NO	Assumptions of EUROPOP2010 on women life expectancy (at birth) from 2010–2050 (proj_10c2150a)
i_de_net_ migration	count	Projected net migration for EU27 countries + CH + NO	Assumptions of EUROPOP2010 on fertility rate from 2010–2050 (proj_10c2150a)
i_de_pop_disag	percentage	Historical shares of population 2010 in percent by region per age and gender cohort	ETISplus
i_de_pop_ eurostat	count	Historical population (1995–2010) by region, age and gender cohort	Eurostat, Population on 1 January by five years age groups and sex demo_pjangroup)
i_de_tot_fert_ rate	count	Projected total fertility rate for EU27 countries + CH + NO	Assumptions of EUROPOP2010 on fertility rate from 2010–2050 (proj_10c2150a)
i_de_urban	count	Urbanisation proxy per NUTS-2 region	Eurostat for 2010, user-input / internally calculated for 2015–2050
o_de_labour	count	Labour force by region (EU28 countries + CH + NO), age and gender cohort. RoW outputs prefilled from UN projections exogenously	HIGH-TOOL Demography module
o_de_pop	count	Projected population by region (EU28 countries + CH + NO), age and gender cohort. RoW outputs prefilled from UN projections exogenously	HIGH-TOOL Demography module

4.2 Economy & Resources

The Economy & Resources module comprises 64 parameters (11 input parameters, 19 modelling parameters and 34 output parameters). The main external input sources are EXIOBASE 2.0[9], Eurostat for historic economic data as well as the EU Reference Scenario 2013 (EC, 2013a) for assumptions used for the baseline scenario. For historic population trends, the Economy & Resources module uses the Eurostat and the OECD databases. Table 4 describes the parameters used in the Economy & Resources module.

Table 4: Economy & Resources data parameters

Abbreviation	Unit	Description	Data Source
i_er_delta_acc	count	Change in accessibility of a region	HIGH-TOOL Economy and resources module
i_er_delta_inf_inv	mio_eur	Change in public and private transport infrastructure investments by region	HIGH-TOOL Economy and resources module
i_er_delta_inv	mio_eur	Change in public and private investments into fixed capital formation by region	HIGH-TOOL Economy and resources module
i_er_delta_rtd	mio_eur	Change in public and private investments in research and technology development (RTD) by region	HIGH-TOOL Economy and resources module
i_er_gdp	mio_eur	GDP in millions of EUR by country	EU reference scenario (for EU28), and UN GDP data (for rest of the world regions).
i_er_gva	mio_eur	Gross value added in millions of EUR by country and sector	EU reference scenario (for EU28), and own calculations (for rest of the world regions).
i_er_k_tot	mio_eur	Total capital input in millions of EUR by country and sector	RHOMOLO
i_er_l_tot	count	Total labour input by region and sector	HIGH-TOOL Economy and resources module
i_er_sectorshare	count	Sectoral share per country per year	HIGH-TOOL Economy and resources module (for EU28 based on EU reference scenario.)
i_er_xd	mio_eur	Total output per region and sector in millions of EUR	RHOMOLO
i_er_xd_tot	mio_eur	Total output per sector in millions of EUR by country and sector	HIGH-TOOL Economy and resources module
o_er_biomass	count	Biomass in Ktonnes per sector per region	EXIOBASE
o_er_cap_returns	mio_eur	Capital returns in millions of EUR by region and sector	RHOMOLO

[9] The external data for the BAU scenario are adjusted to the level of 2010 on the basis of the EXIOBASE 2.0 database. The base year of the database is 2007. EXIOBASE 2.0 is developed in CREEA project. The database itself is not published yet, but an introduction can be found at www.creea.eu.

Abbreviation	Unit	Description	Data Source
o_er_cap_stock	mio_eur	Capital stock in millions of EUR by region and sector	RHOMOLO
o_er_co2	count	CO_2 emissions without combustion per sector per region	EXIOBASE
o_er_cons_capita	count	Consumption per capita per region	RHOMOLO
o_er_employment	hab	Employment in people by region and sector	ETISplus for EU28, and own calculations for rest of the world.
o_er_fossil_fuel	count	Fossil Fuels in Ktonnes per sector per region	EXIOBASE
o_er_gdp	mio_eur	GDP in millions of EUR by region	HIGH-TOOL Economy and resources module
o_er_gdp_capita	count	GDP per capita per region	HIGH-TOOL Economy and resources module
o_er_gva	mio_eur	Gross value added in millions of EUR by region and sector	HIGH-TOOL Economy and resources module
o_er_hh_consumption	count	Household consumption in millions of EUR by region and sector	RHOMOLO
o_er_income	mio_eur	Income in region in millions of EUR by region	ETISplus for EU28, and own calculations for rest of the world regions.
o_er_income_capita	count	Income per capita by region	ETISplus for EU28, and own calculations for rest of the world regions.
o_er_indirect_utility	count	Indirect utility	HIGH-TOOL Economy and resources module
o_er_int_input	mio_eur	Intermediate inputs in millions of EUR by region and sector	RHOMOLO
o_er_labour_new	hab	Labour supply after policy measures in people by region and sector	HIGH-TOOL Economy and resources module
o_er_metal_ores	count	Metal ores in Ktonnes per sector per region	EXIOBASE
o_er_minerals	count	Minerals in Ktonnes per sector per region	EXIOBASE
o_er_nox	count	NO_x emissions without combustion per sector per region	EXIOBASE
o_er_output	mio_eur	Total output in millions of EUR by region and sector	RHOMOLO
o_er_P_new	count	Prices of commodities after policy measures by region and commodity	HIGH-TOOL Economy and resources module
o_er_PD_new	count	Production prices of commodities after policy measures by region and commodity	HIGH-TOOL Economy and resources module
o_er_PM	count	PM emissions in CO_2 equivalent kg (without combustion) per sector per region	EXIOBASE (for 2010)
o_er_price_index	count	Welfare measure. Price index on commodity level.	HIGH-TOOL Economy and resources module

Abbreviation	Unit	Description	Data Source
o_er_prod_tax	mio_eur	Production taxes in millions of EUR by region and sector	RHOMOLO (for 2010)
o_er_return_new	count	Return on capital after policy measures by region and commodity	HIGH-TOOL Economy and resources module
o_er_sox	count	SO_x emissions in CO_2 equivalent kg (without combustion) per sector per region	EXIOBASE (for 2010)
o_er_tot_emissions	count	Total emissions by region and sector	EXIOBASE
o_er_trade_new	mio_eur	Trade after policy measures in millions of EUR from origin region to destination region (at NUTS-2 level) per commodity	HIGH-TOOL Economy and resources module
o_er_value	1000_eur	Trade in thousands of EUR from origin region to destination region (NUTS-2) per commodity	ETIS-plus (and adjusted intra-trade data using RHOMOLO)
o_er_wage_new	count	Wage (index) after policy measures by region	HIGH-TOOL Economy and resources module
o_er_wages	mio_eur	Wages in millions of EUR by region and sector	RHOMOLO
o_er_water	count	Water use in Mm^3 per sector per region	EXIOBASE
o_er_wood	count	Wood in kilo tonnes per sector per region	EXIOBASE
p_er_alpha_i	count	Output elasticity of labour by region and sector, i.e. the share of labour of total Gross Value Added. Used as an input parameter for the Cobb-Douglas function.	EXIOBASE
p_er_alpha_i_tot	count	Output elasticity of labour by country and sector, i.e. the share of labour of total Gross Value Added. Used as an input parameter for the Cobb-Douglas function.	HIGH-TOOL Economy and resources module
p_er_beta	count	Cobb-Douglas utility parameter	HIGH-TOOL Economy and resources module
p_er_d	count	Destination parameter (input for the trade gravity model)	HIGH-TOOL Economy and resources module
p_er_delta	count	Depreciation rate	HIGH-TOOL Economy and resources module
p_er_delta_ks_tot	percentage	Change in capital supply	HIGH-TOOL Economy and resources module
p_er_delta_ls	percentage	Change in labour supply	HIGH-TOOL Economy and resources module
p_er_delta_ls_tot	percentage	Change in total labour supply	HIGH-TOOL Economy and resources module
p_er_epsilon	count	Elasticity parameter of accessibility by sector, i.e. sensitivity of regional accessibility (e.g. transport costs) to sectoral output.	HIGH-TOOL Economy and resources module
p_er_eta	count	Sensitivity parameter (in trade)	HIGH-TOOL Economy and resources module

Abbreviation	Unit	Description	Data Source
p_er_g_gdp	percentage	Growth of GDP for 2015–2050 by country	EU reference scenario (for EU28)
p_er_g_gva	percentage	Growth of gross value added	EU reference scenario (for EU28)
p_er_gdp_scaler	mio_eur	GDP scaler (Parameter to calculate GDP growth in the policy scenarios.)	HIGH-TOOL Economy and resources module
p_er_io	count	IO-coefficient matrix by region and sector (year 2010)	EXIOBASE
p_er_o	count	Origin parameter (input for the trade gravity model)	HIGH-TOOL Economy and resources module
p_er_p	count	Consumer price of goods or services	HIGH-TOOL Economy and resources module
p_er_pd	count	Producer prices	HIGH-TOOL Economy and resources module
p_er_phi	percentage	Gross fixed capital formation as a percentage of GDP	Eurostat for EU28, own calculations for rest of the world regions.
p_er_tc	count	Consumption tax rate	HIGH-TOOL Economy and resources module

4.3 Passenger Demand

The Passenger Demand module comprises 162 parameters (45 input parameters, 81 modelling parameters and 36 output parameters). The main exogenous input sources are the ETISplus, TRANS-TOOLS, as well as VACLAV (Szimba and Kraft, 2011) databases. Table 5 describes the parameters used in the Passenger Demand module.

Table 5: Passenger Demand data parameters

Abbreviation	Unit	Description	Data Source
i_pd_ae_dist	km	Access/egress travel distance to network in kilometres by region and mode	Based on ETISplus 2010
i_pd_ae_dist_weight	percentage	Policy lever for change in passenger transport access/ egress distance to the hypernet by region and mode, in percent	HIGH-TOOL Policy Translator
i_pd_ae_time	min	Access/egress travel time to network in minutes by region and mode	Based on ETISplus 2010
i_pd_ae_time_weight	percentage	Policy lever for change in passenger transport access/ egress time to the hypernet by region and mode, in percent	HIGH-TOOL Policy Translator
i_pd_aecost	EUR	Access/egress costs in EUR by air intercontinental origin/destination and air purpose for the reference year 2013	Mkmetric
i_pd_aetime	min	Access/egress time in minutes by air intercontinental origin/destination and air purpose for the reference year 2013	Mkmetric
i_pd_aircost	EUR	Ticket costs in EUR by air intercontinental origin/destination and air purpose for the reference year 2013	Mkmetric
i_pd_airdist	km	Flight distance in kilometres by air intercontinental origin/destination and air purpose for the reference year 2013	Mkmetric
i_pd_airmodetime	min	Flight time in minutes by air intercontinental origin/destination and air purpose for the reference year 2013	Mkmetric
i_pd_capital	label	Name of zone capital	HIGH-TOOL zoning system
i_pd_capital_lat	count	Latitude of zone capital	HIGH-TOOL zoning system
i_pd_capital_long	count	Longitude of zone capital	HIGH-TOOL zoning system
i_pd_citydwellershare	percentage	Percentage of NUTS-2 population living in cities and direct catchment areas	HIGH-TOOL Passenger demand urban sub-module
i_pd_coef_occupancy_rate	count	Occupancy rate by country, purpose and mode	TRANS-TOOLS
i_pd_coef_transitshare	count	Static transit share factor by origin/destination, country and mode. Not used if hypernet submodule is active.	VACLAV, based on ETISplus

Abbreviation	Unit	Description	Data Source
i_pd_core_lever_ae_dist	percentage	Policy lever for change in passenger transport access/egress distance by country and mode, in percent	HIGH-TOOL Policy Translator
i_pd_core_lever_ae_time	percentage	Policy lever for change in passenger transport access/ egress time by country and mode, in percent	HIGH-TOOL Policy Translator
i_pd_core_lever_delta_los	count	Policy lever for change in passenger transport level of service indicator by country and mode	HIGH-TOOL Policy Translator
i_pd_core_lever_net_dist	percentage	Policy lever for change in passenger transport net distance by country and mode, in percent	HIGH-TOOL Policy Translator
i_pd_core_lever_net_time	percentage	Policy lever for change in passenger transport net time by country and mode, in percent	HIGH-TOOL Policy Translator
i_pd_core_toll_cost	EUR	Average passenger transport toll costs in EUR/vkm by country and mode	TRACCS, ETISplus
i_pd_country_share_orig	percentage	Share of travel distance in origin zone	Based on ETISplus 2010
i_pd_exogenous_area	km²	Region area in square kilometres by region	HIGH-TOOL zoning system
i_pd_exogenous_bed	count	Number of accommodation opportunities by region	ETISplus - Forecasting is currently not planed
i_pd_exogenous_hotel	count	Number of hotels by region	ETISplus - Forecasting is currently not planed
i_pd_exogenous_radius	km	Average region radius in kilometres by region	HIGH-TOOL zoning system
i_pd_freq	count	Level of service frequency by air intercontinental origin/destination and air purpose for the reference year 2013	Mkmetric
i_pd_imp_ae_dist	km	Access/egress travel distance in kilometres by origin/destination and mode	ETISplus
i_pd_imp_ae_time	min	Access/egress travel time in minutes by origin/destination and mode	ETISplus
i_pd_imp_delta_los	count	Level of Service indicator by origin/destination and mode	ETISplus
i_pd_imp_net_dist	km	Network travel distance in kilometres by origin/destination and mode	ETISplus
i_pd_imp_net_time	min	Network travel time in minutes by origin/destination and mode	ETISplus
i_pd_imp_ref_dist	km	Crow flies distance in kilometres by origin/destination	ETISplus
i_pd_link_dist	km	Passenger transport net distance by hypernet link and mode	Based on ETISplus 2010
i_pd_link_dist_weight	percentage	Policy lever for change in passenger transport net distance by hypernet link and mode, in percent	HIGH-TOOL Policy Translator
i_pd_link_time	min	Passenger transport net time by hypernet link and mode	Based on ETISplus 2010
i_pd_link_time_weight	percentage	Policy lever for change in passenger transport net time by hypernet link and mode, in percent	HIGH-TOOL Policy Translator
i_pd_ref_dist	km	Average trip length in kilometres by urban mode in the reference year 2010	HIGH-TOOL Passenger demand urban sub-module

Abbreviation	Unit	Description	Data Source
i_pd_referencedemand	count	Observed trip demand per capita per day in the reference year 2010	HIGH-TOOL Passenger demand urban sub-module
i_pd_referenceflow	trips	Observed travellers in reference year by air intercontinental origin/destination and air purpose for the reference year 2013. Returning trips are not included.	Mkmetric
i_pd_referencepopulation	count	Population in the reference year 2013 by region	Mkmetric
i_pd_urban_duaetime	percentage	Policy lever for change in access/ egress time for urban passenger transport modes, in percent	HIGH-TOOL Policy Translator
i_pd_urban_dutoll	count	Policy lever for change in urban cordon toll costs for passenger cars and powered 2-wheelers	HIGH-TOOL Policy Translator
i_pd_urban_dutraveldist	percentage	Policy lever for change in travel distance for urban passenger transport modes, in percent	HIGH-TOOL Policy Translator
i_pd_urban_dutraveltime	percentage	Policy lever for change in travel time for urban passenger transport modes, in percent	HIGH-TOOL Policy Translator
o_pd_airic_costae_od	EUR	Aggregated access/egress costs in EUR from the regions to the airports generated by trips from European region to RoW region. Returning trip costs are not included	HIGH-TOOL Air intercont sub-module
o_pd_airic_costnet_od	EUR	Aggregated net transport costs in EUR from the regions to the airports generated by trips from European region to RoW region. Returning trip costs are not included	HIGH-TOOL Air intercont sub-module
o_pd_airic_pkm_od	pkm	Aggregated passenger kilometres by origin/destination from European regions to RoW regions. Returning trip pkm are not included	HIGH-TOOL Air intercont sub-module
o_pd_airic_trips_od	trips	Aggregated passenger trips by origin/destination from European regions to RoW regions. Returning trips are not included	HIGH-TOOL Air intercont sub-module
o_pd_imp_aenet_dist	km	Modelled access/egress travel distance in kilometres by region and mode	HIGH-TOOL Passenger demand module
o_pd_imp_aenet_time	min	Modelled access/egress travel time in minutes by region and mode	HIGH-TOOL Passenger demand module
o_pd_imp_hnet_dist	km	Modelled network travel distance in kilometres by region and mode	HIGH-TOOL Passenger demand module
o_pd_imp_hnet_time	min	Modelled network travel time in minutes by region and mode	HIGH-TOOL Passenger demand module
o_pd_od_fix_cost	EUR	Fixed cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included	HIGH-TOOL Passenger demand module
o_pd_od_time_cost	EUR	Time cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included	HIGH-TOOL Passenger demand module

Abbreviation	Unit	Description	Data Source
o_pd_od_toll_cost	EUR	Toll cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included	HIGH-TOOL Passenger demand module
o_pd_od_var_cost	EUR	Variable cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included	HIGH-TOOL Passenger demand module
o_pd_orig_fix_cost	EUR	Fix cost in EUR generated by trips by origin region and mode	HIGH-TOOL Passenger demand module
o_pd_orig_time_cost	EUR	Time cost in EUR generated by trips by origin region and mode	HIGH-TOOL Passenger demand module
o_pd_orig_toll_cost	EUR	Toll cost in EUR generated by trips by origin region and mode	HIGH-TOOL Passenger demand module
o_pd_orig_var_cost	EUR	Variable cost in EUR generated by trips by origin region and mode	HIGH-TOOL Passenger demand module
o_pd_pkm_od	pkm	Passenger kilometres generated by outgoing trips by origin/destination and mode. Returning trip pkm are not included	HIGH-TOOL Passenger demand module
o_pd_pkm_orig	pkm	Passenger kilometres generated by trips by origin region and mode. Returning trip pkm are not included	HIGH-TOOL Passenger demand module
o_pd_pkm_orig_safety	pkm	Aggregated passenger kilometres by origin, mode, simple age groups and gender	HIGH-TOOL Passenger demand module
o_pd_pkm_transit	pkm	Aggregated total passenger kilometres including transit by country and mode	HIGH-TOOL Passenger demand module
o_pd_pkm_transit_safety	pkm	Aggregated total passenger kilometres including transit by country, mode, simple age groups and gender	HIGH-TOOL Passenger demand module
o_pd_pkmdistancebandctry	pkm	Aggregated pkm by originating country, distance band, mode	HIGH-TOOL Passenger demand module
o_pd_transit_fix_cost	EUR	Aggregated total fixed costs in EUR including transit by country and mode	HIGH-TOOL Passenger demand module
o_pd_transit_time_cost	EUR	Aggregated total time costs in EUR including transit by country and mode	HIGH-TOOL Passenger demand module
o_pd_transit_toll_cost	EUR	Aggregated total toll costs in EUR including transit by country and mode	HIGH-TOOL Passenger demand module
o_pd_transit_var_cost	EUR	Aggregated total variable costs in EUR including transit by country and mode	HIGH-TOOL Passenger demand module
o_pd_trips_od	trips	Aggregated trips by origin/destination and mode. Returning trips are not included	HIGH-TOOL Passenger demand module
o_pd_trips_orig	trips	Aggregated trips by origin region and mode	HIGH-TOOL Passenger demand module
o_pd_trips_orig_safety	trips	Aggregated trips by origin region, mode, simple age groups and gender cohort	HIGH-TOOL Passenger demand module
o_pd_urban_pkm_ctry	pkm	Total urban passenger kilometres by country, urban mode, simple age groups and gender	HIGH-TOOL Passenger demand urban sub-module
o_pd_urban_trips_ctry	trips	Total urban trip demand by country, urban mode, simple age groups and gender	HIGH-TOOL Passenger demand urban sub-module

Abbreviation	Unit	Description	Data Source
o_pd_urban_vkm_ctry	vkm	Total urban vehicle kilometres by country, urban mode, simple age groups and gender	HIGH-TOOL Passenger demand urban sub-module
o_pd_vkm_od	vkm	Aggregated vkm by origin/destination, region and mode. Returning trip vkm are not included	HIGH-TOOL Passenger demand module
o_pd_vkm_orig	vkm	Aggregated vkm by origin region and mode	HIGH-TOOL Passenger demand module
o_pd_vkm_transit	vkm	Aggregated total vkm including transit by country and mode	HIGH-TOOL Passenger demand module
o_pd_vkmdistancebandctry	vkm	Aggregated vkm by originating country, distance band, mode	HIGH-TOOL Passenger demand module
p_pd_bdist	count	Weighting factor distance cost component by country, purpose and mode	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_beta_attractor	count	Beta parameter weighting attraction coefficient by purpose	HIGH-TOOL Airic sub-module
p_pd_beta_emplf	count	Beta parameter weighting employment by purpose	HIGH-TOOL Airic sub-module
p_pd_beta_freq	count	Beta parameter weighting frequency by purpose	HIGH-TOOL Airic sub-module
p_pd_beta_gdpm	count	Beta parameter weighting GPD by purpose	HIGH-TOOL Airic sub-module
p_pd_beta_mobm2013	count	Beta parameter weighting mobility in 2013 by purpose	HIGH-TOOL Airic sub-module
p_pd_beta_popf	count	Beta parameter weighting population for purpose non-business	HIGH-TOOL Airic sub-module
p_pd_beta_popr	count	Beta parameter weighting population for purpose business	HIGH-TOOL Airic sub-module
p_pd_beta_totcost	count	Beta parameter for weighting costs by purpose	HIGH-TOOL Airic sub-module
p_pd_beta_totime	count	Beta parameter for weighting time by purpose	HIGH-TOOL Airic sub-module
p_pd_btime	count	Weighting factor time cost component by country, purpose and mode	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_c_nest1_air	count	Model constant for EMC (sub-) measure related to nest 1, choice air, by country and purpose	HIGH-TOOL Passenger demand module
p_pd_c_nest1_emc2	count	Model constant for EMC (sub-) measure related to nest 1, choice EMC2, by country and purpose	HIGH-TOOL Passenger demand module
p_pd_c_nest2_emc3	count	Model constant for EMC (sub-) measure related to nest 2, choice EMC3, by country and purpose	HIGH-TOOL Passenger demand module
p_pd_c_nest2_road	count	Model constant for EMC (sub-) measure related to nest 2, choice road, by country and purpose	HIGH-TOOL Passenger demand module
p_pd_c_nest3_bus	count	Model constant for EMC (sub-) measure related to nest 3, choice bus, by country and purpose	HIGH-TOOL Passenger demand module

Abbreviation	Unit	Description	Data Source
p_pd_c_nest3_rail	count	Model constant for EMC (sub-) measure related to nest 3, choice rail, by country and purpose	HIGH-TOOL Passenger demand module
p_pd_calib_generation	count	Calibration factors for adjusting the HIGH-TOOL Passenger demand model to ETISplus by country and purpose	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_calib_weight_opportunities	count	Calibration coefficients for weighting inter-zonal opportunities by region and purpose	HIGH-TOOL Passenger demand module
p_pd_calib6modes_2010	percentage	Calibration factor by mode for calibrating urban model to 2010	HIGH-TOOL Passenger demand urban sub-module
p_pd_coef_borderresistance	count	Coefficient to model border resistance at international border by origin and destination country, and purpose	VACLAV, based on ETISplus
p_pd_coef_economictrend	count	Coefficient referring to the trend line for economic level by country	HIGH-TOOL Passenger demand module
p_pd_coef_employmenttrend	count	Coefficient referring to the trend line for employment level for forecast years by country	HIGH-TOOL Passenger demand module
p_pd_coef_gtttrend	count	Coefficient refers to changing trends in travelling with regard to mode choice by country and mode	HIGH-TOOL Passenger demand module
p_pd_coef_incometrend	count	Coefficient referring to the trend line for income level for forecast years by country	HIGH-TOOL Passenger demand module
p_pd_coef_pkmtrend	count	Coefficient refers to changing trends in travelling with regard to travelled pkm by country	HIGH-TOOL Passenger demand module
p_pd_coef_weight_opportunities	count	Weighting coefficient for weighting intra-zonal opportunities by region and purpose	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_coefattractor	EUR	Attraction coefficient for trips from European regions to RoW regions	Mkmetric
p_pd_coefroadsplit	count	Elasticity coefficient (road_car, road_motorcycle only) by country and mode	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_const	count	Mode specific constant by country, purpose and mode	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_constant	count	Regression constant by purpose	HIGH-TOOL Airic sub-module
p_pd_costperkm	count	Model parameter related to cost per kilometre by country, purpose and mode	ETISplus
p_pd_economic_level_reference	count	Considered economic level for the reference year within the Generation step to model country specific trip demand by purpose	HIGH-TOOL Passenger demand module
p_pd_employment_level_reference	count	Considered employment level for the reference year within the Generation step to model country specific trip demand by purpose	HIGH-TOOL Passenger demand module

Abbreviation	Unit	Description	Data Source
p_pd_hfactor	percentage	Empiric coefficient which is considered in the trip distribution stage to model higher attractiveness of capitals compared to other cities (hfactor<1.0, i.e. trips to capitals are more likely than to other cities) by region	HIGH-TOOL Passenger demand module
p_pd_income_level_reference	count	Considered income level for the reference year within the Generation step to model country specific trip demand by purpose	HIGH-TOOL Passenger demand module
p_pd_k_shape_transformation_long	count	Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose	HIGH-TOOL Passenger demand module
p_pd_k_shape_transformation_medium	count	Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose	HIGH-TOOL Passenger demand module
p_pd_k_shape_transformation_short	count	Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose	HIGH-TOOL Passenger demand module
p_pd_l_shape_transformation_long	count	Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose	HIGH-TOOL Passenger demand module
p_pd_l_shape_transformation_medium	count	Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose	HIGH-TOOL Passenger demand module
p_pd_l_shape_transformation_short	count	Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose	HIGH-TOOL Passenger demand module
p_pd_lambda_emplf	count	Box-Cox Lambda related to employment by purpose	HIGH-TOOL Airic sub-module
p_pd_lambda_gdpm	count	Box-Cox Lambda related to GDP by purpose	HIGH-TOOL Airic sub-module
p_pd_ldist	count	Parameter of Box-Cox transformation related to distance based travel cost by country, purpose and mode	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_ltime	count	Parameter of Box-Cox transformation related to travel time	HIGH-TOOL Passenger demand module, based on ETISplus
p_pd_mu_emc1_p	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_mu_emc1_s_arg	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_mu_emc1_s_pow	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_mu_emc2_p	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module

Abbreviation	Unit	Description	Data Source
p_pd_mu_emc2_s_arg	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_mu_emc2_s_pow	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_mu_emc3_p	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_mu_emc3_s_arg	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_mu_emc3_s_pow	count	Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure	HIGH-TOOL Passenger demand module
p_pd_p_decay_long	count	Decay factor for calibrating the deterrence function by country and purpose	HIGH-TOOL Passenger demand module
p_pd_p_decay_medium	count	Decay factor for calibrating the deterrence function by country and purpose	HIGH-TOOL Passenger demand module
p_pd_p_decay_short_exp	count	Decay factor for calibrating the deterrence function by country and purpose	HIGH-TOOL Passenger demand module
p_pd_p_decay_short_pow	count	Decay factor for calibrating the deterrence function by country and purpose	HIGH-TOOL Passenger demand module
p_pd_pv	count	Parameter referring to trip purpose specific elasticity	HIGH-TOOL Passenger demand module
p_pd_px	count	Parameter referring to trip purpose specific elasticity	HIGH-TOOL Passenger demand module
p_pd_trend6modes_euref	percentage	Calibration factor by mode for calibrating urban model to EU Ref2013 for forecast years	HIGH-TOOL Passenger demand urban sub-module
p_pd_tripbase	count	Trip basis applied within the Generation step by purpose	HIGH-TOOL Passenger demand module
p_pd_urban_coefocc_rate	count	Occupancy rate by country and urban mode	HIGH-TOOL Passenger demand urban sub-module
p_pd_urban_split3modes_elasticity	count	Elasticity coefficients to model price changes for aggregated urban transport modes (MiT, PT, non-motorised transport).	HIGH-TOOL Passenger demand urban sub-module
p_pd_urban_split3modes_refweight	percentage	Weighting factor related to modal split at NUTS-2 level in reference year and aggregated transport modes (MiT, PT, non-motorised transport).	HIGH-TOOL Passenger demand urban sub-module

Abbreviation	Unit	Description	Data Source
p_pd_urban_split6modes_refweight	percentage	Split ratio in the reference year 2010 for disaggregating simple into full transport modes.	HIGH-TOOL Passenger demand urban sub-module
p_pd_var_female00_14	count	Model parameter referring to mobility behaviour for females age <15	HIGH-TOOL Passenger demand module
p_pd_var_female15_24	count	Model parameter referring to mobility behaviour for females age 15–24	HIGH-TOOL Passenger demand module
p_pd_var_female25_64	count	Model parameter referring to mobility behaviour for females age 25–64	HIGH-TOOL Passenger demand module
p_pd_var_female65_99	count	Model parameter referring to mobility behaviour for females age >65	HIGH-TOOL Passenger demand module
p_pd_var_male00_14	count	Model parameter referring to mobility behaviour for males age <15	HIGH-TOOL Passenger demand module
p_pd_var_male15_24	count	Model parameter referring to mobility behaviour for males age 15–24	HIGH-TOOL Passenger demand module
p_pd_var_male25_64	count	Model parameter referring to mobility behaviour for males age 25–64	HIGH-TOOL Passenger demand module
p_pd_var_male65_99	count	Model parameter referring to mobility behaviour for males age >65	HIGH-TOOL Passenger demand module
p_pd_vot	eur_pkm	Value of time by country and purpose.	TRANS-TOOLS
p_pd_w_share_long	count	Coefficient for weighting distance-related deterrence sub-measure	HIGH-TOOL Passenger demand module
p_pd_w_share_medium	count	Coefficient for weighting distance-related deterrence sub-measure	HIGH-TOOL Passenger demand module
p_pd_w_share_short	count	Coefficient for weighting distance-related deterrence sub-measure	HIGH-TOOL Passenger demand module
p_pd_wt	count	Effect of time invariant parameters on trip generation	HIGH-TOOL Passenger demand module
p_pd_wtdc	count	Calibration factor for weighting time and distance cost components	HIGH-TOOL Passenger demand module, based on ETISplus

4.4 Freight Demand

The Freight Demand module comprises 41 parameters (five input parameters, 26 modelling parameters and ten output parameters). The main exogenous input sources are the ETISplus database for the freight impedances. Table 6 provides an overview of the data parameters used in the Freight Demand module.

Table 6: Freight Demand data parameters

Abbreviation	Unit	Description	Data Source
i_fd_imp_dist	km	Distance impedances in kilometres by origin/destination at NUTS-2 level per distance band and mode	ETISplus
i_fd_region_share	percentage	Country leg distance shares of travelled distance in the country in percent by NUTS-2 level origin/destination, country and mode of the total travelled distance[10]	ETISplus
i_fd_route_choice	percentage	Tonne share in percent of route chains at NUTS-2 level using at most two transhipment points to transport the origin/destination	ETISplus
i_fd_toll_cost	eur_vkm	Average toll cost in EUR/vkm by country and mode	HIGH-TOOL freight demand module
i_fd_trade_air	t	Air trade in 2010 in tonnes by region	ETISplus
o_fd_air_demand_od_t	t	Air demand projected transported in full freight aircraft in tonnes by origin/destination at NUTS-2 level	HIGH-TOOL freight demand module
o_fd_air_demand_od_tkm	tkm	Air demand performance transported in full freight aircrafts in tonne kilometres by origin/destination at NUTS-2 level	HIGH-TOOL freight demand module
o_fd_air_demand_od_vkm	vkm	Air demand mobility transport in full freight aircrafts in vkm by origin/destination at NUTS-2 level	HIGH-TOOL freight demand module
o_fd_air_demand_t_od	t	Total air demand projected in tons by origin/destination at NUTS-2 level	HIGH-TOOL freight demand module
o_fd_t_od	t	Tonnes by origin/destination at NUTS-2 level per mode, commodity and distance band	HIGH-TOOL freight demand module
o_fd_tkm_od	tkm	Tonne kilometres by origin/destination at NUTS-2 level per mode, commodity and distance band	HIGH-TOOL freight demand module
o_fd_tkm_transit	tkm	Freight performance on the territory of a country including transit in tonne kilometres by country, distance band and mode	HIGH-TOOL freight demand module

[10] For example, from Belgium to Austria, the freight unit is estimated to travel 9% of the distance in Belgium, 2% in the Netherlands, 52% in Germany, 31% in Czech Republic and 6% in Austria. Therefore, the country shares are respectively 9%, 2%, 52%, 31%, 6%.

Abbreviation	Unit	Description	Data Source
o_fd_total_cost_od	eur_t	Total transport cost in EUR per tonne by origin/destination at NUTS-2 level per mode, commodity and distance band	HIGH-TOOL freight demand module
o_fd_vkm_od	vkm	Vehicle kilometres by origin/destination at NUTS-2 level per mode, commodity and distance band	HIGH-TOOL freight demand module
o_fd_vkm_transit	vkm	Freight mobility in a country including transit in vehicle kilometres by country, distance band and mode	HIGH-TOOL freight demand module
p_fd_air_param	percentage	Air demand annual growth factor depending on origin/destination relationship	Airbus
p_fd_air_param_calib	count	Air elasticity calibration	HIGH-TOOL freight demand module
p_fd_air_share_full_freight	percentage	Share of freight transported by full freight flights	Airbus
p_fd_domestic	count	Factor to add logistics when converting trade values to trade volumes in domestic trade	HIGH-TOOL freight demand module
p_fd_fixed_cost	eur_vkh	Average fixed costs for freight transport in EUR per vehicle per hour	HIGH-TOOL freight demand module
p_fd_fixed_cost_calib	count	Average fixed costs calibration parameter	HIGH-TOOL freight demand module
p_fd_fuel_cost	eur_vkm	Average energy costs for freight transport in EUR per vkm	HIGH-TOOL freight demand module
p_fd_fuel_cost_calib	count	Average energy costs calibration parameter	HIGH-TOOL freight demand module
p_fd_intra_zonal	count	Factor to add logistics when converting trade values to trade volumes in intra-zonal trade	HIGH-TOOL freight demand module
p_fd_load_capacity	t	Average load capacity for freight transport in tonnes	HIGH-TOOL freight demand module
p_fd_load_capacity_calib	count	Average load capacity calibration parameter	HIGH-TOOL freight demand module
p_fd_load_factor	count	Average load rate for freight transport in ratio of vehicle loaded, value between 0.0 and 1.0	HIGH-TOOL freight demand module
p_fd_load_factor_calib	count	Average load rate calibration parameter	HIGH-TOOL freight demand module
p_fd_load_time	h	Average loading time for freight transport in hours	HIGH-TOOL freight demand module
p_fd_load_time_calib	count	Average loading time calibration parameter	HIGH-TOOL freight demand module
p_fd_speed	km/h	Average speed for freight transport in kilometres per hour	HIGH-TOOL freight demand module
p_fd_speed_calib	count	Average speed calibration parameter	HIGH-TOOL freight demand module

Abbreviation	Unit	Description	Data Source
p_fd_trade_value	count	Commodity value in EUR (2010 constant prices)	ETISplus
p_fd_unload_time	h	Average unloading time for freight transport in hours	HIGH-TOOL freight demand module
p_fd_unload_time_calib	count	Average unloading calibration parameter	HIGH-TOOL freight demand module
p_fd_utilities	count	Mode utility function parameter per commodity	TRANS-TOOLS
p_fd_utilities_calib	count	Calibration parameter on utility functions	HIGH-TOOL freight demand module
p_fd_var_cost	eur_vkm	Average variable costs for freight transport in EUR per vkm	HIGH-TOOL freight demand module
p_fd_var_cost_calib	count	Average variable costs calibration parameter	HIGH-TOOL freight demand module
p_fd_wait_time	h	Average waiting time for freight transport in hours	HIGH-TOOL freight demand module
p_fd_wait_time_calib	count	Average waiting time calibration parameter	HIGH-TOOL freight demand module

4.5 Safety

The Safety module comprises 115 parameters (88 input parameters and 27 output parameters). The main exogenous input sources are the CARE database for injury and fatality data, as well as CBS/IenM and the EU Statistical Pocketbook (EC, 2013b) for passenger mobility data[11]. The Safety module also uses user input for policy scenarios. Table 7 summarises the data parameters used in the Safety module.

Table 7: Safety data parameters

Abbreviation	Unit	Description	Data Source
i_sa_blind_spot_truck	percentage	Policy level for truck blind spots (in percentage change) compared to 2010 by country	user input
i_sa_crew_error_air	percentage	Policy level for air crew errors (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input
i_sa_crew_error_rail	percentage	Policy level for rail crew errors (in percentage change) compared to 2010 by country	user input
i_sa_distraction_bike	percentage	Policy level for distraction of cyclists (in percentage change) compared to 2010 by country, age group and gender cohort	user input

[11] The CBS/IenM data are used to disaggregate historical passenger-km by simplified age group and gender dimensions,

Abbreviation	Unit	Description	Data Source
i_sa_distraction_car	percentage	Policy level for distraction of car drivers (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_distraction_p2w	percentage	Policy level for distraction of P2W drivers (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_distraction_pt	percentage	Policy level for distraction of public transport drivers (in percentage change) compared to 2010 by country	user input
i_sa_distraction_truck	percentage	Policy level for distraction of truck drivers (in percentage change) compared to 2010 by country	user input
i_sa_dui_bike	percentage	Policy level for bike driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_dui_car	percentage	Policy level for car driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country, by age group and gender cohort	user input
i_sa_dui_p2w	percentage	Policy level for P2W driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_dui_pt	percentage	Policy level for public transport driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country	user input
i_sa_dui_truck	percentage	Policy level for truck driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country	user input
i_sa_engine_failure_air	percentage	Policy level for air engine failure (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input
i_sa_falling_from_train_rail	percentage	Policy level for rail falling from train (in percentage change) compared to 2010 by country	user input
i_sa_fat_air	count	Current annual average number of fatalities for air for EU28 + CH + NO	EU Statistical Pocketbook
i_sa_fat_bike	count	Historical bike fatality data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_fat_car	count	Historical car fatality data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_fat_p2w	count	Historical P2W fatality data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_fat_ped	count	Historical pedestrian fatality data per year for 2001–2010 by country and mode (urban, involved)	CADAS
i_sa_fat_pt	count	Historical public transport fatality data per year for 2001–2010 by country	CADAS
i_sa_fat_rail	count	Current annual average number of fatalities for rail by country	ERA accident statistics
i_sa_fat_risk_iww	percentage	Policy level for fatality risk inland waterways (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input
i_sa_fat_risk_sss	percentage	Policy level for fatality risk short sea shipping (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input

Abbreviation	Unit	Description	Data Source
i_sa_fat_truck	count	Historical truck fatality data per year for 2001–2010 by country	CADAS
i_sa_fatigue_bike	percentage	Policy level for fatigue of cyclists (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_fatigue_car	percentage	Policy level for fatigue of car drivers (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_fatigue_p2w	percentage	Policy level for fatigue of P2W drivers (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_fatigue_pt	percentage	Policy level for fatigue of public transport drivers (in percentage change) compared to 2010 by country	user input
i_sa_fatigue_truck	percentage	Policy level for fatigue of truck drivers (in percentage change) compared to 2010 by country	user input
i_sa_fire_air	percentage	Policy level for air fire on board (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input
i_sa_helmet_bike	percentage	Policy level for use of helmets by cyclists (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_helmet_p2w	percentage	Policy level for use of helmets by P2W drivers/passengers (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_infra_fault_bike	percentage	Policy level for bike accidents caused by infrastructural faults (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_infra_fault_car	percentage	Policy level for car accidents caused by infrastructural faults (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_infra_fault_p2w	percentage	Policy level for P2W accidents caused by infrastructural faults (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_infra_fault_pt	percentage	Policy level for public transport accidents caused by infrastructural faults (in percentage change) compared to 2010 by country	user input
i_sa_infra_fault_rail	percentage	Policy level for rail accidents caused by infrastructural faults (in percentage change) compared to 2010 by country	user input
i_sa_infra_fault_truck	percentage	Policy level for truck accidents caused by infrastructural faults (in percentage change) compared to 2010 by country	user input
i_sa_lc_veh_acc_rail	percentage	Policy level for rail level-crossing accident vehicle (in percentage change) compared to 2010 by country	user input
i_sa_lc_vuln_acc_rail	percentage	Policy level for rail level-crossing accident vulnerable user (in percentage change) compared to 2010 by country	user input
i_sa_load_error_air	percentage	Policy level for air loading errors (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input
i_sa_load_error_truck	percentage	Policy level for truck loading error (in percentage change) compared to 2010 by country	user input
i_sa_mid_air_collision_air	percentage	Policy level for air mid-air collisions (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input

Abbreviation	Unit	Description	Data Source
i_sa_osign_staff_error_rail	percentage	Policy level for rail operating and signalling staff error (in percentage change) compared to 2010 by country	user input
i_sa_pkm_bike	pkm	Bike pkm 2010 by country, age group and gender cohort	HIGH-TOOL demand for 2010
i_sa_pkm_car	pkm	Historical car pkm per year for 2001–2010 by country, age group and gender cohort	EU Statistical Pocketbook and HIGH-TOOL demand for 2010
i_sa_pkm_p2w	pkm	Historical P2W pkm per year for 2001–2010 by country, age group and gender cohort	EU Statistical Pocketbook and HIGH-TOOL demand for 2010
i_sa_pkm_pt	pkm	Historical public transport person kilometres per year for 2001–2010 by country	EU Statistical Pocketbook and HIGH-TOOL demand for 2010
i_sa_platform_acc_rail	percentage	Policy level for rail platform accident (in percentage change) compared to 2010 by country	user input
i_sa_restraint_car	percentage	Policy level for car use of restraint devices (in percentage change) compared to 2010 by country, age group and gender cohort	user input
i_sa_restraint_truck	percentage	Policy level for truck use of restraint devices (in percentage change) compared to 2010 by country	user input
i_sa_runway_collision_air	percentage	Policy level for air runway collisions (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input
i_sa_serinj_bike	count	Historical bike serious injury data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_serinj_car	count	Historical car serious injury data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_serinj_p2w	count	Historical P2W serious injury data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_serinj_ped	count	Historical pedestrian serious injury data per year for 2001–2010 by country and mode (urban, involved)	CADAS
i_sa_serinj_pt	count	Historical public transport serious injury data per year for 2001–2010 by country	CADAS
i_sa_serinj_truck	count	Historical truck serious injury data per year for 2001–2010 by country	CADAS
i_sa_slinj_bike	count	Historical bike slight injury data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_slinj_car	count	Historical car slight injury data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_slinj_p2w	count	Historical P2W slight injury data per year for 2001–2010 by country, age group and gender cohort	CADAS
i_sa_slinj_ped	count	Historical pedestrian slight injury data per year for 2001–2010 by country and mode (urban, involved)	CADAS
i_sa_slinj_pt	count	Historical public transport slight injury data per year for 2001–2010 by country	CADAS

Abbreviation	Unit	Description	Data Source
i_sa_slinj_truck	count	Historical truck slight injury data per year for 2001–2010 by country	CADAS
i_sa_speed_bike	percentage	Policy level for bike speed (in percentage change) compared to 2010 by country	user input
i_sa_speed_car	percentage	Policy level for car speed (in percentage change) compared to 2010 by country	user input
i_sa_speed_p2w	percentage	Policy level for P2W speed (in percentage change) compared to 2010 by country	user input
i_sa_speed_pt	percentage	Policy level for public transport speed (in percentage change) compared to 2010 by country	user input
i_sa_speed_truck	percentage	Policy level for truck speed (in percentage change) compared to 2010 by country	user input
i_sa_stock_fault_rail	percentage	Policy level for rail rolling stock fault (in percentage change) compared to 2010 by country	user input
i_sa_tech_failure_air	percentage	Policy level for air technical failure excl. engine (in percentage change) compared to 2010 for EU28 countries + CH + NO	user input
i_sa_time_med_care_bike	percentage	Policy level for time to medical care after bike accident (in percentage change) compared to 2010 by country. In the expert mode you may change its values by age group and gender cohort	user input
i_sa_time_med_care_car	percentage	Policy level for time to medical care after car accident (in percentage change) compared to 2010 by country	user input
i_sa_time_med_care_p2w	percentage	Policy level for time to medical care after P2W accident (in percentage change) compared to 2010 by country	user input
i_sa_time_med_care_pt	percentage	Policy level for time to medical care after public transport accident (in percentage change) compared to 2010 by country	user input
i_sa_time_med_care_truck	percentage	Policy level for time to medical care after truck accident (in percentage change) compared to 2010 by country	user input
i_sa_track_staff_error_rail	percentage	Policy level for rail track staff error (in percentage change) compared to 2010 by country	user input
i_sa_trespassing_rail	percentage	Policy level for rail trespassing accident (in percentage change) compared to 2010 by country	user input
i_sa_trips_air	trips	Current annual average mobility for air in trips for EU28 + CH + NO	pre-run with HIGH-TOOL demand modules
i_sa_veh_defect_bike	percentage	Policy level for bike vehicle defects (in percentage change) compared to 2010 by country	user input
i_sa_veh_defect_car	percentage	Policy level for car vehicle defects (in percentage change) compared to 2010 by country	user input

Abbreviation	Unit	Description	Data Source
i_sa_veh_defect_p2w	percentage	Policy level for P2W vehicle defects (in percentage change) compared to 2010 by country	user input
i_sa_veh_defect_pt	percentage	Policy level for public transport vehicle defects (in percentage change) compared to 2010 by country	user input
i_sa_veh_defect_truck	percentage	Policy level for truck vehicle defects (in percentage change) compared to 2010 by country	user input
i_sa_vkm_rail	vkm	Current annual average mobility for rail in vehicle kilometres by country	pre-run with HIGH-TOOL demand modules
i_sa_vkm_truck	vkm	Historical truck vehicle kilometres per year for 2001–2010 by country	EU Statistical Pocketbook and HIGH-TOOL demand for 2010
i_sa_vkm_urban	vkm	Historical urban vehicle kilometres per year for 2001–2010 by country and mode (urban, involved)	EU Statistical Pocketbook and HIGH-TOOL demand for 2010
o_sa_acc_cost_air	1000_eur	Total social accident costs for air in 1000 EUR for EU28 + CH + NO	HIGH-TOOL Safety module
o_sa_acc_cost_iww	1000_eur	Total social accident costs for inland waterway in 1000 EUR for EU28 + CH + NO	HIGH-TOOL Safety module
o_sa_acc_cost_rail	1000_eur	Total social accident costs for rail in 1000 EUR by country	HIGH-TOOL Safety module
o_sa_acc_cost_sss	1000_eur	Total social accident costs for short-sea shipping in 1000 EUR for EU28 + CH + NO	HIGH-TOOL Safety module
o_sa_costs_road	1000_eur	Total social accident costs for road transport in 1000 EUR by country and urban mode	HIGH-TOOL Safety module
o_sa_fat_air_pred	count	Air fatalities for EU28 + CH + NO	HIGH-TOOL Safety module
o_sa_fat_bike_pred	count	Bike fatalities by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_fat_car_pred	count	Car fatalities by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_fat_iww_pred	count	Inland waterway fatalities for EU28 + CH + NO	HIGH-TOOL Safety module
o_sa_fat_p2w_pred	count	P2W fatalities by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_fat_ped_pred	count	Pedestrian fatalities by country and mode (urban, involved)	HIGH-TOOL Safety module
o_sa_fat_pt_pred	count	Public transport fatalities by country	HIGH-TOOL Safety module
o_sa_fat_rail_pred	count	Rail fatalities by country	HIGH-TOOL Safety module
o_sa_fat_sss_pred	count	Short-sea shipping fatalities for EU28 + CH + NO	HIGH-TOOL Safety module

Abbreviation	Unit	Description	Data Source
o_sa_fat_truck_pred	count	Truck fatalities by country	HIGH-TOOL Safety module
o_sa_serinj_bike_pred	count	Bike serious injuries by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_serinj_car_pred	count	Car serious injuries by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_serinj_p2w_pred	count	P2W serious injuries by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_serinj_ped_pred	count	Pedestrian serious injuries by country and mode (urban, involved)	HIGH-TOOL Safety module
o_sa_serinj_pt_pred	count	Public transport serious injuries by country	HIGH-TOOL Safety module
o_sa_serinj_truck_pred	count	Truck serious injuries by country	HIGH-TOOL Safety module
o_sa_slinj_bike_pred	count	Bike slight injuries by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_slinj_car_pred	count	Car slight injuries by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_slinj_p2w_pred	count	P2W slight injuries by country, age and gender cohort	HIGH-TOOL Safety module
o_sa_slinj_ped_pred	count	Pedestrian slight injuries by country and mode (urban, involved)	HIGH-TOOL Safety module
o_sa_slinj_pt_pred	count	Public transport slight injuries by country	HIGH-TOOL Safety module
o_sa_slinj_truck_pred	count	Truck slight injuries by country	HIGH-TOOL Safety module

4.6 Vehicle Stock

The Vehicle Stock module comprises 63 parameters (34 input parameters, eight modelling parameters and 21 output parameters). The main exogenous input sources are the databases by MOVEET (Purwanto, 2013) and TREMOVE[5] (De Ceuster et al., 2007) Table 8 informs on the parameters used in the Vehicle Stock module.

Table 8: Vehicle Stock data parameters

Abbreviation	Unit	Description	Data Source
i_vs_cap_rpcs_mkt	eur_veh	Average vehicle purchase price (incl. VAT) in EUR by country, mode, vehicle type and fuel	TRACCS
i_vs_cap_rpcs_vat	eur_veh	Average vehicle purchase VAT in EUR by country, mode, vehicle type and fuel	calculated TRACCS
i_vs_cap_scrap_subs	eur_veh	Average state subsidy to scrap old or high polluting vehicles in EUR by country, mode, vehicle type and fuel	policy lever
i_vs_cap_subsidy	eur_veh	Average state subsidy to buy (cleaner) vehicles in EUR by country, mode, vehicle type and fuel	policy lever
i_vs_cap_tech	eur_veh	Average technology related additional cost in EUR by country, mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_cstiww	eur_vkm	Average inland waterways generalised costs in EUR per vkm by country, mode, vehicle type and fuel	MOVEET
i_vs_fu_ct	eur_tco2	Carbon tax in EUR per tonne CO_2 by country, mode and vehicle fuel	MOVEET
i_vs_fu_exduty_eur_1000kg	eur_t	Fuel excise duty data given in EUR per tonne by country, mode and vehicle fuel	DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)
i_vs_fu_exduty_eur_1000l	eur_1000l	Fuel excise duty data given in EUR per 1000l by country, mode and vehicle fuel	DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)
i_vs_fu_exduty_eur_gj	eur_gj	Fuel excise duty data given in EUR per giga joule fuel by country, mode and vehicle fuel	DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)
i_vs_fu_exduty_eur_kwh	eur_kwh	Fuel excise duty data given in EUR per kilo watt hour by country, mode and vehicle fuel	DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)
i_vs_fu_fuel_resource_toe	eur_toe	Energy resource cost in EUR by country, mode, vehicle fuel	Reference 2013 (PRIMES)
i_vs_fu_fuel_vat	percentage	Fuel value added tax (VAT) in percent by country, mode and vehicle fuel	DG ECFIN data

Abbreviation	Unit	Description	Data Source
i_vs_nf_air_neoe_fre	eur_tkm	Non-energy related variable air freight costs in EUR per tkm by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_air_neoe_pas	eur_pkm	Non-energy related variable air passenger costs in EUR per tkm by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_cstinsu	eur_vkm	Insurance costs in EUR per vkm by country, mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_mar_chcost	eur_veh	Annual cargo handling costs (loading, discharge, cargo claims) in EUR by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_mar_oi_vcost	eur_veh	Annual voyage costs (port and light dues, tugs and pilotage, canal dues) in EUR by mode, vehicle type and fuel	MOVEET
i_vs_nf_mar_opcost	eur_veh	Annual non-fuel related operational costs (daily manning, stores, routine repair and maintenance, insurance and administration) in EUR by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_mar_repmaintc	eur_veh	Annual periodic maintenance costs (temporary drydocking for regular and special surveys) in EUR by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_rail_crec	eur_h	Crew cost in EUR per hour by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_rail_damc	eur_veh_day	Damage load cost in EUR per train by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_rail_othc	eur_tkm	Other costs in EUR per tkm by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_rail_repmaintc	eur_vkm	Repair and maintenance costs in EUR per vkm by mode, vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_road_repmaintc	eur_vkm	Average repair and maintenance costs in EUR per vkm by country, mode vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_rof_cst_labo	eur_tkm	Average labour costs in EUR per tkm by country, mode vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_rof_cst_othr	eur_tkm	Average other non-fuel operational costs in EUR per tkm by country, mode vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_rof_cst_time	eur_tkm	Average non-fuel operational time costs in EUR per tkm by country, mode vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_taxfuel	eur_tkm	Average additional fuel tax in EUR per tkm by country, mode vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_taxinsu	eur_tkm	Average insurance tax in EUR per tkm by country, mode vehicle type and fuel	MOVEET/TRACCS
i_vs_nf_taxown	eur_tkm	Average ownership tax in EUR per tkm by country, mode vehicle type and fuel	MOVEET/TRACCS

Abbreviation	Unit	Description	Data Source
i_vs_nf_taxregs	eur_tkm	Average registration tax in EUR per tkm by country, mode vehicle type and fuel	MOVEET/TRACCS
i_vs_veh_stock	1000_count	Input vehicle stock in thousands by country, mode, vehicle type and fuel	TRACCS & MOVEET
i_vs_veh_stock_age	1000_count	Input vehicle stock by age in thousands by country, mode, vehicle type, fuel and technology (age cohort)	TRACCS & MOVEET
o_vs_cstavggen_cost	eur_vkm	Average generalized cost in EUR per vehicle kilometre by country, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_cstavggen_fix_pkm	eur_pkm	Average generalized fixed cost in EUR per passenger kilometre by country, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_cstavggen_fix_tkm	eur_tkm	Average generalized fixed cost in EUR per tonne kilometre by country, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_cstavggen_fix_vkm	eur_vkm	Average generalized fixed cost in EUR per vehicle kilometre by country, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_cstavggen_var_pkm	eur_pkm	Average generalized variable cost in EUR per passenger kilometre by country, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_cstavggen_var_tkm	eur_tkm	Average generalized variable cost in EUR per tonne kilometre by country, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_cstavggen_var_vkm	eur_vkm	Average generalized variable cost in EUR per vehicle kilometre by country, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_fu_CO2_tax	eur_1000l	CO_2 tax component in total fuel cost in EUR per 1000 litres by country, mode and fuel type	HIGH-TOOL vehicle stock module, calibrated to DG ECFIN Data
o_vs_fu_fuel_cost_g	eur_g	Fuel costs in EUR per gram of fuel by country, mode and the concerned fuel type	HIGH-TOOL vehicle stock module
o_vs_fu_fuel_cost_l	eur_l	Fuel costs in EUR per litre of fuel by country, mode and the concerned fuel type	HIGH-TOOL vehicle stock module
o_vs_fu_fuel_cost_toe	eur_toe	Fuel costs in EUR per tonne of oil equivalent of fuel by country, mode and the concerned fuel type	HIGH-TOOL vehicle stock module
o_vs_fu_fuel_exduty	eur_l	Fuel excise duty in EUR per litre by country, mode and fuel type	HIGH-TOOL vehicle stock module, calibrated to DG ECFIN Data
o_vs_fu_fuel_resource_l	eur_l	Fuel resource cost in EUR per litre by country, mode and the concerned fuel type	HIGH-TOOL vehicle stock module
o_vs_purch	EUR	Total new vehicle purchase cost in EUR distinguished by modes at country (NUTS-0) level	HIGH-TOOL vehicle stock module
o_vs_tax_revenues	EUR	Generated tax revenues in EUR at country level	HIGH-TOOL vehicle stock module

Abbreviation	Unit	Description	Data Source
o_vs_veh_stock	1000_count	Detailed vehicle stock in vehicles by country, mode, fuel and vehicle type	HIGH-TOOL vehicle stock module
o_vs_veh_stock_age	1000_count	Vehicle stock in 1000 vehicles by country, mode, fuel type, vehicle type and vehicle technology (age co-hort)	MOVEET/TRACCS
o_vs_veh_stock_n2	1000_count	Detailed Vehicle stock in vehicles by region (NUTS-2 level), mode, fuel and vehicle type	HIGH-TOOL vehicle stock module
o_vs_vkm	vkm	Detailed generated vkm by country, vehicle type, mode and fuel type	HIGH-TOOL vehicle stock module
o_vs_vkm_iww	vkm	Generated vkm inland waterways by country, mode, fuel type, inland waterways mode of appearance and inland waterways distance band.	HIGH-TOOL vehicle stock module
o_vs_vkm_n2	vkm	Detailed generated vkm by region (NUTS-2 level), ve-hicle type, mode and fuel type	HIGH-TOOL vehicle stock module
p_vs_vs_fdens	g_l	Fuel density in gram per litre	MOVEET
p_vs_fu_emfactor	tco2_tj	Emission factors as described in the EU Energy Tax Directive (ETD): minima of excise duty	DG TAXUD
p_vs_fu_nrg_content	gj_1000l	Energy content of fuels	DG TAXUD
p_vs_fu_toe	toe_l	Tonnes of oil equivalent per litre of fuel	MOVEET
p_vs_logit_elast	count	Vehicle type-related elasticity for logit model	MOVEET
p_vs_rail_spec_whour	h	Total yearly working hours of rail vehicles by type	MOVEET
p_vs_surv_depri	percentage	Vehicle depreciation rate	MOVEET
p_vs_surv_scrap	percentage	Vehicle scrappage rate	MOVEET

4.7 Environment

The Environment module comprises 33 parameters (four input parameters, eleven modelling parameters and eighteen output parameters). The main exogenous input sources are the databases by MOVEET (Purwanto, 2013) and TREMOVE[5] (De Ceuster et al., 2007) Table 9 informs on the parameters used in the Environment module.

Table 9: Environment data parameters

Abbreviation	Unit	Description	Data Source
i_ev_CO2_content	tco2_1000l	CO_2 content of fuel in tonnes CO_2 per 1000 litre by country, mode and vehicle fuel	DG ECFIN
i_ev_emfactor	g_vkm	Fuel consumption and emission factors in grams of pollutant per vkm by mode, vehicle type, vehicle fuel and emission type	TREMOVE v3.1.1 and TRACCS
i_ev_emindex	g_kg	Emission indexes in gram per kilogram of emission by vehicle type	MOVEET

Abbreviation	Unit	Description	Data Source
i_ev_fcf_kwh	kwh_vkm	Fuel consumption of electric energy in kilowatt hours per vkm by mode, vehicle type, vehicle fuel and emission type	TREMOVE v3.1.1 and TRACCS
o_ev_emfactor_prev	g_vkm	Fuel consumption and emission factors in grams of pollutant per vkm by mode, vehicle type, vehicle fuel and emission type for previous time step	HIGH-TOOL Environment & vehicle stock module
o_ev_fcf_kwh_prev	kwh_vkm	Fuel consumption of electric energy in kilowatt hours per vkm by mode, vehicle type, vehicle fuel and emission type for previous time step	HIGH-TOOL Environment & vehicle stock module
o_ev_t_co	t	Tonnes of CO emitted by country, mode, fuel and vehicle type	HIGH-TOOL Environment module
o_ev_t_co2	t	Tonnes of CO_2 emitted by country, mode, fuel und vehicle type	HIGH-TOOL Environment module
o_ev_t_fuel	t	Tonnes of fuel consumed by country, mode, concerned fuel and vehicle type	HIGH-TOOL Environment module
o_ev_t_fuel_ktoe	ktoe	Kilo tonnes of oil equivalent energy consumed by country, mode, fuel and vehicle type	HIGH-TOOL Environment module
o_ev_t_n2_co	t	Tonnes of CO emitted by region, mode, fuel and vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_n2_co2	t	Tonnes of CO_2 emitted by region, mode, fuel und vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_n2_fuel	t	Tonnes of fuel consumed by region, mode, fuel und vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_n2_fuel_ktoe	ktoe	Kilo tonnes of oil equivalent energy consumed by region, mode, fuel and vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_n2_nox	t	Tonnes of NO_x emitted by region, mode, fuel and vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_n2_pm	t	Tonnes of PM emitted by region, mode, fuel and vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_n2_so2	t	Tonnes of SO_2 emitted by region, mode, fuel and vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_n2_voc	t	Tonnes of VOC emitted by region, mode, fuel and vehicle type at NUTS-2 level	HIGH-TOOL Environment module
o_ev_t_nox	t	Tonnes of NO_x emitted by country, mode, fuel and vehicle type	HIGH-TOOL Environment module
o_ev_t_pm	t	Tonnes of PM emitted by country, mode, fuel and vehicle type	HIGH-TOOL Environment module
o_ev_t_so2	t	Tonnes of SO_2 emitted by country, mode, fuel and vehicle type	HIGH-TOOL Environment module
o_ev_t_voc	t	Tonnes of VOC emitted by country, mode, fuel and vehicle type	HIGH-TOOL Environment module
p_ev_air_spec_fden	kg_l	Air transport fuel density	MOVEET
p_ev_air_spec_speed	kmh	Air transport average speed	MOVEET
p_ev_emindex_elef	t_c_toe	Carbon content of electricity	MOVEET

Abbreviation	Unit	Description	Data Source
p_ev_emin-dex_non_elef	t_c_toe	Carbon content of non-electricity based fuel	MOVEET
p_ev_ev_bio_mix	percentage	Percentage of biofuel mixed in the fuel	EU reference scenario (for EU28)
p_ev_int_air	l_hour	Air transport fuel intensity	MOVEET
p_ev_int_mar	t_day	Maritime transport fuel intensity	MOVEET
p_ev_int_railfreight	toe_vkm	Freight rail fuel intensity	MOVEET
p_ev_int_railpax	toe_pkm	Passenger rail fuel intensity	MOVEET
p_ev_mar_spec_avg_dwt	t	Maritime transport average deadweight tonnage	MOVEET
p_ev_mar_spec_rate	percentage	Maritime transport average freight yearly growth	MOVEET

5 Dimensions Associated to HIGH-TOOL Parameters

5.1 HIGH-TOOL Dimensions

The dimensions define the segmentations that are used in the Data Stock. The HIGH-TOOL prototype consists of 28 dimensions (47 including aliases); these refer to time, geography, mode, and other module-specific characteristics. Table 10 gives an overview of the dimensions included in the final HIGH-TOOL Data Stock. The description of the dimensions can be found in the Annex.

Table 10: Dimension descriptions

Abbreviation	Description	Annex Ref.
age group	Age segmented into 15 age groups	Table1A
age group_Simple	Age segmented into 4 age groups	Table2A
area_type	Distinguishes between urban and non-urban areas	Table3A
commodity	Commodity in NST/R 2-digit	Table4A
cost_type	Type of cost	Table5A
country	Countries and (sub-)continents	Table6A
country_d	Destination country (see country)	Table6A
country_o	Destination country (see country)	Table6A
country_t	Transhipment country (see country)	Table6A
db	Distance segmented into 4 distance bands	Table7A
db_iww	Distance bands for IWW	Table8A
em_type	Emission type	Table9A
gender	Gender segmented into 2 types	Table10A
ht2006_cont	World at (sub)continent level	Table11A
cont_d	Destination zone in continental zoning layer (see ht2006_cont)	Table11A
cont_o	Origin zone in continental zoning layer (see ht2006_cont)	Table11A
ht2006_level_2	EU28 + CH + NO at NUTS-2, neighbouring countries at NUTS-0, rest of the world at (sub)continent level	Table12A
region	EU28 + CH + NO at NUTS-2, neighbouring countries at country, rest of the world at continent level (see ht2006_level_2)	Table12A
region_d	Destination region (see ht2006_level_2)	Table12A
region_eu	EU region (see ht2006_level_2)	Table12A
region_o	Destination region (see ht2006_level_2)	Table12A
region_rotw	Rest of the world region (see ht2006_level_2)	Table12A
region_t1	First transhipment region (see ht2006_level_2)	Table12A
region_t2	Second transhipment region (see ht2006_level_2)	Table12A
mode	Transport mode	Table13A
moa_iww	Mode of appearance of goods transported by IWW	Table14A

Abbreviation	Description	Annex Ref.
mode_urban	Urban (road) modes	Table15A
mode_involved	Road mode involved in accident (see mode_urban)	Table15A
mode_vs	Transport modes for the Vehicle Stock module	Table16A
person_class	Differentiates between drivers and passengers with respects to vehicle occupants	Table17A
purpose	Trip purpose	Table18A
purpose_air	Trip purpose for passenger air	Table19A
sector	Economic sector	Table20A
sector_from	Originating economic sector (see sector)	Table20A
sector_to	Destination economic sector (see sector)	Table20A
time	1995–2050 in 5 year steps	Table21A
unit	Units used to express parameters	Table22A
utility	Utility type	Table23A
veh_group	Vehicle type grouped into classes	Table24A
veh_fuel	Fuel type used by vehicle	Table25A
veh_type	Type of vehicle	Table26A
veh_tech	Vehicle technology indicate by age of vehicle	Table27A
year	1995–2050 in single years	Table28A
veh_year_built	Year in which vehicle was built (see year)	Table28A

5.2 Module Dimensions

This section gives an overview of the dimensions, which are used for each module's parameters. In each table all parameters are listed for a given module and the dimensions applied are itemised. For example, the data parameters of the Demography module are defined in four dimensions (Table 11). For example, "i_de_death", the historic number of deaths are defined per YEAR (2010, 2015, … , 2050), REGION (e.g. 1010101 for Burgenland, Austria), AGEGROUP(0–4 years, 5–9 years, etc.) and GENDER (males, females).

5.2.1 Demography

Table 11 summarises the dimensions per data parameter of the Demography module.

Table 11: Dimensions of the Demography module

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
i_de_death	Historical number of deaths	year	region	age group	gender
i_de_eu_ref	Calibration coefficients for EU-ROPOP2010	year	country	age group	gender
i_de_labour_hist	Historical labour force	year	region	age group	gender
i_de_labour_perc	Labour force assumptions	year	region	age group	gender
i_de_life_men	Projected life expectancy for men	year	country		
i_de_life_women	Projected life expectancy for women	year	country		
i_de_net_migration	Projected net migration	year	country		
i_de_pop_disag	Historical shares of population	year	region	age group	gender
i_de_pop_eurostat	Historical population	year	region	age group	gender
i_de_tot_fert_rate	Projected total fertility rate	year	country		
i_de_urban	Urbanisation proxy	year	region		
o_de_labour	Projected labour force	year	region	age group	gender
o_de_pop	Projected population	year	region	age group	gender

5.2.2 Economy & Resources

Table 12 contains the dimensions per data parameter for the Economy & Resources module.

Table 12: Dimensions of the Economy and Resources module

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
i_er_delta_acc	Change in accessibility of a region	time	ht2006_level_2		
i_er_delta_inf_inv	Change in public and private transport infrastructure investments	time	ht2006_level_2		
i_er_delta_inv	Change in public and private investments into fixed capital formation	time	country		
i_er_delta_rtd	Change in public and private investments in RTD	time	ht2006_level_2		
i_er_gdp	GDP per country	time	country		
i_er_gva	GVA per country	time	country	sector	
i_er_k_tot	Total capital stock by country and sector	time	country	sector	
i_er_l_tot	Total labour input	time	ht2006_level_2	sector	
i_er_sectorshare	Sectoral share per country per year	time	country	sector	
i_er_xd	Total output per region and sector	time	ht2006_level_2	sector	
i_er_xd_tot	Total output per sector	time	country	sector	
o_er_biomass	Biomass	time	region	sector	
o_er_cap_returns	Capital returns	time	region	sector	
o_er_cap_stock	Capital stock	time	region	sector	
o_er_co2	CO_2	time	region	sector	
o_er_cons_capita	Consumption per capita per region	time	region		
o_er_employment	Employment	time	region	sector	
o_er_fossil_fuel	Fossil fuel	time	region	sector	
o_er_gdp	GDP	time	region		
o_er_gdp_capita	GDP per capita per region	time	region		
o_er_gva	Gross Value added	time	region	sector	
o_er_hh_consumption	Household Consumption	time	region	sector	
o_er_income	Income	time	region		
o_er_income_capita	Income per capita by region	time	region		
o_er_indirect_utility	Indirect utility	time	ht2006_level_2		
o_er_int_input	Intermediate Input	time	region	sector	
o_er_labour_new	Labour supply after policy measures	time	ht2006_level_2	sector	
o_er_metal_ores	Metal ores	time	region	sector	
o_er_minerals	Minerals	time	region	sector	
o_er_nox	NO_x emissions without combustion per sector per region	time	region	sector	

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
o_er_output	Total output in millions of EUR by region and sector	time	region	sector	
o_er_P_new	Prices of commodities after policy measures	time	ht2006_level_2	commodity	
o_er_PD_new	Production prices of commodities after policy measures	time	ht2006_level_2	commodity	
o_er_PM	PM emissions	time	region	sector	
o_er_price_index	Price index	time	ht2006_level_2	commodity	
o_er_prod_tax	Production taxes	time	region	sector	
o_er_return_new	Return on capital after policy measures	time	ht2006_level_2	commodity	
o_er_sox	SO_x emissions	time	region	sector	
o_er_tot_emissions	Total emissions	time	region	sector	
o_er_trade_new	Trade after policy measures	time	region_o	region_d	commodity
o_er_value	Trade value	time	region_o	region_d	commodity
o_er_wage_new	Wage after policy measures	time	ht2006_level_2		
o_er_wages	Wages	time	region	sector	
o_er_water	Water use	time	region	sector	
o_er_wood	Wood	time	region	sector	
p_er_alpha_i	Labour share by region	region	sector		
p_er_alpha_i_tot	Labour share parameter by country	country	sector		
p_er_beta	Cobb-Douglas utility parameter	year	ht2006_level_2	sector	
p_er_d	Destination parameter (input for the trade gravity model)	ht2006_level_2			
p_er_delta	Depreciation rate	sector			
p_er_delta_ks_tot	Change in capital supply	time	country		
p_er_delta_ls	Change in labour supply	time	region		
p_er_delta_ls_tot	Change in total labour supply	time	country		
p_er_epsilon	Elasticity parameter of accessibility by sector	sector			
p_er_eta	Sensitivity parameter (in trade)	commodity			
p_er_g_gdp	Growth of GDP	time	country		
p_er_g_gva	Growth of GVA	time	country	sector	
p_er_gdp_scaler	GDP scaler after policy scenarios	time	ht2006_level_2		
p_er_io	IO-coefficient matrix by region and sector (year 2010)	time	ht2006_level_2	sector_from	sector_to
p_er_o	Origin parameter (input for the trade gravity model)	ht2006_level_2			
p_er_p	Consumer price of goods or services	time	ht2006_level_2	sector	
p_er_pd	Producer prices	time	ht2006_level_2	sector	
p_er_phi	Savings rate	country			
p_er_tc	Consumption tax rate	year	ht2006_level_2	sector	

5.2.3 Vehicle Stock

Table 13 contains the dimensions per data parameter for the Vehicle Stock module.

Table 13: Dimensions of Vehicle Stock module

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5	DIM6
i_vs_cap_rpcs_mkt	Vehicle market purchase price or capital cost	year	country	veh_fuel	mode_vs	veh_type	
i_vs_cap_rpcs_vat	Vehicle purchase VAT	year	country	veh_fuel	mode_vs	veh_type	
i_vs_cap_scrap_subs	State subsidy to scrap old or high polluting vehicles	year	country	veh_fuel	mode_vs	veh_type	
i_vs_cap_subsidy	State subsidy to buy cleaner vehicles	year	country	veh_fuel	mode_vs	veh_type	
i_vs_cap_tech	Technology related additional capital cost	year	country	veh_fuel	mode_vs	veh_type	
i_vs_cstiww	Inland waterways average generalized cost	year	country	veh_fuel	mode_vs		
i_vs_fu_ct	Carbon tax	year	country	veh_fuel	mode_vs		
i_vs_fu_exduty_eur_1000kg	Fuel excise duty in Euro/tonne	year	country	veh_fuel	mode_vs		
i_vs_fu_exduty_eur_1000l	Fuel excise duty data EUR/1000 l	year	country	veh_fuel	mode_vs		
i_vs_fu_exduty_eur_gj	Fuel excise duty data EUR/GJ	year	country	veh_fuel	mode_vs		
i_vs_fu_exduty_eur_kwh	Fuel excise duty data EUR/kWh	year	country	veh_fuel	mode_vs		
i_vs_fu_fuel_resource_toe	Fuel resource cost	year	country	veh_fuel	mode_vs		
i_vs_fu_fuel_vat	Fuel value added tax (VAT)	year	country	veh_fuel	mode_vs		
i_vs_nf_air_neoe_fre	Variable air freight costs	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_air_neoe_pas	Variable air passenger costs	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_cstinsu	Insurance costs road	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_mar_chcost	Cargo handling cost maritime	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_mar_oi_vcost	Voyage cost maritime	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_mar_opcost	Non-fuel operational cost maritime	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_mar_repmaintc	Repair and maintenance costs maritime	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_rail_crec	Crew costs road and rail	year	veh_fuel	mode_vs	veh_type		

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5	DIM6
i_vs_nf_rail_damc	Damaged load cost road and rail	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_rail_othc	Other costs road and rail	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_rail_repmaintc	Repair and maintenance costs rail	year	veh_fuel	mode_vs	veh_type		
i_vs_nf_road_repmaintc	Repair and maintenance costs road	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_rof_cst_labo	Labour cost for freight road	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_rof_cst_othr	Other non-fuel operational costs road	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_rof_cst_time	Non-fuel operational time costs road	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_taxfuel	Additional fuel tax for freight road	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_taxinsu	Insurance tax for road transport	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_taxown	Ownership tax for road transport	year	country	veh_fuel	mode_vs	veh_type	
i_vs_nf_taxregs	Registration tax for road transport	year	country	veh_fuel	mode_vs	veh_type	
i_vs_veh_stock	Input vehicle stock	year	country	veh_fuel	mode_vs	veh_type	
i_vs_veh_stock_age	Input vehicle stock by age	year	country	veh_fuel	mode_vs	veh_type	veh_tech
o_vs_cstavggen_cost	Average generalized cost per vkm	year	country	mode_vs			
o_vs_cstavggen_fix_pkm	Average generalized fixed cost per pkm	year	country	mode_vs			
o_vs_cstavggen_fix_tkm	Average generalized fixed cost per tkm	year	country	mode_vs			
o_vs_cstavggen_fix_vkm	Average generalized fixed cost per vkm	year	country	mode_vs			
o_vs_cstavggen_var_pkm	Average generalized variable cost per pkm	year	country	mode_vs			
o_vs_cstavggen_var_tkm	Average generalized variable cost per tkm	year	country	mode_vs			
o_vs_cstavggen_var_vkm	Average generalized variable cost per vkm	year	country	mode_vs			
o_vs_fu_CO2_tax	CO_2 tax component in total fuel cost	year	country	veh_fuel	mode_vs		
o_vs_fu_fuel_cost_g	Fuel costs per gram of fuel	year	country	veh_fuel	mode_vs		
o_vs_fu_fuel_cost_l	Fuel costs per litre of fuel	year	country	veh_fuel	mode_vs		

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5	DIM6
o_vs_fu_fuel_cost_toe	Fuel costs per tonne of oil equivalent of fuel (TOE)	year	country	veh_fuel	mode_vs		
o_vs_fu_fuel_exduty	Fuel excise duty	year	country	veh_fuel	mode_vs		
o_vs_fu_fuel_resource_l	Fuel resource cost	year	country	veh_fuel	mode_vs		
o_vs_purch	Total new vehicle purchase cost	year	country	mode_vs			
o_vs_tax_revenues	Tax revenues	year	country				
o_vs_veh_stock	Detailed vehicle stock	year	country	veh_fuel	mode_vs	veh_type	
o_vs_veh_stock_age	Vehicle stock by age (veh_tech)	year	country	veh_fuel	mode_vs	veh_type	veh_tech
o_vs_veh_stock_n2	Detailed Vehicle stock at NUTS-2 level	year	region_eu	veh_fuel	mode_vs	veh_type	
o_vs_vkm	Detailed generated vkm by vehicle type	year	country	veh_fuel	mode_vs		
o_vs_vkm_iww	Generated vkm inland waterways	year	country	veh_fuel	mode_vs	moa_iww	db_iww
o_vs_vkm_n2	Detailed generated vkm per vehicle type at NUTS-2 level	year	region_eu	veh_fuel	mode_vs		
p_vs_fu_emfactor	Emission factors	year	country	veh_fuel	mode_vs		
p_vs_fu_nrg_content	Fuel energy content	year	country	veh_fuel	mode_vs		
p_vs_fu_toe	Tonnes of oil equivalent per litre of fuel	veh_fuel					
p_vs_logit_elast	Elasticity for vehicle type	country	mode_vs				
p_vs_rail_spec_whour	Total yearly working hours of rail vehicles by type	country	veh_type				
p_vs_surv_depri	Vehicle depreciation rate	mode_vs	veh_tech				
p_vs_surv_scrap	Vehicle scrappage rate	mode_vs	veh_tech				
p_vs_vs_fdens	Fuel density	veh_fuel					

5.2.4 Environment

Table 14 displays the dimensions per data parameter for the Environment module.

Table 14: Dimensions of Environment module

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5	DIM6
i_ev_CO2_content	CO_2 content of fuel	year	country	veh_fuel	mode_vs		
i_ev_emfactor	Fuel consumption/emission factors	year	veh_type	veh_fuel	mode_vs	em_type	veh_tech
i_ev_emindex	Emission indexes	year	veh_type	veh_fuel	mode_vs	em_type	
i_ev_fcf_kwh	Fuel consumption/emission factors	year	veh_type	veh_fuel	mode_vs	em_type	veh_tech
o_ev_emfactor_prev	Fuel consumption/emission factors for step t-1	year	veh_type	veh_fuel	mode_vs	em_type	veh_tech
o_ev_fcf_kwh_prev	Fuel consumption/emission factors for step t-1	year	veh_type	veh_fuel	mode_vs	em_type	veh_tech
o_ev_t_co	Tonnes of CO emitted at country level	year	country	veh_type	veh_fuel	mode_vs	
o_ev_t_co2	Tonnes of CO_2 emitted	year	country	veh_type	veh_fuel	mode_vs	
o_ev_t_fuel	Tonnes of fuel consumed at country level	year	country	veh_type	veh_fuel	mode_vs	
o_ev_t_fuel_ktoe	KTOE of fuel consumed at country level	year	country	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_co	Tonnes of CO emitted by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_co2	Tonnes of CO_2 emitted by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_fuel	Tonnes of fuel consumed by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_fuel_ktoe	KTOE of fuel consumed by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_nox	Tonnes of NO_x emitted by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_pm	Tonnes of PM emitted by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_so2	Tonnes of SO_2 emitted by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_n2_voc	Tonnes of VOC emitted by region	year	ht2006_level_2	veh_type	veh_fuel	mode_vs	
o_ev_t_nox	Tonnes of NO_x emitted at country level	year	country	veh_type	veh_fuel	mode_vs	
o_ev_t_pm	Tonnes of PM emitted at country level	year	country	veh_type	veh_fuel	mode_vs	
o_ev_t_so2	Tonnes of SO_2 emitted at country level	year	country	veh_type	veh_fuel	mode_vs	

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5	DIM6
o_ev_t_voc	Tonnes of VOC emitted at country level	year	country	veh_type	veh_fuel	mode_vs	
p_ev_air_spec_fden	Air transport fuel density	veh_ type					
p_ev_air_spec_speed	Air transport average speed	veh_ type					
p_ev_emindex_elef	Carbon content of electric-ity	year	country	veh_fuel			
p_ev_emin-dex_non_elef	Carbon content of non-elec-tricity based fuel	veh_ fuel					
p_ev_ev_bio_mix	Percentage of biofuel mixed in the fuel	year	country_o	mode_vs	veh_fuel		
p_ev_int_air	Air transport fuel intensity	year	veh_type	veh_tech			
p_ev_int_mar	Maritime transport fuel in-tensity	year	veh_type	veh_tech			
p_ev_int_railfreight	Freight rail fuel intensity	year	veh_type	veh_tech			
p_ev_int_railpax	Passenger rail fuel intensity	year	veh_type	veh_tech			
p_ev_mar_spec_avg_ dwt	Maritime transport average deadweight tonnage	year	veh_type				
p_ev_mar_spec_rate	Maritime transport average freight yearly growth	year	veh_type				

5.2.5 Safety

Table 15 contains the Safety module's dimensions per data parameter.

Table 15: Dimensions of the Safety module

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
i_sa_blind_spot_truck	Truck blind spots	year	country		
i_sa_crew_error_air	Air crew error	year	ht2006_cont		
i_sa_crew_error_rail	Rail crew error	year	country		
i_sa_distraction_bike	Distraction of cyclists	year	country	gender	age group_simple
i_sa_distraction_car	Distraction of car drivers	year	country	gender	age group_simple
i_sa_distraction_p2w	Distraction of P2W drivers	year	country	gender	age group_simple
i_sa_distraction_pt	Public transport distraction	year	country		
i_sa_distraction_truck	Distraction of truck drivers	year	country		
i_sa_dui_bike	Bike driving under influence	year	country	gender	age group_simple
i_sa_dui_car	Car driving under influence	year	country	gender	age group_simple

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
i_sa_dui_p2w	P2W driving under influence	year	country	gender	age group_simple
i_sa_dui_pt	Public transport driving under influence	year	country		
i_sa_dui_truck	Truck driving under influence	year	country		
i_sa_engine_failure_air	Air engine failure	year	ht2006_cont		
i_sa_falling_from_train_rail	Rail falling from train	year	country		
i_sa_fat_air	Annual average number of fatalities air	ht2006_cont			
i_sa_fat_bike	Historical bike fatality data	year	country	gender	age group_simple
i_sa_fat_car	Historical car fatality data	year	country	gender	age group_simple
i_sa_fat_p2w	Historical P2W fatality data	year	country	gender	age group_simple
i_sa_fat_ped	Historical pedestrian fatality data	year	country	mode_involved	
i_sa_fat_pt	Historical public transport fatality data	year	country		
i_sa_fat_rail	Annual average number of fatalities rail	country			
i_sa_fat_risk_iww	Fatality risk inland waterways	year	ht2006_cont		
i_sa_fat_risk_sss	Fatality risk short sea shipping	year	ht2006_cont		
i_sa_fat_truck	Historical truck fatality data	year	country		
i_sa_fatigue_bike	Fatigue of cyclists	year	country	gender	age group_simple
i_sa_fatigue_car	Fatigue of car drivers	year	country	gender	age group_simple
i_sa_fatigue_p2w	Fatigue of P2W drivers	year	country	gender	age group_simple
i_sa_fatigue_pt	Fatigue of public transport drivers	year	country		
i_sa_fatigue_truck	Fatigue of truck drivers	year	country		
i_sa_fire_air	Air fire on board	year	ht2006_cont		
i_sa_helmet_bike	Use of helmets by cyclists	year	country	gender	age group_simple
i_sa_helmet_p2w	Use of helmets by P2W drivers/passengers	year	country	gender	age group_simple
i_sa_infra_fault_bike	Bike infrastructural faults	year	country	gender	age group_simple
i_sa_infra_fault_car	Car infrastructural faults	year	country	gender	age group_simple
i_sa_infra_fault_p2w	P2W infrastructural faults	year	country	gender	age group_simple
i_sa_infra_fault_pt	Public transport infrastructural faults	year	country		

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
i_sa_infra_fault_rail	Rail infrastructural fault	year	country		
i_sa_infra_fault_truck	Truck infrastructural faults	year	country		
i_sa_lc_veh_acc_rail	Rail level-crossing accident vehicle	year	country		
i_sa_lc_vuln_acc_rail	Rail level-crossing accident vulnerable user	year	country		
i_sa_load_error_air	Air loading errors	year	ht2006_cont		
i_sa_load_error_truck	Truck loading error	year	country		
i_sa_mid_air_collision_air	Air mid-Air collisions	year	ht2006_cont		
i_sa_osign_staff_error_rail	Rail operating and signalling staff error	year	country		
i_sa_pkm_bike	Bike pkm 2010	country	gender	age group_simple	
i_sa_pkm_car	Historical car pkm	year	country	gender	age group_simple
i_sa_pkm_p2w	Historical P2W pkm	year	country	gender	age group_simple
i_sa_pkm_pt	Historical public transport pkm	year	country		
i_sa_platform_acc_rail	Rail platform accident	year	country		
i_sa_restraint_car	Car use of restraint devices	year	country	gender	age group_simple
i_sa_restraint_truck	Truck use of restraint devices	year	country		
i_sa_runway_collision_air	Air runway collisions	year	ht2006_cont		
i_sa_serinj_bike	Historical bike serious injury data	year	country	gender	age group_simple
i_sa_serinj_car	Historical car serious injury data	year	country	gender	age group_simple
i_sa_serinj_p2w	Historical P2W serious injury data	year	country	gender	age group_simple
i_sa_serinj_ped	Historical pedestrian serious injury data	year	country	mode_involved	
i_sa_serinj_pt	Historical public transport serious injury data	year	country		
i_sa_serinj_truck	Historical truck serious injury data	year	country		
i_sa_slinj_bike	Historical bike slight injury data	year	country	gender	age group_simple
i_sa_slinj_car	Historical car slight injury data	year	country	gender	age group_simple
i_sa_slinj_p2w	Historical P2W slight injury data	year	country	gender	age group_simple
i_sa_slinj_ped	Historical pedestrian slight injury data	year	country	mode_involved	

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
i_sa_slinj_pt	Historical public transport slight injury data	year	country		
i_sa_slinj_truck	Historical truck slight injury data	year	country		
i_sa_speed_bike	Bike speed	year	country	gender	age group_simple
i_sa_speed_car	Car speed	year	country	gender	age group_simple
i_sa_speed_p2w	P2W speed	year	country	gender	age group_simple
i_sa_speed_pt	Public transport speed	year	country		
i_sa_speed_truck	Truck speed	year	country		
i_sa_stock_fault_rail	Rail rolling stock fault	year	country		
i_sa_tech_failure_air	Air technical failure excl. Engine	year	ht2006_cont		
i_sa_time_med_care_bike	Bike time to medical care	year	country	gender	age group_simple
i_sa_time_med_care_car	Car time to medical care	year	country	gender	age group_simple
i_sa_time_med_care_p2w	P2W time to medical care	year	country	gender	age group_simple
i_sa_time_med_care_pt	Public transport time to medical care	year	country		
i_sa_time_med_care_truck	Truck time to medical care	year	country		
i_sa_track_staff_error_rail	Rail track staff error	year	country		
i_sa_trespassing_rail	Rail trespassing accident	year	country		
i_sa_trips_air	Annual average mobility for air	ht2006_cont			
i_sa_veh_defect_bike	Bike vehicle defects	year	country	gender	age group_simple
i_sa_veh_defect_car	Car vehicle defects	year	country	gender	age group_simple
i_sa_veh_defect_p2w	P2W vehicle defects	year	country	gender	age group_simple
i_sa_veh_defect_pt	Public transport vehicle defects	year	country		
i_sa_veh_defect_truck	Truck vehicle defects	year	country		
i_sa_vkm_rail	Annual average mobility for rail	country			
i_sa_vkm_truck	Historical truck vkm	year	country		
i_sa_vkm_urban	Historical urban vkm	year	country	mode_involved	
o_sa_acc_cost_air	Accident costs air	year	ht2006_cont		
o_sa_acc_cost_iww	Accident costs inland waterway	year	ht2006_cont		

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
o_sa_acc_cost_rail	Accident costs rail	year	country		
o_sa_acc_cost_sss	Accident costs short-sea shipping	year	ht2006_cont		
o_sa_costs_road	Accident costs road transport	year	country	mode_urban	
o_sa_fat_air_pred	Air fatalities	year	ht2006_cont		
o_sa_fat_bike_pred	Bike fatalities	year	country	gender	age group_simple
o_sa_fat_car_pred	Car fatalities	year	country	gender	age group_simple
o_sa_fat_iww_pred	Inland waterway fatalities	year	ht2006_cont		
o_sa_fat_p2w_pred	P2W fatalities	year	country	gender	age group_simple
o_sa_fat_ped_pred	Pedestrian fatalities	year	country	mode_involved	
o_sa_fat_pt_pred	Public transport fatalities	year	country		
o_sa_fat_rail_pred	Rail fatalities	year	country		
o_sa_fat_sss_pred	Short-sea shipping fatalities	year	ht2006_cont		
o_sa_fat_truck_pred	Truck fatalities	year	country		
o_sa_serinj_bike_pred	Bike serious injuries	year	country	gender	age group_simple
o_sa_serinj_car_pred	Car serious injuries	year	country	gender	age group_simple
o_sa_serinj_p2w_pred	P2W serious injuries	year	country	gender	age group_simple
o_sa_serinj_ped_pred	Pedestrian serious injuries	year	country	mode_involved	
o_sa_serinj_pt_pred	Public transport serious injuries	year	country		
o_sa_serinj_truck_pred	Truck serious injuries	year	country		
o_sa_slinj_bike_pred	Bike slight injuries	year	country	gender	age group_simple
o_sa_slinj_car_pred	Car slight injuries	year	country	gender	age group_simple
o_sa_slinj_p2w_pred	P2W slight injuries	year	country	gender	age group_simple
o_sa_slinj_ped_pred	Pedestrian slight injuries	year	country	mode_involved	
o_sa_slinj_pt_pred	Public transport slight injuries	year	country		
o_sa_slinj_truck_pred	Truck slight injuries	year	country		

5.2.6 Passenger Demand

Table 16 contains the dimensions per data parameter of the Passenger Demand module.

Table 16: Dimensions of the Passenger Demand module

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5
i_pd_ae_dist	Hypernet node access/ egress distance for passenger transport	year	region	mode		
i_pd_ae_dist_weight	Hypernet node access/ egress distance weight for passenger transport	year	region	mode		
i_pd_ae_time	Hypernet node access/ egress time for passenger transport	year	region	mode		
i_pd_ae_time_weight	Hypernet node access/ egress time weight for passenger transport	year	region	mode		
i_pd_aecost	Access/ egress costs intercontinental air	region_eu	region_rotw	purpose_air		
i_pd_aetime	Access/ egress time intercontinental air	region_eu	region_rotw	purpose_air		
i_pd_aircost	Ticket costs	region_eu	region_rotw	purpose_air		
i_pd_airdist	Flight distance	region_eu	region_rotw	purpose_air		
i_pd_airmodetime	Flight time	region_eu	region_rotw	purpose_air		
i_pd_capital	Zone capital	region				
i_pd_capital_lat	Latitude of zone capital	region				
i_pd_capital_long	Longitude of zone capital	region				
i_pd_citydwellershare	Percentage of population living in cities	region_eu				
i_pd_coef_occupancy_rate	Occupancy rate	year	country_o	purpose	mode	
i_pd_coef_transitshare	Transit share factor	country_o	country_d	mode	country_t	
i_pd_core_lever_ae_dist	Change of access/ egress distance for passenger transport by year, country, mode	year	country_o	mode		
i_pd_core_lever_ae_time	Change of access/ egress time for passenger transport by year, country, mode	year	country_o	mode		
i_pd_core_lever_delta_los	Change of level of service indicator for passenger transport by year, country, mode	year	country_o	mode		
i_pd_core_lever_net_dist	Change of net distance for passenger transport by year, country, mode	year	country_o	mode		
i_pd_core_lever_net_time	Change of net time for passenger transport by year, country, mode	year	country_o	mode		
i_pd_core_toll_cost	Average toll costs per passenger vkm	year	country_o	mode		

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5
i_pd_country_share_orig	Share of link length in origin zone	year	region_o	region_d	mode	
i_pd_exogenous_area	Region area	year	region			
i_pd_exogenous_bed	Number of accommodation opportunities	year	region			
i_pd_exogenous_hotel	Number of hotels	year	region			
i_pd_exogenous_radius	Average region radius	year	region			
i_pd_freq	Level of service, frequency	region_eu	region_rotw	purpose_air		
i_pd_imp_ae_dist	Access/ egress travel distance	year	region_o	region_d	mode	
i_pd_imp_ae_time	Access/ egress travel time	year	region_o	region_d	mode	
i_pd_imp_delta_los	Level of Service indicator	year	region_o	region_d	mode	
i_pd_imp_net_dist	Network travel distance	year	region_o	region_d	mode	
i_pd_imp_net_time	Network travel time	year	region_o	region_d	mode	
i_pd_imp_ref_dist	Crow flies distance	year	region_o	region_d		
i_pd_link_dist	Hypernet link distance for passenger transport	year	region_o	region_d	mode	
i_pd_link_dist_weight	Hypernet link distance weight for passenger transport	year	region_o	region_d	mode	
i_pd_link_time	Hypernet link time for passenger transport	year	region_o	region_d	mode	
i_pd_link_time_weight	Hypernet link time weight for passenger transport	year	region_o	region_d	mode	
i_pd_ref_dist	Reference distance	country	mode_urban			
i_pd_referencedemand	Observed trip demand	region_eu				
i_pd_referenceflow	Observed travellers in reference year	region_eu	region_rotw	purpose_air		
i_pd_referencepopulation	Population in the reference year 2013	region				
i_pd_urban_duaetime	Change in access/egress time of urban passenger transport modes	year	country			
i_pd_urban_dutoll	Change in urban cordon toll costs for motorised individual modes	year	country			
i_pd_urban_dutraveldist	Change in travel distance for urban passenger transport modes	year	country			
i_pd_urban_dutraveltime	Change in travel time for urban passenger transport modes	year	country			
o_pd_airic_costae_od	Aggregated costs for access/ egress	year	region_eu	region_rotw	purpose_air	
o_pd_airic_costnet_od	Aggregated net costs by O/D	year	region_eu	region_rotw	purpose_air	
o_pd_airic_pkm_od	Passenger kilometres by O/D	year	region_eu	region_rotw	purpose_air	
o_pd_airic_trips_od	Trips by O/D	year	region_eu	region_rotw	purpose_air	
o_pd_imp_aenet_dist	Modelled network travel distance	year	region_o	region_d	mode	

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5
o_pd_imp_aenet_time	Modelled network travel time	year	region_o	region_d	mode	
o_pd_imp_hnet_dist	Modelled network travel distance	year	region_o	region_d	mode	
o_pd_imp_hnet_time	Modelled network travel time	year	region_o	region_d	mode	
o_pd_od_fix_cost	Aggregated fixed costs by O/D	year	region_o	region_d	mode	
o_pd_od_time_cost	Aggregated time costs by O/D	year	region_o	region_d	mode	
o_pd_od_toll_cost	Aggregated toll costs by O/D	year	region_o	region_d	mode	
o_pd_od_var_cost	Aggregated variable costs by O/D	year	region_o	region_d	mode	
o_pd_orig_fix_cost	Aggregated fixed costs per origin	year	region_o	mode		
o_pd_orig_time_cost	Aggregated time costs per origin	year	region_o	mode		
o_pd_orig_toll_cost	Aggregated toll costs per origin	year	region_o	mode		
o_pd_orig_var_cost	Aggregated variable costs per origin	year	region_o	mode		
o_pd_pkm_od	Aggregated pkm by O/D	year	region_o	region_d	mode	
o_pd_pkm_orig	Aggregated pkm by origin	year	region_o	mode		
o_pd_pkm_orig_safety	Aggregated pkm by origin safety	year	region_o	mode	age group_simple	gender
o_pd_pkm_transit	Aggregated transit pkm	year	country_t	mode		
o_pd_pkm_transit_safety	Aggregated transit pkm safety	year	country_t	mode	age group_simple	gender
o_pd_pkmdistance-bandctry	Aggregated pkm by originating country, distance band, mode	year	country_o	mode	db	
o_pd_transit_fix_cost	Aggregated fixed costs transit	year	country_t	mode		
o_pd_transit_time_cost	Aggregated time costs transit	year	country_t	mode		
o_pd_transit_toll_cost	Aggregated toll costs transit	year	country_t	mode		
o_pd_transit_var_cost	Aggregated variable costs transit	year	country_t	mode		
o_pd_trips_od	Aggregated trips by O/D	year	region_o	region_d	mode	
o_pd_trips_orig	Aggregated trips by origin	year	region_o	mode		
o_pd_trips_orig_safety	Aggregated trips by origin safety	year	region_o	mode	age group_simple	gender
o_pd_urban_pkm_ctry	Aggregated pkm urban mode	year	country	mode_urban	age group_simple	gender
o_pd_urban_trips_ctry	Aggregated trips urban mode	year	country	mode_urban	age group_simple	gender
o_pd_urban_vkm_ctry	Aggregated vkm urban mode	year	country	mode_urban	age group_simple	gender
o_pd_vkm_od	Aggregated vkm by O/D	year	region_o	region_d	mode	
o_pd_vkm_orig	Aggregated vkm by origin	year	region_o	mode		
o_pd_vkm_transit	Aggregated transit vkm	year	country_t	mode		

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5
o_pd_vkmdistancebandctry	Aggregated vkm by originating country, distance band, mode	year	country_o	mode	db	
p_pd_bdist	Weighting factor distance cost component	country_o	purpose	mode		
p_pd_beta_attractor	Beta parameter weighting attraction	purpose_air				
p_pd_beta_emplf	Beta parameter weighting employment	purpose_air				
p_pd_beta_freq	Beta parameter weighting frequency	purpose_air				
p_pd_beta_gdpm	Beta parameter weighting GPD	purpose_air				
p_pd_beta_mobm2013	Beta parameter weighting mobility in 2013	purpose_air				
p_pd_beta_popf	Beta parameter weighting population for purpose non-business	purpose_air				
p_pd_beta_popr	Beta parameter weighting population for purpose business	purpose_air				
p_pd_beta_totcost	Beta parameter for weighting costs	purpose_air				
p_pd_beta_totime	Beta parameter for weighting time	purpose_air				
p_pd_btime	Weighting factor time cost component	country_o	purpose	mode		
p_pd_c_nest1_air	Model constant for EMC (sub-) measure related to nest 1, choice air	country_o	purpose			
p_pd_c_nest1_emc2	Model constant for EMC (sub-) measure related to nest 1, choice EMC2	country_o	purpose			
p_pd_c_nest2_emc3	Model constant for EMC (sub-) measure related to nest 2, choice EMC3	country_o	purpose			
p_pd_c_nest2_road	Model constant for EMC (sub-) measure related to nest 2, choice road	country_o	purpose			
p_pd_c_nest3_bus	Model constant for EMC (sub-) measure related to nest 3, choice bus	country_o	purpose			
p_pd_c_nest3_rail	Model constant for EMC (sub-) measure related to nest 3, choice rail	country_o	purpose			
p_pd_calib_generation	Calibration factors for adjusting the HIGH-TOOL Passenger demand model to ETISplus	country_o	purpose			

Abbreviation	Short description	DIM1	DIM2	DIM3
p_pd_calib_weight_opportunities	Calibration coefficients for weighting inter-zonal opportunities	region_o	purpose	
p_pd_calib6modes_2010	Urban mode calibration factor 2010	country	mode_urban	
p_pd_coef_borderresistance	Coefficient to model border resistance	country_o	country_d	purpose
p_pd_coef_economictrend	Coefficient referring to the trend line for economic level	year	country_o	
p_pd_coef_employmenttrend	Coefficient referring to the trend line for employment level	year	country_o	
p_pd_coef_gtttrend	Coefficient refers to changing trends in travelling with regard to mode choice	year	country_o	mode
p_pd_coef_incometrend	Coefficient referring to the trend line for income level	year	country_o	
p_pd_coef_pkmtrend	Coefficient refers to changing trends in travelling with regard to travelled pkm	year	country_o	
p_pd_coef_weight_opportunities	Weighting coefficient for weighting intra-zonal opportunities	region_o	purpose	
p_pd_coefattractor	Attraction coefficient for trips from European regions to RoW regions	region_eu	region_rotw	purpose_air
p_pd_coefroadsplit	Elasticity coefficient (road_car, road_motorcycle only)	country_o	mode	
p_pd_const	Mode specific constant	country_o	purpose	mode
p_pd_constant	Regression constant	purpose_air		
p_pd_costperkm	Model parameter related to cost per kilometre	country_o	purpose	mode
p_pd_economic_level_reference	Considered economic level for the reference year	purpose		
p_pd_employment_level_reference	Considered employment level for the reference year	purpose		
p_pd_hfactor	Empiric coefficient to model higher attractiveness of capitals	region_d		
p_pd_income_level_reference	Considered income level for the reference year	purpose		
p_pd_k_shape_transformation_long	EMC transformation coefficient (k_shape_transformation_long)	country_o	purpose	
p_pd_k_shape_transformation_medium	EMC transformation coefficient (k_shape_transformation_medium)	country_o	purpose	
p_pd_k_shape_transformation_short	EMC transformation coefficient (k_shape_transformation_short)	country_o	purpose	

Abbreviation	Short description	DIM1	DIM2	DIM3
p_pd_l_shape_transformation_long	EMC transformation coefficient (l_shape_transformation_long)	country_o	purpose	
p_pd_l_shape_transformation_medium	EMC transformation coefficient (l_shape_transformation_medium)	country_o	purpose	
p_pd_l_shape_transformation_short	EMC transformation coefficient (l_shape_transformation_short)	country_o	purpose	
p_pd_lambda_emplf	Box-Cox Lambda related to employment	purpose_air		
p_pd_lambda_gdpm	Box-Cox Lambda related to GDP	purpose_air		
p_pd_ldist	Parameter of Box-Cox transformation related to distance based travel cost	country_o	purpose	mode
p_pd_ltime	Parameter of Box-Cox transformation related to travel time	country_o	purpose	mode
p_pd_mu_emc1_p	EMC coefficient (mu_EMC1_p)	country_o	purpose	
p_pd_mu_emc1_s_arg	EMC coefficient (mu_EMC1_s_arg)	country_o	purpose	
p_pd_mu_emc1_s_pow	EMC coefficient (mu_EMC1_s_pow)	country_o	purpose	
p_pd_mu_emc2_p	EMC coefficient (mu_EMC2_p)	country_o	purpose	
p_pd_mu_emc2_s_arg	EMC coefficient (mu_EMC2_s_arg)	country_o	purpose	
p_pd_mu_emc2_s_pow	EMC coefficient (mu_EMC2_s_pow)	country_o	purpose	
p_pd_mu_emc3_p	EMC coefficient (mu_EMC3_p)	country_o	purpose	
p_pd_mu_emc3_s_arg	EMC coefficient (mu_EMC3_s_arg)	country_o	purpose	
p_pd_mu_emc3_s_pow	EMC coefficient (mu_EMC3_s_pow)	country_o	purpose	
p_pd_p_decay_long	Decay coefficient (p_decay_long)	country_o	purpose	
p_pd_p_decay_medium	Decay coefficient (p_decay_medium)	country_o	purpose	
p_pd_p_decay_short_exp	Decay coefficient (p_decay_short_exp)	country_o	purpose	
p_pd_p_decay_short_pow	Decay coefficient (p_decay_short_pow)	country_o	purpose	
p_pd_pv	Elasticity coefficient (pv)	purpose		
p_pd_px	Elasticity coefficient (px)	purpose		
p_pd_trend6modes_euref	Urban mode calibration factor forecast	year	country	mode_urban
p_pd_tripbase	Trip basis	purpose		
p_pd_urban_coefocc_rate	Occupancy rate	country	mode_urban	
p_pd_urban_split3modes_elasticity	Price changes for urban transport modes	country	mode_urban	
p_pd_urban_split3modes_refweight	Modal split weighting factor	region_eu	mode_urban	
p_pd_urban_split6modes_refweight	Disaggregation ratio for modes	country	mode_urban	
p_pd_var_female00_14	Mobility behaviour parameter for females age <15	purpose		
p_pd_var_female15_24	Mobility behaviour parameter for females age 15–24	purpose		
p_pd_var_female25_64	Mobility behaviour parameter for females age 25–64	purpose		

Abbreviation	Short description	DIM1	DIM2	DIM3
p_pd_var_female65_99	Mobility behaviour parameter for females age >65	purpose		
p_pd_var_male00_14	Mobility behaviour parameter for males age <15	purpose		
p_pd_var_male15_24	Mobility behaviour parameter for males age 15–24	purpose		
p_pd_var_male25_64	Mobility behaviour parameter for males age 25–64	purpose		
p_pd_var_male65_99	Mobility behaviour parameter for males age >65	purpose		
p_pd_vot	Value of time	country_o	purpose	
p_pd_w_share_long	Weighting coefficient (w_share_long)	country_o	purpose	
p_pd_w_share_medium	Weighting coefficient (w_share_medium)	country_o	purpose	
p_pd_w_share_short	Weighting coefficient (w_share_short)	country_o	purpose	
p_pd_wt	Effect of time invariant parameters on trip generation	purpose		
p_pd_wtdc	Calibration factor for weighting time and distance cost components	country_o	purpose	

5.2.7 Freight Demand

Table 17 gives an overview of the dimensions per data parameter of the Freight Demand module.

Table 17: Dimensions of the Freight Demand module

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4	DIM5	DIM6
i_fd_imp_dist	Distance impedances	year	region_o	region_d	db	mode	
i_fd_region_share	Country leg distance shares	year	region_o	region_d	country	mode	
i_fd_route_choice	Tonne share of alternative routes	region_o	region_d	region_t1	region_t2		
i_fd_toll_cost	Average toll cost	year	country	mode			
i_fd_trade_air	Air trade 2010	region_o	region_d				
o_fd_air_demand_od_t	Air demand full freight	year	region_o	region_d			
o_fd_air_demand_od_tkm	Air demand performance full freight	year	region_o	region_d			
o_fd_air_demand_od_vkm	Air demand mobility full freight	year	region_o	region_d			
o_fd_air_demand_t_od	Total air demand projected	year	region_o	region_d			
o_fd_t_od	Tonnes by O/D	year	region_o	region_d	db	mode	commodity
o_fd_tkm_od	Tonne kilometres by O/D	year	region_o	region_d	db	mode	commodity
o_fd_tkm_transit	Freight performance	year	country	db	mode		
o_fd_total_cost_od	Total freight transport cost by O/D	year	region_o	region_d	db	mode	commodity
o_fd_vkm_od	Vehicle kilometres by O/D	year	region_o	region_d	db	mode	commodity
o_fd_vkm_transit	Freight mobility	year	country	db	mode		
p_fd_air_param	Air elasticity	year	cont_o	cont_d			
p_fd_air_param_calib	Air elasticity calibration	year	cont_o	cont_d			
p_fd_air_share_full_freight	Air share full freight	year	db				
p_fd_domestic	Domestic logistics factor	time	country				
p_fd_fixed_cost	Average fixed costs	year	country	mode	commodity		
p_fd_fixed_cost_calib	Average fixed costs calibration parameter	year	country	mode	commodity		
p_fd_fuel_cost	Average energy costs	year	country	mode	commodity		
p_fd_fuel_cost_calib	Average energy costs calibration parameter	year	country	mode	commodity		

Abbreviation	Short description	DIM1	DIM2	DIM3	DIM4
p_fd_intra_zonal	Intra-zonal logistics factor	time	country		
p_fd_load_capacity	Average load capacity	year	country	mode	commodity
p_fd_load_capacity_calib	Average load capacity calibration parameter	year	country	mode	commodity
p_fd_load_factor	Average load rate	year	country	mode	commodity
p_fd_load_factor_calib	Average load rate calibration parameter	year	country	mode	commodity
p_fd_load_time	Average loading time	year	country	mode	commodity
p_fd_load_time_calib	Average loading time calibration parameter	year	country	mode	commodity
p_fd_speed	Average speed	year	country	mode	commodity
p_fd_speed_calib	Average speed calibration parameter	year	country	mode	commodity
p_fd_trade_value	Commodity value in EUR (2010 constant prices)	time	country_o	country_d	commodity
p_fd_unload_time	Average unloading time	year	country	mode	commodity
p_fd_unload_time_calib	Average unloading calibration parameter	year	country	mode	commodity
p_fd_utilities	Modal-split utilities	utility	commodity		
p_fd_utilities_calib	Modal-split utility calibration	utility	commodity		
p_fd_var_cost	Average variable costs	year	country	mode	commodity
p_fd_var_cost_calib	Average variable costs calibration parameter	year	country	mode	commodity
p_fd_wait_time	Average waiting time	year	country	mode	commodity
p_fd_wait_time_calib	Average waiting time calibration parameter	year	country	mode	commodity

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Deliverable D3.2 Annex 1

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Dimensions

Table 10 of the main report refers to the dimensions for the final HIGH-TOOL Data Stock. This Annex presents the instances of these dimensions in detail.

Table 1A: Agegroup (Age segmented into 16 agegroups; Demography module)

ID	Description	ID	Description
0	Age range from 0–4	**40**	Age range from 40–44
5	Age range from 5–9	**45**	Age range from 45–49
10	Age range from 10–14	**50**	Age range from 50–54
15	Age range from 15–19	**55**	Age range from 55–59
20	Age range from 20–24	**60**	Age range from 60–64
25	Age range from 25–29	**65**	Age range from 65–69
30	Age range from 30–34	**70**	Age range from 70–74
35	Age range from 35–39	**75**	Age range from 75 and above

Table 2A: Agegroup_simple (Age segmented into 4 agegroups; Passenger Demand and Safety modules)

ID	Description	ID	Description
0	Age range from 0–14	**25**	Age range from 25–64
15	Age range from 15–24	**65**	Age range from 65 and above

Table 3A: Area_type (Distinguishes between urban and non-urban areas; not currently used)

ID	Description	ID	Description
1	Urban	**2**	Non-urban

Table 4A: Commodity (Type of goods in NST/R 2-digit; Economy & Resources and Freight Demand modules)

ID	Description	ID	Description
0	Live animals	**52**	Semi-finished rolled steel products
1	Cereals	**53**	Bars sections wire rod railway and tramway track construction material of iron or steel
2	Potatoes	**54**	Steel sheets plates hoop and strip
3	Other fresh or frozen fruit and vegetables	**55**	Tubes pipes iron and steel castings and forgings
4	Textiles textile articles and man-made fibres	**56**	Non-ferrous metals
5	Wood and cork	**61**	Sand gravel clay and slag
6	Sugar-beet	**62**	Salt iron pyrites sulphur
9	Other raw animal and vegetable materials	**63**	Other stone earths and minerals
11	Sugars	**64**	Cement lime
12	Beverages	**65**	Plasters
13	Stimulants and spices	**69**	Other manufactured building materials
14	Perishable foodstuffs	**71**	Natural fertilisers
16	Other non-perishable foodstuffs and hops	**72**	Chemical fertilisers
17	Animal food and foodstuff waste	**81**	Basic chemicals
18	Oil seeds and oleaginous fruit and fats	**82**	Aluminium oxide and hydroxide
21	Coal	**83**	Coal chemicals
22	Lignite and peat	**84**	Paper pulp and waste paper
23	Coke	**89**	Other chemical products
31	Crude petroleum	**91**	Transport equipment
32	Fuel derivatives	**92**	Tractors
33	Gaseous hydrocarbons liquid or compressed	**93**	Other machinery apparatus and appliances engines parts thereof
34	Non-fuel derivatives	**94**	Manufactures of material
41	Iron-ore	**95**	Glass glassware ceramic products
45	Non-ferrous ores and waste	**96**	Leather textiles and clothing
46	Iron and steel waste and blast furnace dust	**97**	Other manufactured articles
51	Pig iron and crude steel	**99**	Miscellaneous articles

Table 5A: Cost_type (Type of cost; not currently used)

ID	Description	ID	Description
0	Fixed cost	**1**	Variable cost

Table 6A: Country (Countries and (sub)continents; All modules)

ID	Description	ID	Description
101	Austria	**145**	Albania
102	Belgium	**146**	Armenia
103	Bulgaria	**147**	San Marino
104	Switzerland	**148**	Serbia
105	Cyprus	**149**	Montenegro
106	Czech Rep.	**151**	TFYR of Macedonia
107	Germany	**152**	Belarus
108	Denmark	**153**	Ukraine
109	Estonia	**154**	Moldova
110	Spain	**215**	Morocco
111	Finland	**300**	Europe, rest
112	France	**303**	Georgia
113	Greece	**307**	Iran
114	Croatia	**330**	Uzbekistan
115	Hungary	**342**	Turkmenistan
116	Ireland	**348**	Russian Federation
117	Iceland	**349**	Kazakhstan
118	Italy	**400**	Africa Nord
119	Liechtenstein	**500**	Africa Central and South
120	Lithuania	**600**	Africa East
121	Luxembourg (Grand-Duche)	**700**	Middle East Mediterranean
122	Latvia	**800**	Middle East East
123	Malta	**900**	Russia and CIS, west of Urals
124	Netherlands	**1000**	CIS, Turkmenistan, Georgia
125	Norway	**1100**	Russia, east of Urals
126	Poland	**1200**	Asia/Pacific Indian Subcontinent
127	Portugal	**1300**	Asia/Pacific Southern Asia
128	Romania	**1400**	Asia/Pacific Australia/Oceania
129	Sweden	**1500**	Asia/Pacific Far East
130	Slovenia	**1600**	America Canada
131	Slovakia	**1700**	America USA
132	Turkey	**1800**	America Mexico
133	United Kingdom	**1900**	America Central
134	Azerbaijan	**2000**	America Caribbean
137	Bosnia Herzegovina	**2100**	America South
143	Andorra	**2200**	Antarctica
144	Monaco		

Note: country_d, country_o and country_t are aliases to Country

Table 7A: DB (Distance band; Freight Demand, Passenger Demand and Vehicle Stock modules)

ID	Description	ID	Description
1	Kilometre range [0–50)	**3**	Kilometre range [300–1000)
2	Kilometre range [50–300)	**4**	Kilometre range [1000+)

Table 8A: DB_IWW (IWW Distance band; Vehicle Stock module)

ID	Description	ID	Description
0	Kilometre range [0–500)	**1**	Kilometre range [500+)

Table 9A: Em_Type (Emission type; Environment module)

ID	Description	ID	Description
0	Fuel consumption	**4**	Particulate matter
1	Nitrogen oxides	**5**	Carbon monoxide
2	Carbon dioxide	6	Volatile organic compound
3	Sulphur dioxide		

Table 10A: Gender (Gender; Demography, Safety and Passenger Demand modules)

ID	Description	ID	Description
0	Male	**1**	Female

Table 11A: ht2006_cont (World at (sub)continent level; Freight Demand and Safety modules)

ID	Description	ID	Description
1	EU28 + CH + NO	**12**	Asia/Pacific Indian Subcontinent
2	EU (Potential) candidates and neighbouring countries	**13**	Asia/Pacific Southern Asia
3	Europe, rest	**14**	Asia/Pacific Australia/Oceania
4	Africa Nord	**15**	Asia/Pacific Far East
5	Africa Central and South	**16**	America Canada
6	Africa East	**17**	America USA
7	Middle East Mediterranean	**18**	America Mexico
8	Middle East East	**19**	America Central
9	Russia, west of Urals	**20**	America Caribbean
10	CIS	**21**	America South
11	Russia, east of Urals	**22**	Antarctica

Note: cont_d and cont_o are aliases to ht2006_cont

Table 12A: ht2006_level_2 (EU28+CH+NO at NUTS-2, neighbouring countries at NUTS-0, rest of the world at (sub)continent level; All modules)

ID	Description	ID	Description
1010101	Burgenland (A)	**1160002**	Southern and Eastern
1010102	Niederosterreich	**1170000**	Iceland
1010103	Wien	**1181201**	Piemonte
1010201	Karnten	**1181202**	Valle d'Aosta/Vallee d'Aoste
1010202	Steiermark	**1181203**	Liguria
1010301	Oberosterreich	**1181204**	Lombardia
1010302	Salzburg	**1181301**	Provincia Autonoma Bolzano/Bozen
1010303	Tirol	**1181302**	Provincia Autonoma Trento
1010304	Vorarlberg	**1181303**	Veneto
1020100	Region de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest	**1181304**	Friuli-Venezia Giulia
1020201	Prov. Antwerpen	**1181305**	Emilia-Romagna
1020202	Prov. Limburg (B)	**1181401**	Toscana
1020203	Prov. Oost-Vlaanderen	**1181402**	Umbria
1020204	Prov. Vlaams-Brabant	**1181403**	Marche
1020205	Prov. West-Vlaanderen	**1181404**	Lazio
1020301	Prov. Brabant Wallon	**1181501**	Abruzzo
1020302	Prov. Hainaut	**1181502**	Molise
1020303	Prov. Liege	**1181503**	Campania
1020304	Prov. Luxembourg (B)	**1181504**	Puglia
1020305	Prov. Namur	**1181505**	Basilicata
1030301	Severozapaden	**1181506**	Calabria
1030302	Severen tsentralen	**1181601**	Sicilia
1030303	Severoiztochen	**1181602**	Sardegna
1030304	Yugoiztochen	**1200000**	Lietuva
1030401	Yugozapaden	**1210000**	Luxembourg (Grand-Duche)
1030402	Yuzhen tsentralen	**1220000**	Latvija
1040001	Region Lemanique	**1230000**	Malta
1040002	Espace Mittelland	**1240101**	Groningen
1040003	Nordwestschweiz	**1240102**	Friesland (NL)
1040004	Zurich	**1240103**	Drenthe
1040005	Ostschweiz	**1240201**	Overijssel
1040006	Zentralschweiz	**1240202**	Gelderland
1040007	Ticino	**1240203**	Flevoland
1050000	Kypros/Kibris	**1240301**	Utrecht
1060001	Praha	**1240302**	Noord-Holland
1060002	Stredni Cechy	**1240303**	Zuid-Holland
1060003	Jihozapad	**1240304**	Zeeland

Table 13A: ht2006_level_2 (EU28+CH+NO at NUTS-2, neighbouring countries at NUTS-0, rest of the world at (sub)continent level; All modules), cont.

ID	Description	ID	Description
1060004	Severozapad	**1240401**	Noord-Brabant
1060005	Severovychod	**1240402**	Limburg (NL)
1060006	Jihovychod	**1250001**	Oslo og Akershus
1060007	Stredni Morava	**1250002**	Hedmark og Oppland
1060008	Moravskoslezsko	**1250003**	Sor-Ostlandet
1070101	Stuttgart	**1250004**	Agder og Rogaland
1070102	Karlsruhe	**1250005**	Vestlandet
1070103	Freiburg	**1250006**	Trondelag
1070104	Tubingen	**1250007**	Nord-Norge
1070201	Oberbayern	**1260101**	Lodzkie
1070202	Niederbayern	**1260102**	Mazowieckie
1070203	Oberpfalz	**1260201**	Malopolskie
1070204	Oberfranken	**1260202**	Slaskie
1070205	Mittelfranken	**1260301**	Lubelskie
1070206	Unterfranken	**1260302**	Podkarpackie
1070207	Schwaben	**1260303**	Swietokrzyskie
1070300	Berlin	**1260304**	Podlaskie
1070401	Brandenburg - Nordost	**1260401**	Wielkopolskie
1070402	Brandenburg - Sudwest	**1260402**	Zachodniopomorskie
1070500	Bremen	**1260403**	Lubuskie
1070600	Hamburg	**1260501**	Dolnoslaskie
1070701	Darmstadt	**1260502**	Opolskie
1070702	Giessen	**1260601**	Kujawsko-Pomorskie
1070703	Kassel	**1260602**	Warminsko-Mazurskie
1070800	Mecklenburg-Vorpommern	**1260603**	Pomorskie
1070901	Braunschweig	**1270101**	Norte
1070902	Hannover	**1270105**	Algarve
1070903	Luneburg	**1270106**	Centro (P)
1070904	Weser-Ems	**1270107**	Lisboa
1071001	Dusseldorf	**1270108**	Alentejo
1071002	Koln	**1270200**	Regiao Autonoma dos Acores
1071003	Munster	**1270300**	Regiao Autonoma da Madeira
1071004	Detmold	**1280101**	Nord-Vest
1071005	Arnsberg	**1280102**	Centru
1071101	Koblenz	**1280201**	Nord-Est
1071102	Trier	**1280202**	Sud-Est
1071103	Rheinhessen-Pfalz	**1280301**	Sud - Muntenia

Table 14A: ht2006_level_2 (EU28+CH+NO at NUTS-2, neighbouring countries at NUTS-0, rest of the world at (sub)continent level; All modules), cont.

ID	Description	ID	Description
1071200	Saarland	**1280302**	Bucuresti - Ilfov
1071301	Chemnitz	**1280401**	Sud-Vest Oltenia
1071302	Dresden	**1280402**	Vest
1071303	Leipzig	**1290101**	Stockholm
1071400	Sachsen-Anhalt	**1290102**	Ostra Mellansverige
1071500	Schleswig-Holstein	**1290201**	Smaland med oarna
1071600	Thuringen	**1290202**	Sydsverige
1080001	Hovedstaden	**1290203**	Vastsverige
1080002	Sjaelland	**1290301**	Norra Mellansverige
1080003	Syddanmark	**1290302**	Mellersta Norrland
1080004	Midtjylland	**1290303**	Ovre Norrland
1080005	Nordjylland	**1300001**	Vzhodna Slovenija
1090000	Eesti	**1300002**	Zahodna Slovenija
1100101	Galicia	**1310001**	Bratislavsky kraj
1100102	Principado de Asturias	**1310002**	Zapadne Slovensko
1100103	Cantabria	**1310003**	Stredne Slovensko
1100201	Pais Vasco	**1310004**	Vychodne Slovensko
1100202	Comunidad Foral de Navarra	**1320000**	Turkey
1100203	La Rioja	**1331201**	Tees Valley and Durham
1100204	Aragon	**1331202**	Northumberland and Tyne and Wear
1100300	Comunidad de Madrid	**1331301**	Cumbria
1100401	Castilla y Leon	**1331302**	Cheshire
1100402	Castilla-La Mancha	**1331303**	Greater Manchester
1100403	Extremadura	**1331304**	Lancashire
1100501	Cataluna	**1331305**	Merseyside
1100502	Comunidad Valenciana	**1331401**	East Yorkshire and Northern Lincolnshire
1100503	Illes Balears	**1331402**	North Yorkshire
1100601	Andalucia	**1331403**	South Yorkshire
1100602	Region de Murcia	**1331404**	West Yorkshire
1100603	Ciudad Autonoma de Ceuta	**1331501**	Derbyshire and Nottinghamshire
1100604	Ciudad Autonoma de Melilla	**1331502**	Leicestershire, Rutland and Northamptonshire
1100700	Canarias	**1331503**	Lincolnshire
1110103	Ita-Suomi	**1331601**	Herefordshire, Worcestershire and Warwickshire
1110108	Etela-Suomi	**1331602**	Shropshire and Staffordshire
1110109	Lansi-Suomi	**1331603**	West Midlands
1110110	Pohjois-Suomi	**1331701**	East Anglia
1110200	Aland	**1331702**	Bedfordshire and Hertfordshire

Table 15A: ht2006_level_2 (EU28+CH+NO at NUTS-2, neighbouring countries at NUTS-0, rest of the world at (sub)continent level; All modules), cont.

ID	Description	ID	Description
1120100	Ile de France	**1331703**	Essex
1120201	Champagne-Ardenne	**1331801**	Inner London
1120202	Picardie	**1331802**	Outer London
1120203	Haute-Normandie	**1331901**	Berkshire, Buckinghamshire and Oxfordshire
1120204	Centre	**1331902**	Surrey, East and West Sussex
1120205	Basse-Normandie	**1331903**	Hampshire and Isle of Wight
1120206	Bourgogne	**1331904**	Kent
1120300	Nord - Pas-de-Calais	**1332001**	Gloucestershire, Wiltshire and Bristol/Bath area
1120401	Lorraine	**1332002**	Dorset and Somerset
1120402	Alsace	**1332003**	Cornwall and Isles of Scilly
1120403	Franche-Comte	**1332004**	Devon
1120501	Pays de la Loire	**1332101**	West Wales and The Valleys
1120502	Bretagne	**1332102**	East Wales
1120503	Poitou-Charentes	**1332202**	Eastern Scotland
1120601	Aquitaine	**1332203**	South Western Scotland
1120602	Midi-Pyrenees	**1332205**	North Eastern Scotland
1120603	Limousin	**1332206**	Highlands and Islands
1120701	Rhone-Alpes	**1332300**	Northern Ireland
1120702	Auvergne	**1370000**	Bosnia Herzegovina
1120801	Languedoc-Roussillon	**1450000**	Albania
1120802	Provence-Alpes-Cote d'Azur	**1480000**	Serbia
1120803	Corse	**1490000**	Montenegro
1130101	Anatoliki Makedonia, Thraki	**1510000**	TFYR of Macedonia
1130102	Kentriki Makedonia	**1520000**	Belarus
1130103	Dytiki Makedonia	**1530000**	Ukraine
1130104	Thessalia	**1540000**	Moldova
1130201	Ipeiros	**3000000**	Europe, Rest
1130202	Ionia Nisia	**4000000**	Africa Nord
1130203	Dytiki Ellada	**5000000**	Africa Central and South
1130204	Sterea Ellada	**6000000**	Africa East
1130205	Peloponnisos	**7000000**	Middle East Mediterranean
1130300	Attiki	**8000000**	Middle East East
1130401	Voreio Aigaio	**9000000**	Russia west of Urals
1130402	Notio Aigaio	**10000000**	CIS
1130403	Kriti	**11000000**	Russia, east of Urals
1140001	Sjeverozapadna Hrvatska	**12000000**	Asia/Pacific Indian Subcontinent
1140002	Sredisnja i Istocna (Panonska) Hrvatska	**13000000**	Asia/Pacific Southern Asia

Table 16A: ht2006_level_2 (EU28+CH+NO at NUTS-2, neighbouring countries at NUTS-0, rest of the world at (sub)continent level; All modules), cont.

ID	Description	ID	Description
1140003	Jadranska Hrvatska	**14000000**	Asia/Pacific Australia/Oceania
1150100	Kozep-Magyarorszag	**15000000**	Asia/Pacific Far East
1150201	Kozep-Dunantul	**16000000**	America Canada
1150202	Nyugat-Dunantul	**17000000**	America USA
1150203	Del-Dunantul	**18000000**	America Mexico
1150301	Eszak-Magyarorszag	**19000000**	America Central
1150302	Eszak-Alfold	**20000000**	America Caribbean
1150303	Del-Alfold	**21000000**	America South
1160001	Border, Midland and Western	**22000000**	Antarctica

Note: region, region_d, region_eu, region_o, region_rotw, region_t1 and region_t2 are aliases to ht2006_level_2

Table 17A: Mode (Transport mode; Passenger Demand and Freight Demand modules)

ID	Description	ID	Description
1	Road	**6**	Short-sea shipping
2	Rail	**7**	Coach
3	Air	**8**	Road - car
4	IWW	**9**	Road - motorcycle
5	Maritime		

Table 18A: Moa_iww (IWW Mode of Appearance of goods; Vehicle Stock module)

ID	Description	ID	Description
UNT	Unitised	**GCG**	General Cargo
BULK	Bulk		

Table 19A: Mode_urban (Urban (road) modes; Passenger Demand and Safety modules)

ID	Description	ID	Description
0	Car	**5**	Pedestrian
1	Truck	6	Bus
2	2-wheeled passenger	7	Tram/metro (urban)
3	Public transport	8	Non-motorised modes (bicycle and pedestrian)
4	Bike	9	Non-public motorised transport passenger (car and p2w)

Note: mode_involved is an alias to mode_urban

Table 20A: Mode_vs (Vehicle Stock modes; Environment and Vehicle Stock modules)

ID	Description	ID	Description
0	Car	**6**	Air passenger
1	Van	**7**	Bus
2	Heavy duty vehicle	**8**	Motorbike
3	Rail freight	**9**	Rail passenger
4	IWW	**10**	Air freight
5	Maritime freight		

Table 21A: Person_class (Differentiates between drivers and passengers with respects to vehicle occupants; not currently used)

ID	Description	ID	Description
1	Driver	**2**	Passenger

Table 22A: Purpose (Purpose of trip; Passenger Demand module)

ID	Description	ID	Description
0	Commuting	**2**	Private
1	Business	**3**	Vacation

Table 23A: Purpose_air (Purpose of trip for passenger air; Passenger Demand module)

ID	Description	ID	Description
0	Business	**1**	Non-business

Table 24A: Sector (Economic sector; Economy & Resources module)

ID	Description	ID	Description
0	Agriculture, fishery, forestry	**11**	Electricity
1	Food	**12**	Private services
2	Solid mineral fuels	**13**	Public services
3	Petroleum products	**14**	Transport via railways
4	Ores and metal waste	**15**	Road transport
5	Metal products	**16**	Sea and coastal water transport
6	Crude mineral and building materials	**17**	Inland water transport
7	Fertilizers	**18**	Air transport
8	Chemicals	**19**	Horeca: accommodation and foodservice facilities
9	Manufacture	**20**	Construction
10	Machinery and equipment		

Note: sector_from and sector_to are aliases to Sector

Table 21A: Time (Freight Demand, Passenger Demand and Economy and Resources modules)

IDs	Description
1995; 2010; 2015; 2020; 2025; 2030; 2035; 2040; 2045; 2050	The year indicated

Table 22A: Unit (Units used to express parameters; All modules)

ID	Description	ID	Description
1000	Thousands	**h**	Hours
1000_eur	Thousands of euro (2010 values	**kg_l**	Kilogram per litre
bio_pkm	Billions of PKm	**km**	Kilometres
1000_count	Thousands of entities indicated by parameter	**kmh**	Kilometre/hour
count	Number of entities indicated by parameter	**km2**	Square kilometre
eur	Euro (2010 values)	**ktoe**	1000 tonnes of oil equivalent
eur_1000l	Euro(2010 values) per 1000 litres	**kwh_vkm**	Kilowatt-hour per vehicle kilometre
eur_cap	Euro (2010 values) per capita	**label**	Text label
eur_g	Euro per gram (2010 values)	**l_hour**	Litre per hour
eur_gj	Euro per giga joule (2010 values)	**min**	Minutes
eur_h	Euro per hour (2010 values)	**mio_eur**	Millions of euro (2010 values)
eur_kwh	Euro per kilowatt hour (2010 values)	**mio_hab**	Millions of inhabitants
eur_l	Euro per litre (2010 values)	**mio_vkm**	Millions of Vehicle km
eur_pkm	Euro per pkm (2010 values)	**passengers**	Number of passengers
eur_t	Euro per tonne (2010 values)	**percentage**	%
eur_tco2	Euro per tonne of CO2 (2010 values)	**pkm**	Passenger-Kilometre
eur_toe	Euro per tonne of oil equivalent (2010 values)	**t**	Tonnes
eur_tkm	Euro per tkm (2010 values)	**t_day**	Tonne per day
eur_ukm	Euro per unit km (either pkm or tkm) in 2010 values	**t_c_toe**	Tonnes of carbon per tonne of oil equivalent
eur_veh	Euro per vehicle (2010 values)	**tco2_1000l**	Tonnes of CO2 per 1000 litres
eur_veh_day	Euro per vehicle per day (2010 values)	**tco2_tj**	Tonnes of CO2 per TJ
eur_vkh	Euro per vehicle per hour (2010 values)	**toe**	Tonne of oil equivalent
eur_vkm	Euro per vkm (2010 values)	**toe_l**	Tonne of oil equivalent per litre
flight	Flight	**toe_pkm**	Tonne of oil equivalent per passenger kilo-metre
g_km	g/Km	**toe_vkm**	Tonne of oil equivalent per vehicle kilometre
g_kg	g/Kg	**tkm**	Tons per km (Tkm)
g_l	g/L	**trips**	Trips
g_vkm	g/VKm	**vehicles**	Number of vehicles
gj_1000l	Giga joule per 1000 litres	**v_1000_hab**	Vehicles per 1000 inhabitants
hab	Inhabitants/persons/capita	**vkm**	Vehicle km (VKm)

Table 23A: Utility (Utility type; Freight Demand module)

IDs	Description
11	Dummy parameter for road for origin-destination that crosses EU border
12	Dummy parameter for road for origin and destination both in Eastern Europe
13	Dummy parameter for road for origin-destination moving east to west (or vice-versa)
20	Cost for rail
21	Dummy parameter for rail for gauge change between origin and destination
23	Dummy parameter for rail for origin and destination both in Eastern Europe
24	Dummy parameter for rail for origin and destination both in Eastern Europe
25	Dummy parameter for rail for origin-destination moving east to west (or vice-versa)
26	Dummy parameter for rail for origin-destination moving east to west (or vice-versa)
40	Cost for iww
41	Dummy parameter for iww for origin and destination both in Eastern Europe
42	Dummy parameter for iww for origin-destination moving east to west (or vice-versa)
43	Dummy parameter for iww for origin-destination moving east to west (or vice-versa)
50	Cost for sea
51	Dummy parameter for sea for origin and destination both in Eastern Europe
52	Dummy parameter for sea for origin-destination moving east to west (or vice-versa)
53	Dummy parameter for sea for origin-destination moving east to west (or vice-versa)
54	Dummy parameter for short-sea shipping
55	Dummy parameter for short-sea shipping
99	General cost parameter

Table 24A: Veh_group (Vehicle type grouped into classes; Not currently used)

ID	Description	ID	Description
1	Car + taxi	**3**	Moped + motorcycle
2	Bus + coach	**4**	Bicycle

Table 25A: Veh_Fuel (Vehicle fuel types; Environment and Vehicle Stock modules)

ID	Description	ID	Description
0	B30	**9**	LPG
1	bev	**10**	electricity
2	CNG	**11**	jetfuel
3	CNG/Biogas	**12**	LNG
4	Diesel	**13**	HFO
5	fcev	**14**	MGO/MDO
6	Flexi_Fuel	**15**	LSHFO
7	Gasoline	**16**	coal
8	hev		

Table 26A: Veh_type (Type of vehicle; Environment and Vehicle Stock modules)

ID	Description	ID	Description
0	Buses	**30**	Locomotive diesel
1	HDTs > 3.5t	**31**	Railcar diesel
2	HDTs Articulated: 14-20t	**32**	Locomotive electric
3	HDTs Articulated: 20-28t	**33**	Railcar electric
4	HDTs Articulated: 28-34t	**34**	HST
5	HDTs Articulated: 34-40t	**35**	Locomotive steam
6	HDTs Articulated: 40-50t	**36**	TK ULCC
7	HDTs Articulated: 50-60t	**37**	TK VLCC
8	HDTs Rigid: <= 7.5t	**38**	TK SUEZ
9	HDTs Rigid: >32t	**39**	TK AFRA
10	HDTs Rigid: 12-14t	**40**	TK PANA
11	HDTs Rigid: 14-20t	**41**	TK HAND
12	HDTs Rigid: 20-26t	**42**	TK GCAR
13	HDTs Rigid: 26-28t	**43**	BC CAPE
14	HDTs Rigid: 28-32t	**44**	BC PANA
15	HDTs Rigid: 7.5-12t	**45**	BC HANM
16	LCVs	**46**	BC HAND
17	Mopeds	**47**	BC COMB
18	Motorcycles	**48**	CS PPAN
19	Passenger cars	**49**	CS PANA
20	freight jumbo jet	**50**	CS SPAN
21	freight narrowb jet	**51**	CS HAND
22	freight wideb jet	**52**	CS FEEM
23	pass jumbo jet	**53**	CS FEED
24	pass narrowb jet	**54**	LN RORO
25	pass wideb jet	**55**	LN MULT
26	pass regional jet	**56**	LN OTGC
27	pass supersonic jet	**57**	NON Cargo
28	pass turboprop	**58**	Cargo
29	pass small turboprop	**59**	Pusher

Table 27A: Veh_Tech (Vehicle technology indicated by age of vehicle; Environment and Vehicle Stock modules)

IDs	Description
0; 1; 2; ...; 29	Age of vehicle (in one-year steps)

Table 28A: Year (1995–2050 in single years; All modules)

IDs	Description
1981; 1982; 1983; …; 2050	Year (in one-year steps)

Note: veh_year_built is an alias to year



Deliverable D3.2 Annex 2

Demography Parameters

Table ID	Table Name
i_de_death	Historical number of deaths

Table Description

Historical number of deaths per country per age and gender cohort

Parameter Name

Historical number of deaths

Parameter ID	Unit	Dimensions
i_de_death	count	4

Parameter Description

Historical number of deaths per country, age and gender cohort

Source

Eurostat, Deaths by age at last birthday and sex (demo_magec)

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_eu_ref	Calibration coefficients for EUROPOP2010

Table Description

EUROPOP 2010 population projection

Parameter Name

Calibration coefficients for EUROPOP2010

Parameter ID	Unit	Dimensions
i_de_eu_ref	count	4

Parameter Description

Calibration coefficients for EUROPOP2010 by year (5-year time steps), country (EU28+2), age groups and gender

Source

HIGH-TOOL Demography module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_europop_ass	EUROPOP 2010 assumptions

Table Description

EUROPOP 2010 assumptions

Parameter Name

Projected life expectancy for men

Parameter ID	Unit	Dimensions
i_de_life_men	count	2

Parameter Description

Projected life expectancy for men for EU27 countries + CH + NO

Source

Assumptions of EUROPOP2010 on men life expectancy (at birth) from 2010 - 2050 (proj_10c2150a)

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_europop_ass	EUROPOP 2010 assumptions

Table Description

EUROPOP 2010 assumptions

Parameter Name

Projected life expectancy for women

Parameter ID	Unit	Dimensions
i_de_life_women	count	2

Parameter Description

Projected life expectancy for women for EU27+2

Source

Assumptions of EUROPOP2010 on women life expectancy (at birth) from 2010 - 2050 (proj_10c2150a)

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_europop_ass	EUROPOP 2010 assumptions

Table Description

EUROPOP 2010 assumptions

Parameter Name

Projected net migration

Parameter ID	Unit	Dimensions
i_de_net_migration	count	2

Parameter Description

Projected net migration for EU27+2

Source

Assumptions of EUROPOP2010 on fertility rate from 2010 - 2050(proj_10c2150a)

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_europop_ass	EUROPOP 2010 assumptions

Table Description

EUROPOP 2010 assumptions

Parameter Name

Projected total fertility rate

Parameter ID	Unit	Dimensions
i_de_tot_fert_rate	count	2

Parameter Description

Projected total fertility rate for EU27+2

Source

Assumptions of EUROPOP2010 on fertility rate from 2010 - 2050 (proj_10c2150a)

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_eurostat	Historical demographic data

Table Description

Population and labour force data sourced from Eurostat

Parameter Name

Historical labour force

Parameter ID	Unit	Dimensions
i_de_labour_hist	count	4

Parameter Description

Historical labour force (1995 - 2010) by region if available per age and gender cohort

Source

HIGH-TOOL Demography module

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_eurostat	Historical demographic data

Table Description

Population and labour force data sourced from Eurostat

Parameter Name

Historical population

Parameter ID	Unit	Dimensions
i_de_pop_eurostat	count	4

Parameter Description

Historical population (1995 - 2010) by region, age and gender cohort

Source

Eurostat, Population on 1 January by five years age groups and sex demo_pjangroup)

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_labour_perc	Labour force assumptions

Table Description

Labour force assumptions

Parameter Name

Labour force assumptions

Parameter ID	Unit	Dimensions
i_de_labour_perc	percentage	4

Parameter Description

Labour force assumptions in percent by region per age and gender cohort

Source

Labour force assumptions

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_pop_disag	Historical shares of population

Table Description

Historical shares of population 2010 at NUTS-2 level per age and gender

Parameter Name

Historical shares of population

Parameter ID	Unit	Dimensions
i_de_pop_disag	percentage	4

Parameter Description

Historical shares of population 2010 in percent by region per age and gender cohort

Source

ETISplus

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_de_urban	Urbanisation proxy

Table Description

Urbanisation proxy per NUTS-2 region

Parameter Name

Urbanisation proxy

Parameter ID	Unit	Dimensions
i_de_urban	count	2

Parameter Description

Urbanisation proxy per NUTS-2 region

Source

Eurostat for 2010, user-input / internally calculated for 2015 - 2050

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_de_output	Demography module outputs

Table Description

HIGH-TOOL Demography module output

Parameter Name

Projected labour force

Parameter ID	Unit	Dimensions
o_de_labour	count	4

Parameter Description

Labour force by region (EU28+2), age and gender cohort. RoW outputs prefilled from UN projections exogenously

Source

HIGH-TOOL Demography module

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_de_output	Demography module outputs

Table Description

HIGH-TOOL Demography module output

Parameter Name

Projected population

Parameter ID	Unit	Dimensions
o_de_pop	count	4

Parameter Description

Projected population by region (EU28+2), age and gender cohort. RoW outputs prefilled from UN projections exogenously

Source

HIGH-TOOL Demography module

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
agegroup	gender
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes



Deliverable D3.2 Annex 3

Economy & Resource Parameters

Table ID	Table Name
i_er_delta_acc	Change in accessibility of a region

Table Description

Change in the accessibility of the region

Parameter Name

Change in accessibility of a region

Parameter ID	Unit	Dimensions
i_er_delta_acc	COUNT	2

Parameter Description

Change in accessibility of a region

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_delta_inf_inv	Change in investments in infrastructure

Table Description

Change in investments in infrastructure by region (policy scenario)

Parameter Name

Change in public and private transport infrastructure investments

Parameter ID	Unit	Dimensions
i_er_delta_inf_inv	MIO_EUR	2

Parameter Description

Change in public and private transport infrastructure investments by region

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_delta_inv	Change in investment into fixed capital formation

Table Description

Change in investment into fixed capital formation

Parameter Name

Change in public and private investments into fixed capital formation

Parameter ID	Unit	Dimensions
i_er_delta_inv	MIO_EUR	2

Parameter Description

Change in public and private investments into fixed capital formation by region

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_delta_rtd	Change in investments in RTD by region

Table Description

Change in investments in RTD by region

Parameter Name

Change in public and private investments in RTD

Parameter ID	Unit	Dimensions
i_er_delta_rtd	MIO_EUR	2

Parameter Description

Change in public and private investments in research and technology development (RTD) by region

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_gdp	GDP per country

Table Description

GDP in millions of euros by country

Parameter Name

GDP per country

Parameter ID	Unit	Dimensions
i_er_gdp	MIO_EUR	2

Parameter Description

GDP in millions of euros by country

Source

EU reference scenario (for EU28), and UN GDP data (for rest of the world regions).

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_gva	GVA per country

Table Description

Gross value added in millions of euros by country and sector

Parameter Name

GVA per country

Parameter ID	Unit	Dimensions
i_er_gva	MIO_EUR	3

Parameter Description

Gross value added in millions of euros by country and sector

Source

EU reference scenario (for EU28), and own calculations (for rest of the world regions).

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_k_tot	Total capital stock by country and sector

Table Description

Total capital input in millions of euros by country and sector

Parameter Name

Total capital stock by country and sector

Parameter ID	Unit	Dimensions
i_er_k_tot	MIO_EUR	3

Parameter Description

Total capital input in millions of euros by country and sector

Source

RHOMOLO

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_l_tot	Total labour input

Table Description

Total labour input by region and sector

Parameter Name

Total labour input

Parameter ID	Unit	Dimensions
i_er_l_tot	COUNT	3

Parameter Description

Total labour input by region and sector

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_sectorshare	Sectoral share per country per year

Table Description

Sectoral share per country per year

Parameter Name

Sectoral share per country per year

Parameter ID	Unit	Dimensions
i_er_sectorshare	COUNT	3

Parameter Description

Sectoral share per country per year

Source

HIGH-TOOL Economy and resources module (for EU28 based on EU reference scenario.)

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_xd	Total output per region and sector

Table Description

Total output per region and sector in millions of euros

Parameter Name

Total output per region and sector

Parameter ID	Unit	Dimensions
i_er_xd	MIO_EUR	3

Parameter Description

Total output per region and sector in millions of euros

Source

RHOMOLO

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_er_xd_tot	Total output per sector

Table Description

Total output per sector in millions of euros by country and sector

Parameter Name

Total output per sector

Parameter ID	Unit	Dimensions
i_er_xd_tot	MIO_EUR	3

Parameter Description

Total output per sector in millions of euros by country and sector

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_cons_capita	Consumption per capita per region

Table Description

Consumption per capita per region

Parameter Name

Consumption per capita per region

Parameter ID	Unit	Dimensions
o_er_cons_capita	COUNT	2

Parameter Description

Consumption per capita per region

Source

RHOMOLO

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_gdp	GDP

Table Description

GDP

Parameter Name

GDP

Parameter ID	Unit	Dimensions
o_er_gdp	MIO_EUR	2

Parameter Description

GDP in millions of euros by region

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_gdp	GDP

Table Description

GDP

Parameter Name

GDP per capita per region

Parameter ID	Unit	Dimensions
o_er_gdp_capita	COUNT	2

Parameter Description

GDP per capita per region

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_income	Income

Table Description

Income

Parameter Name

Income

Parameter ID	Unit	Dimensions
o_er_income	MIO_EUR	2

Parameter Description

Income in region in millions of euros by region

Source

ETISplus for EU28, and own calculations for rest of the world regions.

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_income	Income

Table Description

Income

Parameter Name

Income per capita by region

Parameter ID	Unit	Dimensions
o_er_income_capita	COUNT	2

Parameter Description

Income per capita by region

Source

ETISplus for EU28, and own calculations for rest of the world regions.

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_indirect_utility	Indirect utility

Table Description

Indirect utility

Parameter Name

Indirect utility

Parameter ID	Unit	Dimensions
o_er_indirect_utility	COUNT	2

Parameter Description

Indirect utility

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_labour_new	Labour supply after policy measures

Table Description

Labour supply after policy measures in people by region and sector

Parameter Name

Labour supply after policy measures

Parameter ID	Unit	Dimensions
o_er_labour_new	HAB	3

Parameter Description

Labour supply after policy measures in people by region and sector

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_P_new	Prices of commodities after policy measures

Table Description

Prices of commodities after policy measures by region and commodity

Parameter Name

Prices of commodities after policy measures

Parameter ID	Unit	Dimensions
o_er_P_new	COUNT	3

Parameter Description

Prices of commodities after policy measures by region and commodity

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
commodity	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_PD_new	Production prices of commodities after policy measures

Table Description

Production prices of commodities after policy measures by region and commodity

Parameter Name

Production prices of commodities after policy measures

Parameter ID	Unit	Dimensions
o_er_PD_new	COUNT	3

Parameter Description

Production prices of commodities after policy measures by region and commodity

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
commodity	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_price_index	Price index

Table Description

Welfare measure. Price index on commodity level.

Parameter Name

Price index

Parameter ID	Unit	Dimensions
o_er_price_index	COUNT	3

Parameter Description

Welfare measure. Price index on commodity level.

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
commodity	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_return_new	Return on capital after policy measures

Table Description

Return on capital after policy measures by region and commodity

Parameter Name

Return on capital after policy measures

Parameter ID	Unit	Dimensions
o_er_return_new	COUNT	3

Parameter Description

Return on capital after policy measures by region and commodity

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
commodity	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Biomass

Parameter ID	Unit	Dimensions
o_er_biomass	COUNT	3

Parameter Description

Biomass in Ktonnes per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Capital returns

Parameter ID	Unit	Dimensions
o_er_cap_returns	MIO_EUR	3

Parameter Description

Capital returns in millions of euros by region and sector

Source

RHOMOLO

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Capital stock

Parameter ID	Unit	Dimensions
o_er_cap_stock	MIO_EUR	3

Parameter Description

Capital stock in millions of euros by region and sector

Source

RHOMOLO

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

CO2

Parameter ID	Unit	Dimensions
o_er_co2	COUNT	3

Parameter Description

CO2 emissions without combustion per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Employment

Parameter ID	Unit	Dimensions
o_er_employment	HAB	3

Parameter Description

Employment in people by region and sector

Source

ETISplus for EU28, and own calculations for rest of the world.

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Fossil fuel

Parameter ID	Unit	Dimensions
o_er_fossil_fuel	COUNT	3

Parameter Description

Fossil Fuels in Ktonnes per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Gross Value added

Parameter ID	Unit	Dimensions
o_er_gva	MIO_EUR	3

Parameter Description

Gross value added in millions of euros by region and sector

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Household Consumption

Parameter ID	Unit	Dimensions
o_er_hh_consumption	COUNT	3

Parameter Description

Household consumption in millions of euros by region and sector

Source

RHOMOLO

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Intermediate Input

Parameter ID	Unit	Dimensions
o_er_int_input	MIO_EUR	3

Parameter Description

Intermediate inputs in millions of euros by region and sector

Source

RHOMOLO

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Metal ores

Parameter ID	Unit	Dimensions
o_er_metal_ores	COUNT	3

Parameter Description

Metal ores in Ktonnes per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Minerals

Parameter ID	Unit	Dimensions
o_er_minerals	COUNT	3

Parameter Description

Minerals in Ktonnes per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

NOx emissions without combustion per sector per region

Parameter ID	Unit	Dimensions
o_er_nox	COUNT	3

Parameter Description

NOx emissions without combustion per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Total output in millions of euros by region and sector

Parameter ID	Unit	Dimensions
o_er_output	MIO_EUR	3

Parameter Description

Total output in millions of euros by region and sector

Source

RHOMOLO

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

PM emissions

Parameter ID	Unit	Dimensions
o_er_PM	COUNT	3

Parameter Description

PM emissions in CO2 equivalent kg (without combustion) per sector per region

Source

EXIOBASE (for 2010)

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Production taxes

Parameter ID	Unit	Dimensions
o_er_prod_tax	MIO_EUR	3

Parameter Description

Production taxes in millions of euros by region and sector

Source

RHOMOLO (for 2010)

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

SOx emissions

Parameter ID	Unit	Dimensions
o_er_sox	COUNT	3

Parameter Description

SOx emissions in CO2 equivalent kg (without combustion) per sector per region

Source

EXIOBASE (for 2010)

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Total emissions

Parameter ID	Unit	Dimensions
o_er_tot_emissions	COUNT	3

Parameter Description

Total emissions by region and sector

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Wages

Parameter ID	Unit	Dimensions
o_er_wages	MIO_EUR	3

Parameter Description

Wages in millions of euros by region and sector

Source

RHOMOLO

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Water use

Parameter ID	Unit	Dimensions
o_er_water	COUNT	3

Parameter Description

Water use in Mm3 per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_sectoral	Sectoral economic data

Table Description

Sectoral economic data. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Wood

Parameter ID	Unit	Dimensions
o_er_wood	COUNT	3

Parameter Description

Wood in kilo tonnes per sector per region

Source

EXIOBASE

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_trade	Trade value

Table Description

Trade between origin and destination region per commodity. 2010 data are used as inputs, 2015-2050 are outputs

Parameter Name

Trade value

Parameter ID	Unit	Dimensions
o_er_value	1000_EUR	4

Parameter Description

Trade in thousands of euros from origin region to destination region (NUTS-2) per commodity

Source

ETIS-plus (and adjusted intra-trade data using RHOMOLO)

Dimension 1	Dimension 2
time	region_o
Dimension 3	**Dimension 4**
region_d	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_trade_new	Trade after policy measures

Table Description

Trade after policy measures in millions of euros from origin region to destination region (at NUTS-2 level) per commodity

Parameter Name

Trade after policy measures

Parameter ID	Unit	Dimensions
o_er_trade_new	MIO_EUR	4

Parameter Description

Trade after policy measures in millions of euros from origin region to destination region (at NUTS-2 level) per commodity

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	region_o
Dimension 3	**Dimension 4**
region_d	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_er_wage_new	Wage after policy measures

Table Description

Wage (index) after policy measures by region

Parameter Name

Wage after policy measures

Parameter ID	Unit	Dimensions
o_er_wage_new	COUNT	3

Parameter Description

Wage (index) after policy measures by region

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_alpha_i	Labour share by region

Table Description

Labour share by region

Parameter Name

Labour share by region

Parameter ID	Unit	Dimensions
p_er_alpha_i	COUNT	1

Parameter Description

Output elasticity of labour by region and sector, i.e., the share of labour of total Gross Value Added. Used as an input parameter for the Cobb-Douglas function.

Source

EXIOBASE

Dimension 1	Dimension 2
region	sector
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_alpha_i_tot	Labour share parameter by country

Table Description

Labour share parameter by country

Parameter Name

Labour share parameter by country

Parameter ID	Unit	Dimensions
p_er_alpha_i_tot	COUNT	2

Parameter Description

Output elasticity of labour by country and sector, i.e., the share of labour of total Gross Value Added. Used as an input parameter for the Cobb-Douglas function.

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
country	sector
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_beta	Cobb-Douglas utility parameter

Table Description

Cobb-Douglas utility parameter

Parameter Name

Cobb-Douglas utility parameter

Parameter ID	Unit	Dimensions
p_er_beta	COUNT	3

Parameter Description

Cobb-Douglas utility parameter

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
year	ht2006_level_2
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_d	Destination parameter (input for the trade gravity model)

Table Description

Destination parameter (input for the trade gravity model)

Parameter Name

Destination parameter (input for the trade gravity model)

Parameter ID	Unit	Dimensions
p_er_d	COUNT	1

Parameter Description

Destination parameter (input for the trade gravity model)

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
ht2006_level_2	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_delta	Depreciation rate

Table Description

Depreciation rate of capital

Parameter Name

Depreciation rate

Parameter ID	Unit	Dimensions
p_er_delta	COUNT	1

Parameter Description

Depreciation rate

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
sector	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_delta_ks_tot	Change in capital supply

Table Description

Change in capital supply

Parameter Name

Change in capital supply

Parameter ID	Unit	Dimensions
p_er_delta_ks_tot	PERCENTAGE	2

Parameter Description

Change in capital supply

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_delta_ls	Change in labour supply

Table Description

Change in labour supply

Parameter Name

Change in labour supply

Parameter ID	Unit	Dimensions
p_er_delta_ls	PERCENTAGE	2

Parameter Description

Change in labour supply

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_delta_ls_tot	Change in total labour supply

Table Description

Change in total labour supply

Parameter Name

Change in total labour supply

Parameter ID	Unit	Dimensions
p_er_delta_ls_tot	PERCENTAGE	2

Parameter Description

Change in total labour supply

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_epsilon	Elasticity parameter of accessibility by sector

Table Description

Elasticity parameter of accessibility by sector, i.e. sensitivity of regional accessibility (e.g. transport costs) to sectoral output.

Parameter Name

Elasticity parameter of accessibility by sector

Parameter ID	Unit	Dimensions
p_er_epsilon	COUNT	1

Parameter Description

Elasticity parameter of accessibility by sector, i.e., sensitivity of regional accessibility (e.g. transport costs) to sectoral output.

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
sector	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_eta	Sensitivity parameter (in trade)

Table Description

Sensitivity parameter (input for the trade gravity model)

Parameter Name

Sensitivity parameter (in trade)

Parameter ID	Unit	Dimensions
p_er_eta	COUNT	1

Parameter Description

Sensitivity parameter (in trade)

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
commodity	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_g_gdp	Growth of GDP

Table Description

Growth of GDP for 2015-2050 by country

Parameter Name

Growth of GDP

Parameter ID	Unit	Dimensions
p_er_g_gdp	PERCENTAGE	2

Parameter Description

Growth of GDP for 2015-2050 by country

Source

EU reference scenario (for EU28)

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_g_gva	Growth of GVA

Table Description

Growth of gross value added

Parameter Name

Growth of GVA

Parameter ID	Unit	Dimensions
p_er_g_gva	PERCENTAGE	2

Parameter Description

Growth of gross value added

Source

EU reference scenario (for EU28)

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_gdp_scaler	GDP scaler after policy scenarios

Table Description

GDP scaler (Parameter to calculate GDP growth in the policy scenarios.)

Parameter Name

GDP scaler after policy scenarios

Parameter ID	Unit	Dimensions
p_er_gdp_scaler	MIO_EUR	2

Parameter Description

GDP scaler (Parameter to calculate GDP growth in the policy scenarios.)

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_io	IO-coefficient matrix by region and sector (year 2010)

Table Description

IO-coefficient matrix by region and sector (year 2010)

Parameter Name

IO-coefficient matrix by region and sector (year 2010)

Parameter ID	Unit	Dimensions
p_er_io	COUNT	4

Parameter Description

IO-coefficient matrix by region and sector (year 2010)

Source

EXIOBASE

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
sector_from	sector_to
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_o	Origin parameter (input for the trade gravity model)

Table Description

Origin parameter (input for the trade gravity model)

Parameter Name

Origin parameter (input for the trade gravity model)

Parameter ID	Unit	Dimensions
p_er_o	COUNT	1

Parameter Description

Origin parameter (input for the trade gravity model)

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
ht2006_level_2	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_p	Consumer price of goods or services

Table Description

Consumer price of goods or services

Parameter Name

Consumer price of goods or services

Parameter ID	Unit	Dimensions
p_er_p	COUNT	3

Parameter Description

Consumer price of goods or services

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_pd	Producer prices

Table Description

Producer prices

Parameter Name

Producer prices

Parameter ID	Unit	Dimensions
p_er_pd	COUNT	3

Parameter Description

Producer prices

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
time	ht2006_level_2
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_phi	Savings rate

Table Description

Gross fixed capital formation as a percentage of GDP

Parameter Name

Savings rate

Parameter ID	Unit	Dimensions
p_er_phi	PERCENTAGE	1

Parameter Description

Gross fixed capital formation as a percentage of GDP

Source

Eurostat for EU28, own calculations for rest of the world regions.

Dimension 1	Dimension 2
country	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_er_tc	Consumption tax rate

Table Description

Consumption tax rate

Parameter Name

Consumption tax rate

Parameter ID	Unit	Dimensions
p_er_tc	COUNT	3

Parameter Description

Consumption tax rate

Source

HIGH-TOOL Economy and resources module

Dimension 1	Dimension 2
year	ht2006_level_2
Dimension 3	**Dimension 4**
sector	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes



Deliverable D3.2 Annex 4

Vehicle Stock Parameters

Table ID	Table Name
i_vs_cap	Road vehicle purchase price

Table Description

Average road vehicle purchase price (with VAT)

Parameter Name

Vehicle market purchase price or capital cost

Parameter ID	Unit	Dimensions
i_vs_cap_rpcs_mkt	EUR_VEH	5

Parameter Description

Average vehicle purchase price (incl. VAT) in Euros by country, mode, vehicle type and fuel

Source

TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_cap	Road vehicle purchase price

Table Description

Average road vehicle purchase price (with VAT)

Parameter Name

Vehicle purchase VAT

Parameter ID	Unit	Dimensions
i_vs_cap_rpcs_vat	EUR_VEH	5

Parameter Description

Average vehicle purchase VAT in Euros by country, mode, vehicle type and fuel

Source

calculated TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_cap	Road vehicle purchase price

Table Description

Average road vehicle purchase price (with VAT)

Parameter Name

State subsidy to scrap old or high polluting vehicles

Parameter ID	Unit	Dimensions
i_vs_cap_scrap_subs	EUR_VEH	5

Parameter Description

Average state subsidy to scrap old or high polluting vehicles in Euros by country, mode, vehicle type and fuel

Source

policy lever

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_cap	Road vehicle purchase price

Table Description

Average road vehicle purchase price (with VAT)

Parameter Name

State subsidy to buy cleaner vehicles

Parameter ID	Unit	Dimensions
i_vs_cap_subsidy	EUR_VEH	5

Parameter Description

Average state subsidy to buy (cleaner) vehicles in Euros by country, mode, vehicle type and fuel

Source

policy lever

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_cap	Road vehicle purchase price

Table Description

Average road vehicle purchase price (with VAT)

Parameter Name

Technology related additional capital cost

Parameter ID	Unit	Dimensions
i_vs_cap_tech	EUR_VEH	5

Parameter Description

Average technology related additional cost in Euros by country, mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_cstiww	IWW vehicle costs

Table Description

Inland waterways vehicle costs

Parameter Name

Inland waterways average generalized cost

Parameter ID	Unit	Dimensions
i_vs_cstiww	EUR_VKM	4

Parameter Description

Average inland waterways generalised costs in Euros per vkm by country, mode, vehicle type and fuel

Source

MOVEET

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_fu	Fuel costs

Table Description

Vehicle fuel related costs

Parameter Name

Carbon tax

Parameter ID	Unit	Dimensions
i_vs_fu_ct	EUR_TCO2	4

Parameter Description

Carbon tax in Euros per tonne CO2 by country, mode and vehicle fuel

Source

MOVEET

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_fu	Fuel costs

Table Description

Vehicle fuel related costs

Parameter Name

Fuel excise duty in Euro/tonne

Parameter ID	Unit	Dimensions
i_vs_fu_exduty_eur_1000kg	EUR_T	4

Parameter Description

Fuel excise duty data given in Euros per tonne by country, mode and vehicle fuel

Source

DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_fu	Fuel costs

Table Description

Vehicle fuel related costs

Parameter Name

Fuel excise duty data Euro/1000l

Parameter ID	Unit	Dimensions
i_vs_fu_exduty_eur_1000l	EUR_1000L	4

Parameter Description

Fuel excise duty data given in Euros per 1000l by country, mode and vehicle fuel

Source

DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_fu	Fuel costs

Table Description

Vehicle fuel related costs

Parameter Name

Fuel excise duty data Euro/GJ

Parameter ID	Unit	Dimensions
i_vs_fu_exduty_eur_gj	EUR_GJ	4

Parameter Description

Fuel excise duty data given in Euros per giga joule fuel by country, mode and vehicle fuel

Source

DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_fu	Fuel costs

Table Description

Vehicle fuel related costs

Parameter Name

Fuel excise duty data Euro/kWh

Parameter ID	Unit	Dimensions
i_vs_fu_exduty_eur_kwh	EUR_KWH	4

Parameter Description

Fuel excise duty data given in Euros per kilo watt hour by country, mode and vehicle fuel

Source

DG TAXUD (Excise Duty Tables - REF 1042 rev 1: January 2015)

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_fu	Fuel costs

Table Description

Vehicle fuel related costs

Parameter Name

Fuel resource cost

Parameter ID	Unit	Dimensions
i_vs_fu_fuel_resource_toe	EUR_TOE	4

Parameter Description

Energy resource cost in Euros by country, mode, vehicle fuel

Source

Reference 2013 (PRIMES)

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_fu	Fuel costs

Table Description

Vehicle fuel related costs

Parameter Name

Fuel value added tax (VAT)

Parameter ID	Unit	Dimensions
i_vs_fu_fuel_vat	PERCENTAGE	4

Parameter Description

Fuel value added tax (VAT) in percent by country, mode and vehicle fuel

Source

DG ECFIN data

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_air	Non-energy related costs of air

Table Description

Non-energy related costs of air transport modes

Parameter Name

Variable air freight costs

Parameter ID	Unit	Dimensions
i_vs_nf_air_neoe_fre	EUR_TKM	4

Parameter Description

Non-energy related variable air freight costs in Euros per tkm by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_air	Non-energy related costs of air

Table Description

Non-energy related costs of air transport modes

Parameter Name

Variable air passenger costs

Parameter ID	Unit	Dimensions
i_vs_nf_air_neoe_pas	EUR_PKM	4

Parameter Description

Non-energy related variable air passenger costs in Euros per tkm by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_mar	Non-energy related costs for maritime

Table Description

Non-energy related costs of maritime transport modes

Parameter Name

Cargo handling cost maritime

Parameter ID	Unit	Dimensions
i_vs_nf_mar_chcost	EUR_VEH	4

Parameter Description

Annual cargo handling costs (loading, discharge, cargo claims) in Euros by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_mar	Non-energy related costs for maritime

Table Description

Non-energy related costs of maritime transport modes

Parameter Name

Voyage cost maritime

Parameter ID	Unit	Dimensions
i_vs_nf_mar_oi_vcost	EUR_VEH	4

Parameter Description

Annual voyage costs (port and light dues, tugs and pilotage, canal dues) in Euros by mode, vehicle type and fuel

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_mar	Non-energy related costs for maritime

Table Description

Non-energy related costs of maritime transport modes

Parameter Name

Non-fuel operational cost maritime

Parameter ID	Unit	Dimensions
i_vs_nf_mar_opcost	EUR_VEH	4

Parameter Description

Annual non-fuel related operational costs (daily manning, stores, routine repair and maintenance, insurance and administration) in Euros by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_mar	Non-energy related costs for maritime

Table Description

Non-energy related costs of maritime transport modes

Parameter Name

Repair and maintenance costs maritime

Parameter ID	Unit	Dimensions
i_vs_nf_mar_repmaintc	EUR_VEH	4

Parameter Description

Annual periodic maintenance costs (temporary dry-docking for regular and special surveys) in Euros by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_rail	Non-energy related costs of rail

Table Description

Non-energy related costs of rail transport modes

Parameter Name

Crew costs road and rail

Parameter ID	Unit	Dimensions
i_vs_nf_rail_crec	EUR_H	4

Parameter Description

Crew cost in Euros per hour by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_rail	Non-energy related costs of rail

Table Description

Non-energy related costs of rail transport modes

Parameter Name

Damaged load cost road and rail

Parameter ID	Unit	Dimensions
i_vs_nf_rail_damc	EUR_VEH_DAY	4

Parameter Description

Damage load cost in Euros per train by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_rail	Non-energy related costs of rail

Table Description

Non-energy related costs of rail transport modes

Parameter Name

Other costs road and rail

Parameter ID	Unit	Dimensions
i_vs_nf_rail_othc	EUR_TKM	4

Parameter Description

Other costs in Euros per tkm by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_rail	Non-energy related costs of rail

Table Description

Non-energy related costs of rail transport modes

Parameter Name

Repair and maintenance costs rail

Parameter ID	Unit	Dimensions
i_vs_nf_rail_repmaintc	EUR_VKM	4

Parameter Description

Repair and maintenance costs in Euros per vkm by mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Veh_Fuel
Dimension 3	**Dimension 4**
mode_vs	Veh_Type
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Insurance costs road

Parameter ID	Unit	Dimensions
i_vs_nf_cstinsu	EUR_VKM	5

Parameter Description

Insurance costs in Euros per vkm by country, mode, vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Repair and maintenance costs road

Parameter ID	Unit	Dimensions
i_vs_nf_road_repmaintc	EUR_VKM	5

Parameter Description

Average repair and maintenance costs in Euros per vkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Labour cost for freight road

Parameter ID	Unit	Dimensions
i_vs_nf_rof_cst_labo	EUR_TKM	5

Parameter Description

Average labour costs in Euros per tkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Other non-fuel operational costs road

Parameter ID	Unit	Dimensions
i_vs_nf_rof_cst_othr	EUR_TKM	5

Parameter Description

Average other non-fuel operational costs in Euros per tkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Non-fuel operational time costs road

Parameter ID	Unit	Dimensions
i_vs_nf_rof_cst_time	EUR_TKM	5

Parameter Description

Average non-fuel operational time costs in Euros per tkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Additional fuel tax for freight road

Parameter ID	Unit	Dimensions
i_vs_nf_taxfuel	EUR_TKM	5

Parameter Description

Average additional fuel tax in Euros per tkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Insurance tax for road transport

Parameter ID	Unit	Dimensions
i_vs_nf_taxinsu	EUR_TKM	5

Parameter Description

Average insurance tax in Euros per tkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Ownership tax for road transport

Parameter ID	Unit	Dimensions
i_vs_nf_taxown	EUR_TKM	5

Parameter Description

Average ownership tax in Euros per tkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_nf_road	Non-energy related costs of road

Table Description

Non-energy related costs of road transport modes

Parameter Name

Registration tax for road transport

Parameter ID	Unit	Dimensions
i_vs_nf_taxregs	EUR_TKM	5

Parameter Description

Average registration tax in Euros per tkm by country, mode vehicle type and fuel

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_veh_stock	Input vehicle stock

Table Description

Input vehicle stock

Parameter Name

Input vehicle stock

Parameter ID	Unit	Dimensions
i_vs_veh_stock	1000_COUNT	4

Parameter Description

Input vehicle stock in thousands by country, mode, vehicle type and fuel

Source

TRACCS & MOVEET

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_vs_veh_stock_age	Input vehicle stock by age (veh_tech)

Table Description

Input vehicle stock by age (veh_tech)

Parameter Name

Input vehicle stock by age

Parameter ID	Unit	Dimensions
i_vs_veh_stock_age	1000_COUNT	6

Parameter Description

Input vehicle stock by age in thousands by country, mode, vehicle type, fuel and technology (age cohort)

Source

TRACCS & MOVEET

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	Veh_Tech
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_cstavggen	Average generalized fixed/variable costs

Table Description

Average generalized fixed/variable costs

Parameter Name

Average generalized fixed cost per pkm

Parameter ID	Unit	Dimensions
o_vs_cstavggen_fix_pkm	EUR_PKM	3

Parameter Description

Average generalized fixed cost in euro per passenger kilometre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_cstavggen	Average generalized fixed/variable costs

Table Description

Average generalized fixed/variable costs

Parameter Name

Average generalized fixed cost per tkm

Parameter ID	Unit	Dimensions
o_vs_cstavggen_fix_tkm	EUR_TKM	3

Parameter Description

Average generalized fixed cost in euro per tonne kilometre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_cstavggen	Average generalized fixed/variable costs

Table Description

Average generalized fixed/variable costs

Parameter Name

Average generalized fixed cost per vkm

Parameter ID	Unit	Dimensions
o_vs_cstavggen_fix_vkm	EUR_VKM	3

Parameter Description

Average generalized fixed cost in euro per vehicle kilometre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_cstavggen	Average generalized fixed/variable costs

Table Description

Average generalized fixed/variable costs

Parameter Name

Average generalized variable cost per pkm

Parameter ID	Unit	Dimensions
o_vs_cstavggen_var_pkm	EUR_PKM	3

Parameter Description

Average generalized variable cost in euro per passenger kilometre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_cstavggen	Average generalized fixed/variable costs

Table Description

Average generalized fixed/variable costs

Parameter Name

Average generalized variable cost per tkm

Parameter ID	Unit	Dimensions
o_vs_cstavggen_var_tkm	EUR_TKM	3

Parameter Description

Average generalized variable cost in euro per tonne kilometre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_cstavggen	Average generalized fixed/variable costs

Table Description

Average generalized fixed/variable costs

Parameter Name

Average generalized variable cost per vkm

Parameter ID	Unit	Dimensions
o_vs_cstavggen_var_vkm	EUR_VKM	3

Parameter Description

Average generalized variable cost in euro per vehicle kilometre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_cstavggen_cost	Average generalized cost

Table Description

Average generalized cost

Parameter Name

Average generalized cost per vkm

Parameter ID	Unit	Dimensions
o_vs_cstavggen_cost	EUR_VKM	3

Parameter Description

Average generalized cost in euro per vehicle kilometre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_fu	Fuel cost output

Table Description

Fuel cost output

Parameter Name

CO2 tax component in total fuel cost

Parameter ID	Unit	Dimensions
o_vs_fu_CO2_tax	EUR_1000L	4

Parameter Description

CO2 tax component in total fuel cost in euro per 1000 litres by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module, calibrated to DG ECFIN Data

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_fu	Fuel cost output

Table Description

Fuel cost output

Parameter Name

Fuel costs per gram of fuel

Parameter ID	Unit	Dimensions
o_vs_fu_fuel_cost_g	EUR_G	4

Parameter Description

Fuel costs in euro per gram of fuel by country, mode and the concerned fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_fu	Fuel cost output

Table Description

Fuel cost output

Parameter Name

Fuel costs per litre of fuel

Parameter ID	Unit	Dimensions
o_vs_fu_fuel_cost_l	EUR_L	4

Parameter Description

Fuel costs in euro per litre of fuel by country, mode and the concerned fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_fu	Fuel cost output

Table Description

Fuel cost output

Parameter Name

Fuel costs per tonne of oil equivalent of fuel (TOE)

Parameter ID	Unit	Dimensions
o_vs_fu_fuel_cost_toe	EUR_TOE	4

Parameter Description

Fuel costs in euro per tonne of oil equivalent of fuel by country, mode and the concerned fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_fu	Fuel cost output

Table Description

Fuel cost output

Parameter Name

Fuel excise duty

Parameter ID	Unit	Dimensions
o_vs_fu_fuel_exduty	EUR_L	4

Parameter Description

Fuel excise duty in euro per litre by country, mode and fuel type

Source

HIGH-TOOL vehicle stock module, calibrated to DG ECFIN Data

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_fu	Fuel cost output

Table Description

Fuel cost output

Parameter Name

Fuel resource cost

Parameter ID	Unit	Dimensions
o_vs_fu_fuel_resource_l	EUR_L	4

Parameter Description

Fuel resource cost in euro per litre by country, mode and the concerned fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_purch	Total new vehicle purchase cost

Table Description

Total new vehicle purchase cost distinguished by modes at country (NUTS-0) level

Parameter Name

Total new vehicle purchase cost

Parameter ID	Unit	Dimensions
o_vs_purch	EUR	3

Parameter Description

Total new vehicle purchase cost in euro distinguished by modes at country (NUTS-0) level

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
mode_vs	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_tax	Tax revenues

Table Description

Generated tax revenues at country level

Parameter Name

Tax revenues

Parameter ID	Unit	Dimensions
o_vs_tax_revenues	EUR	2

Parameter Description

Generated tax revenues in euro at country level

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_veh_stock	Detailed vehicle stock

Table Description

Detailed vehicle stock output

Parameter Name

Detailed vehicle stock

Parameter ID	Unit	Dimensions
o_vs_veh_stock	1000_COUNT	5

Parameter Description

Detailed vehicle stock in vehicles by country, mode, fuel and vehicle type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_veh_stock_age	Vehicle stock by age (veh_tech)

Table Description

Input vehicle stock by age (veh_tech)

Parameter Name

Vehicle stock by age (veh_tech)

Parameter ID	Unit	Dimensions
o_vs_veh_stock_age	1000_COUNT	6

Parameter Description

Vehicle stock in 1000 vehicles by country, mode, fuel type, vehicle type and vehicle technology (age cohort)

Source

MOVEET/TRACCS

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	Veh_Tech
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_veh_stock_n2	Detailed Vehicle stock at NUTS-2 level

Table Description

Detailed vehicle stock output at NUTS-2 level

Parameter Name

Detailed Vehicle stock at NUTS-2 level

Parameter ID	Unit	Dimensions
o_vs_veh_stock_n2	1000_COUNT	5

Parameter Description

Detailed Vehicle stock in vehicles by region (NUTS-2 level), mode, fuel and vehicle type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	region_eu
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Veh_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_vkm	Detailed generated vkm by vehicle type

Table Description

Detailed generated vehicle kilometres by vehicle type

Parameter Name

Detailed generated vkm by vehicle type

Parameter ID	Unit	Dimensions
o_vs_vkm	VKM	4

Parameter Description

Detailed generated vkm by country, vehicle type, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_vkm_iww	Generated vkm inland waterways

Table Description

Generated vehicle kilometres inland waterways

Parameter Name

Generated vkm inland waterways

Parameter ID	Unit	Dimensions
o_vs_vkm_iww	VKM	6

Parameter Description

Generated vkm inland waterways by country, mode, fuel type, inland waterways mode of appearance and inland waterways distance band.

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
moa_iww	db_iww
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_vs_vkm_n2	Detailed generated vkm per vehicle type at NUTS-2 level

Table Description

Detailed generated vehicle kilometres per vehicle type at NUTS-2 level

Parameter Name

Detailed generated vkm per vehicle type at NUTS-2 level

Parameter ID	Unit	Dimensions
o_vs_vkm_n2	VKM	4

Parameter Description

Detailed generated vkm by region (NUTS-2 level), vehicle type, mode and fuel type

Source

HIGH-TOOL vehicle stock module

Dimension 1	Dimension 2
Year	region_eu
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_fdens	Fuel density

Table Description

Fuel density in gram per litre

Parameter Name

Fuel density

Parameter ID	Unit	Dimensions
p_vs_vs_fdens	G_L	1

Parameter Description

Fuel density in gram per litre

Source

MOVEET

Dimension 1	Dimension 2
Veh_fuel	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_fu	Fuel related parameters

Table Description

Fuel related parameters

Parameter Name

Emission factors

Parameter ID	Unit	Dimensions
p_vs_fu_emfactor	TCO2_TJ	4

Parameter Description

Emission factors as described in the EU Energy Tax Directive (ETD): minima of excise duty

Source

DG TAXUD

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_fu	Fuel related parameters

Table Description

Fuel related parameters

Parameter Name

Fuel energy content

Parameter ID	Unit	Dimensions
p_vs_fu_nrg_content	GJ_1000L	4

Parameter Description

Energy content of fuels

Source

DG TAXUD

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_fu_toe	Tonnes of oil equivalent per litre of fuel

Table Description

Tonnes of oil equivalent per litre of fuel

Parameter Name

Tonnes of oil equivalent per litre of fuel

Parameter ID	Unit	Dimensions
p_vs_fu_toe	TOE_L	1

Parameter Description

Tonnes of oil equivalent per litre of fuel

Source

MOVEET

Dimension 1	Dimension 2
veh_fuel	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_logit	Elasticity for vehicle type

Table Description

Vehicle type related elasticitity for logit model

Parameter Name

Elasticity for vehicle type

Parameter ID	Unit	Dimensions
p_vs_logit_elast	COUNT	2

Parameter Description

Vehicle type-related elasticity for logit model

Source

MOVEET

Dimension 1	Dimension 2
Country	mode_vs
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_rail_spec	Rail working hours

Table Description

Working hours per year for rail

Parameter Name

Total yearly working hours of rail vehicles by type

Parameter ID	Unit	Dimensions
p_vs_rail_spec_whour	H	2

Parameter Description

Total yearly working hours of rail vehicles by type

Source

MOVEET

Dimension 1	Dimension 2
Country	Veh_type
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_surv	Vehicle scrappage and depreciation

Table Description

Vehicle scrappage and depreciation

Parameter Name

Vehicle depreciation rate

Parameter ID	Unit	Dimensions
p_vs_surv_depri	PERCENTAGE	2

Parameter Description

Vehicle depreciation rate

Source

MOVEET

Dimension 1	Dimension 2
mode_vs	Veh_tech
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_vs_surv	Vehicle scrappage and depreciation

Table Description

Vehicle scrappage and depreciation

Parameter Name

Vehicle scrappage rate

Parameter ID	Unit	Dimensions
p_vs_surv_scrap	PERCENTAGE	2

Parameter Description

Vehicle scrappage rate

Source

MOVEET

Dimension 1	Dimension 2
mode_vs	Veh_tech
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes



Deliverable D3.2 Annex 5

Freight Demand Parameters

Table ID	Table Name
i_fd_imp	Distance impedances

Table Description

Freight impedances

Parameter Name

Distance impedances

Parameter ID	Unit	Dimensions
i_fd_imp_dist	km	5

Parameter Description

Distance impedances in kilometres by origin/destination at NUTS-2 level per distance band and mode

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	db
Dimension 5	**Dimension 6**
mode	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_fd_region_share	Country leg distance shares

Table Description

Country leg distance shares by origin/destination and mode for travelled distance

Parameter Name

Country leg distance shares

Parameter ID	Unit	Dimensions
i_fd_region_share	percentage	5

Parameter Description

Country leg distance shares of travelled distance in the country in percent by NUTS-2 level origin/destination, country and mode of the total travelled distance

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	country
Dimension 5	**Dimension 6**
mode	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_fd_route_choice	Tonne share of alternative routes

Table Description

Origin/destination Tonne share by route

Parameter Name

Tonne share of alternative routes

Parameter ID	Unit	Dimensions
i_fd_route_choice	percentage	7

Parameter Description

Tonne share in percent of route chains at NUTS-2 level using at most two transhipment points to transport the origin/destination

Source

ETISplus

Dimension 1	Dimension 2
region_o	region_d
Dimension 3	**Dimension 4**
region_t1	region_t2
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_fd_toll_cost	Average toll cost

Table Description

Freight modal split parameters

Parameter Name

Average toll cost

Parameter ID	Unit	Dimensions
i_fd_toll_cost	eur_vkm	4

Parameter Description

Average toll cost in euro/vkm by country and mode

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_fd_trade_air	Air trade 2010

Table Description

Air trade per region in 2010

Parameter Name

Air trade 2010

Parameter ID	Unit	Dimensions
i_fd_trade_air	t	2

Parameter Description

Air trade in 2010 in tonnes by region

Source

ETISplus

Dimension 1	Dimension 2
region_o	region_d
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_air_demand_full_freight_od	Full freight air outputs

Table Description

Full freight air outputs

Parameter Name

Air demand full freight

Parameter ID	Unit	Dimensions
o_fd_air_demand_od_t	t	3

Parameter Description

Air demand projected transported in full freight aircraft in tonnes by origin/destination at NUTS-2 level

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_air_demand_full_freight_od	Full freight air outputs

Table Description

Full freight air outputs

Parameter Name

Air demand performance full freight

Parameter ID	Unit	Dimensions
o_fd_air_demand_od_tkm	tkm	3

Parameter Description

Air demand performance transported in full freight aircrafts in tonne kilometres by origin/destination at NUTS-2 level

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_air_demand_full_freight_od	Full freight air outputs

Table Description

Full freight air outputs

Parameter Name

Air demand mobility full freight

Parameter ID	Unit	Dimensions
o_fd_air_demand_od_vkm	vkm	3

Parameter Description

Air demand mobility transport in full freight aircrafts in vkm by origin/destination at NUTS-2 level

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_air_demand_t_od	Total freight air outputs

Table Description

Total freight air outputs

Parameter Name

Total air demand projected

Parameter ID	Unit	Dimensions
o_fd_air_demand_t_od	t	3

Parameter Description

Total air demand projected in tons by origin/destination at NUTS-2 level

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_od	O/D freight outputs

Table Description

Freight Demand module origin/destination output

Parameter Name

Tonnes by O/D

Parameter ID	Unit	Dimensions
o_fd_t_od	t	6

Parameter Description

Tonnes by origin/destination at NUTS-2 level per mode, commodity and distance band

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	db
Dimension 5	**Dimension 6**
mode	commodity
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_od	O/D freight outputs

Table Description

Freight Demand module origin/destination output

Parameter Name

Tonne kilometres by O/D

Parameter ID	Unit	Dimensions
o_fd_tkm_od	tkm	6

Parameter Description

Tonne kilometres by origin/destination at NUTS-2 level per mode, commodity and distance band

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	db
Dimension 5	**Dimension 6**
mode	commodity
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_od	O/D freight outputs

Table Description

Freight Demand module origin/destination output

Parameter Name

Total freight transport cost by O/D

Parameter ID	Unit	Dimensions
o_fd_total_cost_od	eur_t	6

Parameter Description

Total transport cost in euros per tonne by origin/destination at NUTS-2 level per mode, commodity and distance band

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	db
Dimension 5	**Dimension 6**
mode	commodity
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_od	O/D freight outputs

Table Description

Freight Demand module origin/destination output

Parameter Name

Vehicle kilometres by O/D

Parameter ID	Unit	Dimensions
o_fd_vkm_od	vkm	6

Parameter Description

Vehicle kilometres by origin/destination at NUTS-2 level per mode, commodity and distance band

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	db
Dimension 5	**Dimension 6**
mode	commodity
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_transit	Country territory freight outputs

Table Description

Freight Demand module country territory output

Parameter Name

Freight performance

Parameter ID	Unit	Dimensions
o_fd_tkm_transit	tkm	3

Parameter Description

Freight performance on the territory of a country including transit in tonne kilometres by country, distance band and mode

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
db	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_fd_transit	Country territory freight outputs

Table Description

Freight Demand module country territory output

Parameter Name

Freight mobility

Parameter ID	Unit	Dimensions
o_fd_vkm_transit	vkm	3

Parameter Description

Freight mobility in a country including transit in vehicle kilometres by country, distance band and mode

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
db	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_air_param	Air elasticity

Table Description

Air demand annual growth factor depending on origin/destination relationship

Parameter Name

Air elasticity

Parameter ID	Unit	Dimensions
p_fd_air_param	percentage	3

Parameter Description

Air demand annual growth factor depending on origin/destination relationship

Source

Airbus

Dimension 1	Dimension 2
year	cont_o
Dimension 3	**Dimension 4**
cont_d	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_air_param_calib	Air elasticity calibration

Table Description

Air elasticity calibration

Parameter Name

Air elasticity calibration

Parameter ID	Unit	Dimensions
p_fd_air_param_calib	count	3

Parameter Description

Air elasticity calibration

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	cont_o
Dimension 3	**Dimension 4**
cont_d	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_air_share_full_freight	Air share full freight

Table Description

Fraction of air freight demand transported by passenger flights

Parameter Name

Air share full freight

Parameter ID	Unit	Dimensions
p_fd_air_share_full_freight	percentage	2

Parameter Description

Share of freight transported by full freight flights

Source

Airbus

Dimension 1	Dimension 2
year	db
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_logistics	Logistics factors for trade value to volume conversion

Table Description

Logistics factors for trade value to volume conversion

Parameter Name

Domestic logistics factor

Parameter ID	Unit	Dimensions
p_fd_domestic	count	2

Parameter Description

Factor to add logistics when converting trade values to trade volumes in domestic trade

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_logistics	Logistics factors for trade value to volume conversion

Table Description

Logistics factors for trade value to volume conversion

Parameter Name

Intra-zonal logistics factor

Parameter ID	Unit	Dimensions
p_fd_intra_zonal	count	2

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
time	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average fixed costs

Parameter ID	Unit	Dimensions
p_fd_fixed_cost	eur_vkh	4

Parameter Description

Average fixed costs for freight transport in Euros per vehicle per hour

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average energy costs

Parameter ID	Unit	Dimensions
p_fd_fuel_cost	eur_vkm	4

Parameter Description

Average energy costs for freight transport in Euros per vkm

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average load capacity

Parameter ID	Unit	Dimensions
p_fd_load_capacity	t	4

Parameter Description

Average load capacity for freight transport in tonnes

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average load rate

Parameter ID	Unit	Dimensions
p_fd_load_factor	count	4

Parameter Description

Average load rate for freight transport in ratio of vehicle loaded, value between 0.0 and 1.0

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average loading time

Parameter ID	Unit	Dimensions
p_fd_load_time	h	4

Parameter Description

Average loading time for freight transport in hours

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average speed

Parameter ID	Unit	Dimensions
p_fd_speed	kmh	4

Parameter Description

Average speed for freight transport in kilometres per hour

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average unloading time

Parameter ID	Unit	Dimensions
p_fd_unload_time	h	4

Parameter Description

Average unloading time for freight transport in hours

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average variable costs

Parameter ID	Unit	Dimensions
p_fd_var_cost	eur_vkm	4

Parameter Description

Average variable costs for freight transport in Euros per vkm

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split	Modal split parameters

Table Description

Freight modal split parameters

Parameter Name

Average waiting time

Parameter ID	Unit	Dimensions
p_fd_wait_time	h	4

Parameter Description

Average waiting time for freight transport in hours

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average fixed costs calibration parameter

Parameter ID	Unit	Dimensions
p_fd_fixed_cost_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average energy costs calibration parameter

Parameter ID	Unit	Dimensions
p_fd_fuel_cost_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average load capacity calibration parameter

Parameter ID	Unit	Dimensions
p_fd_load_capacity_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average load rate calibration parameter

Parameter ID	Unit	Dimensions
p_fd_load_factor_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average loading time calibration parameter

Parameter ID	Unit	Dimensions
p_fd_load_time_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average speed calibration parameter

Parameter ID	Unit	Dimensions
p_fd_speed_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average unloading calibration parameter

Parameter ID	Unit	Dimensions
p_fd_unload_time_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average variable costs calibration parameter

Parameter ID	Unit	Dimensions
p_fd_var_cost_calib	count	4

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_modal_split_calib	Modal split calibration coefficients

Table Description

Freight modal split calibration coefficients

Parameter Name

Average waiting time calibration parameter

Parameter ID	Unit	Dimensions
p_fd_wait_time_calib	count	4

Parameter Description

Average waiting time calibration parameter

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_trade_value	Trade value-to-volume conversion

Table Description

Commodity value for trade transformation from EUR (2010 values) to tonnes

Parameter Name

Commodity value in EUR (2010 constant prices)

Parameter ID	Unit	Dimensions
p_fd_trade_value	count	4

Parameter Description

Source

ETISplus

Dimension 1	Dimension 2
time	country_o
Dimension 3	**Dimension 4**
country_d	commodity
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_utilities	Modal split utilities

Table Description

Mode utility function parameter per commodity

Parameter Name

Modal-split utilities

Parameter ID	Unit	Dimensions
p_fd_utilities	count	2

Parameter Description

Source

TRANS-TOOLS

Dimension 1	Dimension 2
utility	commodity
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_fd_utilities_calib	Modal split utility calibration

Table Description

Calibration for mode utility function parameter per commodity

Parameter Name

Modal-split utility calibration

Parameter ID	Unit	Dimensions
p_fd_utilities_calib	count	2

Parameter Description

Source

HIGH-TOOL freight demand module

Dimension 1	Dimension 2
utility	commodity
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes



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Passenger Demand Parameters

Table ID	Table Name
i_pd_airic_imp	Impedances for intercontinental air passenger submodel

Table Description

Impedances for intercontinental air passenger submodel

Parameter Name

Access/ egress costs intercontinental air

Parameter ID	Unit	Dimensions
i_pd_aecost	EUR	3

Parameter Description

Access/egress costs in EUR by air intercontinental origin/destination and air purpose for the reference year 2013

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_airic_imp	Impedances for intercontinental air passenger submodel

Table Description

Impedances for intercontinental air passenger submodel

Parameter Name

Access/ egress time intercontinental air

Parameter ID	Unit	Dimensions
i_pd_aetime	MIN	3

Parameter Description

Access/egress time in minutes by air intercontinental origin/destination and air purpose for the reference year 2013

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_airic_imp	Impedances for intercontinental air passenger submodel

Table Description

Impedances for intercontinental air passenger submodel

Parameter Name

Ticket costs

Parameter ID	Unit	Dimensions
i_pd_aircost	EUR	3

Parameter Description

Ticket costs in EUR by air intercontinental origin/destination and air purpose for the reference year 2013

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_airic_imp	Impedances for intercontinental air passenger submodel

Table Description

Impedances for intercontinental air passenger submodel

Parameter Name

Flight distance

Parameter ID	Unit	Dimensions
i_pd_airdist	KM	3

Parameter Description

Flight distance in kilometres by air intercontinental origin/destination and air purpose for the reference year 2013

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_airic_imp	Impedances for intercontinental air passenger submodel

Table Description

Impedances for intercontinental air passenger submodel

Parameter Name

Flight time

Parameter ID	Unit	Dimensions
i_pd_airmodetime	MIN	3

Parameter Description

Flight time in minutes by air intercontinental origin/destination and air purpose for the reference year 2013

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_airic_imp	Impedances for intercontinental air passenger submodel

Table Description

Impedances for intercontinental air passenger submodel

Parameter Name

Level of service, frequency

Parameter ID	Unit	Dimensions
i_pd_freq	COUNT	3

Parameter Description

Level of service frequency by air intercontinental origin/destination and air purpose for the reference year 2013

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_airic_referenceflow	Observed travellers in reference year

Table Description

Observed travellers in reference year

Parameter Name

Observed travellers in reference year

Parameter ID	Unit	Dimensions
i_pd_referenceflow	trips	3

Parameter Description

Observed travellers in reference year by air intercontinental origin/destination and air purpose for the reference year 2013. Returning trips are not included.

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_airic_referencepopulation	Population in the reference year

Table Description

Population in the reference year

Parameter Name

Population in the reference year 2013

Parameter ID	Unit	Dimensions
i_pd_referencepopulation	COUNT	1

Parameter Description

Population in the reference year 2013 by region

Source

Mkmetric

Dimension 1	Dimension 2
region	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_coefcountryshare	Country shares by O/D

Table Description

Country shares by origin/destination at country level by mode

Parameter Name

Transit share factor

Parameter ID	Unit	Dimensions
i_pd_coef_transitshare	COUNT	4

Parameter Description

Static transit share factor by origin/destination, country and mode. Not used if hypernet submodule is active.

Source

VACLAV, based on ETISplus

Dimension 1	Dimension 2
country_o	country_d
Dimension 3	**Dimension 4**
mode	country_t
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_coefocc	Country specific occupancy rates

Table Description

Country specific occupancy rates by purpose and mode

Parameter Name

Occupancy rate

Parameter ID	Unit	Dimensions
i_pd_coef_occupancy_rate	COUNT	4

Parameter Description

Occupancy rate by country, purpose and mode

Source

TRANS-TOOLS

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
purpose	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_exogenous	Exogenous indicators for passenger model at regional level

Table Description

Exogenous indicators for passenger model at regional level

Parameter Name

Region area

Parameter ID	Unit	Dimensions
i_pd_exogenous_area	KM2	2

Parameter Description

Region area in square kilometres by region

Source

HIGH-TOOL zoning system

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_exogenous	Exogenous indicators for passenger model at regional level

Table Description

Exogenous indicators for passenger model at regional level

Parameter Name

Number of accommodation opportunities

Parameter ID	Unit	Dimensions
i_pd_exogenous_bed	COUNT	2

Parameter Description

Number of accommodation opportunities by region

Source

ETISplus - Forecasting is currently not planed

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_exogenous	Exogenous indicators for passenger model at regional level

Table Description

Exogenous indicators for passenger model at regional level

Parameter Name

Number of hotels

Parameter ID	Unit	Dimensions
i_pd_exogenous_hotel	COUNT	2

Parameter Description

Number of hotels by region

Source

ETISplus - Forecasting is currently not planed

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_exogenous	Exogenous indicators for passenger model at regional level

Table Description

Exogenous indicators for passenger model at regional level

Parameter Name

Average region radius

Parameter ID	Unit	Dimensions
i_pd_exogenous_radius	KM	2

Parameter Description

Average region radius in kilometres by region

Source

HIGH-TOOL zoning system

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_centroid	Centroids in the hyper-network

Table Description

Represents a centroid in the hyper-network

Parameter Name

Zone capital

Parameter ID	Unit	Dimensions
i_pd_capital	LABEL	1

Parameter Description

Name of zone capital

Source

HIGH-TOOL zoning system

Dimension 1	Dimension 2
region	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_centroid	Centroids in the hyper-network

Table Description

Represents a centroid in the hyper-network

Parameter Name

Latitude of zone capital

Parameter ID	Unit	Dimensions
i_pd_capital_lat	COUNT	1

Parameter Description

Latitude of zone capital

Source

HIGH-TOOL zoning system

Dimension 1	Dimension 2
region	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_centroid	Centroids in the hyper-network

Table Description

Represents a centroid in the hyper-network

Parameter Name

Longitude of zone capital

Parameter ID	Unit	Dimensions
i_pd_capital_long	COUNT	1

Parameter Description

Longitude of zone capital

Source

HIGH-TOOL zoning system

Dimension 1	Dimension 2
region	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_levers	Policy levers for hypernet parameters

Table Description

Policy levers on country level for hypernet parameters

Parameter Name

Change of access/ egress distance for passenger transport by year, country, mode

Parameter ID	Unit	Dimensions
i_pd_core_lever_ae_dist	PERCENTAGE	3

Parameter Description

Policy lever for change in passenger transport access/ egress distance by country and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_levers	Policy levers for hypernet parameters

Table Description

Policy levers on country level for hypernet parameters

Parameter Name

Change of access/ egress time for passenger transport by year, country, mode

Parameter ID	Unit	Dimensions
i_pd_core_lever_ae_time	PERCENTAGE	3

Parameter Description

Policy lever for change in passenger transport access/ egress time by country and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_levers	Policy levers for hypernet parameters

Table Description

Policy levers on country level for hypernet parameters

Parameter Name

Change of level of service indicator for passenger transport by year, country, mode

Parameter ID	Unit	Dimensions
i_pd_core_lever_delta_los	COUNT	3

Parameter Description

Policy lever for change in passenger transport level of service indicator by country and mode

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_levers	Policy levers for hypernet parameters

Table Description

Policy levers on country level for hypernet parameters

Parameter Name

Change of net distance for passenger transport by year, country, mode

Parameter ID	Unit	Dimensions
i_pd_core_lever_net_dist	PERCENTAGE	3

Parameter Description

Policy lever for change in passenger transport net distance by country and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_levers	Policy levers for hypernet parameters

Table Description

Policy levers on country level for hypernet parameters

Parameter Name

Change of net time for passenger transport by year, country, mode

Parameter ID	Unit	Dimensions
i_pd_core_lever_net_time	PERCENTAGE	3

Parameter Description

Policy lever for change in passenger transport net time by country and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_link	Links in the hyper-network

Table Description

Represents a link in the hyper-network

Parameter Name

Share of link length in origin zone

Parameter ID	Unit	Dimensions
i_pd_country_share_orig	PERCENTAGE	3

Parameter Description

Share of travel distance in origin zone

Source

Based on ETISplus 2010

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_link	Links in the hyper-network

Table Description

Represents a link in the hyper-network

Parameter Name

Hypernet link distance for passenger transport

Parameter ID	Unit	Dimensions
i_pd_link_dist	KM	3

Parameter Description

Passenger transport net distance by hypernet link and mode

Source

Based on ETISplus 2010

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_link	Links in the hyper-network

Table Description

Represents a link in the hyper-network

Parameter Name

Hypernet link distance weight for passenger transport

Parameter ID	Unit	Dimensions
i_pd_link_dist_weight	PERCENTAGE	3

Parameter Description

Policy lever for change in passenger transport net distance by hypernet link and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_link	Links in the hyper-network

Table Description

Represents a link in the hyper-network

Parameter Name

Hypernet link time for passenger transport

Parameter ID	Unit	Dimensions
i_pd_link_time	MIN	3

Parameter Description

Passenger transport net time by hypernet link and mode

Source

Based on ETISplus 2010

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_link	Links in the hyper-network

Table Description

Represents a link in the hyper-network

Parameter Name

Hypernet link time weight for passenger transport

Parameter ID	Unit	Dimensions
i_pd_link_time_weight	PERCENTAGE	3

Parameter Description

Policy lever for change in passenger transport net time by hypernet link and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_node	Nodes in the hyper-network

Table Description

Represents a node in the hyper-network

Parameter Name

Hypernet node access/ egress distance for passenger transport

Parameter ID	Unit	Dimensions
i_pd_ae_dist	KM	1

Parameter Description

Access/egress travel distance to network in kilometres by region and mode

Source

Based on ETISplus 2010

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_node	Nodes in the hyper-network

Table Description

Represents a node in the hyper-network

Parameter Name

Hypernet node access/ egress distance weight for passenger transport

Parameter ID	Unit	Dimensions
i_pd_ae_dist_weight	PERCENTAGE	2

Parameter Description

Policy lever for change in passenger transport access/ egress distance to the hypernet by region and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_node	Nodes in the hyper-network

Table Description

Represents a node in the hyper-network

Parameter Name

Hypernet node access/ egress time for passenger transport

Parameter ID	Unit	Dimensions
i_pd_ae_time	MIN	1

Parameter Description

Source

Based on ETISplus 2010

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_hyper_net_node	Nodes in the hyper-network

Table Description

Represents a node in the hyper-network

Parameter Name

Hypernet node access/ egress time weight for passenger transport

Parameter ID	Unit	Dimensions
i_pd_ae_time_weight	PERCENTAGE	2

Parameter Description

Policy lever for change in passenger transport access/ egress time to the hypernet by region and mode, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	region
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_imp	Impedances for passenger demand model

Table Description

Impedances for passenger demand model

Parameter Name

Access/ egress travel distance

Parameter ID	Unit	Dimensions
i_pd_imp_ae_dist	KM	4

Parameter Description

Access/egress travel distance in kilometres by origin/destination and mode

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_imp	Impedances for passenger demand model

Table Description

Impedances for passenger demand model

Parameter Name

Access/ egress travel time

Parameter ID	Unit	Dimensions
i_pd_imp_ae_time	MIN	4

Parameter Description

Access/egress travel time in minutes by origin/destination and mode

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_imp	Impedances for passenger demand model

Table Description

Impedances for passenger demand model

Parameter Name

Level of Service indicator

Parameter ID	Unit	Dimensions
i_pd_imp_delta_los	COUNT	4

Parameter Description

Level of Service indicator by origin/destination and mode

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_imp	Impedances for passenger demand model

Table Description

Impedances for passenger demand model

Parameter Name

Network travel distance

Parameter ID	Unit	Dimensions
i_pd_imp_net_dist	KM	4

Parameter Description

Network travel distance in kilometres by origin/destination and mode

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_imp	Impedances for passenger demand model

Table Description

Impedances for passenger demand model

Parameter Name

Network travel time

Parameter ID	Unit	Dimensions
i_pd_imp_net_time	MIN	4

Parameter Description

Network travel time in minutes by origin/destination and mode

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_imp_refdist	Reference distance for passenger demand model

Table Description

Reference distance for passenger demand model

Parameter Name

Crow flies distance

Parameter ID	Unit	Dimensions
i_pd_imp_ref_dist	KM	3

Parameter Description

Crow flies distance in kilometres by origin/destination

Source

ETISplus

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_core_toll_cost	Average toll costs

Table Description

Average toll costs per vkm

Parameter Name

Average toll costs per passenger vkm

Parameter ID	Unit	Dimensions
i_pd_core_toll_cost	EUR	3

Parameter Description

Average passenger transport toll costs in Euros/vkm by country and mode

Source

TRACCS, ETISplus

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_urban_citydwellershare	Percentage of NUTS-2 population living in cities

Table Description

Percentage of NUTS-2 population living in cities

Parameter Name

Percentage of population living in cities

Parameter ID	Unit	Dimensions
i_pd_citydwellershare	PERCENTAGE	1

Parameter Description

Percentage of NUTS-2 population living in cities and direct catchment areas

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
region_eu	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_urban_delta_utility	Urban utility parameters due to active TPMs

Table Description

Specific utility parameters resulting from differences between the reference year and the forecast year due to active TPMs

Parameter Name

Change in access/egress time of urban passenger transport modes

Parameter ID	Unit	Dimensions
i_pd_urban_duaetime	PERCENTAGE	2

Parameter Description

Policy lever for change in access/ egress time for urban passenger transport modes, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_urban_delta_utility	Urban utility parameters due to active TPMs

Table Description

Specific utility parameters resulting from differences between the reference year and the forecast year due to active TPMs

Parameter Name

Change in urban cordon toll costs for motorised individual modes

Parameter ID	Unit	Dimensions
i_pd_urban_dutoll	COUNT	2

Parameter Description

Policy lever for change in urban cordon toll costs for passenger cars and powered 2-wheelers

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_urban_delta_utility	Urban utility parameters due to active TPMs

Table Description

Specific utility parameters resulting from differences between the reference year and the forecast year due to active TPMs

Parameter Name

Change in travel distance for urban passenger transport modes

Parameter ID	Unit	Dimensions
i_pd_urban_dutraveldist	PERCENTAGE	2

Parameter Description

Policy lever for change in travel distance for urban passenger transport modes, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_urban_delta_utility	Urban utility parameters due to active TPMs

Table Description

Specific utility parameters resulting from differences between the reference year and the forecast year due to active TPMs

Parameter Name

Change in travel time for urban passenger transport modes

Parameter ID	Unit	Dimensions
i_pd_urban_dutraveltime	PERCENTAGE	2

Parameter Description

Policy lever for change in travel time for urban passenger transport modes, in percent

Source

HIGH-TOOL Policy Translator

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_urban_imp	Intra-urban trip distance

Table Description

Intra-urban trip distance

Parameter Name

Reference distance

Parameter ID	Unit	Dimensions
i_pd_ref_dist	KM	2

Parameter Description

Average trip length in kilometres by urban mode in the reference year 2010

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
country	mode_urban
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_pd_urban_referencedemand	Observed trip demand

Table Description

Observed trip demand in trips per capita per day for the reference year

Parameter Name

Observed trip demand

Parameter ID	Unit	Dimensions
i_pd_referencedemand	COUNT	1

Parameter Description

Observed trip demand per capita per day in the reference year 2010

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
region_eu	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_airic_costod	Access/eggress cost of intercontinental air passenger trips

Table Description

Access/eggress cost of intercontinental air passenger trips per relation and purpose

Parameter Name

Aggregated costs for access/ egress

Parameter ID	Unit	Dimensions
o_pd_airic_costae_od	EUR	4

Parameter Description

Aggregated access/ egress costs in EUR from the regions to the airports generated by trips from European region to RoW region. Returning trip costs are not included

Source

HIGH-TOOL Air intercont sub-module

Dimension 1	Dimension 2
year	region_eu
Dimension 3	**Dimension 4**
region_rotw	purpose_air
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_airic_costod	Access/eggress cost of intercontinental air passenger trips

Table Description

Access/eggress cost of intercontinental air passenger trips per relation and purpose

Parameter Name

Aggregated net costs by O/D

Parameter ID	Unit	Dimensions
o_pd_airic_costnet_od	EUR	4

Parameter Description

Aggregated net transport costs in EUR from the regions to the airports generated by trips from European region to RoW region. Returning trip costs are not included

Source

HIGH-TOOL Air intercont sub-module

Dimension 1	Dimension 2
year	region_eu
Dimension 3	**Dimension 4**
region_rotw	purpose_air
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_airic_pkmod	Passenger kilometres of intercontinental air passenger trips

Table Description

Passenger kilometres of intercontinental air passenger trips per relation and purpose

Parameter Name

Passenger kilometres by O/D

Parameter ID	Unit	Dimensions
o_pd_airic_pkm_od	PKM	4

Parameter Description

Aggregated passenger kilometres by origin/destination from European regions to RoW regions. Returning trip pkms are not included

Source

HIGH-TOOL Air intercont sub-module

Dimension 1	Dimension 2
year	region_eu
Dimension 3	**Dimension 4**
region_rotw	purpose_air
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_airic_tripsod	Intercontinental air passenger trips

Table Description

Intercontinental air passenger trips per relation and purpose

Parameter Name

Trips by O/D

Parameter ID	Unit	Dimensions
o_pd_airic_trips_od	Trips	4

Parameter Description

Aggregated passenger trips by origin/destination from European regions to RoW regions. Returning trips are not included

Source

HIGH-TOOL Air intercont sub-module

Dimension 1	Dimension 2
year	region_eu
Dimension 3	**Dimension 4**
region_rotw	purpose_air
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_imp	Modelled network impedances

Table Description

Modelled network impedances

Parameter Name

Modelled network travel distance

Parameter ID	Unit	Dimensions
o_pd_imp_aenet_dist	KM	4

Parameter Description

Modelled access/egress travel distance in kilometres by region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_imp	Modelled network impedances

Table Description

Modelled network impedances

Parameter Name

Modelled network travel time

Parameter ID	Unit	Dimensions
o_pd_imp_aenet_time	MIN	4

Parameter Description

Modelled access/egress travel time in minutes by region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_imp	Modelled network impedances

Table Description

Modelled network impedances

Parameter Name

Modelled network travel distance

Parameter ID	Unit	Dimensions
o_pd_imp_hnet_dist	KM	4

Parameter Description

Modelled network travel distance in kilometres by region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_imp	Modelled network impedances

Table Description

Modelled network impedances

Parameter Name

Modelled network travel time

Parameter ID	Unit	Dimensions
o_pd_imp_hnet_time	MIN	4

Parameter Description

Modelled network travel time in minutes by region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_od_cost	Transport cost by OD and mode

Table Description

Transport cost by OD and mode

Parameter Name

Aggregated fixed costs by O/D

Parameter ID	Unit	Dimensions
o_pd_od_fix_cost	EUR	4

Parameter Description

Fixed cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_od_cost	Transport cost by OD and mode

Table Description

Transport cost by OD and mode

Parameter Name

Aggregated time costs by O/D

Parameter ID	Unit	Dimensions
o_pd_od_time_cost	EUR	4

Parameter Description

Time cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_od_cost	Transport cost by OD and mode

Table Description

Transport cost by OD and mode

Parameter Name

Aggregated toll costs by O/D

Parameter ID	Unit	Dimensions
o_pd_od_toll_cost	EUR	4

Parameter Description

Toll cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_od_cost	Transport cost by OD and mode

Table Description

Transport cost by OD and mode

Parameter Name

Aggregated variable costs by O/D

Parameter ID	Unit	Dimensions
o_pd_od_var_cost	EUR	4

Parameter Description

Variable cost in EUR generated by outgoing trips by origin/destination and mode. Returning trip costs are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_orig_cost	Aggregated transport cost of outgoing trips

Table Description

Aggregated transport cost of outgoing trips by origin and mode

Parameter Name

Aggregated fixed costs per origin

Parameter ID	Unit	Dimensions
o_pd_orig_fix_cost	EUR	3

Parameter Description

Fix cost in EUR generated by trips by origin region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_orig_cost	Aggregated transport cost of outgoing trips

Table Description

Aggregated transport cost of outgoing trips by origin and mode

Parameter Name

Aggregated time costs per origin

Parameter ID	Unit	Dimensions
o_pd_orig_time_cost	EUR	3

Parameter Description

Time cost in EUR generated by trips by origin region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_orig_cost	Aggregated transport cost of outgoing trips

Table Description

Aggregated transport cost of outgoing trips by origin and mode

Parameter Name

Aggregated toll costs per origin

Parameter ID	Unit	Dimensions
o_pd_orig_toll_cost	EUR	3

Parameter Description

Toll cost in EUR generated by trips by origin region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_orig_cost	Aggregated transport cost of outgoing trips

Table Description

Aggregated transport cost of outgoing trips by origin and mode

Parameter Name

Aggregated variable costs per origin

Parameter ID	Unit	Dimensions
o_pd_orig_var_cost	EUR	3

Parameter Description

Variable cost in EUR generated by trips by origin region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_pkmdistancebandctry	Aggregated passenger kilometres by country, distance band and mode.

Table Description

Aggregated passenger kilometres by country, distance band and mode.

Parameter Name

Aggregated pkm by originating country, distance band, mode

Parameter ID	Unit	Dimensions
o_pd_pkmdistancebandctry	PKM	4

Parameter Description

Aggregated pkm by originating country, distance band, mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	db
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_pkmod	Passenger kilometres by OD and mode

Table Description

Passenger kilometres by OD and mode

Parameter Name

Aggregated pkm by O/D

Parameter ID	Unit	Dimensions
o_pd_pkm_od	PKM	4

Parameter Description

Passenger kilometres generated by outgoing trips by origin/destination and mode. Returning trip PKM are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_pkmorig	Aggregated passenger kilometres of outgoing trips by origin and mode

Table Description

Aggregated passenger kilometres of outgoing trips by origin and mode

Parameter Name

Aggregated pkm by origin

Parameter ID	Unit	Dimensions
o_pd_pkm_orig	PKM	3

Parameter Description

Passenger kilometres generated by trips by origin region and mode. Returning trip PKM are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_pkmorig_safety	Aggregated passenger kilometres of outgoing trips by age, gender, origin and mode

Table Description

Aggregated passenger kilometres of outgoing trips by age, gender, origin and mode

Parameter Name

Aggregated pkm by origin safety

Parameter ID	Unit	Dimensions
o_pd_pkm_orig_safety	PKM	5

Parameter Description

Aggregated passenger kilometres by origin, mode, simple age groups and gender

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	agegroup_simple
Dimension 5	**Dimension 6**
gender	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_pkmtransitctry	Aggregated passenger kilometres by country and mode including transit

Table Description

Aggregated passenger kilometres by country and mode including transit

Parameter Name

Aggregated transit pkm

Parameter ID	Unit	Dimensions
o_pd_pkm_transit	PKM	3

Parameter Description

Aggregated total passenger kilometres including transit by country and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_t
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_pkmtransitctry_safety	Aggregated passenger kilometres by age, gender, country and mode including transit

Table Description

Aggregated passenger kilometres by age, gender, country and mode including transit

Parameter Name

Aggregated transit pkm safety

Parameter ID	Unit	Dimensions
o_pd_pkm_transit_safety	PKM	5

Parameter Description

Aggregated total passenger kilometres including transit by country, mode, simple age groups and gender

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_t
Dimension 3	**Dimension 4**
mode	agegroup_simple
Dimension 5	**Dimension 6**
gender	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_transit_ctry_cost	Aggregated transport cost by country and mode including transit

Table Description

Aggregated transport cost by country and mode including transit

Parameter Name

Aggregated fixed costs transit

Parameter ID	Unit	Dimensions
o_pd_transit_fix_cost	EUR	3

Parameter Description

Aggregated total fixed costs in EUR including transit by country and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_t
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_transit_ctry_cost	Aggregated transport cost by country and mode including transit

Table Description

Aggregated transport cost by country and mode including transit

Parameter Name

Aggregated time costs transit

Parameter ID	Unit	Dimensions
o_pd_transit_time_cost	EUR	3

Parameter Description

Aggregated total time costs in EUR including transit by country and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_t
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_transit_ctry_cost	Aggregated transport cost by country and mode including transit

Table Description

Aggregated transport cost by country and mode including transit

Parameter Name

Aggregated toll costs transit

Parameter ID	Unit	Dimensions
o_pd_transit_toll_cost	EUR	3

Parameter Description

Aggregated total toll costs in EUR including transit by country and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_t
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_transit_ctry_cost	Aggregated transport cost by country and mode including transit

Table Description

Aggregated transport cost by country and mode including transit

Parameter Name

Aggregated variable costs transit

Parameter ID	Unit	Dimensions
o_pd_transit_var_cost	EUR	3

Parameter Description

Aggregated total variable costs in EUR including transit by country and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_t
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_tripsod	Passenger trips by OD and mode

Table Description

Passenger trips by OD and mode

Parameter Name

Aggregated trips by O/D

Parameter ID	Unit	Dimensions
o_pd_trips_od	Trips	4

Parameter Description

Aggregated trips by origin/destination and mode. Returning trips are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_tripsorig	Aggregated outgoing passenger trips by origin and mode

Table Description

Aggregated outgoing passenger trips by origin and mode

Parameter Name

Aggregated trips by origin

Parameter ID	Unit	Dimensions
o_pd_trips_orig	Trips	3

Parameter Description

Aggregated trips by origin region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_tripsorig_safety	Aggregated outgoing passenger trips by age, gender, origin and mode

Table Description

Aggregated outgoing passenger trips by age, gender, origin and mode

Parameter Name

Aggregated trips by origin safety

Parameter ID	Unit	Dimensions
o_pd_trips_orig_safety	Trips	5

Parameter Description

Aggregated trips by origin region, mode, simple age groups and gender cohort

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	agegroup_simple
Dimension 5	**Dimension 6**
gender	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_vkmdistancebandctry	Aggregated vehicle kilometres by country, distance band and mode.

Table Description

Aggregated vehicle kilometres by country, distance band and mode.

Parameter Name

Aggregated vkm by originating country, distance band, mode

Parameter ID	Unit	Dimensions
o_pd_vkmdistancebandctry	VKM	4

Parameter Description

Aggregated vkm by originating country, distance band, mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	db
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_vkmod	Vehicle kilometres by O/D and mode

Table Description

Vehicle kilometres by O/D and mode

Parameter Name

Aggregated vkm by O/D

Parameter ID	Unit	Dimensions
o_pd_vkm_od	VKM	4

Parameter Description

Aggregated vkm by origin/destination, region and mode. Returning trip VKM are not included

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
region_d	mode
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_vkmorig	Aggregated vehicle kilometres by origin and mode

Table Description

Aggregated vehicle kilometres by origin and mode

Parameter Name

Aggregated vkm by origin

Parameter ID	Unit	Dimensions
o_pd_vkm_orig	VKM	3

Parameter Description

Aggregated vkm by origin region and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	region_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_core_vkmtransitctry	Aggregated vehicle kilometres by country and mode including transit

Table Description

Aggregated vehicle kilometres by country and mode including transit

Parameter Name

Aggregated transit vkm

Parameter ID	Unit	Dimensions
o_pd_vkm_transit	VKM	3

Parameter Description

Aggregated total vkm including transit by country and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_t
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_urban_pkmctry	Aggregated urban passenger kilometres by age, gender, origin country and mode

Table Description

Aggregated urban passenger kilometres by age, gender, origin country and mode

Parameter Name

Aggregated pkm urban mode

Parameter ID	Unit	Dimensions
o_pd_urban_pkm_ctry	PKM	5

Parameter Description

Total urban passenger kilometres by country, urban mode, simple age groups and gender

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_urban	agegroup_simple
Dimension 5	**Dimension 6**
gender	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_urban_tripsctry	Aggregated urban passenger trip demand by age, gender, origin country and mode

Table Description

Aggregated urban passenger trip demand by age, gender, origin country and mode

Parameter Name

Aggregated trips urban mode

Parameter ID	Unit	Dimensions
o_pd_urban_trips_ctry	Trips	5

Parameter Description

Total urban trip demand by country, urban mode, simple age groups and gender

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_urban	agegroup_simple
Dimension 5	**Dimension 6**
gender	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_pd_urban_vkmctry	Aggregated urban vehicle kilometres by origin country and mode

Table Description

Aggregated urban vehicle kilometres by origin country and mode

Parameter Name

Aggregated vkm urban mode

Parameter ID	Unit	Dimensions
o_pd_urban_vkm_ctry	VKM	5

Parameter Description

Total urban vehicle kilometres by country, urban mode, simple age groups and gender

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_urban	agegroup_simple
Dimension 5	**Dimension 6**
gender	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefattractor	Weighted sum of regional attractors

Table Description

Weighted sum of regional attractors by origin and destination (e.g. language similarity, beach&sun, snow, touristic cernel, production facilities, resources)

Parameter Name

Attraction coefficient for trips from European regions to RoW regions

Parameter ID	Unit	Dimensions
p_pd_coefattractor	EUR	3

Parameter Description

Attraction coefficient for trips from European regions to RoW regions

Source

Mkmetric

Dimension 1	Dimension 2
region_eu	region_rotw
Dimension 3	**Dimension 4**
purpose_air	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter weighting attraction

Parameter ID	Unit	Dimensions
p_pd_beta_attractor	COUNT	1

Parameter Description

Beta parameter weighting attraction coefficient by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter weighting employment

Parameter ID	Unit	Dimensions
p_pd_beta_emplf	COUNT	1

Parameter Description

Beta parameter weighting employment by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter weighting frequency

Parameter ID	Unit	Dimensions
p_pd_beta_freq	COUNT	1

Parameter Description

Beta parameter weighting frequency by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter weighting GPD

Parameter ID	Unit	Dimensions
p_pd_beta_gdpm	COUNT	1

Parameter Description

Beta parameter weighting GPD by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter weighting mobility in 2013

Parameter ID	Unit	Dimensions
p_pd_beta_mobm2013	COUNT	1

Parameter Description

Beta parameter weighting mobility in 2013 by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter weighting population for purpose non-business

Parameter ID	Unit	Dimensions
p_pd_beta_popf	COUNT	1

Parameter Description

Beta parameter weighting population for purpose non-business

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter weighting population for purpose business

Parameter ID	Unit	Dimensions
p_pd_beta_popr	COUNT	1

Parameter Description

Beta parameter weighting population for purpose business

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter for weighting costs

Parameter ID	Unit	Dimensions
p_pd_beta_totcost	COUNT	1

Parameter Description

Beta parameter for weighting costs by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Beta parameter for weighting time

Parameter ID	Unit	Dimensions
p_pd_beta_totime	COUNT	1

Parameter Description

Beta parameter for weighting time by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Regression constant

Parameter ID	Unit	Dimensions
p_pd_constant	COUNT	1

Parameter Description

Regression constant by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Box-Cox Lambda related to employment

Parameter ID	Unit	Dimensions
p_pd_lambda_emplf	COUNT	1

Parameter Description

Box-Cox Lambda related to employment by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_airic_coefmodel	Modelling coefficients for intercontinental air passenger submodel

Table Description

Modelling coefficients for intercontinental air passenger submodel

Parameter Name

Box-Cox Lambda related to GDP

Parameter ID	Unit	Dimensions
p_pd_lambda_gdpm	COUNT	1

Parameter Description

Box-Cox Lambda related to GDP by purpose

Source

HIGH-TOOL Airic sub-module

Dimension 1	Dimension 2
purpose_air	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_calibgen	Factor for adjusting the HIGH-TOOL Passenger demand model to ETISplus

Table Description

Factor for adjusting the HIGH-TOOL Passenger demand model to ETISplus

Parameter Name

Calibration factors for adjusting the HIGH-TOOL Passenger demand model to ETISplus

Parameter ID	Unit	Dimensions
p_pd_calib_generation	COUNT	2

Parameter Description

Calibration factors for adjusting the HIGH-TOOL Passenger demand model to ETISplus by country and purpose

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_calibweightinteropportunities	Coefficient for weighting inter-zonal opportunities

Table Description

Coefficient for weighting inter-zonal opportunities for the calculation of the Accessibility measure (see Deterrence model)

Parameter Name

Calibration coefficients for weighting inter-zonal opportunities

Parameter ID	Unit	Dimensions
p_pd_calib_weight_opportunities	COUNT	2

Parameter Description

Calibration coefficients for weighting inter-zonal opportunities by region and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
region_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefborder	Coefficient to model border resistance

Table Description

Coefficient to model border resistance at international border

Parameter Name

Coefficient to model border resistance

Parameter ID	Unit	Dimensions
p_pd_coef_borderresistance	COUNT	3

Parameter Description

Coefficient to model border resistance at international border by origin and destination country, and purpose

Source

VACLAV, based on ETISplus

Dimension 1	Dimension 2
country_o	country_d
Dimension 3	**Dimension 4**
purpose	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

EMC transformation coefficient (k_shape_transformation_long)

Parameter ID	Unit	Dimensions
p_pd_k_shape_transformation_long	COUNT	2

Parameter Description

Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

EMC transformation coefficient (k_shape_transformation_medium)

Parameter ID	Unit	Dimensions
p_pd_k_shape_transformation_medium	COUNT	2

Parameter Description

Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

EMC transformation coefficient (k_shape_transformation_short)

Parameter ID	Unit	Dimensions
p_pd_k_shape_transformation_short	COUNT	2

Parameter Description

Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

EMC transformation coefficient (l_shape_transformation_long)

Parameter ID	Unit	Dimensions
p_pd_l_shape_transformation_long	COUNT	2

Parameter Description

Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

EMC transformation coefficient (l_shape_transformation_medium)

Parameter ID	Unit	Dimensions
p_pd_l_shape_transformation_medium	COUNT	2

Parameter Description

Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

EMC transformation coefficient (l_shape_transformation_short)

Parameter ID	Unit	Dimensions
p_pd_l_shape_transformation_short	COUNT	2

Parameter Description

Coefficient refers to transformation of the EMC measure to the TLD scale by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

Decay coefficient (p_decay_long)

Parameter ID	Unit	Dimensions
p_pd_p_decay_long	COUNT	2

Parameter Description

Decay factor for calibrating the deterrence function by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

Decay coefficient (p_decay_medium)

Parameter ID	Unit	Dimensions
p_pd_p_decay_medium	COUNT	2

Parameter Description

Decay factor for calibrating the deterrence function by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

Decay coefficient (p_decay_short_exp)

Parameter ID	Unit	Dimensions
p_pd_p_decay_short_exp	COUNT	2

Parameter Description

Decay factor for calibrating the deterrence function by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

Decay coefficient (p_decay_short_pow)

Parameter ID	Unit	Dimensions
p_pd_p_decay_short_pow	COUNT	2

Parameter Description

Decay factor for calibrating the deterrence function by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

Weighting coefficient (w_share_long)

Parameter ID	Unit	Dimensions
p_pd_w_share_long	COUNT	2

Parameter Description

Coefficient for weighting distance-related deterrence sub-measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

Weighting coefficient (w_share_medium)

Parameter ID	Unit	Dimensions
p_pd_w_share_medium	COUNT	2

Parameter Description

Coefficient for weighting distance-related deterrence sub-measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefdecay	Coefficient refers to transformation of the EMC measure to the TLD scale

Table Description

Coefficient refers to transformation of the EMC measure to the TLD scale

Parameter Name

Weighting coefficient (w_share_short)

Parameter ID	Unit	Dimensions
p_pd_w_share_short	COUNT	2

Parameter Description

Coefficient for weighting distance-related deterrence sub-measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

Model constant for EMC (sub-) measure related to nest 1, choice air

Parameter ID	Unit	Dimensions
p_pd_c_nest1_air	COUNT	2

Parameter Description

Model constant for EMC (sub-) measure related to nest 1, choice air, by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

Model constant for EMC (sub-) measure related to nest 1, choice EMC2

Parameter ID	Unit	Dimensions
p_pd_c_nest1_emc2	COUNT	2

Parameter Description

Model constant for EMC (sub-) measure related to nest 1, choice EMC2, by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

Model constant for EMC (sub-) measure related to nest 2, choice EMC3

Parameter ID	Unit	Dimensions
p_pd_c_nest2_emc3	COUNT	2

Parameter Description

Model constant for EMC (sub-) measure related to nest 2, choice EMC3, by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

Model constant for EMC (sub-) measure related to nest 2, choice road

Parameter ID	Unit	Dimensions
p_pd_c_nest2_road	COUNT	2

Parameter Description

Model constant for EMC (sub-) measure related to nest 2, choice road, by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

Model constant for EMC (sub-) measure related to nest 3, choice bus

Parameter ID	Unit	Dimensions
p_pd_c_nest3_bus	COUNT	2

Parameter Description

Model constant for EMC (sub-) measure related to nest 3, choice bus, by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

Model constant for EMC (sub-) measure related to nest 3, choice rail

Parameter ID	Unit	Dimensions
p_pd_c_nest3_rail	COUNT	2

Parameter Description

Model constant for EMC (sub-) measure related to nest 3, choice rail, by country and purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC1_p)

Parameter ID	Unit	Dimensions
p_pd_mu_emc1_p	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC1_s_arg)

Parameter ID	Unit	Dimensions
p_pd_mu_emc1_s_arg	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC1_s_pow)

Parameter ID	Unit	Dimensions
p_pd_mu_emc1_s_pow	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC2_p)

Parameter ID	Unit	Dimensions
p_pd_mu_emc2_p	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC2_s_arg)

Parameter ID	Unit	Dimensions
p_pd_mu_emc2_s_arg	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC2_s_pow)

Parameter ID	Unit	Dimensions
p_pd_mu_emc2_s_pow	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC3_p)

Parameter ID	Unit	Dimensions
p_pd_mu_emc3_p	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC3_s_arg)

Parameter ID	Unit	Dimensions
p_pd_mu_emc3_s_arg	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefemc	Coefficients referring to the EMC measure

Table Description

Coefficients referring to the EMC measure

Parameter Name

EMC coefficient (mu_EMC3_s_pow)

Parameter ID	Unit	Dimensions
p_pd_mu_emc3_s_pow	COUNT	2

Parameter Description

Coefficient refers to calculation of heterogeneity parameter for EMC (sub-) measure

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Considered economic level for the reference year

Parameter ID	Unit	Dimensions
p_pd_economic_level_reference	COUNT	1

Parameter Description

Considered economic level for the reference year within the Generation step to model country specific trip demand by purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Considered employment level for the reference year

Parameter ID	Unit	Dimensions
p_pd_employment_level_reference	COUNT	1

Parameter Description

Considered employment level for the reference year within the Generation step to model country specific trip demand by purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Considered income level for the reference year

Parameter ID	Unit	Dimensions
p_pd_income_level_reference	COUNT	1

Parameter Description

Considered income level for the reference year within the Generation step to model country specific trip demand by purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Elasticity coefficient (pv)

Parameter ID	Unit	Dimensions
p_pd_pv	COUNT	1

Parameter Description

Parameter referring to trip purpose specific elasticity

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Elasticity coefficient (px)

Parameter ID	Unit	Dimensions
p_pd_px	COUNT	1

Parameter Description

Parameter referring to trip purpose specific elasticity

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Trip basis

Parameter ID	Unit	Dimensions
p_pd_tripbase	COUNT	1

Parameter Description

Trip basis applied within the Generation step by purpose

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for females age <15

Parameter ID	Unit	Dimensions
p_pd_var_female00_14	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for females age <15

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for females age 15-24

Parameter ID	Unit	Dimensions
p_pd_var_female15_24	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for females age 15-24

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for females age 25-64

Parameter ID	Unit	Dimensions
p_pd_var_female25_64	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for females age 25-64

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for females age >65

Parameter ID	Unit	Dimensions
p_pd_var_female65_99	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for females age >65

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for males age <15

Parameter ID	Unit	Dimensions
p_pd_var_male00_14	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for males age <15

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for males age 15-24

Parameter ID	Unit	Dimensions
p_pd_var_male15_24	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for males age 15-24

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for males age 25-64

Parameter ID	Unit	Dimensions
p_pd_var_male25_64	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for males age 25-64

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Mobility behaviour parameter for males age >65

Parameter ID	Unit	Dimensions
p_pd_var_male65_99	COUNT	1

Parameter Description

Model parameter referring to mobility behaviour for males age >65

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgen	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Effect of time invariant parameters on trip generation

Parameter ID	Unit	Dimensions
p_pd_wt	COUNT	1

Parameter Description

Effect of time invariant parameters on trip generation

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
purpose	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Weighting factor distance cost component

Parameter ID	Unit	Dimensions
p_pd_bdist	COUNT	3

Parameter Description

Weighting factor distance cost component by country, purpose and mode

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Weighting factor time cost component

Parameter ID	Unit	Dimensions
p_pd_btime	COUNT	3

Parameter Description

Weighting factor time cost component by country, purpose and mode

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Mode specific constant

Parameter ID	Unit	Dimensions
p_pd_const	COUNT	3

Parameter Description

Mode specific constant by country, purpose and mode

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Model parameter related to cost per kilometre

Parameter ID	Unit	Dimensions
p_pd_costperkm	COUNT	3

Parameter Description

Model parameter related to cost per kilometre by country, purpose and mode

Source

ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Parameter of Box-Cox transformation related to distance based travel cost

Parameter ID	Unit	Dimensions
p_pd_ldist	COUNT	3

Parameter Description

Parameter of Box-Cox transformation related to distance based travel cost by country, purpose and mode

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Parameter of Box-Cox transformation related to travel time

Parameter ID	Unit	Dimensions
p_pd_ltime	COUNT	3

Parameter Description

Parameter of Box-Cox transformation related to travel time

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt_vot	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Value of time

Parameter ID	Unit	Dimensions
p_pd_vot	EUR_PKM	2

Parameter Description

Value of time by country and purpose.

Source

TRANS-TOOLS

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefgtt_vot	Coefficients referring to the GTT measure

Table Description

Coefficients referring to the GTT measure

Parameter Name

Calibration factor for weighting time and distance cost components

Parameter ID	Unit	Dimensions
p_pd_wtdc	COUNT	2

Parameter Description

Calibration factor for weighting time and distance cost components

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefroadsplit	Coefficient for disaggregating road transport

Table Description

Coefficient for disaggregating road transport into road_car and road_motorcycles

Parameter Name

Elasticity coefficient (road_car, road_motorcycle only)

Parameter ID	Unit	Dimensions
p_pd_coefroadsplit	COUNT	3

Parameter Description

Elasticity coefficient (road_car, road_motorcycle only) by country and mode

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
country_o	mode
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_coefweightintraopportunities	Coefficient for weighting intra-zonal opportunities

Table Description

Coefficient for weighting intra-zonal opportunities within the calculation of the Accessibility measure

Parameter Name

Weighting coefficient for weighting intra-zonal opportunities

Parameter ID	Unit	Dimensions
p_pd_coef_weight_opportunities	COUNT	2

Parameter Description

Weighting coefficient for weighting intra-zonal opportunities by region and purpose

Source

HIGH-TOOL Passenger demand module, based on ETISplus

Dimension 1	Dimension 2
region_o	purpose
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_hfactor	Coefficient referring to the trip distribution stage

Table Description

Coefficient referring to the trip distribution stage

Parameter Name

Empiric coefficient to model higher attractiveness of capitals

Parameter ID	Unit	Dimensions
p_pd_hfactor	PERCENTAGE	1

Parameter Description

Empiric coefficient which is considered in the trip distribution stage to model higher attractiveness of capitals compared to other cities (hfactor < 1.0, i.e., trips to capitals are more likely than to other cities) by region

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
region_d	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_trendeuref_2050_demand	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Coefficient referring to the trend line for economic level

Parameter ID	Unit	Dimensions
p_pd_coef_economictrend	COUNT	2

Parameter Description

Coefficient referring to the trend line for economic level by country

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_trendeuref_2050_demand	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Coefficient referring to the trend line for employment level

Parameter ID	Unit	Dimensions
p_pd_coef_employmenttrend	COUNT	2

Parameter Description

Coefficient referring to the trend line for employment level for forecast years by country

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_trendeuref_2050_demand	Coefficients referring to the generation model

Table Description

Coefficients referring to the generation model

Parameter Name

Coefficient referring to the trend line for income level

Parameter ID	Unit	Dimensions
p_pd_coef_incometrend	COUNT	2

Parameter Description

Coefficient referring to the trend line for income level for forecast years by country

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_trendeuref_2050_modesplit	Coefficients referring to the calculation of the GTT measure

Table Description

Coefficients referring to the calculation of the GTT measure

Parameter Name

Coefficient refers to changing trends in travelling with regard to mode choice

Parameter ID	Unit	Dimensions
p_pd_coef_gtttrend	COUNT	3

Parameter Description

Coefficient refers to changing trends in travelling with regard to mode choice by country and mode

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_core_trendeuref_2050_pkm	Coefficients referring to the calculation of the Deterrence measure

Table Description

Coefficients referring to the calculation of the Deterrence measure

Parameter Name

Coefficient refers to changing trends in travelling with regard to travelled pkm

Parameter ID	Unit	Dimensions
p_pd_coef_pkmtrend	COUNT	2

Parameter Description

Coefficient refers to changing trends in travelling with regard to travelled pkm by country

Source

HIGH-TOOL Passenger demand module

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_urban_calib6modes_2010	Urban mode calibration factor 2010

Table Description

Calibration factors for 2010

Parameter Name

Urban mode calibration factor 2010

Parameter ID	Unit	Dimensions
p_pd_calib6modes_2010	PERCENTAGE	2

Parameter Description

Calibration factor by mode for calibrating urban model to 2010

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
country	mode_urban
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_urban_coefocc_rate	Occupancy rate

Table Description

Occupancy rate

Parameter Name

Occupancy rate

Parameter ID	Unit	Dimensions
p_pd_urban_coefocc_rate	COUNT	2

Parameter Description

Occupancy rate by country and urban mode

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
country	mode_urban
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_urban_split3modes_elasticity	Price changes for urban transport modes

Table Description

Elasticity coefficients to model price changes for aggregated urban transport modes (MiT, PT, non-motorised transport)

Parameter Name

Price changes for urban transport modes

Parameter ID	Unit	Dimensions
p_pd_urban_split3modes_elasticity	COUNT	2

Parameter Description

Elasticity coefficients to model price changes for aggregated urban transport modes (MiT, PT, non-motorised transport).

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
country	mode_urban
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_urban_split3modes_refweight	Modal split weighting factor

Table Description

Weighting factor related to modal split at NUTS-2 level in reference year and aggregated transport modes (MiT, PT, non-motorised transport)

Parameter Name

Modal split weighting factor

Parameter ID	Unit	Dimensions
p_pd_urban_split3modes_refweight	PERCENTAGE	2

Parameter Description

Weighting factor related to modal split at NUTS-2 level in reference year and aggregated transport modes (MiT, PT, non-motorised transport).

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
region_eu	mode_urban
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_urban_split6modes_refweight	Disaggregation ratio for modes

Table Description

Weighting factor related to modal split at NUTS-0 level in reference year

Parameter Name

Disaggregation ratio for modes

Parameter ID	Unit	Dimensions
p_pd_urban_split6modes_refweight	PERCENTAGE	2

Parameter Description

Split ratio in the reference year 2010 for disaggregating simple into full transport modes.

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
country	mode_urban
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_pd_urban_trend6modes_euref	Urban mode calibration factor forecast

Table Description

Calibration factors based on EU Ref2013

Parameter Name

Urban mode calibration factor forecast

Parameter ID	Unit	Dimensions
p_pd_trend6modes_euref	PERCENTAGE	3

Parameter Description

Calibration factor by mode for calibrating urban model to EU Ref2013 for forecast years

Source

HIGH-TOOL Passenger demand urban sub-module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_urban	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes



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Environment Parameters

Table ID	Table Name
i_ev_CO2	CO2 content of fuel

Table Description

CO2 content of fuel

Parameter Name

CO2 content of fuel

Parameter ID	Unit	Dimensions
i_ev_CO2_content	tCO2_1000L	4

Parameter Description

CO2 content of fuel in tonnes CO2 per 1000 litre by country, mode and vehicle fuel

Source

DG ECFIN

Dimension 1	Dimension 2
Year	country
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_ev_emfactor	Fuel consumption and emission factors

Table Description

Fuel consumption and emission factors

Parameter Name

Fuel consumption/emission factors

Parameter ID	Unit	Dimensions
i_ev_emfactor	G_VKM	6

Parameter Description

Fuel consumption and emission factors in grams of pollutant per vkm by mode, vehicle type, vehicle fuel and emission type

Source

TREMOVE v3.1.1 and TRACCS

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Em_Type	Veh_Tech
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_ev_emfactor	Fuel consumption and emission factors

Table Description

Fuel consumption and emission factors

Parameter Name

Fuel consumption/emission factors

Parameter ID	Unit	Dimensions
i_ev_fcf_kwh	KWH_VKM	6

Parameter Description

Fuel consumption of electric energy in kilowatt hours per vkm by mode, vehicle type, vehicle fuel and emission type

Source

TREMOVE v3.1.1 and TRACCS

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Em_Type	Veh_Tech
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_ev_emindex	Emission index of CO2

Table Description

Emission index of CO2

Parameter Name

Emission indexes

Parameter ID	Unit	Dimensions
i_ev_emindex	G_KG	5

Parameter Description

Emission indexes in gram per kilogram of emission by vehicle type

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Em_Type	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_emfactor_prev	ev_emfactor_prev

Table Description

Fuel consumption and emission factors for previous time step

Parameter Name

Fuel consumption/emission factors for step t-1

Parameter ID	Unit	Dimensions
o_ev_emfactor_prev	G_VKM	6

Parameter Description

Fuel consumption and emission factors in grams of pollutant per vkm by mode, vehicle type, vehicle fuel and emission type for previous time step

Source

HIGH-TOOL Environment & vehicle stock module

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Em_Type	Veh_Tech
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_emfactor_prev	ev_emfactor_prev

Table Description

Fuel consumption and emission factors for previous time step

Parameter Name

Fuel consumption/emission factors for step t-1

Parameter ID	Unit	Dimensions
o_ev_fcf_kwh_prev	KWH_VKM	6

Parameter Description

Fuel consumption of electric energy in kilowatt hours per vkm by mode, vehicle type, vehicle fuel and emission type for previous time step

Source

HIGH-TOOL Environment & vehicle stock module

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_Fuel	mode_vs
Dimension 5	**Dimension 6**
Em_Type	Veh_Tech
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

Tonnes of CO emitted at country level

Parameter ID	Unit	Dimensions
o_ev_t_co	T	5

Parameter Description

Tonnes of CO emitted by country, mode, fuel and vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

Tonnes of CO2 emitted

Parameter ID	Unit	Dimensions
o_ev_t_co2	T	5

Parameter Description

Tonnes of CO2 emitted by country, mode, fuel und vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

Tonnes of fuel consumed at country level

Parameter ID	Unit	Dimensions
o_ev_t_fuel	T	5

Parameter Description

Tonnes of fuel consumed by country, mode, concerned fuel and vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

KTOE of fuel consumed at country level

Parameter ID	Unit	Dimensions
o_ev_t_fuel_ktoe	KTOE	5

Parameter Description

Kilo tonnes of oil equivalent energy consumed by country, mode, fuel and vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

Tonnes of NOx emitted at country level

Parameter ID	Unit	Dimensions
o_ev_t_nox	T	5

Parameter Description

Tonnes of NOx emitted by country, mode, fuel and vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

Tonnes of PM emitted at country level

Parameter ID	Unit	Dimensions
o_ev_t_pm	T	5

Parameter Description

Tonnes of PM emitted by country, mode, fuel and vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

Tonnes of SO2 emitted at country level

Parameter ID	Unit	Dimensions
o_ev_t_so2	T	5

Parameter Description

Tonnes of SO2 emitted by country, mode, fuel and vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t	Emission and pollution at country level

Table Description

Emission and pollution at country level

Parameter Name

Tonnes of VOC emitted at country level

Parameter ID	Unit	Dimensions
o_ev_t_voc	T	5

Parameter Description

Tonnes of VOC emitted by country, mode, fuel and vehicle type

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

Tonnes of CO emitted by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_co	T	5

Parameter Description

Tonnes of CO emitted by region, mode, fuel and vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

Tonnes of CO2 emitted by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_co2	T	5

Parameter Description

Tonnes of CO2 emitted by region, mode, fuel und vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

Tonnes of fuel consumed by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_fuel	T	5

Parameter Description

Tonnes of fuel consumed by region, mode, fuel und vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

KTOE of fuel consumed by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_fuel_ktoe	KTOE	5

Parameter Description

Kilo tonnes of oil equivalent energy consumed by region, mode, fuel and vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

Tonnes of NOx emitted by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_nox	T	5

Parameter Description

Tonnes of NOx emitted by region, mode, fuel and vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

Tonnes of PM emitted by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_pm	T	5

Parameter Description

Tonnes of PM emitted by region, mode, fuel and vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

Tonnes of SO2 emitted by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_so2	T	5

Parameter Description

Tonnes of SO2 emitted by region, mode, fuel and vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_ev_t_n2	Emission and pollution at regional level

Table Description

Emission and pollution at regional level

Parameter Name

Tonnes of VOC emitted by region

Parameter ID	Unit	Dimensions
o_ev_t_n2_voc	T	5

Parameter Description

Tonnes of VOC emitted by region, mode, fuel and vehicle type at NUTS-2 level

Source

HIGH-TOOL Environment module

Dimension 1	Dimension 2
Year	ht2006_level_2
Dimension 3	**Dimension 4**
Veh_Type	Veh_Fuel
Dimension 5	**Dimension 6**
mode_vs	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_air_spec	Air transport parameters

Table Description

Air transport parameters

Parameter Name

Air transport fuel density

Parameter ID	Unit	Dimensions
p_ev_air_spec_fden	KG_L	1

Parameter Description

Air transport fuel density

Source

MOVEET

Dimension 1	Dimension 2
Veh_Type	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_air_spec	Air transport parameters

Table Description

Air transport parameters

Parameter Name

Air transport average speed

Parameter ID	Unit	Dimensions
p_ev_air_spec_speed	kmh	1

Parameter Description

Air transport average speed

Source

MOVEET

Dimension 1	Dimension 2
Veh_Type	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_bio_mix	Biofuel parameter

Table Description

Biofuel parameter

Parameter Name

Percentage of biofuel mixed in the fuel

Parameter ID	Unit	Dimensions
p_ev_ev_bio_mix	PERCENTAGE	4

Parameter Description

Percentage of biofuel mixed in the fuel

Source

EU reference scenario (for EU28)

Dimension 1	Dimension 2
year	country_o
Dimension 3	**Dimension 4**
mode_vs	Veh_Fuel
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_emindex_elef	Carbon content of electricity

Table Description

Carbon content of electricity

Parameter Name

Carbon content of electricity

Parameter ID	Unit	Dimensions
p_ev_emindex_elef	t_c_toe	3

Parameter Description

Carbon content of electricity

Source

MOVEET

Dimension 1	Dimension 2
Year	Country
Dimension 3	**Dimension 4**
Veh_Fuel	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_emindex_non_elef	Carbon content of non-electricity based fuel

Table Description

Carbon content of non-electricity based fuel

Parameter Name

Carbon content of non-electricity based fuel

Parameter ID	Unit	Dimensions
p_ev_emindex_non_elef	t_c_toe	1

Parameter Description

Carbon content of non-electricity based fuel

Source

MOVEET

Dimension 1	Dimension 2
Veh_Fuel	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_int	Fuel intensity

Table Description

Fuel intensity

Parameter Name

Air transport fuel intensity

Parameter ID	Unit	Dimensions
p_ev_int_air	L_HOUR	3

Parameter Description

Air transport fuel intensity

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_tech	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_int	Fuel intensity

Table Description

Fuel intensity

Parameter Name

Maritime transport fuel intensity

Parameter ID	Unit	Dimensions
p_ev_int_mar	t_day	3

Parameter Description

Maritime transport fuel intensity

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_tech	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_int	Fuel intensity

Table Description

Fuel intensity

Parameter Name

Freight rail fuel intensity

Parameter ID	Unit	Dimensions
p_ev_int_railfreight	TOE_VKM	3

Parameter Description

Freight rail fuel intensity

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_tech	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_int	Fuel intensity

Table Description

Fuel intensity

Parameter Name

Passenger rail fuel intensity

Parameter ID	Unit	Dimensions
p_ev_int_railpax	TOE_PKM	3

Parameter Description

Passenger rail fuel intensity

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_Type
Dimension 3	**Dimension 4**
Veh_tech	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_mar_spec	Maritime transport parameters

Table Description

Maritime transport parameters

Parameter Name

Maritime transport average deadweight tonnage

Parameter ID	Unit	Dimensions
p_ev_mar_spec_avg_dwt	T	3

Parameter Description

Maritime transport average deadweight tonnage

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_type
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
p_ev_mar_spec	Maritime transport parameters

Table Description

Maritime transport parameters

Parameter Name

Maritime transport average freight yearly growth

Parameter ID	Unit	Dimensions
p_ev_mar_spec_rate	PERCENTAGE	3

Parameter Description

Maritime transport average freight yearly growth

Source

MOVEET

Dimension 1	Dimension 2
Year	Veh_type
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes



Deliverable D3.2 Annex 8

Safety Parameters

Table ID	Table Name
i_sa_acc_bike	Historical bike fatality data

Table Description

Historical bike fatality and injury data per year for 2001 - 2010

Parameter Name

Historical bike fatality data

Parameter ID	Unit	Dimensions
i_sa_fat_bike	count	4

Parameter Description

Historical bike fatality data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_bike	Historical bike fatality data

Table Description

Historical bike fatality and injury data per year for 2001 - 2010

Parameter Name

Historical bike serious injury data

Parameter ID	Unit	Dimensions
i_sa_serinj_bike	count	4

Parameter Description

Historical bike serious injury data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_bike	Historical bike fatality data

Table Description

Historical bike fatality and injury data per year for 2001 - 2010

Parameter Name

Historical bike slight injury data

Parameter ID	Unit	Dimensions
i_sa_slinj_bike	count	4

Parameter Description

Historical bike slight injury data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_car	Historical car fatality data

Table Description

Historical car fatality and injury data per year for 2001 - 2010

Parameter Name

Historical car fatality data

Parameter ID	Unit	Dimensions
i_sa_fat_car	count	4

Parameter Description

Historical car fatality data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_car	Historical car fatality data

Table Description

Historical car fatality and injury data per year for 2001 - 2010

Parameter Name

Historical car serious injury data

Parameter ID	Unit	Dimensions
i_sa_serinj_car	count	4

Parameter Description

Historical car serious injury data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_car	Historical car fatality data

Table Description

Historical car fatality and injury data per year for 2001 - 2010

Parameter Name

Historical car slight injury data

Parameter ID	Unit	Dimensions
i_sa_slinj_car	count	4

Parameter Description

Historical car slight injury data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_p2w	Historical P2W fatality data

Table Description

Historical P2W fatality and injury data per year for 2001 - 2010

Parameter Name

Historical P2W fatality data

Parameter ID	Unit	Dimensions
i_sa_fat_p2w	count	4

Parameter Description

Historical P2W fatality data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_p2w	Historical P2W fatality data

Table Description

Historical P2W fatality and injury data per year for 2001 - 2010

Parameter Name

Historical P2W serious injury data

Parameter ID	Unit	Dimensions
i_sa_serinj_p2w	count	4

Parameter Description

Historical P2W serious injury data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_p2w	Historical P2W fatality data

Table Description

Historical P2W fatality and injury data per year for 2001 - 2010

Parameter Name

Historical P2W slight injury data

Parameter ID	Unit	Dimensions
i_sa_slinj_p2w	count	4

Parameter Description

Historical P2W slight injury data per year for 2001 - 2010 by country, age group and gender cohort

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_ped	Historical pedestrian fatality data

Table Description

Historical pedestrian fatality and injury data per year for 2001 - 2010

Parameter Name

Historical pedestrian fatality data

Parameter ID	Unit	Dimensions
i_sa_fat_ped	count	3

Parameter Description

Historical pedestrian fatality data per year for 2001 - 2010 by country and mode (urban, involved)

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_involved	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_ped	Historical pedestrian fatality data

Table Description

Historical pedestrian fatality and injury data per year for 2001 - 2010

Parameter Name

Historical pedestrian serious injury data

Parameter ID	Unit	Dimensions
i_sa_serinj_ped	count	3

Parameter Description

Historical pedestrian serious injury data per year for 2001 - 2010 by country and mode (urban, involved)

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_involved	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_ped	Historical pedestrian fatality data

Table Description

Historical pedestrian fatality and injury data per year for 2001 - 2010

Parameter Name

Historical pedestrian slight injury data

Parameter ID	Unit	Dimensions
i_sa_slinj_ped	count	3

Parameter Description

Historical pedestrian slight injury data per year for 2001 - 2010 by country and mode (urban, involved)

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_involved	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_pt	Historical public transport fatality data

Table Description

Historical public transport fatality and injury data per year for 2001 - 2010

Parameter Name

Historical public transport fatality data

Parameter ID	Unit	Dimensions
i_sa_fat_pt	count	2

Parameter Description

Historical public transport fatality data per year for 2001 - 2010 by country

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_pt	Historical public transport fatality data

Table Description

Historical public transport fatality and injury data per year for 2001 - 2010

Parameter Name

Historical public transport serious injury data

Parameter ID	Unit	Dimensions
i_sa_serinj_pt	count	2

Parameter Description

Historical public transport serious injury data per year for 2001 - 2010 by country

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_pt	Historical public transport fatality data

Table Description

Historical public transport fatality and injury data per year for 2001 - 2010

Parameter Name

Historical public transport slight injury data

Parameter ID	Unit	Dimensions
i_sa_slinj_pt	count	2

Parameter Description

Historical public transport slight injury data per year for 2001 - 2010 by country

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_truck	Historical truck fatality data

Table Description

Historical truck fatality and injury data per year for 2001 - 2010

Parameter Name

Historical truck fatality data

Parameter ID	Unit	Dimensions
i_sa_fat_truck	count	2

Parameter Description

Historical truck fatality data per year for 2001 - 2010 by country

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_truck	Historical truck fatality data

Table Description

Historical truck fatality and injury data per year for 2001 - 2010

Parameter Name

Historical truck serious injury data

Parameter ID	Unit	Dimensions
i_sa_serinj_truck	count	2

Parameter Description

Historical truck serious injury data per year for 2001 - 2010 by country

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_acc_truck	Historical truck fatality data

Table Description

Historical truck fatality and injury data per year for 2001 - 2010

Parameter Name

Historical truck slight injury data

Parameter ID	Unit	Dimensions
i_sa_slinj_truck	count	2

Parameter Description

Historical truck slight injury data per year for 2001 - 2010 by country

Source

CADAS

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_fat_air	Annual average number of fatalities air

Table Description

Current annual average number of fatalities for air

Parameter Name

Annual average number of fatalities air

Parameter ID	Unit	Dimensions
i_sa_fat_air	count	1

Parameter Description

Current annual average number of fatalities for air for EU28 + CH + NO

Source

EU Statistical Pocketbook

Dimension 1	Dimension 2
ht2006_cont	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_fat_rail	Annual average number of fatalities rail

Table Description

Current annual average number of fatalities for rail

Parameter Name

Annual average number of fatalities rail

Parameter ID	Unit	Dimensions
i_sa_fat_rail	count	1

Parameter Description

Current annual average number of fatalities for rail by country

Source

ERA accident statistics

Dimension 1	Dimension 2
country	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_fat_risk_iww	Input variable fatality risk inland waterways

Table Description

Policy input variable inland waterways

Parameter Name

Fatality risk inland waterways

Parameter ID	Unit	Dimensions
i_sa_fat_risk_iww	percentage	2

Parameter Description

Policy level for fatality risk inland waterways (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_fat_risk_sss	Input variable fatality risk short sea shipping

Table Description

Policy input variable short sea shipping

Parameter Name

Fatality risk short sea shipping

Parameter ID	Unit	Dimensions
i_sa_fat_risk_sss	percentage	2

Parameter Description

Policy level for fatality risk short sea shipping (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_pkm_bike	Bike pkms for 2010

Table Description

Bike pkms for 2010

Parameter Name

Bike pkms 2010

Parameter ID	Unit	Dimensions
i_sa_pkm_bike	pkm	3

Parameter Description

Bike pkm 2010 by country, age group and gender cohort

Source

HIGH-TOOL demand for 2010

Dimension 1	Dimension 2
country	gender
Dimension 3	**Dimension 4**
agegroup_simple	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_pkm_car	Historical car pkms

Table Description

Historical car pkms per year for 2001 - 2010

Parameter Name

Historical car pkm

Parameter ID	Unit	Dimensions
i_sa_pkm_car	pkm	4

Parameter Description

Historical car pkm per year for 2001 - 2010 by country, age group and gender cohort

Source

EU Statistical Pocketbook and HIGH-TOOL demand for 2010

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_pkm_p2w	Historical P2W pkms

Table Description

Historical P2W pkms per year for 2001 - 2010

Parameter Name

Historical P2W pkm

Parameter ID	Unit	Dimensions
i_sa_pkm_p2w	pkm	4

Parameter Description

Historical P2W pkm per year for 2001 - 2010 by country, age group and gender cohort

Source

EU Statistical Pocketbook and HIGH-TOOL demand for 2010

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_pkm_pt	Historical public transport pkms

Table Description

Historical public transport pkms per year for 2001 - 2010

Parameter Name

Historical public transport pkms

Parameter ID	Unit	Dimensions
i_sa_pkm_pt	pkm	2

Parameter Description

Historical public transport person kilometres per year for 2001 - 2010 by country

Source

EU Statistical Pocketbook and HIGH-TOOL demand for 2010

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_air	Policy input variables for air

Table Description

Policy input variables for air

Parameter Name

Air crew error

Parameter ID	Unit	Dimensions
i_sa_crew_error_air	percentage	2

Parameter Description

Policy level for air crew errors (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_air	Policy input variables for air

Table Description

Policy input variables for air

Parameter Name

Air engine failure

Parameter ID	Unit	Dimensions
i_sa_engine_failure_air	percentage	2

Parameter Description

Policy level for air engine failure (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_air	Policy input variables for air

Table Description

Policy input variables for air

Parameter Name

Air fire on board

Parameter ID	Unit	Dimensions
i_sa_fire_air	percentage	2

Parameter Description

Policy level for air fire on board (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_air	Policy input variables for air

Table Description

Policy input variables for air

Parameter Name

Air loading errors

Parameter ID	Unit	Dimensions
i_sa_load_error_air	percentage	2

Parameter Description

Policy level for air loading errors (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_air	Policy input variables for air

Table Description

Policy input variables for air

Parameter Name

Air mid-Air collisions

Parameter ID	Unit	Dimensions
i_sa_mid_air_collision_air	percentage	2

Parameter Description

Policy level for air mid-air collisions (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_air	Policy input variables for air

Table Description

Policy input variables for air

Parameter Name

Air runway collisions

Parameter ID	Unit	Dimensions
i_sa_runway_collision_air	percentage	2

Parameter Description

Policy level for air runway collisions (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_air	Policy input variables for air

Table Description

Policy input variables for air

Parameter Name

Air technical failure excl. Engine

Parameter ID	Unit	Dimensions
i_sa_tech_failure_air	percentage	2

Parameter Description

Policy level for air technical failure excl. engine (in percentage change) compared to 2010 for EU28+2

Source

user input

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Distraction of cyclists

Parameter ID	Unit	Dimensions
i_sa_distraction_bike	percentage	6

Parameter Description

Policy level for distraction of cyclists (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Bike driving under influence

Parameter ID	Unit	Dimensions
i_sa_dui_bike	percentage	6

Parameter Description

Policy level for bike driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Fatigue of cyclists

Parameter ID	Unit	Dimensions
i_sa_fatigue_bike	percentage	6

Parameter Description

Policy level for fatigue of cyclists (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Use of helmets by cyclists

Parameter ID	Unit	Dimensions
i_sa_helmet_bike	percentage	6

Parameter Description

Policy level for use of helmets by cyclists (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Bike infrastructural faults

Parameter ID	Unit	Dimensions
i_sa_infra_fault_bike	percentage	6

Parameter Description

Policy level for bike accidents caused by infrastructural faults (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Bike speed

Parameter ID	Unit	Dimensions
i_sa_speed_bike	percentage	6

Parameter Description

Policy level for bike speed (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Bike time to medical care

Parameter ID	Unit	Dimensions
i_sa_time_med_care_bike	percentage	6

Parameter Description

Policy level for time to medical care after bike accident (in percentage change) compared to 2010 by country. In the expert mode you may change its values by age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_bike	Policy input variables for bike

Table Description

Policy input variables for bike

Parameter Name

Bike vehicle defects

Parameter ID	Unit	Dimensions
i_sa_veh_defect_bike	percentage	6

Parameter Description

Policy level for bike vehicle defects (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Distraction of car drivers

Parameter ID	Unit	Dimensions
i_sa_distraction_car	percentage	6

Parameter Description

Policy level for distraction of car drivers (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Car driving under influence

Parameter ID	Unit	Dimensions
i_sa_dui_car	percentage	6

Parameter Description

Policy level for car driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country, by age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Fatigue of car drivers

Parameter ID	Unit	Dimensions
i_sa_fatigue_car	percentage	6

Parameter Description

Policy level for fatigue of car drivers (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Car infrastructural faults

Parameter ID	Unit	Dimensions
i_sa_infra_fault_car	percentage	6

Parameter Description

Policy level for car accidents caused by infrastructural faults (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Car use of restraint devices

Parameter ID	Unit	Dimensions
i_sa_restraint_car	percentage	6

Parameter Description

Policy level for car use of restraint devices (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Car speed

Parameter ID	Unit	Dimensions
i_sa_speed_car	percentage	6

Parameter Description

Policy level for car speed (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Car time to medical care

Parameter ID	Unit	Dimensions
i_sa_time_med_care_car	percentage	6

Parameter Description

Policy level for time to medical care after car accident (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_car	Policy input variables for car

Table Description

Policy input variables for car

Parameter Name

Car vehicle defects

Parameter ID	Unit	Dimensions
i_sa_veh_defect_car	percentage	6

Parameter Description

Policy level for car vehicle defects (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

Distraction of P2W drivers

Parameter ID	Unit	Dimensions
i_sa_distraction_p2w	percentage	6

Parameter Description

Policy level for distraction of P2W drivers (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

P2W driving under influence

Parameter ID	Unit	Dimensions
i_sa_dui_p2w	percentage	6

Parameter Description

Policy level for P2W driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

Fatigue of P2W drivers

Parameter ID	Unit	Dimensions
i_sa_fatigue_p2w	percentage	6

Parameter Description

Policy level for fatigue of P2W drivers (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

Use of helmets by P2W drivers/passengers

Parameter ID	Unit	Dimensions
i_sa_helmet_p2w	percentage	6

Parameter Description

Policy level for use of helmets by P2W drivers/passengers (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

P2W infrastructural faults

Parameter ID	Unit	Dimensions
i_sa_infra_fault_p2w	percentage	6

Parameter Description

Policy level for P2W accidents caused by infrastructural faults (in percentage change) compared to 2010 by country, age group and gender cohort

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

P2W speed

Parameter ID	Unit	Dimensions
i_sa_speed_p2w	percentage	6

Parameter Description

Policy level for P2W speed (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

P2W time to medical care

Parameter ID	Unit	Dimensions
i_sa_time_med_care_p2w	percentage	6

Parameter Description

Policy level for time to medical care after P2W accident (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_p2w	Policy input variables for P2W

Table Description

Policy input variables for P2W

Parameter Name

P2W vehicle defects

Parameter ID	Unit	Dimensions
i_sa_veh_defect_p2w	percentage	6

Parameter Description

Policy level for P2W vehicle defects (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_pt	Policy input variables for public transport

Table Description

Policy input variables for public transport

Parameter Name

Public transport distraction

Parameter ID	Unit	Dimensions
i_sa_distraction_pt	percentage	6

Parameter Description

Policy level for distraction of public transport drivers (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_pt	Policy input variables for public transport

Table Description

Policy input variables for public transport

Parameter Name

Public transport driving under influence

Parameter ID	Unit	Dimensions
i_sa_dui_pt	percentage	6

Parameter Description

Policy level for public transport driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_pt	Policy input variables for public transport

Table Description

Policy input variables for public transport

Parameter Name

Fatigue of public transport drivers

Parameter ID	Unit	Dimensions
i_sa_fatigue_pt	percentage	6

Parameter Description

Policy level for fatigue of public transport drivers (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_pt	Policy input variables for public transport

Table Description

Policy input variables for public transport

Parameter Name

Public transport infrastructural faults

Parameter ID	Unit	Dimensions
i_sa_infra_fault_pt	percentage	6

Parameter Description

Policy level for public transport accidents caused by infrastructural faults (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_pt	Policy input variables for public transport

Table Description

Policy input variables for public transport

Parameter Name

Public transport speed

Parameter ID	Unit	Dimensions
i_sa_speed_pt	percentage	6

Parameter Description

Policy level for public transport speed (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_pt	Policy input variables for public transport

Table Description

Policy input variables for public transport

Parameter Name

Public transport time to medical care

Parameter ID	Unit	Dimensions
i_sa_time_med_care_pt	percentage	6

Parameter Description

Policy level for time to medical care after public transport accident (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_pt	Policy input variables for public transport

Table Description

Policy input variables for public transport

Parameter Name

Public transport vehicle defects

Parameter ID	Unit	Dimensions
i_sa_veh_defect_pt	percentage	6

Parameter Description

Policy level for public transport vehicle defects (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail crew error

Parameter ID	Unit	Dimensions
i_sa_crew_error_rail	percentage	2

Parameter Description

Policy level for rail crew errors (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail falling from train

Parameter ID	Unit	Dimensions
i_sa_falling_from_train_rail	percentage	2

Parameter Description

Policy level for rail falling from train (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail infrastructural fault

Parameter ID	Unit	Dimensions
i_sa_infra_fault_rail	percentage	2

Parameter Description

Policy level for rail accidents caused by infrastructural faults (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail level-crossing accident vehicle

Parameter ID	Unit	Dimensions
i_sa_lc_veh_acc_rail	percentage	2

Parameter Description

Policy level for rail level-crossing accident vehicle (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail level-crossing accident vulnerable user

Parameter ID	Unit	Dimensions
i_sa_lc_vuln_acc_rail	percentage	2

Parameter Description

Policy level for rail level-crossing accident vulnerable user (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail operating and signalling staff error

Parameter ID	Unit	Dimensions
i_sa_osign_staff_error_rail	percentage	2

Parameter Description

Policy level for rail operating and signalling staff error (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail platform accident

Parameter ID	Unit	Dimensions
i_sa_platform_acc_rail	percentage	2

Parameter Description

Policy level for rail platform accident (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail rolling stock fault

Parameter ID	Unit	Dimensions
i_sa_stock_fault_rail	percentage	2

Parameter Description

Policy level for rail rolling stock fault (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail track staff error

Parameter ID	Unit	Dimensions
i_sa_track_staff_error_rail	percentage	2

Parameter Description

Policy level for rail track staff error (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_rail	Policy input variables for rail

Table Description

Policy input variables for rail

Parameter Name

Rail trespassing accident

Parameter ID	Unit	Dimensions
i_sa_trespassing_rail	percentage	2

Parameter Description

Policy level for rail trespassing accident (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck blind spots

Parameter ID	Unit	Dimensions
i_sa_blind_spot_truck	percentage	6

Parameter Description

Policy level for truck blind spots (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Distraction of truck drivers

Parameter ID	Unit	Dimensions
i_sa_distraction_truck	percentage	6

Parameter Description

Policy level for distraction of truck drivers (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck driving under influence

Parameter ID	Unit	Dimensions
i_sa_dui_truck	percentage	6

Parameter Description

Policy level for truck driving under influence of alcohol/drugs (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Fatigue of truck drivers

Parameter ID	Unit	Dimensions
i_sa_fatigue_truck	percentage	6

Parameter Description

Policy level for fatigue of truck drivers (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck infrastructural faults

Parameter ID	Unit	Dimensions
i_sa_infra_fault_truck	percentage	6

Parameter Description

Policy level for truck accidents caused by infrastructural faults (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck loading error

Parameter ID	Unit	Dimensions
i_sa_load_error_truck	percentage	6

Parameter Description

Policy level for truck loading error (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck use of restraint devices

Parameter ID	Unit	Dimensions
i_sa_restraint_truck	percentage	6

Parameter Description

Policy level for truck use of restraint devices (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck speed

Parameter ID	Unit	Dimensions
i_sa_speed_truck	percentage	6

Parameter Description

Policy level for truck speed (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck time to medical care

Parameter ID	Unit	Dimensions
i_sa_time_med_care_truck	percentage	6

Parameter Description

Policy level for time to medical care after truck accident (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_policy_truck	Policy input variables for truck

Table Description

Policy input variables for truck

Parameter Name

Truck vehicle defects

Parameter ID	Unit	Dimensions
i_sa_veh_defect_truck	percentage	6

Parameter Description

Policy level for truck vehicle defects (in percentage change) compared to 2010 by country

Source

user input

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_trips_air	Current annual average mobility for air

Table Description

Current annual average mobility for air

Parameter Name

Annual average mobility for air

Parameter ID	Unit	Dimensions
i_sa_trips_air	trips	1

Parameter Description

Current annual average mobility for air in trips for EU28 + CH + NO

Source

pre-run with HIGH-TOOL demand modules

Dimension 1	Dimension 2
ht2006_cont	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_vkm_rail	Current annual average mobility for rail

Table Description

Current annual average mobility for rail

Parameter Name

Annual average mobility for rail

Parameter ID	Unit	Dimensions
i_sa_vkm_rail	vkm	1

Parameter Description

Current annual average mobility for rail in vehicle kilometres by country

Source

pre-run with HIGH-TOOL demand modules

Dimension 1	Dimension 2
country	NULL
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_vkm_truck	Historical truck vkms

Table Description

Historical truck vkms per year for 2001 - 2010

Parameter Name

Historical truck vkms

Parameter ID	Unit	Dimensions
i_sa_vkm_truck	vkm	2

Parameter Description

Historical truck vehicle kilometres per year for 2001 - 2010 by country

Source

EU Statistical Pocketbook and HIGH-TOOL demand for 2010

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
i_sa_vkm_urban	Historical urban vkms

Table Description

Historical urban vkms per year for 2001-2010

Parameter Name

Historical urban vkms

Parameter ID	Unit	Dimensions
i_sa_vkm_urban	vkm	3

Parameter Description

Historical urban vehicle kilometres per year for 2001-2010 by country and mode (urban, involved)

Source

EU Statistical Pocketbook and HIGH-TOOL demand for 2010

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_involved	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_air	Accident costs air

Table Description

Predicted fatalities and accident costs for air for 2010 - 2050

Parameter Name

Accident costs air

Parameter ID	Unit	Dimensions
o_sa_acc_cost_air	1000_eur	2

Parameter Description

Total social accident costs for air in 1000 EUR for EU28 + CH + NO

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_air	Accident costs air

Table Description

Predicted fatalities and accident costs for air for 2010 - 2050

Parameter Name

Air fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_air_pred	count	2

Parameter Description

Air fatalities for EU28 + CH + NO

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_bike	Bike fatalities

Table Description

Predicted bike fatalities and injuries per year for 2010 - 2050

Parameter Name

Bike fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_bike_pred	count	4

Parameter Description

Bike fatalities by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_bike	Bike fatalities

Table Description

Predicted bike fatalities and injuries per year for 2010 - 2050

Parameter Name

Bike serious injuries

Parameter ID	Unit	Dimensions
o_sa_serinj_bike_pred	count	4

Parameter Description

Bike serious injuries by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_bike	Bike fatalities

Table Description

Predicted bike fatalities and injuries per year for 2010 - 2050

Parameter Name

Bike slight injuries

Parameter ID	Unit	Dimensions
o_sa_slinj_bike_pred	count	4

Parameter Description

Bike slight injuries by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_car	Car fatalities

Table Description

Predicted car fatalities and injuries per year for 2010 - 2050

Parameter Name

Car fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_car_pred	count	4

Parameter Description

Car fatalities by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_car	Car fatalities

Table Description

Predicted car fatalities and injuries per year for 2010 - 2050

Parameter Name

Car serious injuries

Parameter ID	Unit	Dimensions
o_sa_serinj_car_pred	count	4

Parameter Description

Car serious injuries by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_car	Car fatalities

Table Description

Predicted car fatalities and injuries per year for 2010 - 2050

Parameter Name

Car slight injuries

Parameter ID	Unit	Dimensions
o_sa_slinj_car_pred	count	4

Parameter Description

Car slight injuries by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_iww	Accident costs inland waterway

Table Description

Predicted fatalities and accident costs for inland waterway for 2010 - 2050

Parameter Name

Accident costs inland waterway

Parameter ID	Unit	Dimensions
o_sa_acc_cost_iww	1000_eur	2

Parameter Description

Total social accident costs for inland waterway in 1000 EUR for EU28 + CH + NO

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_iww	Accident costs inland waterway

Table Description

Predicted fatalities and accident costs for inland waterway for 2010 - 2050

Parameter Name

Inland waterway fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_iww_pred	count	2

Parameter Description

Inland waterway fatalities for EU28 + CH + NO

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_p2w	P2W fatalities

Table Description

Predicted P2W fatalities and injuries per year for 2010 - 2050

Parameter Name

P2W fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_p2w_pred	count	4

Parameter Description

P2W fatalities by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_p2w	P2W fatalities

Table Description

Predicted P2W fatalities and injuries per year for 2010 - 2050

Parameter Name

P2W serious injuries

Parameter ID	Unit	Dimensions
o_sa_serinj_p2w_pred	count	4

Parameter Description

P2W serious injuries by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_p2w	P2W fatalities

Table Description

Predicted P2W fatalities and injuries per year for 2010 - 2050

Parameter Name

P2W slight injuries

Parameter ID	Unit	Dimensions
o_sa_slinj_p2w_pred	count	4

Parameter Description

P2W slight injuries by country, age and gender cohort

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
gender	agegroup_simple
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_ped	Pedestrian fatalities

Table Description

Predicted pedestrian fatalities and injuries per year for 2010 - 2050

Parameter Name

Pedestrian fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_ped_pred	count	3

Parameter Description

Pedestrian fatalities by country and mode (urban, involved)

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_involved	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_ped	Pedestrian fatalities

Table Description

Predicted pedestrian fatalities and injuries per year for 2010 - 2050

Parameter Name

Pedestrian serious injuries

Parameter ID	Unit	Dimensions
o_sa_serinj_ped_pred	count	3

Parameter Description

Pedestrian serious injuries by country and mode (urban, involved)

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_involved	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_ped	Pedestrian fatalities

Table Description

Predicted pedestrian fatalities and injuries per year for 2010 - 2050

Parameter Name

Pedestrian slight injuries

Parameter ID	Unit	Dimensions
o_sa_slinj_ped_pred	count	3

Parameter Description

Pedestrian slight injuries by country and mode (urban, involved)

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_involved	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_pt	Public transport fatalities

Table Description

Predicted public transport fatalities and injuries per year for 2010 - 2050

Parameter Name

Public transport fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_pt_pred	count	2

Parameter Description

Public transport fatalities by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_pt	Public transport fatalities

Table Description

Predicted public transport fatalities and injuries per year for 2010 - 2050

Parameter Name

Public transport serious injuries

Parameter ID	Unit	Dimensions
o_sa_serinj_pt_pred	count	2

Parameter Description

Public transport serious injuries by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_pt	Public transport fatalities

Table Description

Predicted public transport fatalities and injuries per year for 2010 - 2050

Parameter Name

Public transport slight injuries

Parameter ID	Unit	Dimensions
o_sa_slinj_pt_pred	count	2

Parameter Description

Public transport slight injuries by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_rail	Accident costs rail

Table Description

Predicted fatalities and accident costs for rail for 2010 - 2050

Parameter Name

Accident costs rail

Parameter ID	Unit	Dimensions
o_sa_acc_cost_rail	1000_eur	2

Parameter Description

Total social accident costs for rail in 1000 EUR by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_rail	Accident costs rail

Table Description

Predicted fatalities and accident costs for rail for 2010 - 2050

Parameter Name

Rail fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_rail_pred	count	2

Parameter Description

Rail fatalities by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_sss	Accident costs short-sea shipping

Table Description

Predicted fatalities and accident costs for short-sea shipping for 2010 - 2050

Parameter Name

Accident costs short-sea shipping

Parameter ID	Unit	Dimensions
o_sa_acc_cost_sss	1000_eur	2

Parameter Description

Total social accident costs for short-sea shipping in 1000 EUR for EU28 + CH + NO

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_sss	Accident costs short-sea shipping

Table Description

Predicted fatalities and accident costs for short-sea shipping for 2010 - 2050

Parameter Name

Short-sea shipping fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_sss_pred	count	2

Parameter Description

Short-sea shipping fatalities for EU28 + CH + NO

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	ht2006_cont
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_truck	Truck fatalities

Table Description

Predicted truck fatalities and injuries per year for 2010 - 2050

Parameter Name

Truck fatalities

Parameter ID	Unit	Dimensions
o_sa_fat_truck_pred	count	2

Parameter Description

Truck fatalities by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_truck	Truck fatalities

Table Description

Predicted truck fatalities and injuries per year for 2010 - 2050

Parameter Name

Truck serious injuries

Parameter ID	Unit	Dimensions
o_sa_serinj_truck_pred	count	2

Parameter Description

Truck serious injuries by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_acc_truck	Truck fatalities

Table Description

Predicted truck fatalities and injuries per year for 2010 - 2050

Parameter Name

Truck slight injuries

Parameter ID	Unit	Dimensions
o_sa_slinj_truck_pred	count	2

Parameter Description

Truck slight injuries by country

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
NULL	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

Table ID	Table Name
o_sa_costs_road	Accident costs road transport

Table Description

Predicted total social accident costs for road for 2010 - 2050

Parameter Name

Accident costs road transport

Parameter ID	Unit	Dimensions
o_sa_costs_road	1000_eur	3

Parameter Description

Total social accident costs for road transport in 1000 EUR by country and urban mode

Source

HIGH-TOOL Safety module

Dimension 1	Dimension 2
year	country
Dimension 3	**Dimension 4**
mode_urban	NULL
Dimension 5	**Dimension 6**
NULL	NULL
Dimension 7	**Dimension 8**
NULL	

Parameter Notes

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